



Royal College
of Physicians

Setting higher standards

Falling standards, broken promises

Report of the national audit
of falls and bone health in
older people 2010

Commissioned by:



HQIP

Healthcare Quality
Improvement Partnership

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**Report approved by the National Falls and Bone Health
Audit Steering Group**

Introduction

We present the results of the National Audit of Falls and Bone Health in Older People 2010. This combined audit examines the organisation and commissioning of services provided to older people for falls prevention and bone health, and the clinical care delivered to people that have fallen and fractured a bone. The audit covers the patient pathway across acute and primary/community care. The audit also looks at services for falls prevention in mental healthcare and a sample of care homes.

Falls and fractures are a common and serious problem affecting older people, with high levels of personal and financial cost. National guidelines, supported by the research evidence, require the provision of integrated services for falls and fracture prevention and treatment. Effective commissioning is needed to produce such high quality services.

This audit was commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). It follows previous organisational audits, in 2005 and 2008, and the clinical audit of 2007.¹⁻³ Audit standards were initially derived from the National Service Framework for Older People (NSF) and guidance on falls and osteoporosis from the National Institute for Health and Clinical Excellence (NICE).⁴ Standards have been updated in line with new guidance, including that on falls prevention of inpatients following the National Patient Safety Agency (NPSA) report on slips, trips and falls in hospital (2007) and the British Orthopaedic Association (BOA) 'Blue Book' on the care of fragility fracture patients. (2007).^{5,6}

We are grateful for the hard work of many NHS professionals and care home staff, who have contributed to a very high return rate in England, Wales and Northern Ireland. For the organisational audit, 100% (147/147) acute trusts, 80% (85/106) primary care commissioners, 85% (82/96) primary care provider organisations, 93% (56/60) combined healthcare organisations, 93% (53/57) mental health care trusts,² specialist hospital trusts and a sample of 79 care homes submitted information about falls and fracture services. For the clinical audit, 100% (147/147) acute trusts, 4 primary care community service providers and 93% (13/14) combined healthcare organisations submitted information on people that had fallen and sustained a fragility fracture of the hip, wrist, humerus, pelvis or spine.

The results show that, despite some modest improvements within this cycle of audits, major variations between organisations persist and deficiencies in care remain widespread. We make recommendations that will lead to better falls and bone health services, which can be implemented cost-effectively by the NHS. We urge you to consider the key messages and recommendations in this report as there is much that can be done, and must be done, to reduce injury, disability and preventable death from falls and fractures.

Finally we would like to thank everyone who helped in the design, performance, data collection and analysis of this audit.



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Executive summary

‘We can only be sure to improve what we can actually measure.’⁷

‘Human beings, who are almost unique in having the ability to learn from the experience of others, are also remarkable for their apparent disinclination to do so.’⁸

‘When will there be good news?’⁹

Introduction

Falls and fractures, in people aged 65 and over, account for over 4 million bed days each year in England alone (from Hospital Episode Statistics (HES) data).¹⁰ The healthcare cost associated with fragility fractures is estimated at a staggering £2 billion a year. Injurious falls, including over 70,000 hip fractures annually, are the leading cause of accident-related mortality in older people. Falls often lead to reduced functional ability and thus increased dependency on families, carers and services. An ageing population means that the rate of falls and fractures are increasing and will continue to do so unless action is taken to address serious inadequacies in services.

Well organised services, based on national standards and evidence-based guidelines can prevent future falls, and reduce death and disability from fractures. *As judged against these standards, this audit shows that there is unacceptable variation in the quality of falls and fracture services. In many areas, there exists a major gap between what organisations report, in terms of commissioning, protocol or structure, and what the clinical audit reveals in terms of actual care provided. The audit shows that patients with non-hip fragility fractures are only half as likely as hip fracture patients to receive most aspects of assessment and management for both falls risk and bone health.* Some services are doing well, and there have been modest improvements in some parts of some services since the previous audits, but important deficiencies remain in the commissioning, organisation and provision of care for falls and bone health in all three home nations covered by this audit.

Data have been collected and analysed on the clinical care of 9567 patients who had sustained a fragility fracture following a fall in 2010. Over 90% of healthcare organisations in England, Wales, Northern Ireland and the Islands, participated in this audit - including 100% of acute trusts. This demonstrates a strong commitment to monitoring quality in the NHS. We believe there is an appetite to do better. These results deserve local scrutiny to drive the many improvements needed.

We report the headline findings and recommendations from this national audit of the organisation and provision of falls and bone health services for older people. Results from 16 Key Indicators are being made available in the public domain for all participating commissioning and provider organisations. This report includes site-by-site results on the Key Indicators for these healthcare organisations.

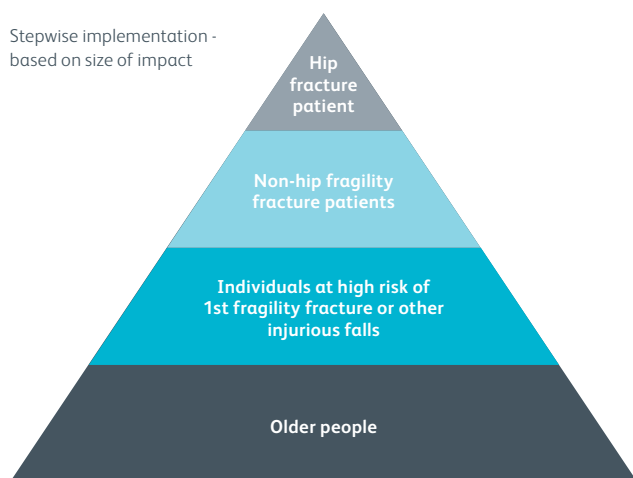
The Department of Health (DH) Prevention Package

In July 2009, partly in response to concerns raised by previous audits, the DH in England published the *Prevention package for older people*.¹¹ The *Prevention package* is intended to improve several aspects of NHS care for older people including falls and fractures. This audit assesses the impact of the DH *Prevention package* and to identify where significant gaps remain.

Four specific objectives are described in the *Prevention package*, prioritised on the size of health gain.*

A systematic approach to falls and fracture prevention - Four key objectives

Stepwise implementation -
based on size of impact



Adapted from the DH *Prevention package*

Objective 1: Improve outcomes and efficiency of care after hip fractures - by following the 6 'Blue book' standards

Objective 2: Respond to the first fracture, prevent the second - through Fracture Liaison Services in acute and primary care

Objective 3: Early intervention to restore independence - through falls care pathway linking to acute and urgent care services to secondary prevention

Objective 4: Prevent frailty, preserve bone health, reduce accidents - through preserving physical activity, healthy lifestyles and reducing environmental hazards

Key messages

The majority of high-risk patients miss the best or only opportunity for their falls and fracture risk to be identified in the majority of hospitals and most primary care organisations lack adequate services for secondary falls and fracture prevention.

DH Objective 1 - Improve patient outcomes and improve efficiency of care after hip fractures.

Most patients do not receive adequate pre-operative assessment and care:

- Only 30% (1056/3484) of hip fracture patients received a package of basic acute care - adequate pain relief in the first hour, pressure area care in the first four hours, and intravenous fluids in the first twelve hours.
- Only 22% (738/3400) met three of the core best practice tariff (BPT) standards - surgery within 36 hours, specialist geriatric assessment within 72 hours, and use of an agreed care pathway. BPT only applies in England, but these standards are consistent with good practice and supported by the BOA.

- 26% (916/3484) received all components of a basic pre-operative medical assessment.

DH Objective 2 - Respond to a first fracture and prevent the second.

Even if older people attend hospital with serious injuries they are not being properly assessed in order to prevent further injuries. Patients with non-hip fragility fractures are only half as likely to receive assessment or treatment for secondary prevention as patients with hip fractures:

- Only 37% of local health services provide any kind of fracture liaison service (FLS) and not all of these can demonstrate reliable assessment of all fracture patients.
- Only 32% (1974/6083) of non-hip fracture patients had a multi-factorial falls risk assessment, whereas 68% (2380/3484) of hip fracture patients had this assessment.
- Similarly, only 32% (1933/6083) of non-hip fracture and 67% (2324/3484) of hip fracture patients had a clinical assessment for osteoporosis/fracture risk.

* The Prevention package is available for download from: www.dh.gov.uk/en/Publicationsandstatistics/Publications/DH_103146 [Accessed 11 April 2011]

- Despite modest improvements since the last audit, in 2007, bone health treatment remains substandard for the majority of patients. 33% (2037/6083) of non-hip fracture and 60% (2092/3484) of hip fracture patients received appropriate management for bone health.
- Neither emergency departments (EDs) nor fracture clinics are assessing falls and bone health risk in most patients, which suggests that accident and trauma services are focused on treating the injury and not the cause of the injury or reducing the chances of further serious injury.
- Despite 94% of sites stating they use a tool or proforma that includes standardised gait, balance and mobility assessment only 34% (2028/5927) of non hip fracture patients and 72% (2389/3318) of hip fracture patients received an assessment.

DH Objective 3 – Early intervention to restore independence.

Few local healthcare organisations provide adequate falls prevention services that are attended by a majority of older people who have already sustained a fracture following a fall:

- There is limited access to evidence based exercise provision of more than 12 weeks duration.
- 86% of services report that they provide supervised strength and balance exercise training however only 19% (965/5109) of non-hip fracture patients participated in any form of exercise for falls prevention within 12 weeks of the fracture.
- There is generally poor access to home hazard assessment and intervention, particularly for non-hip fracture patients. 65% of hip fracture and 19% of non-hip fracture patients received home hazard assessment by an occupational therapist, less than half of which took place in the patient's home environment.
- Nearly all localities provide falls clinics, but only 12% of non-hip fragility fracture patients had attended a falls clinic, or equivalent, within 12 weeks of the fracture. There was good evidence, in this minority of patients, that organised care in a falls clinic resulted in more comprehensive assessment of falls risk factors.

DH Objective 4 – Prevent frailty, promote bone health and reduce accidents.

Many providers are failing in their responsibility to provide expertise to reduce falls in the high risk care home population:

- Only 25% of a sample of care homes report falls prevention exercise groups which suitable residents may attend.
- Training to all care homes by local falls services, regarding when to refer to primary care (20%), how to undertake critical incident analysis (13%) and how to identify falls risks to minimise future incidents (17%), was low.
- 75% of falls services provide written information about falls and bone health in patient areas such as clinics and day centres.

It was also noted that a higher proportion of older people presenting acutely with non-hip fragility fractures were admitted in 2010 than in the previous audit of 2007. This suggests that investment in admission avoidance schemes may not have been as effective as had been hoped.

Summary of key recommendations

Commissioners must ensure that acute trauma services provide high standards of care in assessment and treatment of older people with falls and fractures. Primary care and acute services must work together on the falls and fracture patient pathway, providing a better integrated service in the face of increased disintegration in parts of the NHS. In particular, falls and fracture services must be able to identify older people at high risk of further falls and fractures and to ensure the availability of appropriate secondary prevention measures, notably therapeutic exercise and treatment for osteoporosis.

We *recommend* that commissioners, particularly the emerging General Practitioner (GP) consortia in England, use the DH *Prevention* package to inform the commissioning of effective falls and fracture services, in line with DH Objectives:

DH Objective 1 - Improve patient outcomes and improve efficiency of care after hip fractures.

- We *recommend* that acute providers review and improve their procedures for rapid admission and early surgery of hip fracture patients. Investment in senior orthogeriatric input is required in many hospitals if they are to improve their peri-operative medical care, reduce delays to surgery and coordinate falls and osteoporosis assessment.
- We *recommend* that all acute providers introduce a care bundle approach to the initial management of hip fracture patients (to include, as a minimum, pain relief, pressure sore prevention and intravenous fluids).
- We also *recommend* that these aspects of acute care are included in the BPT for hip fractures.

DH Objective 2 - Respond to a first fracture and prevent the second.

- We *recommend* that all localities commission a fracture liaison service following the best-evidenced models either for acute-based services (e.g. Glasgow) or primary care-based services (West Sussex).[†] This will require the commissioning of an adequate volume of DXA bone density scans for the local population
- We recommend that the Osteoporosis Directed Enhanced Service (DES) ceases immediately and the findings from the DES data are made public. Instead, a Quality and Outcomes Framework (QOF) for Osteoporosis should be introduced at the earliest opportunity.
- We also recommend that all acute care providers introduce routine screening of older people, presenting to EDs or minor injury units (MIUs), for falls and fractures and that this is audited at least annually.

DH Objective 3 - Early intervention to restore independence.

- We *recommend* joint commissioning between health and local authorities to ensure the provision of therapeutic (Otago and/or FaME) exercise programmes, particularly for those older people who have fallen and fractured or who are at risk of fracture. This may mean disinvestment in non-evidenced programmes in order to transfer funding to the appropriate services in the community.
- We *recommend* that commissioners ensure adequate local provision of falls clinics, or similar, particularly for those older people who have fallen and fractured or who are at risk of fracture. In many localities, this could require a ten-fold expansion in falls service capacity.

DH Objective 4 - Prevent frailty, promote bone health and reduce accidents.

- We *recommend* that commissioners specifically include care homes in contracts with services for falls and fracture prevention. In particular, commissioners should ensure that care home residents receive regular medication reviews, including treatment of osteoporosis, and, where appropriate, have access to therapeutic exercise for falls prevention.
- We also *recommend* that care homes record and report falls to the relevant commissioners and that commissioners use these reports to inform and monitor local falls service provision.
- We *recommend* that all providers of inpatient services ensure that their falls policies and procedures include specific regard to the recommendations of the NPSA in the use of bed rails, reporting and monitoring of falls, and the aftercare of fallers in hospital.

[†] Further information on fracture liaison service models can be found at <http://www.nos.org.uk/netcommunity/document.doc?id=724>. [Accessed 1 April 2011]

Next steps

If you are reading this executive summary and you are a chief executive of a healthcare organisation, or a lead clinician, we suggest you obtain the full report and/or analysis and read it through. Then you should review your local results against not only the key indicators but also all the key recommendations in the executive and full report, identifying any gaps in your local service in order to formulate an action plan to address these issues.

If you are a commissioner, we suggest that you review your local community key indicator results and the recommendations identifying any gaps in your local provision in order to formulate an action plan. You may wish to draw on the knowledge of local clinicians to formulate this action plan.

Healthcare professionals, if you have read just this executive summary we suggest you have a look at the contents page of the full report in order to identify the sections that are relevant to your area of practice. For example, if you are a physiotherapist you will want to read sections regarding gait and balance assessment and exercise interventions to see how you are doing locally. We would encourage you to join any local post-audit action planning groups.

We will be asking local falls leads and audit departments to provide examples of their action plans. A series of regional workshops will be arranged to disseminate the audit results to local clinicians, managers and commissioners in order to support and facilitate local improvements.

Examples of documentation about falls and bone health services submitted by audit sites and reviewed by the Steering Group can be found on the falls and bone health audit data collection web tool : <https://audit.rcplondon.ac.uk/fbh> [Accessed 12 April 2011].

Key indicators

The Falls and Bone Health Steering Group have selected 16 Key Indicators or combinations of indicators (8 Organisational and 8 Clinical) that we believe provide the best illustration of the local and national state of falls and fracture services. Each of the key indicators is linked to one of the objectives of the DH *Prevention package* and is supported by strong evidence or robust guidelines.

Objective 1: Improve patient outcomes and improve efficiency of care after hip fractures.

- 1.3.1.‡ Is a report presented at least annually at Board level that includes local hip fracture rates? *Monitoring the numbers of broken hips can help improve efficiency by designing/supplying services that accurately meet local demand.*
- 6.3.1 and 6.3.2. Is there a mechanism to record patients' views of the falls and bone health service using questionnaires and/or interviews? *Asking patients about their views of the care they received can be used to help falls and bone health services improve future patient care.*
- C1.2.1.2. Was adequate analgesia administered within 60 minutes of hospital attendance, or prior to attendance by ambulance personnel? *Giving pain relief medicines to patients after they have broken their hip is very important and these medicines should be given as soon as possible to help with the pain.*
- C2.2.5. Was a formal assessment of cognitive function, including where indicated a delirium screen (e.g. Confusion Assessment Method), performed within 72 hours of surgery? *Patients that have memory problems often have difficulty getting back to their usual activities after a broken hip and can suffer from delirium after their operation, which often goes unrecognised unless looked for specifically.*
- C2.2.6. Was an attempt made within 24 hours of surgery to mobilise the patient? *Evidence shows that patients who start walking around as soon as possible after surgery for a broken hip make a better and quicker recovery.*

Objective 2: Respond to the first fracture and prevent the second.

- 1.4.2. Is there a mechanism at primary care organisation level for auditing the compliance of primary care management guidance expressed within NICE TA 161 for post menopausal women who have had a fragility fractures (including both previous and new fractures)?¹¹

C4.1.7/C4.2.6– 7. Was the patient prescribed bisphosphonate or other appropriate anti-resorptive therapy for osteoporosis (or was treatment unnecessary after a DXA scan result excluded osteoporosis)? *Post menopausal women who have had a fall from a low height and break a bone (fragility fracture) should be assessed for osteoporosis/fracture risk and prescribed medication to reduce their risk of further fractures.*

- 4.8.1. Is there further assessment and management of all appropriate fracture patients coordinated by a fracture liaison nurse or similar designated person? *Evidence shows that if patients who have broken a bone have further assessment and management by a fracture liaison nurse they are more likely to receive assessment and treatment for osteoporosis and therefore are less likely to suffer a further fracture.*
- C3.3.4. Are there documented lying and standing blood pressure readings (or is it documented that the patient is unable to stand)? *Taking of a lying and standing blood pressure can identify people who have postural changes in their blood pressure, which is a potentially treatable cause of falls.*

Objective 3: Early intervention to restore independence.

- 4.3.10. Has the trust (or home) calculated its serious injurious in-patient (or resident) falls rate against activity (e.g. per admission or occupied bed day)? *It is important that hospitals and care homes monitor the rate of serious injuries following falls that occur under their care and that they act on these results.*
- 5.1.12– 13. Does an occupational therapist routinely assess for potential hazards within the patient's home? C3.7.1– 2. Was home hazard assessment performed in the patient's own environment? *People that have had a fall should have their homes assessed for potential hazards as many falls can be prevented using practical advice.*
- 5.4.3/5.4.5. Are evidence-based therapeutic exercise programmes (Otago or FaME) used for falls prevention, with a standard duration of over 12 weeks? C3.6.5. Did the patient attend an exercise programme within 12 weeks of the fall? *Evidence-based falls prevention exercise of over 12 weeks duration has been shown to reduce the risk of future falls by improving balance and muscle strength.*

‡ The number relates to the indicator in the audit. For the organisational audit, just the number is given. For the clinical audit, a capital 'C' precedes the number.

Objective 4: Prevent frailty, promote bone health and reduce accidents.

- 1.3.1. Is a report presented at least annually at Board level that includes local hip fracture rates? *The rates of hip fractures can be used to monitor the effectiveness of the local falls and fracture service in preventing injury.*
- 4.4.1. Are older people who fall and attend EDs or MIUs routinely screened for risk of future falls? *People that attend EDs after a fall should be assessed for future risk in order to arrange further assessment and treatment aimed at reducing this risk.*
- C5.2. Is it documented within the medical, nursing or therapist notes that written falls prevention information has been given to the patient or their carer? *Written, as well as oral information should be provided about preventing future falls, as a reference for patients and carers.*

Using the key indicators

The key indicators illustrate selected details of patient care or service provision. So for any one trust there may gaps in the services or patient care they provide but these may be provided by a neighbouring organisation. The indicators can be used as a basis for comparison between sites of the same type (e.g. between one primary care provider and another) but cannot be used to compare trusts of different types. Therefore the selected details need to be reviewed for each local community.

Each table provides the national results for those healthcare settings that were able to answer the questions in a given domain. Results for “Yes”/“No” questions are presented as percentages (answering “Yes”) with their numerator/denominator.

Table 1: Key to site types

Healthcare setting	Abbreviation
Primary care commissioners	PCC
Combined healthcare organisations	CHO*
Community service providers	CSP
Acute hospital trusts	Acute
National	Combination of the above dependent on section

*The CHO group comprises NHS bodies that combine two or more functions (out of commissioning, community providing, acute providing, social care, mental healthcare). This includes the Welsh Local Health Boards, Health and Social Care Trusts, the Islands, joint PCCs and CSPs, joint CSP and MHT (1) and joint CSP and acute trust (1).

Organisational audit key indicators

The organisational audit looks at structures, staffing, policies and procedures of falls and bone health services.

Note that the denominator for each indicator depends on the applicable population:

Section 1 applies those who commission services; 4.3.10 to those who have any inpatients or residents; 4.4.1 to those who provide an ED or MIU; 4.8.1 to those who provide fracture services; Sections 5 and 6 to all sites in the relevant sectors

Table 2: Organisational audit key indicators: % YES

Indicator	National	Acute	PCC	CSP	CHO
Section 1	Local Strategies and Commissioning				
1.3.1	Is a report presented at least annually at Board level that includes local hip fracture rates?				
	33% (45/135)	NA	28% (24/85)	NA	42% (21/50)
1.4.2	Is there a mechanism at primary care organisation level for auditing the compliance of primary care management guidance expressed within TA161 for post menopausal women who have had a fragility fractures (including both previous and new fractures)?				
	23% (31/135)	NA	NA	22% (19/85)	24% (12/50)
Section 4	Service Settings				
4.3.10	Has the trust (or home) calculated its serious injurious in-patient (or resident) falls rate against activity (e.g. per admission or occupied bed day)?				
	55% (165/299)	65% (106/162)	NA	46% (37/80)	39% (22/57)
4.4.1	Are older people who fall and attend EDs or MIUs routinely screened for risk of future falls?				
	52% (127/246)	52% (84/163)	NA	63% (22/35)	44% (21/48)
4.8.1	Is there further assessment and management of all appropriate fracture patients coordinated by a fracture liaison nurse or similar designated person?				
	38% (78/208)	29% (5/17)	NA	43% (12/28)	37% (61/163)
Section 5	Specialist Management				
5.1.12 5.1.13	Does an occupational therapist routinely assess for potential hazards within the patient's home (of those 274 sites using a falls assessment tool or proforma)? Denominators exclude those sites indicating they never used a tool in 5.1.1				
	70% (193/274)	72% (92/128)	NA	66% (58/88)	74% (43/58)
5.4.3 5.4.5	Are evidence-based therapeutic exercise programmes (Otago or FaME) used for falls prevention (5.4.3), with a standard duration of over 12 weeks (5.4.5)?				
	16% (51/321)	9% (14/163)	NA	27% (25/92)	18% (12/66)
Section 6	Training and Audit				
6.3.1 6.3.2	Is there a mechanism to record patients' views of the falls and bone health service using questionnaires and/or interviews?				
	61% (197/321)	47% (76/163)	NA	78% (72/92)	74% (49/66)

Clinical audit key indicators

The clinical audit looks at the delivery of patient care for two specific groups of patients that have fallen:

1 - those that have had a non-hip fragility fracture; and 2 - a hip fracture.

Table 3: Clinical audit key indicators % YES

Indicator		National	Acute	CSPs	CHOs
Section 1	Presentation and pre-operative management of hip fracture patients				
1.2.1.2	Was adequate analgesia administered within 60 minutes of hospital attendance, or prior to attendance by ambulance personnel?				
	Hip	65% (2278/3484)	66% (2047/3123)	-	64% (231/361)
Section 2	Surgery and post operative management of hip fracture patients (Excludes 84 patients who were managed non-operatively)				
2.2.5	Was a formal assessment of cognitive function, including where indicated a delirium screen (e.g. Confusion Assessment Method), performed within 72 hours of surgery?				
	Hip	28% (949/3400)	29% (869/3046)	-	23% (80/354)
2.2.6	Was an attempt made within 24 hours of surgery to mobilise the patient?				
	Hip	68% (2299/3400)	69% (2098/3046)	-	57% (201/354)
Section 3	Secondary falls prevention following fall and fracture				
3.3.4	Are there documented lying and standing blood pressure readings (or is it documented that the patient is unable to stand)?				
	Non-Hip	15% (934/6083)	16% (866/5268)	6% (7/117)	9% (61/698)
	Hip	38% (1325/3484)	38% (1179/3123)	-	40% (146/361)
3.6.5	Did the patient attend an exercise programme within 12 weeks of the fall? (Excluding cases where it was recorded that exercise was not relevant, or declined by patient)				
	Non-Hip	19% (965/5109)	20% (897/4431)	5% (5/99)	11% (63/579)
	Hip	44% (1346/3038)	44% (1200/2700)	-	43% (146/338)
3.7.1	Was home hazard assessment performed in the patient's own environment?				
3.7.2	(Excluding cases where home assessment was not relevant, or declined by patient 3.7.1)				
	Non-Hip	10% (525/5068)	11% (475/4413)	7% (6/89)	8% (44/566)
	Hip	38% (891/2361)	37% (767/2099)	-	47% (124/262)
Section 4	Secondary bone health management following fall and fracture				
4.1.7, 4.2.6 4.2.7	Was the patient prescribed bisphosphonate or other appropriate anti-resorptive therapy for osteoporosis (or was treatment unnecessary after a DXA scan result excluded osteoporosis)?				
	Non-Hip	33% (2037/6083)	34% (1770/5268)	8% (9/117)	37% (258/698)
	Hips	60% (2092/3484)	59% (1855/3123)	-	66% (237/361)
Section 5	Information provision following fall and fracture				
5.2	Is it documented within the medical, nursing or therapist notes that written falls prevention information has been given to the patient or their carer?				
	Non-Hip	7% (450/6083)	7% (388/5268)	5% (6/117)	8% (56/698)
	Hip	12% (416/3484)	12% (368/3123)	-	13% (48/361)

Background

Falls lead to physical injury, loss of function, loss of independence and increased mortality.

They are the leading cause of mortality due to injury in older people aged over 75 in the UK. Over 400,000 older people in England attend accident and emergency departments following an accident and up to 14,000 people a year die in the UK as a result of an osteoporotic hip fracture⁴

The cost of falls and fractures

It is estimated that 4.6 million hospital bed days were used in 2006/7 in England for fractures in over 60 year olds and frailty-related falls in over 75 year olds. *The number of admissions for falls increased by 36% over the five years between 2003- 4 and 2008- 9. With an ageing population, this is likely to continue to increase. The combined cost of social and hospital care for patients with fragility fractures has been reported as more than £1.8 billion per year in the UK, though this is likely to be an underestimate.¹⁴ Of total costs, about 45% is for acute care, 50% for social care and long term hospitalisation and 5% for drugs and follow up.¹⁵

The most common serious consequence of falling is hip fracture. This occurs in approximately 76,000 people per year in the UK.⁶ Half of people suffering a hip fracture never return to their previous level of independence. About 10% die within a month and approximately 20% enter a care home.

Causes of falls in older people are complex and multi-factorial risk factor assessment and modification is an essential part of a falls prevention service. Most fractures in older people occur in the context of increased bone fragility, osteopenia or osteoporosis. There is considerable evidence for interventions that reduce the risk of falling and for medications that reduce the risk of fracturing. It is estimated that, if all clinicians and services implemented this evidence in a fully integrated falls and bone health service, it would lead to an estimated reduction of 4,500 hip fractures in the UK per year, with a net saving of £34 million.¹⁶

An effective falls and fracture prevention service can make direct savings of £263,636 over five years for a primary care trust with a population of 320,000.¹⁷ Based on 2009/10 costs: Each hip fracture averted will avoid commissioners incurring £10,170 payment by results (PbR) tariff costs, reduce NHS community service costs by £1,600 per community hospital admission and £400 per referral to intermediate care, and save £3,879 in local authority social care costs over 2 years on average per hip fracture.

Fractures of the humerus, spine and forearm averted will avoid commissioners incurring PbR tariff costs estimated for combined in and outpatients of £1,300, £3,246 and £1,082 respectively, plus local authority social care reduced by £225 average per case for spine and forearm fractures.

These calculations are based on assumptions about community services input as follows: For hip fractures, around 20% will have follow-up in a community unit, for an estimated stay of 8 days at a marginal cost of £200 per bed day. A further 20% will receive an intermediate care package of 20 hours, at around £20 per hour.

Evidence and guidelines

The NSF set out a model for service provision for falls prevention and management in England, though less prominence was given to bone health. This was followed by NICE guidance on assessment and prevention of falls (NICE CG21) and prevention of osteoporotic fractures (NICE TA87 superseded by TA160 and TA161).¹⁸⁻²⁰ 13 Guidelines on fragility fracture management came from the BOA in the Blue book written in collaboration with the British Geriatrics Society (BGS).⁶ A Welsh NSF for older people appeared in 2006, which highlighted the need for falls and bone health service integration.²¹

In July 2009, the DH in England published the Prevention package for older people. The Prevention package aims to improve several aspects of NHS care for older people including falls and fractures. The aspirations for falls and fracture care are based around four key objectives:

- **Objective 1:** Improve patient outcomes and improve efficiency of care after hip fractures through compliance with core standards
- **Objective 2:** Respond to the first fracture and prevent the second - through fracture liaison services in acute and primary care settings
- **Objective 3:** Early intervention to restore independence - through falls care pathways, linking acute and urgent care services to secondary prevention of further falls and injuries

*HES indicates that bed-days consequent on unscheduled admissions for fractures in over 60 year olds account for more than 2 million bed days in England alone. This is substantially more than associated with stroke, for example.¹⁰ Falls admissions in over 75 year olds that are related to frailty (external causes codes W00, W01, W04-8, W010, W018-19) can be estimated from Finished Consultant Episodes (FCEs) at more than 2.6 million hospital bed days each year in England alone. A retrospective analysis of the same data demonstrates that the rate of unscheduled admissions following a fall in over 60 year olds has increased, over the last five years for which data is available, by 36%. Fractures of the humerus, spine and forearm averted will avoid commissioners incurring PbR tariff costs estimated for combined in and outpatients of £1,300, £3,246 and £1,082 respectively, plus local authority social care reduced by £225 average per case for spine and forearm fractures.

These calculations are based on assumptions about community services input as follows: For hip fractures, around 20% will have follow-up in a community unit, for an estimated stay of 8 days at a marginal cost of £200 per bed day. A further 20% will receive an intermediate care package of 20 hours, at around £20 per hour.

- **Objective 4:** Prevent frailty, promote bone health and reduce accidents - through encouraging physical activity and healthy lifestyle, and reducing unnecessary environmental hazards

The Prevention package aimed to influence commissioning of services for 2010-11. This Audit was timed to assess the initial impact of the Prevention package, in England.

Previous audits

In 2006, the Clinical Effectiveness and Evaluation Unit (CEEU) of the Royal College of Physicians, London, reported on the first national audit on the organisation of falls and bone health services in older people. This audit was commissioned by the Healthcare Commission and performed in 2005. It covered commissioning and service provision, whether hospital or community-based. The audit sought to assess compliance with the key NSF milestone for falls that 'all local health and social services systems should have established by April 2005 an integrated falls service' to provide the standards and actions set out in the NSF. Of the 90% of acute trusts that submitted data, 74% reported having an integrated falls and bone health service. However, prevention of falls and fractures is a complex matter and the devil was in the detail: Systems to screen older A&E attendees for falls risk was provided in only 26% of departments and only 27% of fracture services had a fracture liaison nurse. Numbers of patients attending falls clinics were low relative to the expected numbers of older people needing assessment and interventions. Public health information about services or outcomes was rarely collected. There was wide variation in performance between the 151 trusts that contributed to the audit. In essence, whilst most services had created a service framework that might suggest an integrated service, the identification, referral, assessment and treatment of suitable patients was often less than adequate.

In 2006, the Healthcare Commission commissioned the CEEU to perform a national clinical audit to investigate the quality of clinical care received by individual patients at high risk of falls and fractures. This was an opportunity to drill down into the care pathway at patient level and to examine in detail the discrepancies and weaknesses identified in the organisational audit. This audit was performed on patients presenting with fragility fractures between October 2006 and January 2007 and included 16 weeks follow up. The findings were published in November 2007. The audit covered secondary falls prevention and bone health assessment and treatment in older people that had presented acutely with a fragility fracture, as well as the acute management of patients who were admitted for treatment of a hip fracture. Again the results showed wide variation in the care provided between localities. Most services performed less well with regard to provision of bone protection compared to falls prevention.

This clinical audit report made a number of recommendations, including:

- Primary care organisations (PCOs) should commission a patient care pathway for the secondary prevention of falls and fractures that includes a FLS.
- PCOs should commission clinics which can perform effective assessments .
- PCOs should review local therapeutic exercise options and promote evidence-based programmes in collaboration with councils.
- DH should consider supporting inclusion of osteoporosis treatment in the QOF for primary care.
- Acute trusts should review their capacity and operational systems to ensure prompt surgery and consider applying the approach developed by the NHS Institute for Innovation and Improvement.²²
- Acute trusts and PCOs should review procedures to share clinical information and develop joint clinical governance for the falls/fracture pathways.

Since the first audits, the evidence base for falls prevention and bone protection has become consolidated, though there has not been any new evidence of sufficient weight to merit a paradigm shift in clinical practice. However, this was no time for complacency. The five-year review of the NSF provided a reminder that many falls services were yet to achieve the standards required by the original framework and emphasised the need for bone protection to be fully integrated with falls prevention.²³ In 2008, NICE revised its guidelines on primary (TA160) and secondary (TA161) prevention of osteoporotic fractures. This period also saw the development of the establishment of the National Hip Fracture Database (NHFD), which offers continuous monitoring of a small number of core processes and outcome quality indicators for hip fracture care. This complements the work of the national audits, which provide far greater depth and detail in a periodic, rather than continuous, fashion.

The Healthcare Quality Improvement Partnership (HQIP) commissioned the CEEU to continue the national falls and bone health audit programme from 2008 to 2011. In 2009, the second national falls and bone health organisational audit report was published including, for the first time, mental healthcare trusts (MHTs) and a sample of care homes. Some services were doing well, but there were important deficiencies in commissioning and the provision of care. The headline findings were:

1. Opportunities to prevent recurrent falls and fractures were being missed:
 - a. Risk assessments in A&E departments and fracture services were inadequate.
 - b. Services with falls coordinators and fracture liaison nurses had better case finding systems in place to identify high-risk fallers.
2. Most organisations had developed inpatient falls policies, but only a third knew their inpatient falls rates.
3. Commissioning was patchy, rarely providing a coordinated falls and fracture strategy:
 - a. Important public health information on fracture rates was inadequate or not collated.
 - b. Only 39% (67/171) commissioning organisations reported a mechanism to assess compliance with the NICE technology appraisal on secondary prevention of osteoporotic fragility fractures.¹³ Only 24% (40/169) had audited bone health prescribing in their local primary care and only 9 know their local fragility fracture rates.
4. Many clinical services were not adhering to the NICE CG21 and TA87 guideline-based treatments to prevent falls and fractures:
 - a. Patients with first fractures were not flagged up for secondary prevention.
 - b. Many of the exercise programmes being provided were not evidence based.
 - c. Too few services used patient-agreed treatment plans.
 - d. Assessments for safety at home, using a validated approach, could be improved.

Action planning workshops were held in 2009, working with NHFD representatives to assist organisations with formulating action plans and implementing change. Action plans were obtained and collated on a regional basis, with examples of good practice made available for sharing.

This 2010 Audit represents the completion of a five-year audit cycle with a combined organisational and clinical audit. Previous indicators were all reviewed by the Steering Group and modified, where necessary, based on feedback from previous audits. New audit indicators were introduced to reflect changes to guidelines (e.g. new NICE technology appraisals on osteoporosis) and the DH Prevention package.

Methods

Governance of the audit

Delivery and performance of the Audit was accountable to HQIP. It was managed by the CEEU and supported by a multi-disciplinary and multi-agency advisory Steering Group. Membership of this group reflected the breadth of clinical and service expertise needed to represent the different perspectives of hospital and community healthcare, social care, and older persons' advocacy. An associate director provided clinical leadership (appendix 2).

Target population for clinical report

The focus of the clinical audit was older people who had fallen and sustained either a hip fracture or other fragility fracture. A fall was defined as 'an event whereby an individual comes to rest on the ground or another lower level with or without loss of consciousness'.²⁴ These patients were chosen because NICE CG21 guidance recommended that they should be targeted for assessment and interventions because they are at higher risk and benefit most from treatment.

Each 'site' (i.e. an individual healthcare trust or community/acute service provider) was asked to aim to collect information on a minimum of 20 patients with a hip fracture and 40 patients with a non-hip fragility fracture. The numbers were chosen, with statistical advice, to provide the minimum necessary to enable a reliable analysis and allow local services to benchmark themselves against regional and national figures. The Audit encompassed the immediate and subsequent hospital management for hip fractures and, for both groups, the subsequent assessments and treatments for the secondary prevention of falls and fractures, whether these were provided in hospital or primary and community care settings.

Inclusion criteria

Inclusion criteria for Group 1: non-hip fragility fractures

The first 40 consecutive patients aged 65 years and over attending an ED or MIU with a new vertebral fracture, wrist fracture, humerus fracture or pelvis fracture, occurring as a result of a fall (as defined above) during the period beginning 1 April until 31 July 2010. To include attendances via a MIU there must be on site x-ray facilities and personnel with the ability to manipulate and set the fracture. Therefore patients were to be excluded if they needed to go to another site for these interventions.

Inclusion criteria for Group 2: hip fractures

The first 20 consecutive patients aged 65 years and over attending an ED with a fractured hip following a fall during the period beginning 1 April until 31 July 2010.

Exclusion criteria

The following exclusion criteria applied for both groups:

- Patients with multiple fractures because this could complicate assessment, delay rehabilitation and would not be comparing same patients.
- Non-local fallers, because of the difficulty for local auditors in reliably tracking their subsequent healthcare. Non-local was defined as not resident in the area served by the local services including the primary care services.
- Patients whose fall occurred more than 5 days before they attended ED or MIU.
- Patients who died within 3 months of the fall because of the inability to follow progress through their acute care and subsequent falls and bone health interventions.
- Patients who incurred injuries as a result of trauma or assault.
- Patients who fell and fractured as an inpatient

Sites were advised to start by identifying more patients than the minimum required due to the high mortality rate post fall.

Organisation

The organisational audit required one form to be completed for each organisation (acute, PCC, CSP, CHO, MHT, specialist hospital and care home), using self-assessment in September 2010. For this report they are called sites. The amount and type of information about fall and bone health services depended on the type of site. Each site completed the Audit submitting information pertinent to their organisation and only for the areas where they could be compared with others.

The clinical audit followed the patient journey between primary and secondary care of a sample of patients aged 65 years and over that had fallen and fractured the hip, wrist, humerus, pelvis or vertebrae. The Audit focused on the management and secondary prevention of patients sustaining hip fractures and the secondary prevention of patients with other non-hip fragility fractures.

All types of site took part in the organisational audit. However for the clinical audit site participation comprised:

- a. Those that had an MIU (fitted the MIU criteria) or ED but only treated non-hip fragility fracture patients.
- b. Those that treated both hip and non-hip fragility fracture patients.

Non-hip fragility fracture patients were identified and managed in ED. The majority were then discharged back to their usual residence, which meant that at least some of the secondary assessment, prevention and care was delivered in community settings.

Development of indicators

The Steering Group refined indicators derived from the evidence-based guidance within NICE, Scottish Intercollegiate Guideline Network (SIGN), DH and NPSA (a full list can be found in appendix 1), the previous 2008 national organisational audit (which was reported upon in 2009) and the previous 2007 national clinical audit. The key considerations were the strength of recommendations in the standards' sources, the feasibility of collection, and the face validity to the participants. To emphasise the source of the audit indicator, the relevant standards were identified by bold text in the help notes next to each of the indicators.

Key indicators

Public identification of results by individual audit site (e.g. CSP or acute trust) is limited to those sectors who previously participated, as the results of a first audit cannot be regarded as sufficiently robust to merit public dissemination. This was clarified for participants at the recruitment stage. Key indicators were selected by the Steering Group as dealing with areas that were felt to be of highest importance, generally relating directly to strong evidence, or national guidance, and for which we believe the data is most reliable. In addition, the key indicators were kept to a modest number, so as to make presentation user-friendly (see tables 2 and 3). Results of the key indicators are presented in appendices 4- 6 as non-anonymised information where sites are identified by name within their strategic health authorities.

Recruitment of sites

All acute hospitals, primary care organisations and MHTs in England; Health and Social Care Trusts in Northern Ireland and Local Health Boards in Wales were eligible to take part in the Audit. The health services in Jersey and Guernsey, and 2 specialist hospital trusts also participated. Sites were recruited via letters to their chief executive, previous falls audit lead and clinical audit or effectiveness managers.

There was a certain level of flux among primary care organisations as they were at various stages of reforming into provider and commissioner functions and many had changed considerably since the previous audit. Where sites trusts had reformed and previous contact details were out of the date letters were sent to the chief executive, clinical audit manager, commissioning manager or director of care. They were asked to provide details of a contact for the audit and to confirm whether they were the provider or commissioner of services.

Care homes

Information was given to the English Community Care Association (ECCA) to ask for volunteers to take part in the Audit. Letters were written to the chief executive of five main care home organisations. The general manager of every care home in the Barchester and Anchor chains received either an email or letter with details of how to complete the Audit.

Data collection

Organisational audit

Sites were prepared for data collection in August 2010. Data collection commenced in September and continued until October 2010. Sites completed a single form about their organisations services.

Clinical audit

Sites were prepared for data collection in August 2010. Data collection commenced in September and continued until December 2010. Where sites had difficulty in identifying patients the sample collection period was extended prior to April 1 or after the 31 July.

Sites were asked to complete a minimum of 20 hip fragility fracture cases and 40 non-hip fragility fracture cases. Where there were low numbers sites were asked to complete as many as possible. If a site did not admit hip fracture patients they were asked to include more non-hip fragility fracture cases if possible. Sites were advised to set up a multi-disciplinary team to decide how and by whom information was to be collected from both primary and secondary care sources within their locality. They were advised to gather data on a paper copy of the data collection tool and then to enter this onto the web tool once data collection from various sources was complete.

When there was evidence in the notes of referral for interventions, sites were asked to collect information from GPs or CSPs. An adapted data collection tool for secondary assessment and interventions was devised along with a template letter for GPs. Despite this, a significant number of sites, possibly 10%, had difficulty obtaining information for certain items from GPs.

Successful completion of this Audit required significant interdisciplinary cooperation across NHS managerial boundaries, reflecting the complexity of the clinical pathway for patients who require a range of assessments and interventions.

Web tool

The web tool was designed so that each site logged on with an individual password and site code. Each site only saw the sections that they needed to complete rather than the whole web tool. This was especially pertinent to care homes, specialist hospitals and MHTs as they had less to complete. The clinical audit web tool was designed for both groups of patients with all sections accessible to both except for surgery, which was only for (Group 2) hip fragility fracture patients.

To improve quality of data entry, the web tool had routing and consistency checking built-in. This checked that any dates and time that were entered were consistent and if the answer to a stem question was 'No' then it was not possible to answer any of the subsidiary questions.

Support and information for participating sites

As soon as sites were recruited and had provided their contact details they were kept up to date with monthly newsletters. Help notes and frequently asked questions were provided which gave definitions and guidance on how to answer each Audit question.

During data collection a help desk was maintained to answer any queries or to sort out any difficulties. Sites were contacted by email and telephone throughout the data collection period to encourage participation and to offer support with collecting data and using the web tool.

Post-export quality checks

After a site had entered all data they were asked to lock their form and to export their data to a spreadsheet and then quality check their exported data against their hard copy data collection form. If there were errors caused by transcribing these were amended. This also enabled sites to do local analyses on their own data.

Information governance

Information governance advisers at National Information Governance Board (NIGB) Ethics and Confidentiality Committee were approached for advice regarding collecting of clinical audit information across local healthcare services. Their advice was that data could be shared locally for the purpose of local audit and that the data entered and submitted nationally would be sufficiently anonymous that further patient consent was not required.

To assist with the process for local data collection, all chairs of Local Management Committees (LMCs) were written to obtain support for the Audit. Despite this, there were a number of concerns about consent and sharing of information at this local level and in some areas this affected the quality of the returned information. In some areas, GPs were unwilling for practice staff to release information. Anecdotally, this was reported by some auditors to be due to a lack of willingness or compunction by GP's to participate in national audit.

Inter-auditor reliability

Sites were asked to re-audit their first 5 cases, using a different auditor, and returning to the clinical notes again as the source of audit data. 162 sites submitted 940 cases. Reliability (agreement between auditors) is not the same as validity (suitability or accuracy of measure). However establishing good agreement between auditors is an important part of the process of validation. The kappa statistic was used to measure agreement and the level of agreement was generally 'good' to 'very good' for the key indicators and indeed across nearly all the audit items. (For further details see appendix 3.)

Scoring and comparisons over time

As a result of the changes in local organisation of services, and in the composition of the Audit itself, it was felt that comparisons over time were going to be of limited utility for many localities. The Steering Group and statistician discussed the continuation of the use of a scoring system, as in previous audits, and it was decided not to use one for 2010. It was felt that a composite score risked hiding important details and could lead to an artificial 'league table' of questionable validity.

Comparisons have been drawn where possible, but often with caveats. PLEASE NOTE that some denominators in the 2008 report were based on a subpopulation, rather than the entire population. Where possible, comparisons have been made using consistent denominators, so some % figures for results from 2008 in the text of this report may differ from those in the 2008 report.

We encourage all sites to look at their own indicators systematically, starting with the key indicators, to identify which services will be a priority for local improvement.

Pilot audit

21 sites were recruited and undertook a pilot of the web based data collection tool, hard copy tools and supporting information in April 2010.

The pilot audit comprised of an audit of the organisation of services for falls and bone health in older people and a clinical audit. The first 10 or more consecutive patients, who met the sample criteria, attending ED or MIUs between 1 and 31 December 2009 were used in the clinical audit. The pilot was evaluated by the project team, resulting in changes to the audit indicators and support information which were signed-off by the Steering Group in May 2010.

How to read this report

Within the text of the report, audit indicators are referred to by the relevant code within square brackets. Codes for clinical audit indicators are preceded by 'C' - e.g. [C4.1.5]. Organisational audit indicator codes have no prefix - e.g. [1.3.6]. In addition, there are tables that relate to combinations of indicators or other sub-analysis of data, which are referred to by table number.

Standards were grouped into sections. Depending on the nature of the trust undertaking the audit, some sections applied, some did not.

Table 4: Organisational audit sections and applicable healthcare settings

Section	Healthcare setting
1. Local strategies and commissioning	<ul style="list-style-type: none"> • PCCs • CHOs
2. Case finding and referral	<ul style="list-style-type: none"> • CHOs • MHTs • CSPs
3. Structure and staffing	<ul style="list-style-type: none"> • CSPs • Acute providers • CHOs
4. Service settings	<ul style="list-style-type: none"> • All for various aspects
5. Specialist falls management	<ul style="list-style-type: none"> • CSPs • Acute providers • CHOs
6. Training and audit	<ul style="list-style-type: none"> • All for various aspects

In the report, most sections are divided further into smaller subsections dealing with one particular organisational or clinical domain. Each subsection begins with the relevant standard and its provenance, followed by tables presenting the results illustrating performance for each healthcare setting and then a systematic commentary on the results.

Key indicators in tables and key recommendations are identified by shading of the relevant boxes.

Table 5: Clinical audit sections and applicable healthcare settings

Section	Healthcare setting
1. Presentation and pre-operative management of hip fracture patients	<ul style="list-style-type: none"> • CHOs • CSPs • Acute
2. Surgery and post operative management of hip fracture patients	<ul style="list-style-type: none"> • CHOs • Acute
3. Secondary falls prevention following fall and fracture	<ul style="list-style-type: none"> • CHOs • CSPs • Acute
4. Secondary bone health management following fall and fracture	<ul style="list-style-type: none"> • CHOs • CSPs • Acute
5. Information provision following fall and fracture	<ul style="list-style-type: none"> • CHOs • CSPs • Acute

Examples of how tables are laid out

Each table provides the national results for those healthcare settings that were able to answer the questions in a given domain.

Results for “Yes”/“No” questions are presented as percentages with their numerator/denominator, and site variation for numerical variables e.g. consultant hours are summarised by the median and Inter-Quartile Range (IQR). *Results in each table are for the response of ‘Yes’ unless otherwise indicated.*

Example - Table 6: Local incentives

Commissioning strategy	National	PCCs	CHO
1. Does your organisation commission services?	89% (135/151)	100% (85/85)	76% (50/66)
1.1.1. Is there a written local commissioning strategy (service development in Wales) which covers issues pertaining to falls prevention?	78% (105/135)	74% (63/85)	84% (42/50)
(If Yes to 1.1.1) does this local commissioning strategy include:			
1.1.2. Commissioning an integrated specialist falls service?	67% (90/135)	66% (56/85)	68% (34/50)

Example - Table 7: Clinics with trained medical staff

Clinics with trained medical staff	National	CSPs	CHOs	Acute
3.2.1. Does your trust provide a clinic (s) or equivalent facility where individual patients attend for assessment and interventions related to falls prevention with direct clinical involvement of consultant grade or other trained medical staff?				
Yes	74% (228/310)	59% (52/88)	59% (38/64)	87% (138/158)
3.2.2. If yes, what type of doctor led these clinics?				
Consultant	95% (216/228)	88% (46/52)	89% (34/38)	99% (136/138)

Notes

- Questions were not applicable for some organisations to complete, for example an acute trust will not answer sections 1 and 2
- As a result of data cleaning, the number of cases in the clinical audit vary between questions, which is reflected in the denominator
- Some questions are subordinate to stem questions, as in the above examples.
 - In some cases, the denominator may reflect the whole population (when a standard is being measured), for example question 1.1.2 is a sub-question of 1.1.1 but takes question 1's denominator, the whole population.
 - In other cases, the denominator reflects the subpopulation relevant to the question (when the question is descriptive), for example question 3.2.2 is a sub-question of 3.2.1 and the denominator of 3.2.2 is taken from the numerator of 3.2.1.

Recruitment and participation rates

The following table illustrates the number of organisations across England, Wales, Northern Ireland and the Islands that were approached; the number of those that were recruited and then submitted data using the web tool.

Depending on how the falls services/commissioning was organised within a healthcare setting, data was submitted as one site or as several sites.

Table 8: Recruitment and numbers submitting data (organisational audit)

Organisational audit recruitment and numbers submitting data	Total eligible 2010	Total agreed to participate 2010	*Total submitted data 2010	Total submitted data 2008	Total submitted data by individual site 2010**
PCCs	106	85% (90/106)	80% (85/106)	n/a*	85
CSPs	96	91% (87/96)	85% (82/96)	n/a*	92
CHOs ***	60	98% (59/60)	93% (56/60)	n/a*	66
Acute	147	100% (147/147)	100% (147/147)	100% (158/158)	163
MHTs	57	93% (53/57)	93% (53/57)	76% (44/58)	53
Sub total	466	436	423	359	459
Care Homes	n/a	n/a	79	73	79
Specialist Hospitals	n/a	n/a	2	n/a	2
Total	466	436	504	432	540

*In 2008 audit, sites were split into different groups: Primary care organisations 88% (150/171) and Combined Health and Social Care Trusts 88% (7/8).

**Some organisations comprised more than one hospital/provider and reported as two or more sites.

*** The CHO group comprises NHS bodies that combine two or more functions (out of commissioning, community providing, acute providing, social care, mental healthcare). This includes the Welsh Local Health Boards, Health and Social Care Trusts, the Islands, joint PCCs and CSPs, joint CSP and MHT (1) and joint CSP and acute trust (1).

Table 9: Recruitment and numbers submitting data (clinical audit)

Clinical audit recruitment and numbers submitting data	Total eligible 2010	Total agreed to participate 2010	*Total submitted data 2010	Total submitted data 2007	Total submitted data by individual site 2010
CSPs	n/a	4	4	n/a	4
CHOs	14	93% (13/14)	93% (13/14)	20	23
Acute	147	100% (147/147)	100% (147/147)	153	161
Total	161	164	164	173	188



Results: Organisational audit

Section 1: Local strategies and commissioning

Respondents: All sites that commissioned services - PCCs and CHOs

Results by indicator with commentary

Table 1.1: Commissioning strategy and leadership

Provenance: DH falls and fractures commissioning toolkit¹¹

1.1– 1.2 Commissioning strategy	National	PCCs	CHO
1. Does your organisation commission services?	89% (135/151)	100% (85/85)	76% (50/66)
1.1.1. Is there a written local commissioning strategy (service development in Wales) which covers issues pertaining to falls prevention?	78% (105/135)	74% (63/85)	84% (42/50)
(If Yes to 1.1.1) does this local commissioning strategy include:			
1.1.2. Commissioning an integrated specialist falls service?	67% (90/135)	66% (56/85)	68% (34/50)
1.1.3. Consideration of care home residents?	64% (86/135)	59% (50/85)	72% (36/50)
1.1.4. Commissioning medication reviews for care home residents?	51% (69/135)	46% (39/85)	60% (30/50)
1.1.5. Consideration of patients within mental health services?	50% (68/135)	47% (40/85)	56% (28/50)
1.1.6. Has there been a joint strategic needs assessment (JSNA) in the last 12 months that includes both falls and bone health (osteoporosis)?	42% (57/135)	47% (40/85)	34% (17/50)
1.1.7. Is there a written local commissioning strategy (service development in Wales) for bone health?	44% (59/135)	36% (31/85)	56% (28/50)
1.1.8. Are the falls and bone health commissioning strategies coordinated? (relevant if both 1.1.1 & 1.1.7 are YES)	40% (54/135)	35% (30/85)	48% (24/50)
1.1.9. Has there been a public health analysis contribution to any aspect of the falls and bone health commissioning strategy?	63% (85/135)	62% (53/85)	64% (32/50)
Is there a lead within the commissioning body (strategic in Wales) who is responsible for services for:			
1.2.1. Falls?	90% (121/135)	87% (74/85)	94% (47/50)
1.2.2. Bone health?	68% (92/135)	60% (51/85)	82% (41/50)

It is concerning that throughout the 5 years of this audit programme there is a persistent minority, representing nearly one in four trusts who do not have a written local strategy for falls prevention [1.1.1]. Given that there is a robust evidence base for the prevention of fall-related fragility fractures, that has been incorporated into NICE technology appraisals framework, it is also concerning that nearly 2/3 of commissioning organisations, who are required to deliver such NICE guidance, do not have a written commissioning strategy for bone health [1.1.7].

Only 67% of commissioning organisations commission an integrated falls service [1.1.2], despite this being a key milestone in the NSF published in 2001, though this is a slight increase since 2008 (57%). This is consistent with the finding that 67% of providers [3.1.1] provide an integrated falls service. It is disappointing that there has not been better progress since the introduction of the *DH Falls and fractures commissioning*

toolkit (for England).¹¹ The Toolkit was supported by regional workshops for commissioners and providers, but these were poorly attended by commissioners in most regions. This lack of progress suggests that the Toolkit may have been used mainly by commissioners who were already commissioning falls services, rather than leading to developments in new localities.

64% of sites have a commissioning strategy for falls prevention in care homes [1.1.3], but only 37% ask for information on falls in care homes [1.5.1]. 51% of PCOs commission medication reviews in care homes [1.1.4], even though this is well-evidenced single intervention. 50% of PCOs have a falls strategy that includes consideration of mental health services [1.1.5]. Although there have been modest improvements in these figures since 2008, there is a clear message to future commissioners that vulnerable populations risk exclusion from services if they are not considered explicitly in the commissioning process.

We *recommend* that commissioners, particularly the emerging GP consortia in England, use the DH *Prevention package* to inform the commissioning of effective falls and fracture services.

Commissioning for bone health is weaker than for falls, with only 44% of PCOs commissioning services for bone health [1.1.7], though in 2008 the figure was only 23%. This was joined up with commissioning of falls services in most cases [1.1.8]. Only 68% of PCOs have a commissioning lead for bone health [1.2.2] as opposed to 90% for falls [1.2.1], which is no better than in 2008.

Only 42% of localities have undertaken a recent joint strategic needs assessment (JSNA) that includes both falls and bone health [1.1.6], despite this being a specific recommendation in the DH Prevention package. This suggests a worse position than 2008, when 53% of PCOs reported a joint falls strategy between NHS and local authority. It is likely that this will have

implications for provision of community based therapeutic exercise, for example.

Public health analysis contributes to the commissioning process in 63% of organisations [1.1.9]. There is a significant risk that matters will be further fragmented by moving responsibility for Public Health to local authorities by April 2013, following the White Paper: *Healthy lives, healthy people*.²⁵

We *recommend* that, in England, GP consortia and providers start to build alliances with their local councils and public health departments in order to prepare for these changes.

Responses to the Audit suggest that Health Boards in Wales were unclear about commissioning of falls and bone health services, probably reflecting recent changes in the organisation of the NHS in Wales.

Table 1.2: Local reporting of fracture rates

1.3.1– 5 Reporting	National	PCCs	CHOs
1.3.1. Is a report presented at least annually at Board level that includes hip fracture rates?	33% (45/135)	28% (24/85)	42% (21/50)
1.3.2. Is a report presented at least annually at Board level that includes non-hip fragility fracture rates?	13% (17/135)	13% (11/85)	12% (6/50)
1.3.3. What is the overall rate of low trauma fragility fracture for women over 50, per 100,000 (per year) of the PCO population?	Median 578 IQR 188– 983 N=26	Median 658 IQR 244– 1000 N=20	Median 186 Range 4– 1360 N=6
1.3.4. Is a local report from the national hip fracture database (NHFD) presented at Board level at least annually?	12% (16/135)	7% (6/85)	20% (10/50)
1.3.5. Are in-patient falls (within commissioned services) resulting in serious injuries, including fractures, reported at board level?	62% (79/127) of sites with inpatients	59% (47/79) of sites with inpatients	67% (32/48) of sites with inpatients

It is concerning that only a third of commissioners receive or, by extension, request reports at Board level that include data on hip fractures [1.3.1], even though this condition was one of four included in the first wave of BPTs, as well as being a major issue for public health. It is of greater concern that only 13% of commissioning boards receive figures on non-hip fragility fractures [1.3.2], especially as 40% of such patients in this Audit were admitted to hospital [C1.1.4] for a median of 6 days [C1.1.5].

Only 26 sites were able to provide their local fracture rates (9 sites in 2008). There is doubt about the quality of such data, as the rates are spread over an exceptionally wide range [1.3.3], even though such fractures are clearly defined and should be coded. Although all providers are now signed up to the NHFD and 81% of hip fracture patients in this audit were registered on NHFD, only 12% of commissioning boards received their annual NHFD report [1.3.4].

We *recommend* that commissioners need more accurate data on local fracture rates and that this should be used to inform their commissioning of falls and fracture services. A requirement for accurate coding of all fractures should be included in contracts with service providers

The increasing focus on falls in hospital does appear to be reflected in the finding that 91% of commissioning boards received reports on inpatient falls [1.3.5]. The same cannot be said of falls in other care settings, however, as only 37% of commissioners received data on falls in care homes in which they commissioned care [1.5.1].

Table 1.3: Local incentives

Provenance: The Commissioning for Quality and Innovation (CQUIN) payment framework enables commissioners to reward excellence by linking a proportion of providers' income to the achievement of local quality improvement goals.²⁶

The DES for osteoporosis diagnosis and treatment scheme.²⁷

1.3.6– 8 Local incentives	National	PCCs	CHOs
1.3.6. Has CQUIN been used to support commissioning any aspect of the falls and fracture service? (not Wales, where CQUIN did not apply)	53% (66/125)	55% (47/85)	48% (19/40)
1.3.7. Has the Osteoporosis DES been implemented within the PCO? (not Wales)	86% (108/125)	86% (73/85)	88% (35/40)
1.3.7.1. What percentage of GP practices have implemented the Osteoporosis DES and are submitting local data?	Median 75% IQR 39– 87% N=108	Median 74% IQR 40– 86% N=73	Median 80% IQR 37– 89% N=35
1.3.7.2. Is there regular (at least annual) monitoring of the Osteoporosis DES by PCO commissioners?	82% (89/108)	86% (63/73)	74% (26/35)
1.3.8. Are any other incentive schemes for falls and/or bone health (e.g. Local Enhanced Service, Practice Based Commissioning Initiative) in use within the PCO?*	18% (24/135)	21% (18/85)	12% (6/50)

*From the information provided, of 24 commissioning organisations reporting local incentive schemes [1.3.8], 16 were felt by the audit reference group to be true incentive schemes, mostly Local Enhanced Service or Practice Based Commissioning initiatives. The remaining 8 either contained no clear incentive or were linked to non-evidenced interventions.

Secondary prevention of fragility fractures is seen as a priority for the NHS by the DH as it targets the highest risk patients and can lead to cost savings at the same time as improved patient care. Incentives for commissioning falls and fracture services, particularly for osteoporosis, appear to have been popular. CQUIN has been used to commission aspects of the local falls and fracture service in 53% of relevant localities [1.3.6]. The DES for osteoporosis is implemented in 86% of PCOs [1.3.7] with an average of three-quarters of practices taking part [1.3.7.1], though there is a wide range in uptake between localities. Where DES has been implemented, 82% of PCOs have monitored its implementation [1.3.7.2] so it is not clear why only 26, approximately one in five, declare themselves able to quantify their fragility fracture rate in over-50-year-old women [1.3.3]. The only true measure of the success of DES would be the proportion of new fragility fractures in women over 75 and the proportion of those 65–74 with osteoporosis initiated on therapy. It is concerning that such incentives have not translated into such widespread improvements for patients, judging by the low rates of prescribing for secondary prevention of osteoporosis [C4.2.6]. In particular, it is hard to see the DES as anything other than a failure that delivered little return on modest investment. This should be seen in stark contrast with the QOF, which has delivered considerable achievements in primary and secondary prevention of other conditions, notably cardiovascular diseases.

We *recommend* that commissioners should commission falls and fracture service models that are supported by the DH Falls and Fracture Commissioning Toolkit. This will be even more important with the move to GP commissioning consortia in England.

We also *recommend* that the Osteoporosis DES ceases immediately and the findings from the DES data are made public. A QOF for Osteoporosis should be introduced at the earliest opportunity.

Table 1.4: NICE guidance

Provenance: NICE TA160 and NICE TA161. There should be an agreed process for women 75 years and over that have fallen and fractured to be routinely prescribed a bisphosphonate (or another bone sparing agent) plus calcium and vitamin D where appropriate. Those under 75 with a fall-related fracture should be considered for assessment of bone health by DXA and appropriate treatment. This should be a pathway using prescribing protocols for specialist nurses, through provision of a fracture liaison service.

1.4.1– 5 NICE guidance	National	PCCs	CHOs
1.4.1. Is there a mechanism at PCO level for auditing compliance of primary care management of people at risk of osteoporosis in line with TA160?	33% (44/135)	32% (27/85)	34% (17/50)
1.4.2. Is there a mechanism at PCO level for auditing the compliance of primary care management guidance expressed within TA161 for post menopausal women who have had a fragility fractures (including both previous and new fractures)?	23% (31/135)	22% (19/85)	24% (12/50)
1.4.3. What percentage of women aged 65 and over and who are eligible for treatment under TA161 are recorded as receiving it?*	0% for 22/31 35–100% for 8/31	0% for 11/19 35–100% for 7/19	0% for 11/12 74% for 1/12
1.4.4. Does your organisation commission direct access to DXA services by GPs (without the need to refer to a specialist service)?	71% (96/135)	64% (54/85)	84% (42/50)
1.4.5. How many DXA scans (per 100,000 population) do you commission in a year?	Median 500 IQR 296–728 Range 13– 6500 N=74	Median 405 IQR 276–642 Range 13– 6500 N=42	Median 621 IQR 349–898 Range 50– 3000 N=32

Prevention of fractures should be a priority for the NHS, particularly for the high-risk population that have already had an index fracture - the 'TIA' of the hip fracture. NICE technology appraisals are mandatory for trusts in England and include guidelines for treatment of osteoporosis (TA160 and 161). PCTs in England report annually to the Care Quality Commission in a series of annual health checks.²⁸ Compliance with Core Standard 5a (Health care organisations ensure that they conform to NICE technology appraisals) has consistently been reported as exceptionally high - 95% of trusts in the latest assessment.

It is impossible to see how 95% of trusts can claim compliance with all NICE technology appraisals, when only a third of PCOs report a mechanism for auditing primary care compliance with NICE TA160 on primary prevention of osteoporotic fracture [1.4.1]. Fewer still, 23%, audit compliance with TAG161 on secondary prevention [1.4.2] and this is significantly fewer than the 39% that audited compliance with TA87 in 2008. 22 of the 31 sites claiming to have an audit process were unable to provide a figure for their level of compliance [1.4.3], though they may have chosen to withhold this information due to its sensitive nature. It is also not clear how trusts can be sure they are compliant with NICE TA161 if 81% do not know the rate of fragility fractures [1.3.3].

The gross disparity between trusts self-rated performance in the Annual Health Check and the findings of the 2008 audit was put to Baroness Young, in her role as junior health minister. We respectfully suggest that the current process is insufficiently robust.

We *recommend* that healthcare providers should be mandated to audit and report compliance with all NICE guidelines and the forthcoming NICE Quality Standards. It is not yet clear how robustly commissioners will be monitored by the NHS Commissioning Board in future, but this would seem to be vital to maintaining high standards of care without unacceptable geographical variation.

71% of organisations commission direct access to DXA scans [1.4.4]. It is not clear how GPs are likely to be able to deliver TA 161 in the 29% of localities that do not provide direct access bone densitometry, though they may have alternative service-level arrangements. Many local auditors claimed it was difficult to provide a figure for the number of DXA scans commissioned [1.4.5] stating that the number of DXA scans was contained within a group of radiological investigations. In fact, DXA scans are un-bundled in PbR and, as such, the data should be accessible by commissioners. The range of the scans commissioned per year is very wide, which might have implied that there were further problems with these figures. However, information from the National Clinical Lead for Diagnostic Imaging (personal communication) has also shown that there is a wide variation in DXA rates across the country, with a median of 588 scans per 100,000 population, which is not dissimilar to the figures provided for this Audit.

We *recommend* that commissioners ensure that they commission an adequate volume of DXA scans for their local population. This would first require accurate information on local fracture and treatment rates, which few localities can currently manage.

Table 1.5: Care homes

Provenance: NSF 6.17 Older people are at particular risk of falling in hospital and care homes. Falls should be recorded on registers. Critical incident analysis will ensure that action taken will minimise future incidents. This implies that the local falls strategy should include the needs of care home residents in some way, e.g. in supporting falls prevention policy implementation, ensuring access to community services for selected residents, etc. The requirement for a register of fallers is for the NHS although no further clarification of this has emerged.

1.5.1– 2 Care homes	National	PCCs	CHOs
1.5.1. Does the PCO request information from care homes on falls incidents or fall related injuries?	37% (50/135)	38% (32/85)	36% (18/50)
1.5.2. Does the PCO keep or have access to a register of older people that fall in care homes?	24% (33/135)	25% (21/85)	24% (12/50)

The NSF required NHS organisations to maintain a falls register in registered nursing care home settings. It is disappointing that the majority do not fulfil this requirement. Only 37% of commissioners request information on falls in care home settings [1.5.1] and 24% maintain a register of care home residents who fall [1.5.2]. This is a slightly better performance than in 2008, when the figures were 30% and 19% respectively. Given that 59% of care homes in our sample report falls to their local commissioners [4.1.13], these reports seem to be falling on deaf ears in many localities.

We *recommend* that commissioners include specific measures for falls and fracture prevention in contracts with care homes. This should include a formal process for monitoring the number of falls and injuries and key aspects of prescribing (calcium, vitamin D, bisphosphonates, sedatives and psychotropic medication) for care home residents.

Section 2: Case finding and referral

Respondents: CSPs, MHTs and CHOs

Results by indicator with commentary

Table 2.1: First level screening

Provenance: NICE CG21. Older People in contact with healthcare professionals should be asked routinely whether they have fallen in the past year and asked about the frequency, context and characteristics of the fall.

NSF 6.13/6.23. Older people who fall should, with their consent, be referred to a specialist falls service.

2.1.1– 3 First level screening	National	CSPs	CHOs	MHTs
Has a first level screening tool been implemented and used by a majority of healthcare professionals whereby older people are systematically asked whether they have:				
2.1.1. Fallen within a defined time period (e.g. in the previous 12 months)?	80% (168/211)	84% (77/92)	62% (41/66)	94% (50/53)
2.1.2. Sustained a fragility fracture within a defined time period (e.g. in the previous 12 months)?	50% (105/211)	48% (44/92)	44% (29/66)	60% (32/53)
2.1.3. Does the screening tool both trigger and direct further assessments according to a locally agreed falls pathway?*	77% (162/211)	78% (72/92)	65% (43/66)	89% (47/53)

*This is defined as a care management pathway that has been agreed and implemented by health and social services and will probably include referral criteria and arrangements. It can include referral to intermediate care or other local services if they have trained staff able to provide the appropriate assessments as set out in NICE. It does not have to be referral to a falls clinic.

We *recommend* that all localities implement a screening tool, to be used by all health and social care professionals, whereby older people are routinely asked about falls and fractures.

While NICE CG21 requires older people in contact with healthcare professionals to be asked about falls, 20% of PCOs (definition: PCO=CSP+CHO+MHT) still lack a screening tool to deliver this [2.1.1]. Only half are aware of the need to include an enquiry about fracture [2.1.2]. The situation has not improved since 2008. Nationally, this represents many thousand missed opportunities to 'respond to the first to prevent the second'.¹¹ All but 6 MHTs that employ a screening tool have a process for referral to falls services [2.1.3].

It appears that mental health organisations are slightly more aware of the need to screen for falls and fracture risk, perhaps reflecting the higher risk of falls and fractures among older people with mental health problems.

Overall, 77% of localities have a process for screening the majority of older people for falls that leads to referral to falls services. Unfortunately, this is not reflected in clinical practice in patients at highest risk - those presenting with a fragility fracture. For example, only 32% of people presenting to acute care with a non-hip fracture were asked about falls in the past year [C3.1.1] and only 12% of appropriate patients presenting with a non-hip fracture were seen in a falls clinic or similar service [C3.9.1]. This demonstrates a significant gap between what commissioners believe is happening and the care actually provided to patients.

Section 3: Structure and staffing of the falls and bone health service

Respondents: CSPs, acute, and CHOs

Results by indicator with commentary

3.1. Falls services

Table 3.1: Falls service

Provenance: NSF 6.37. The local health and social care system should ensure a falls service is set up.

This is taken to mean a coordinated, integrated, multi-professional and multi-agency service, which could be held on your premises or can be accessed locally:

Coordinated: using a regular mechanism or meeting to agree strategy and review progress towards objectives

Multi-agency: e.g. health, social service, voluntary sector

Multi-professional: e.g. medical, nursing, physiotherapy, occupational therapy, social work

Integrated: working to agreed protocols & pathways, utilising agreed communication pathways.

3.1.1– 3.1.2.1 Service	National	CSPs	CHOs	Acute
3.1.1. Is there a local co-ordinated, integrated, multi-professional and multi-agency falls service?	67% (215/321)	64% (59/92)	70% (46/66)	67% (110/163)
3.1.2. Does your trust provide some or all of the local falls service?				
Yes ALL*	18% (59/321)	25% (23/92)	21% (14/66)	13% (22/163)
Yes PARTS ONLY	78% (251/321)	71% (65/92)	76% (50/66)	83% (136/163)
No	3% (11/321)	4% (4/92)	3% (2/66)	3% (5/163)
3.1.2.1. Is any interventional part of the falls service (e.g. therapeutic exercise or equipment provision, but not handyman schemes only) provided by the voluntary sector?	30% (94/310)	30% (26/88)	42% (27/64)	26% (41/158)

*If answered "Yes all", a site provides all the components as listed in Section 3 - e.g. specific personnel who perform case finding and referral, assessment or direct patient care or clinics where specialised investigations or assessment are undertaken across the whole of the locality.

If answered "Parts only" a trust provides some of the components (as listed in "Yes all") across the whole or part of the locality.

If answered "No" a trust does not provide any clinics, consultant time, falls coordinator or a fracture liaison nurse or perform any case finding and referral, assessment, direct patient care or clinics where specialised investigations or assessment are undertaken across the whole or any part of the locality.

Only two-thirds of sites state they have an integrated service [3.1.1], despite this being a key milestone of the NSF. This is a slightly lower figure than in the 2008 audit and may reflect the disintegration resulting from changes in primary care, or better insight into the reality of some local services. We suggest that the true situation is far worse than this figure suggests, as few organisations can demonstrate clinical processes that would be expected in an integrated falls service. For instance, only one-third of non-hip fracture patients received a falls prevention assessment [C3.1] and just 15% were tested for orthostatic hypotension, an important and treatable cause for falls [C3.3.4].

It should be noted that few sites, as would be expected, provide the entire falls service to their locality [3.1.2]. This illustrates the need for integration, which does not bode well for the future with the increasing fragmentation of commissioning. Less than a third of localities involve the voluntary sector in interventions for falls prevention. This sector is likely to see disinvestment by commissioners during these times of financial austerity.

3.2 Medical contribution to falls service

Table 3.2: Clinics with trained medical staff

Provenance: NSF 6.25. Comprehensive specialist assessment will need to take place in outpatient or day hospital settings with access to full diagnostic and multidisciplinary facilities.

This can be a facility in outpatients, a day hospital, intermediate care centre etc. which gathers together the staff and equipment to provide a multi-factorial assessment and plan tailored interventions for fallers. This may be a function provided by a general geriatric or mobility clinic using standardised procedures. Sites should answer “No” for routine medical/geriatric clinics which do not have any specialised procedures in accordance with the requirements of NICE.

This question also seeks information about whether this clinic is led by a consultant geriatrician or other physician with relevant specialist training.

3.2.1– 3.2.2 Clinics with trained medical staff	National	CSPs	CHOs	Acute
3.2.1. Does your trust provide a clinic (s) or equivalent facility where individual patients attend for assessment and interventions related to falls prevention with direct clinical involvement of consultant grade or other trained medical staff?				
Yes	74% (228/310)	59% (52/88)	59% (38/64)	87% (138/158)
3.2.2. If yes, what type of doctor led these clinics?				
Consultant	95% (216/228)	88% (46/52)	89% (34/38)	99% (136/138)
Staff grade or associate specialist	20% (45/228)	31% (16/52)	24% (9/38)	14% (20/138)
GP with special interest	3% (6/228)	4% (2/52)	5% (2/38)	1% (2/138)
Other*	1% (2/228)	2% (1/52)	3% (1/38)	0% (0/138)

*Other - GP, but not specified as being a GP with special interest

Falls clinics are a regular feature in most services with 74% of organisations providing a medically-led clinic [3.2.1] and of those, 95% were consultant led [3.2.2]. There has been an overall increase in the provision of medically-led clinics (69% in 2008) and in the use of non-consultant career grades since the 2008 audit (increase from 5% to 20%, mostly in community settings).

Clinics are more likely to be provided in the acute sector than in community settings, often in both. Unfortunately, it is not possible to establish from this data if there are any localities that lack a medical falls clinic in either setting.

Table 3.3: Inpatient services

Provenance: NSF 6.25 (as for table 3.2).

3.2.3 Inpatient services	National	CSPs	CHOs	Acute
3.2.3. Does your trust provide a multidisciplinary service (s) where individual inpatients receive specialist falls risk assessment and management with direct clinical involvement of consultant grade or other trained medical staff?				
Yes	50% (160/321)	38% (35/92)	36% (24/66)	62% (101/163)

Although most providers possess the relevant medical staff [3.2.2], only half of inpatient providers involve them in inpatient falls prevention [3.2.3]. This can be expected to improve with the increased DH focus on prevention of falls in hospital.

3.3 Clinics without trained medical staff

Table 3.4: Clinics without trained medical staff

Provenance: NSF 6.25 (as for table 3.2) and NSF 6.37 which indicates the professional groups that should be represented within the falls service. This indicator explores clinics run without trained specialist medical staff and led by nurses, physiotherapists, occupational therapists, falls coordinators etc. who are responsible for setting the intervention plan but without direct access to a trained specialist doctor.

3.3.1– 3 Clinics without trained medical staff	National	CSPs	CHOs	Acute
3.3.1. Does your trust provide a clinic (s) or equivalent facility where individual patients attend for assessment and interventions related to falls prevention without trained medical staff (consultant grade or other)?				
Yes	52% (161/310)	68% (60/88)	69% (44/64)	36% (57/158)
3.3.2. Does the clinic (s) without trained medical staff have referral links to medical consultants?	93% (150/161)	92% (55/60)	93% (41/44)	95% (54/57)
3.3.3. What other disciplines provide routine input to the falls clinic (s) or equivalent (i.e. on a regular planned/sessional basis, not just by referral)? More than one discipline could be identified				
Physiotherapist	91% (147/161)	97% (58/60)	95% (42/44)	82% (47/57)
Occupational therapy	81% (131/161)	88% (53/60)	84% (37/44)	72% (41/57)
Specialist nurse	63% (101/161)	65% (39/60)	68% (30/44)	56% (32/57)
Pharmacy	17% (28/161)	18% (11/60)	20% (9/44)	14% (8/57)
Other**	35% (56/161)	42% (25/60)	41% (18/44)	23% (13/57)

**Other includes: Therapy/rehabilitation assistants, podiatrists, dieticians, district nurses, exercise instructors, psychologists, counsellors, community psychiatric nurse, health promotion officer

52% of sites had clinics without trained medical staff [3.3.1] and nearly all of these had access to medical consultants [3.3.2]. There has been an increase in non-medical falls clinics since 2008 (34% of sites). It is noted that community providers are nearly twice as likely to have non-medical falls clinics. Both physiotherapy and occupational therapy were well represented in these clinics [3.3.3], with high numbers of specialist nurses and a range of other disciplines. It is encouraging that there has been a small increase in sites offering falls clinics and that the increase in non-medical clinics has not been at the expense of medically-led ones.

3.4 Clinic capacity

Table 3.5: All clinics

3.4.1– 2 All clinics (if YES to 3.2.1 &/or 3.3.1, N=268)	National	CSPs	CHOs	Acute
3.4.1. How many new patients were seen by the falls clinic (s), or equivalent, from 1st to 28th June 2010? (Only include patients seen specifically and solely for falls. Does not have to be in a clinic setting)*	Median 21 IQR 11– 39 N=260	Median 30 IQR 16– 73 N=71	Median 20 IQR 9– 45 N=53	Median 19 IQR 10– 30 N=136
3.4.2. For a new patient on 1st June how many total weeks ahead was the next available medical falls clinic, or equivalent session /appointment (based on the date of commencement of first assessment, excluding screening)?	Median 4 IQR 2– 6 N=260	Median 4 IQR 2– 6 N=69	Median 4 IQR 2– 6 N=54	Median 4 IQR 2– 6 N=137

*Population sizes differ between sites so may not be directly comparable.

The number of new patients attending falls clinics (or equivalent) is low, with a median of 21 for June 2010 nationally [3.4.1]. This equates to 273 patients per year. If a falls clinic only saw older people that present to acute care following a fall, this would require approximately 2000 falls clinic slots per year in a typical trust serving a population of 300,000 (700 fallers per 100,000 population attending casualty per year, DH 2009). Although demographics and service models vary, current national clinic numbers are inadequate by an order of magnitude. There has been only a slight increase since 2008. As there is only a median wait of 4 weeks [3.4.2], this suggests that patient identification and referral patterns are issues, as well as service capacity.

There is evidence that falls and fracture rates can be reduced if services are modelled on best practice. For example, the NHS greater Glasgow and Clyde strategy for osteoporosis and falls prevention strategy 2006- 2010 has led to a 32% reduction in admissions due to falls at home and a 3.6% reduction in hip fracture admissions (compared with a national increase of 2%).²⁹ Their service sees 175 patients per month (compared with 21 per month in this Audit).

We *recommend* that there is an urgent requirement to upscale the capacity of falls clinics (or equivalent) as much as ten-fold in order to meet the needs of the population of older fallers.

3.5. Staffing

Provenance: NSF 6.25 and 6.37 (as table 3.4). A wide range of professionals deliver the falls service and for many it is not an identified part of their job plan. There should however be some professionals whose job includes some specific commitments to the falls service.

This indicator seeks to determine whether the professional groups have some specific commitment to the falls service within their job description or job plan. This commitment might be clinical, or could be as a member of the implementation group that ensures local delivery of the falls service.

Table 3.6: Staffing - consultant

3.5.1- 4 Consultant	National	CSPs	CHOs	Acute
3.5.1. Do you have a Consultant (s) in geriatric medicine with a commitment to the falls service (not including orthogeriatrics alone) within their job description / job plan? If not in job plan do you have a consultant that provides time for the falls service?				
Yes, in job plan	57% (176/310)	30% (26/88)	39% (25/64)	79% (125/158)
Yes, provides time	15% (47/310)	20% (18/88)	16% (10/64)	12% (19/158)
No	28% (87/310)	50% (44/88)	45% (29/64)	9% (14/158)
3.5.2. If yes, how many hours per week does a designated consultant (s) in geriatric medicine devote to the falls service in total?	Median 6 IQR 4– 9 N=220	Median 6 IQR 4– 8 N=44	Median 6 IQR 3– 8 N=32	Median 7 IQR 4– 10 N=144
3.5.3. If yes, how many hours per week are for clinical duties and are included in the job plan (DCC- Direct Clinical Care)?	Median 5 IQR 3– 8 N=219	Median 4 IQR 3– 7 N=43	Median 4 IQR 2– 8 N=32	Median 6 IQR 4– 9 N=144
3.5.4. If yes, how many hours per week are for non-clinical duties and are included in the job plan (SPA- Supporting Professional Activities)?	Median 1 IQR 0– 2 N=218	Median 1 IQR 0– 2 N=42	Median 1 IQR 0– 1 N=32	Median 1 IQR 0– 2 N=144

28% of trusts have no apparent consultant input to the falls service [3.5.1], though there may be a consultant working for another organisation within the locality. This is identical to the situation in 2008. The hours provided in the job plan for the falls service [3.5.2] are modest, with a 5:1 ratio of clinical [3.5.3] to managerial [3.5.4] time, which is also unchanged since 2008.

Table 3.7: Staffing - falls coordinator

3.5.5 – 3.5.5.5 Falls coordinator	National	CSPs	CHOs	Acute
3.5.5. Do you have a Falls service coordinator(s) and/or specialist nurse/therapist (s) working within your organisation?*	65% (201/310)	76% (67/88)	77% (49/64)	54% (85/158)
3.5.5.1. Are they employed by your organisation?	86% (173/201)	97% (65/67)	94% (46/49)	73% (62/85)
3.5.5.2. Are they funded by your organisation?	85% (170/201)	97% (65/67)	94% (46/49)	69% (59/85)
3.5.5.3. Do they work across care boundaries (i.e. primary-secondary)?	63% (126/201)	60% (40/67)	76% (37/49)	58% (49/85)
3.5.5.4. Does their remit cross agency boundaries (i.e. social services, local authorities, voluntary sector)?	68% (137/201)	78% (52/67)	82% (40/49)	53% (45/85)
3.5.5.5. How many hours on average per week are spent specifically on falls management and prevention in your organisation?*	Median 37.5 IQR 20– 57 N=197	Median 37.5 IQR 37.5– 83 N=66	Median 37.5 IQR 35– 75 N=49	Median 36 IQR 11– 37.5 N=82

* This could be a nurse/therapist taking on this role. The person(s) must have a specific commitment to enhancing the case finding and management of patients with falls. Their role may also include ensuring falls interventions are delivered to in- and outpatients, service development, administration, teaching, training and audit etc.

**There were problems with the validity of responses to this question and to two subsidiary questions (not published), as some auditors gave figures for the entire falls service staff.

There has been an apparent increase in the proportion of organisations employing a falls coordinator from 50%, in 2008, to 65% [3.5.5], but it should be noted that, in 2008, the question only asked about falls co-ordinators, rather than specialist nurses/therapists. Most of this increase has occurred in acute providers, most probably in order to focus on inpatient falls. Many falls service coordinators work across care and agency boundaries. Due to problems with some responses, it has not been possible to further analyse the nature of these posts.

Table 3.8: Staffing - Fracture liaison nurse

3.5.6 – 3.5.6.3 Fracture liaison nurse	National	CSPs	CHOs	Acute
3.5.6. Do you have a Fracture Liaison Nurse(s) or similar designated person(s) working within your organisation?	25% (79/310) 35% (68/193) See Commentary	13% (11/88)	25% (16/64)	33% (52/158)
3.5.6.1. Are they employed and funded by your organisation?	80% (63/79)	91% (10/11)	88% (14/16)	75% (39/52)
3.5.6.2. Do they work across care boundaries (i.e. primary-secondary)?	56% (44/79)	82% (9/11)	75% (12/16)	44% (23/52)
3.5.6.3. How many hours on average per week are spent specifically on fracture liaison in your organisation?*	Median 30 IQR 15–37.5 N=78	Median 30 IQR 20–37.5 N=11	Median 30 IQR 11–51 N=16	Median 30 IQR 15–37.5 N=51

*There were problems with the validity of responses to this question and to two subsidiary questions (not published), as some auditors gave figures for the entire falls service staff.

Nine CSPs and four CHOs reporting a fracture liaison nurse are in the same localities as acute providers also reporting a fracture liaison nurse, giving a total of 68 unique fracture liaison nurses. There are 35 acute hospitals contained within the CHO category, giving a total of 193 acute hospitals covered by the Audit. In other words, it can be deduced that 35% (68/193) of localities (using acute hospitals as a denominator) have a fracture liaison nurse. This correlates well with the figure of

38% of services that reported a specialist nurse for bone health elsewhere in the Audit [4.8.1].

This is perhaps the key finding of this Audit: Only 35% of localities (based on acute hospitals) have a fracture liaison nurse [3.5.6] and, by extension, a fracture liaison Service (FLS). FLS the best evidenced model for secondary fracture prevention, with potential for cost savings. Establishment of a FLS is the foundation of Objective 2 of the DH Prevention package - the identification and treatment of patients presenting with a first fragility fracture. There has been little increase in the number of sites reporting a fracture liaison nurse since 2008. There is also doubt as to the adequacy of some FLSs, as the number of hours provided to fracture liaison is very low in many sites [3.5.6.3].

We *recommend* that all localities commission a fracture liaison service following the best evidenced models either for acute-based services (Glasgow model) or primary care-based services (West Sussex). ⁺

Table 3.9: Staffing - pharmacist

3.5.7 – 3.5.8 Pharmacist	National	CSPs	CHOs	Acute
3.5.7. Do you have a specialist pharmacist with a specific remit for falls prevention as all or part of their job plan?	11% (35/310)	10% (9/88)	13% (8/64)	11% (18/158)
3.5.8. Do you have a specialist pharmacist with a specific remit for bone health as all or part of their job plan?	11% (35/310)	9% (8/88)	14% (9/64)	11% (18/158)

Very few organisations employ pharmacists with a specific remit for falls prevention [3.5.7] or bone health [3.5.8]. Medications management is important for older people in general (Medicines and older people implementing medicines-related aspects of the NSF for older people, DH 2001) and to prevent falls and fractures in particular.

We *recommend* that commissioners and providers seek to improve the provision of local pharmacy expertise in falls prevention and bone health.

Section 4 (was section 5 in 2008 audit): Service settings

Results by indicator with commentary

4.1. Residential / nursing homes

Section 4.1 was completed by a sample of care homes: 79 care homes participated, 60 from Barchester Healthcare and 19 from Anchor. This is only a small sample of the 21,000 care homes in the UK, so results may not be entirely generalisable. This is a different sample population from the 2008 audit, so figures are not directly comparable.

Care homes contain a frail group of patients with a high vulnerability to falls. Often a fall has been the trigger for admission to residential or nursing home care, and care home residents make up a high proportion of all patients admitted with hip fractures (22%, see table C9) or treated for other fragility fractures (10%, see table C8). Equipping staff in care homes with essential knowledge about falls prevention and bone health, and providing access to key support services including access to specialist falls services is therefore critical for this vulnerable group.

The Audit finds that support available to care home staff (in this sample of homes) is limited or non-existent in many areas. Whilst 69% of care homes said their local policy included an option to refer residents to specialist falls prevention services [4.1.12], 50% of specialist falls services provided no training to any care homes in their area on when to refer patients onwards [4.2.1], and 49% of specialist falls services provided no training to any care homes in their area on how to identify falls risks [4.2.3]. This lack of training would make it very difficult for care home staff to make appropriate referrals. For some care homes, referral would not be an option, as 21% of local falls service had no provision for residential home residents [4.2.4] even through normal outpatient routes and 24% had no provision for residents in nursing homes [4.2.5].

Elsewhere in the Audit there appeared to be contradictions between the services NHS providers said were available, and the care homes' understanding of what they could access. A small proportion of physiotherapy services routinely excluded residential care [4.2.8] or nursing home residents [4.2.9] from receiving their service, but 28% of care homes said they were unable to access physiotherapy advice for any of their residents [4.1.15]. 14% of OT services routinely excluded nursing home residents [4.2.11] and 9% excluded residential home residents [4.2.10] but 35% of care homes said they were unable to access OT advice for any of their residents [4.1.16]. 75% of care homes had no access to exercise groups for any suitable residents [4.1.20].

The picture was more positive for medication review, with 91% of care homes reporting that residents received at least an annual review by pharmacy [4.1.18] and/or GP [4.1.19], and for specialist mental health advice, with 95% of care homes saying they could access this [4.1.17].

Table 4.1: Care home: number and type of beds

4.1.6 Care home: Number and type of beds	National (n=79)
4.1.6. What is the total number of beds in your care home?	Median 51 IQR 40– 65 N=79
Please indicate what type of beds you have:	
Care home (residential)?	47% (37)
Care home (nursing care)?	65% (51)
Dementia care?	52% (41)
Intermediate care?	6% (5)
Interim care	9% (7)
Palliative care?	34% (27)
NHS continuing care?	35% (28)
Other*	9% (7)

*Others were described as young physically disabled (2), younger adult disabled (1), young disabled (1), physical disabilities (1), mental health (1) and respite care (1)

Table 4.2: Care home: NHS funded residents

4.1.7– 4.1.10 Care home: NHS funded residents	National
4.1.7. Are any of your residents receiving NHS (fully funded) continuing healthcare?	67% (53/79)
4.1.8. Do you have a contract and service specification with the commissioner with regards to the prevention or management of falls for these residents?	13% (7/53)
4.1.9. Is there an agreement with the NHS for specific input or other resources for these NHS funded residents?	28% (15/53)
4.1.10. Is there an agreement with the NHS for specialist consultant input for these residents?	21% (11/53)

Only a small minority of care homes with NHS-funded residents had a contract with the relevant commissioner regarding the prevention and management of falls [4.1.8] or for specialist consultant input [4.1.10]. This is surprising, when 64% of commissioning sites reported commissioning falls services that included care homes [1.1.3].

Table 4.3: Care home: falls prevention reduction policy or procedures

4.1.11– 13 Care home: falls prevention reduction policy or procedures	National
4.1.11. Do you have a falls prevention/reduction policy or procedures?	91% (72/79)
4.1.12. Does the falls prevention/reduction policy or procedures include any reference to involvement of the specialist falls service with individual residents?	69% (50/72)
4.1.13. Do you provide the commissioners with any data regarding the rate of falls or injurious falls in the home?	59% (47/79)

Most care homes have a falls policy [4.1.11]. It was surprising that any did not, given that CQC has explicit standards on safety of care home residents.

Only 59% Care Homes provide commissioners with data on resident falls [4.1.13]. However, most commissioning boards do not receive reports on falls in care homes [1.5.2].

Table 4.4: Care home: services provided to residents

Provenance: NSF 6.13. Older people who fall should, with their consent, be referred to a specialist falls service.

NSF 6.33. Care practices should not aim to restrict mobility, but explore how older people can manage safely in their own home, or in a residential or nursing home. The least invasive methods of intervention and management of care should be used.

4.1.14– 20 Care home: services provided to residents	National -79
4.1.14. Does your resident admission assessment include falls risk?	100% (79)
4.1.15. Do your residents have access to the local community physiotherapy service for assessment, treatment and mobility aid provision in respect of falls?	72% (57)
4.1.16. Do your residents have access to the local community occupational therapy service for assessment, treatment and equipment provision in respect of falls?	65% (51)
4.1.17. Can you access local community mental health services for assessment and/or treatment of residents where their cognitive or behavioural problems are contributing to them falling?	95% (75)
4.1.18. Do your residents have regular (at least annual) routine medication reviews by the local community pharmacy service?	76% (60)
4.1.19. Do your residents have regular (at least annual) routine medication reviews by a general practitioner?	85% (67)
4.1.18. or 4.1.19	91% (72)
4.1.20. Are there falls prevention exercise groups (run in the care home or outside locally) to which suitable residents may attend?	25% (20)

Care home residents are a high-risk population for falls fractures, but often have less access to preventative services than community-dwelling older people. In the clinical audit, care homes were the usual place of residence in 10% of non-hip fractures and 22% of hip fractures (tables C8 and C9).

All care homes in this sample assess residents for falls risk on admission [4.1.14]. Most care homes have access to local therapy services for falls prevention of their residents. Access to physiotherapy was 72% [4.1.15] and to occupational therapy was 65% [4.1.16]. Access to mental health services is almost universal [4.1.17]. Community pharmacist medication reviews are available to 76% of homes [4.1.18]. Most homes also report GP medication reviews occurring at least annually [4.1.19]. 91% of homes receive annual medication reviews by one or both professions (after additional data analysis).

Only 25% of homes report falls prevention exercise groups which suitable residents may attend [4.1.20], although this is an intervention which is supported by evidence and by the DH *Prevention package* (Objective 4: prevent frailty, promote bone health and reduce accidents, DH, 2009). It is not possible to comment on whether the exercise is of a type and frequency that will reduce falls rates.

We *recommend* that commissioners specifically include care homes in services for falls and fracture prevention. In particular, commissioners should ensure that care home residents receive regular medication reviews, including treatment of osteoporosis, and, where appropriate for the individual resident, have access to therapeutic exercise for falls prevention.

We also *recommend* that care homes record and report falls to the relevant commissioners (in health, mental health and/or social care) and that commissioners use these reports to inform and monitor local falls service provision.

4.2. Service provided to care homes

Respondents: CSPs, acute, and CHOs

Table 4.5: Provision of training to care homes from falls service

4.2.1– 3 Falls service	National	CSPs	CHOs	Acute
Does the falls service provide the following training to care homes:				
4.2.1. Signposting of when to refer to primary care teams?				
Yes to all care homes	20% (64/321)	29% (27/92)	38% (25/66)	7% (12/163)
Yes to some	30% (96/321)	45% (41/92)	33% (22/66)	20% (33/163)
No	50% (161/321)	26% (24/92)	29% (19/66)	72% (118/163)
4.2.2. How to undertake critical incident analysis following a fall?				
Yes to all care homes	13% (41/321)	15% (14/92)	26% (17/66)	6% (10/163)
Yes to some	20% (65/321)	35% (32/92)	17% (11/66)	13% (22/163)
No	67% (215/321)	50% (46/92)	58% (38/66)	80% (131/163)
4.2.3. How to identify falls risks to minimise future incidents?				
Yes to all care homes	17% (55/321)	22% (20/92)	35% (23/66)	7% (12/163)
Yes to some	34% (109/321)	53% (49/92)	35% (23/66)	23% (37/163)
No	49% (157/321)	25% (23/92)	30% (20/66)	70% (114/163)

There seems to be a significant issue here. Many falls services do not provide training to their local care homes with regards to referral criteria [4.2.1], critical incident analysis [4.2.2], or falls risk assessment and prevention [4.2.3]. The precise figure is difficult to know, as it may only be one organisation in a locality that provides this service. However, many providers are clearly failing in their responsibility to provide expertise to reduce falls in a high-risk population. The situation is unchanged since 2008.

In contrast to the lack of training that falls services provide to care homes [4.2.1– 3], most falls services do provide a service to care home residents, both residential [4.2.4] and nursing [4.2.5]. Figures are similar to 2008 and there are still some falls services that do not see care home residents, though this may be offered by another provider in the same locality. We have also established that most falls clinics see a small fraction of all potential high-risk patients [3.4.1], so we know that most fallers in care homes will be missing out.

Table 4.6: Provision of assessments and interventions from falls service to care homes

4.2.4– 5 Falls service	National	CSPs	CHOs	Acute
Does the falls service provide services for assessment and interventions when appropriate – this maybe done via attendance at out-patient clinics, falls clinic or via a community based visit for:				
4.2.4. Residential care homes?	79% (255/321)	84% (77/92)	94% (62/66)	71% (116/163)
4.2.5. Care homes with nursing?	76% (245/321)	82% (75/92)	88% (58/66)	69% (112/163)

We *recommend* that commissioners ensure that falls service providers work with local care homes to develop pathways for referral and assessment, as well as providing training in falls prevention and management. Similarly, fracture liaison services will need to ensure that care home residents are included, especially if the service is based solely in the acute hospital's fracture clinic.

Respondents: MHTs, CHOs and CSPs

Table 4.7: Community mental health services provided to care homes

4.2.6– 7 Community mental health service	National	MHTs
Does the community mental health service provide assessment and/or treatment for behavioural problems causing falls in care home residents in:		
4.2.6. Care homes with specialist dementia registration?		
Yes	79% (42/53)	79% (42/53)
No	8% (4/53)	8% (4/53)
No service	13% (7/53)	13% (7/53)
4.2.7. Care homes without specialist dementia registration?		
Yes	75% (40/53)	75% (40/53)
No	8% (4/53)	8% (4/53)
No service	17% (9/53)	17% (9/53)

Although CSPs and CHOs were asked to provide this information, it is unclear how many of these sites included mental health provision as a function. Therefore, figures for these groups of organisations have not been included in the table, but individual sites will be able to access their data above.

Most MHTs provide input for behavioural problems in residents of care homes, both with and without specialist dementia registration [4.2.6– 7]. However, 20– 25% of MHTs did not provide this service in 2008 and still do not. It is surprising, therefore, that 95% of care homes reported access to such specialist services [4.1.17], though this may indicate that the care home sample in this Audit are not fully representative of the national picture.

Table 4.8: Community physiotherapy service

Respondents: CSPs and CHOs

4.2.8– 11 Community physiotherapy	National	CSPs	CHOs
4.2.8. Does the community physiotherapy service routinely exclude residents in any residential care homes?	3% (4/158)	2% (2/92)	3% (2/66)
4.2.9. Does the community physiotherapy service routinely exclude residents in any nursing care homes?	4% (6/158)	4% (4/92)	3% (2/66)
4.2.10. Does the community occupational therapy service routinely exclude residents in any residential care homes?	9% (14/158)	8% (7/92)	11% (7/66)
4.2.11. Does the community occupational therapy service routinely exclude residents in any nursing care homes?	14% (22/158)	13% (12/92)	15% (10/66)

A small, but unacceptable, minority of therapy services routinely exclude residents of care homes. Although exclusion may be appropriate on a case-by-case basis, depending on the clinical scenario, routine exclusion is explicitly forbidden in the NHS and by equality legislation.³⁰

We *recommend* that organisations review their policies regarding provision of services to care home residents to ensure that they are compliant with equality legislation.

4.3.1- 4.3.4.4 Inpatient or resident falls

Respondents: Any trust or organisation which directly provides inpatient or resident services including care homes, intermediate care, community hospitals and MHTs. The “National” column excludes data from care homes, as these were only a small sample of the potential population and would risk skewing the figures.

Table 4.9: Inpatients or residents

4.3.1 Inpatients/residents	National	CSPs	CHOs	Acute	MHTs	Care homes	Specialist
Does your organisation have any in-patients or residents?							
Yes	94% (354/ 376)	87% (80/92)	86% (57/66)	99% (162/163)	100% (53/53)	100% (79/79)	100% (2/2)

Table 4.10: Inpatient or resident falls prevention policy

4.3.2– 3 Falls prevention policy	National	CSPs	CHOs	Acute	MHTs	Care homes	Specialist
4.3.2. Does your organisation have a current falls prevention/reduction policy?							
Yes	90% (320/354)	78% (62/80)	75% (43/57)	99% (161/162)	98% (52/53)	91% (72/79)	100% (2/2)
4.3.3. Is the inpatient policy based on the National Patient Safety Agency - Slips, trips and falls in hospital report or the Patient Safety First guide?							
Yes	96% (306/318)	95% (58/61)	93% (39/42)	99% (159/161)	92% (48/52)	NA	100% (2/2)

It is alarming that 12% of sites, mostly providers of inpatient services in community hospitals, lack a falls prevention/reduction policy [4.3.2], leaving them open to litigation. It is encouraging that 88% of organisations have a policy and that nearly all of these are based on the NPSA report or patient safety first guide [4.3.3].^{5,31} This represents a very slight improvement since 2008.

We *recommend* that all NHS organisations, particularly CSPs, should review their policies for falls prevention.

Table 4.11: Inpatient or resident falls prevention policy

4.3.4.1– 4 Inpatient or resident falls prevention policy	National	CSPs	CHOs	Acute	MHTs	Care homes	Specialist
4.3.4.1. The use of bedrails?	93% (330/354)	90% (72/80)	86% (49/57)	99% (161/162)	87% (46/53)	97% (76/78)	100% (2/2)
4.3.4.2. Information about the use of low profiling beds?	76% (270/354)	74% (59/80)	67% (38/57)	90% (144/162)	53% (28/53)	89% (70/79)	50% (1/2)
4.3.4.3. How to record, report and monitor falls?	98% (346/354)	98% (78/80)	89% (51/57)	100% (162/162)	100% (53/53)	97% (77/79)	100% (2/2)
4.3.4.4. Guidance on clinical actions taken after a patient or resident has fallen, specifically including observations if head injury is suspected?	85% (301/354)	81% (65/80)	75% (43/57)	91% (148/162)	81% (43/53)	94% (74/79)	100% (2/2)

Most sites with a policy report that it includes procedures on the use of bed rails [4.3.4.1] and low profiling beds [4.3.4.2], the two main types of equipment that can reduce the risk of fall or injury in certain settings and patients. Nearly all policies also include protocols on the reporting and monitoring of falls [4.3.4.3], but information from the National Reporting and Learning Service (NRLS) indicates that the quality and frequency of incident reporting is highly variable within and between sites.

85% of policies include guidance on the aftercare of patients that falls in hospital [4.3.4.4], which is fewer than in 2008. The NRLS has established that the aftercare of patients that fall in hospital is not always adequate. This has led to the recent publication of a rapid response report: Essential care after an inpatient fall.³²

We *recommend* that all providers of inpatient services ensure that their falls policies and procedures include specific regard to the recommendations of the NPSA in the use of bed rails, reporting and monitoring of falls, and the aftercare of fallers in hospital.

We also *recommend* that care home managers review their policies for falls prevention, aftercare, reporting and monitoring.

4.3.5- 4.3.8.2 Gathering and analysing information

Table 4.12: Inpatient or resident falls: systems to record, gather together and analyse

4.3.5– 4.3.8.2 Inpatient/ resident falls: data systems	National	CSPs	CHOs	Acute	MHTs	Care homes	Specialist
4.3.5. Are there systems to record, analyse and report inpatient or resident falls (e.g. incident forms or databases)?							
Yes	99% (352/354)	98% (78/80)	100% (57/57)	100% (162/162)	100% (53/53)	100% (79/79)	100% (2/2)
4.3.6. Are there mechanisms for critical incident analysis, root cause analysis or similar investigations following a serious inpatient or resident fall?							
Yes	99% (350/354)	99% (79/80)	100% (57/57)	98% (159/162)	100% (53/53)	91% (72/79)	100% (2/2)
4.3.7. Does your organisation routinely review the overall pattern and trends for inpatient or resident falls?							
Yes	95% (337/354)	93% (74/80)	89% (51/57)	98% (159/162)	96% (51/53)	92% (73/79)	100% (2/2)
4.3.8.1. Revisions in policy protocols or procedures?							
Yes	98% (331/337)	97% (72/74)	98% (50/51)	99% (157/159)	98% (50/51)	92% (67/73)	100% (2/2)
4.3.8.2. Staff training on falls?							
Yes	85% (288/337)	82% (61/74)	86% (44/51)	91% (144/159)	73% (37/51)	73% (53/73)	100% (2/2)

It is not surprising that nearly all providers report mechanisms to record, analyse and report falls [4.3.5], including serious falls [4.3.6]. 95% of providers routinely review patterns and trends of falls [4.3.7], which looks like a slight improvement since 2008. However, these rates are not necessarily considered at Board level in the organisation [4.3.9- 10 below].

A significant minority (15%) still do not provide staff training on falls [4.3.8.2], which is no better than in 2008.

Table 4.13: Inpatient or resident falls rates

4.3.9– 10 Inpatient or resident falls rates	National	CSPs	CHOs	Acute	MHTs	Care homes	Specialist
Has the organisation calculated its:							
4.3.9. Overall inpatient falls rate against activity (e.g. per admission or occupied bed day) and presented this at board level?	61% (215/354)	50% (40/80)	46% (26/57)	77% (124/162)	45% (24/53)	NA	50% (1/2)
4.3.10. Serious injurious inpatient falls* rate against activity (e.g. per admission or occupied bed day) and presented this at board level?	51% (182/354)	46% (37/80)	39% (22/57)	65% (106/162)	32% (17/53)	NA	0% (0/2)

*Serious injurious falls are defined as falls resulting in fracture, intracranial injury or death (NPSA, 2007)

Note: There is an apparent discrepancy between the figures in this section and the figures for falls in hospital presented to commissioning Boards [1.3.5], but the two indicators reflect different groups of organisations and are not directly comparable.

Note: There is also an apparent discrepancy between the national statistic above for 4.3.10 and the national statistic in the key indicators (page 16). The difference is that the MHTs were excluded from the key indicator statistic.

Although nearly all organisations report that they analyse their falls rates [4.3.5- 7 above], this information is not necessarily presented at Board level. Only 61% of overall inpatient falls rate [4.3.9] and 51% of serious injurious falls rates [4.3.10] are presented at board level, though this is a significant improvement since 2008. It is expected that one or both of these falls rates will be expected to be provided as a metric in the NHS Quality Outcomes Framework. **It is also a focus for the DH Quality, Innovation, Productivity and Prevention (QIPP) safe care workstream, which aims to reduce falls in care by 25- 50%.‡**

In many hospitals, there is an urgent need to establish an accurate baseline falls rate with which to compare future changes. With bed closures and the ongoing drive to reduce hospital admissions, it should be noted that actual numbers of falls may be reduced but the falls rates (against activity)

tend to increase. This is because the more vulnerable and at-risk patients are the ones more likely to remain as inpatients. With the increased scrutiny on falls and injuries in hospital, it is important that falls services collect accurate and meaningful data. Regardless of the drive to measure and improve rates of falls in hospital, it should not be forgotten that these are patients, not statistics, and that each fall and injury in hospital may represent a person harmed unnecessarily while in an apparent place of safety.

We **recommend** that all providers of inpatient services ensure that rates of falls, categorised by severity, are accurately collected, analysed and reported at Board level. The many providers that do not already collect such data need to do so promptly, in anticipation of external scrutiny.

Table 4.14: Inpatient or resident falls: assessment documentation

4.3.11– 12 Inpatient/ resident falls: assessment documentation	National	CSPs	CHOs	Acute	MHTs	Care homes	Specialist
4.3.11. Does your trust use assessment documentation such as a proforma for use by healthcare staff which incorporates the following questions for all older people on admission:							
a. Previous history of falls?	94% (334/354)	100% (80/80)	89% (51/57)	92% (149/162)	98% (52/53)	92% (73/79)	100% (2/2)
b. Current mobility or balance problems?	97% (345/354)	99% (79/80)	95% (54/57)	98% (158/162)	98% (52/53)	94% (74/79)	100% (2/2)
c. An assessment of fracture or osteoporosis risk in older people with previous falls or mobility problems?	44% (156/354)	54% (43/80)	46% (26/57)	32% (52/162)	66% (35/53)	44% (35/79)	0% (0/2)
d. None of the above	2% (6/354)	0% (0/80)	5% (3/57)	2% (3/162)	0% (0/53)	4% (3/79)	0% (0/2)
4.3.12. Is there provision for all patients who need walking aids to be able to routinely access these within 24 hours of admission?	71% (252/354)	83% (66/80)	79% (45/57)	72% (117/162)	42% (22/53)	54% (43/79)	100% (2/2)

Over 90% of sites report routine assessment of older people on previous history of falls [4.3.11a] and current mobility or balance problems [4.3.11b]. By contrast, just under half of sites report that older people with a history of falls or mobility problems are also assessed for fracture risk [4.3.11c]. This demonstrates another missed opportunity to identify and manage older people that are at high risk of fracture. These figures all represent a slight improvement since 2008. The clinical audit suggests that good policy does not equate to good practice, as only 63% of patients admitted following hip fracture were asked about falls in the previous year [C3.1.1].

Only 71% of sites report routine provision of walking aids for inpatients within 24 hours [4.3.12], which is also slightly better than 2008's figure of 66%. This still means that, at best, a significant number of older people cannot have ready access to

walking aids after admission to hospital. It is likely that practice falls short of policy here also, but this was not assessed in the clinical audit.

We **recommend** that inpatient providers audit compliance with falls assessment documentation and introduce fracture/ osteoporosis assessment as routine for patients admitted with a fall or a history of falls.

We also **recommend** that all inpatient providers introduce procedures for routine provision of walking aids within 24 hours, including a mechanism for auditing compliance at ward level.

‡ Details of the safe care workstream can be found at: www.dh.gov.uk/en/Healthcare/Qualityandproductivity/QIPPworkstreams/DH_115447 [Accessed 14 April 2011]

4.4 Emergency department or minor injury units

Respondents: CSPs, acute and CHOs

Table 4.15: ED or MIU

Provenance: NSF 6.10/6.13. Preventing falls in older people depends on identifying those most at risk of falling and coordinating appropriate preventative action. Older people who attend A&E having fallen should, with their consent be referred to a specialist falls service.

DH *Urgent care pathways for older people with complex needs*.³³ A&E professionals and ambulance clinicians should ask all older people if the emergency is related to a fall or blackout assess gait and balance by observation of standing and walking (using usual walking aids).

4.4–4.4.7 ED or MIU	National	CSPs	CHOs	Acute
4.4. Does your organisation provide an Emergency Department (ED) or Minor Injury Unit (MIU)?	77% (246/321)	38% (35/92)	73% (48/66)	100% (163/163)
4.4.1. Are older people who fall and attend ED or MIU routinely screened for risk of future falls?	52% (127/246)	63% (22/35)	44% (21/48)	52% (84/163)
4.4.2. Is screening performed on site in ED/MIU?	46% (113/246)	60% (21/35)	33% (16/48)	47% (76/163)
4.4.3. Is this available 7 days per week?	37% (91/246)	49% (17/35)	25% (12/48)	38% (62/163)
4.4.4. Are older people who attend ED/MIU following a fall routinely assessed for osteoporosis risk?	15% (36/246)	17% (6/35)	10% (5/48)	15% (25/163)
4.4.5.1. Within ED/MIU are there systems for providing onward direct referral for falls assessments /treatment for all relevant patients?	89% (219/246)	89% (31/35)	83% (40/48)	91% (148/163)
4.4.5.2. Within ED/MIU are there systems for providing onward direct referral for bone health assessments/treatment for all relevant patients?	48% (118/246)	49% (17/35)	35% (17/48)	52% (84/163)
4.4.6. Can patients who have fallen and who present to ED/MIU be assessed by a physiotherapist 7 days /week?	31% (77/246)	17% (6/35)	6% (3/48)	42% (68/163)
4.4.7. Can patients who have fallen and who present to ED/MIU be assessed by an occupational therapist 7 days /week?	27% (67/246)	14% (5/35)	6% (3/48)	36% (59/163)

Only 52% of fallers who attend ED or MIU are screened for future risk of falling [4.4.1] and a mere 15% for osteoporosis [4.4.4]. This has not improved significantly since 2008. Falls screening is mostly performed on-site [4.4.2] and often available 7-days a week, but only 31% of sites perform on-site falls screening 7-days a week [4.4.3]. It is therefore meaningless that 89% of sites have systems for onward referral for falls assessment/treatment [4.4.5.1] and 48% for osteoporosis [4.4.5.2], as half of these sites do not screen for appropriate patients to be referred. Less than a third of EDs and MIUs have 7-day access to physiotherapy [4.4.6] or occupational therapy [4.4.7].

From the clinical audit, we know that 60% of patients presenting with a non-hip fragility fracture were not admitted to hospital [C1.1.4]. This means that *the majority of high-risk patients miss the best or only opportunity for their falls and fracture risk to be identified in the majority of hospitals.*⁵

We *recommend* that all EDs and MIUs ensure that they screen all older people for falls risk by asking about a history of falls in the previous 12 months and assessing for mobility and balance problems (e.g. with the Timed Up and Go Test). Patients identified as being at risk of falls should receive assessment for fracture risk (e.g. with the FRAX tool) and referred for appropriate falls and/or osteoporosis assessment and treatment.

⁵ The evidence base for the efficacy of falls interventions is probably best in those presenting to casualty. ³⁴ Conversely, the evidence base is most striking for the lack of benefit in the same setting when systems are not in place to ensure services are delivered to high-risk patients. ^{35–6} It is accepted that best practice is to integrate the management of fallers with an assessment of their bone health. The risk of fracture may be as much as 25 fold higher in post-menopausal women with a history of fall in the last year and osteoporosis compared to women with neither of those risk factors ³⁷

4.5 Ambulance services

Respondents: CSPs, acute and CHOs

Table 4.16: Ambulance services

4.5.1–2 Ambulance services	National	CSPs	CHOs	Acute
Does the local ambulance service assess patients that they have attended following a falls but do not convey to hospital:				
4.5.1. For future falls risk (with agreement of local falls service)?	49% (157/321*)	53% (49/92)	41% (27/66)	50% (81/163)
4.5.2. For suitability for referral to a falls service (with agreement of local falls service)?	52% (168/321*)	58% (53/92)	39% (26/66)	55% (89/163)

*Denominator is lower, reflecting a few sites that did not respond to this question.

Approximately half of sites report that their local ambulance service has protocols to assess non-conveyed fallers for future falls risk [4.5.1]. A similar number report that the ambulance service assesses non-conveyed fallers for referral to a falls service [4.5.2]. There appears to have been a slight drop since 2008 audit (57% and 53% respectively). *This may reflect genuine withdrawal of services, but it should be noted that there was a high non-response rate to this question in the 2008 audit.*

4.6. Fracture service (hip fractures)

Respondents: CSPs, acute and CHOs

Table 4.17: Fracture service: hip fractures

Provenance: NSF 6.28. Older people with a suspected hip fracture or other serious injury should be admitted to hospital as soon as possible after arrival in A&E.

Blue book, Standard 1. All patients with hip fracture should be admitted to an acute orthopaedic ward within 4 hours of presentation.

Blue book, Standard 2. All patients with hip fracture who are medically fit should have surgery within 48 hours of admission, and during normal working hours.

NSF 6.29. Following surgery, older people with hip fracture repairs should be mobilised within 48 hours where appropriate.

Blue book. Efforts to commence supervised full weight-bearing mobilisation should usually commence on the first day following surgery.

NSF 6.29. Older people with hip fracture repairs should be referred to the falls service for further assessment and decisions on appropriate management and back to their GP for on-going care.

4.6–4.6.13 Fracture service: hip fractures	National	CSPs	CHOs	Acute
4.6. Does your organisation provide any medical service for hip fracture patients?	59% (190/321)	5% (5/92)	36% (24/66)	99% (161/163)
Results for the rest of Section 4.6, below, take the 190 sites providing hip fracture care as denominator				
4.6.1. Is there a fast track admission protocol in ED for older people with a fractured hip?	94% (179/190)	60% (3/5)	88% (21/24)	96% (155/161)
4.6.2. Does this fast track admission protocol include procedures which ensure that these older people are admitted directly to an orthopaedic/ trauma or orthogeriatric ward?	89% (169/190)	60% (3/5)	67% (16/24)	93% (150/161)
4.6.3. Are there hospital procedures in place designed to operate to repair hip fractures within 36 hours of admission to hospital?	88% (167/190)	60% (3/5)	88% (21/24)	89% (143/161)
4.6.4. Does your hospital use procedure or audit to periodically monitor the number of patients that have hip fracture surgery within 36 hours of admission to hospital?	96% (183/190)	60% (3/5)	92% (22/24)	98% (158/161)
4.6.5. Are there hospital procedures in place designed to mobilise patients following surgery for fractured hip within 24 hours?	93% (177/190)	60% (3/5)	92% (22/24)	94% (152/161)
4.6.6. Is there a specialist orthogeriatric service?	84% (159/190)	80% (4/5)	63% (15/24)	87% (140/161)
Are hospital procedures designed to ensure that older people who have had a fractured hip receive routine specialist (e.g. by orthogeriatric service) assessment of:				
4.6.7.1. Falls risk?	85% (161/190)	100% (5/5)	58% (14/24)	88% (142/161)
4.6.7.2. Bone health?	88% (167/190)	100% (5/5)	88% (21/24)	88% (141/161)
4.6.8. Are there arrangements for routine medical assessment and treatment on the orthopaedic ward by a geriatrician (consultant, ST3+ trainee or equivalent) within 72 hours of hip fracture admission?	72% (136/190)	60% (3/5)	50% (12/24)	75% (121/161)
4.6.9. How many hours per week are included in the job plan / job description for senior clinical (medical) orthogeriatric input?	Median 10 IQR 4– 20 N=174	Median 20 Range 4– 37 N=3	Median 8 IQR 3– 22 N=18	Median 12 IQR 5– 20 N=153
4.6.10. How many hours per week are spent on senior clinical (medical) orthogeriatric input?	Median 12 IQR 6– 20 N=176	Median 20 Range 4– 37 N=3	Median 9 IQR 3– 25 N=18	Median 12 IQR 6– 20 N=155
4.6.11. Is there at least one general ward in the acute hospital developed as a centre of excellence for orthogeriatric practice?	63% (120/190)	40% (2/5)	46% (11/24)	66% (107/161)
4.6.12. Is there routine provision of physiotherapy for all hip fracture patients?	100% (190/190)	100% (5/5)	100% (24/24)	100% (161/161)
4.6.13. Is there routine provision of occupational therapy for all hip fracture patients?	98% (187/190)	100% (5/5)	92% (22/24)	99% (160/161)

The organisation of services for the acute care of hip fracture patients has improved a little since 2008. In particular, delays between admission and primary surgery have been reduced. This is probably a demonstration of the impact of the NHFD and BPT, in England at least, along with this national audit programme and the DH Prevention package. This is one of the only areas that have shown convincing improvement since the last audit. The concern is that most effort has been put into the 'quick wins' of hip fracture care, while neglecting much-needed improvements in falls and fracture prevention. Some of these hip fracture patients need not have suffered a hip fracture at all, if adequate prevention services had been commissioned and provided.

94% of providers of hip fracture services say they have a fast track admission protocol [4.6.1]. However, in the clinical audit only 73% of patients left the ED within 4 hours [Table C1.10]. 89% of providers have a protocol for hip fracture patients to be admitted directly to an orthopaedic or orthogeriatric ward [4.6.2]. In the clinical audit, this appears to be confirmed, as 92% of patients were admitted directly to such a ward [C1.1.4.1], though only a minority of these were admitted to a specialist hip fracture ward. Only 63% of acute sites have established a specialist orthogeriatric ward or hip fracture unit as a centre of excellence [4.6.11], though this is an improvement on 2008's figure of 53%.

88% of providers report procedures to ensure hip fracture surgery is performed within the BPT target of 36 hours [4.6.3]. In the clinical audit, 62% of patients received surgery within 36 hours [C2.1.1]. Nearly all providers report a local audit mechanism for monitoring this 36-hour target [4.6.4], presumably via the NHFD in most, if not all, cases.

Early mobilisation is associated with reduced length of stay. 93% of providers report that they have protocols for mobilisation within 24 hours of hip fracture [4.6.5]. In the clinical audit, 77% of patients that were fit to mobilise commenced mobilisation within 24 hours [C2.2.6] and 72% of patients were seen by a physiotherapist, or equivalent, within 24 hours [C2.2.7]. Clinical reality is less impressive than the policies would suggest.

Most providers include falls and osteoporosis assessment [4.6.7] as routine in their hip fracture care pathway, as stipulated in BPT. 85% provide falls assessment and 88% osteoporosis assessment. This has improved slightly since 2008, when the figures were 76% and 78% respectively. Again, the clinical audit reveals a shortfall, as only 68% of hip fracture patients received falls assessment, often lacking in many important components [C3.1], and 67% received osteoporosis assessment [C4.1.1].

84% of providers have specialist orthogeriatric service [4.6.6] but only 72% have arrangements for routine medical assessment and treatment on orthopaedic ward by geriatrician [4.6.8]. The hours provided for senior orthogeriatric input varies considerably between sites. A median of 10 hours per week [4.6.9] in a geriatrician's job plan seems too little to provide an adequate service for the size of population served by most hospitals. A quarter of specialists have a job plan with 4 or less hours of orthogeriatric input. It appears that, on average, orthogeriatricians work more hours on the hip fracture service than they are contracted to do [4.6.10]. With such under-resourced services, it is not surprising that only 52% of patients in the clinical audit were seen for specialist medical assessment by a geriatrician [C1.2.14].

All sites provide routine physiotherapy input [4.6.12] to hip fracture services and all but 3 sites provide occupational therapy input [4.6.13].

We **recommend** that acute providers review their procedures for rapid admission and early surgery of hip fracture patients. More substantial senior orthogeriatric input is required in many hospitals if they are to improve their peri-operative medical care, reduce delays to surgery and coordinate falls and osteoporosis assessment.

4.7. Fracture clinic

Respondents: CSPs, acute and CHOs

Table 4.18: Fracture unit/clinic: fragility fractures

Provenance: NSF 6.10/6.13. Preventing falls in older people depends on identifying those most at risk of falling and

coordinating appropriate preventative action. Older people who have had fragility fractures should, with their consent be referred to a specialist falls service.

4.7–4.7.2 Fracture unit/ clinic: fragility fractures	National	CSPs	CHOs	Acute
4.7. Does the organisation provide any fracture clinic or inpatient services for fracture patients other than hip fracture?	65% (208/321)	18% (17/92)	42% (28/66)	100% (163/163)
Are hospital procedures designed to ensure that older people with fragility fractures are assessed or referred for further management of: (denominator only includes sites providing fracture services)				
4.7.1. Falls risk?	49% (101/208)	65% (11/17)	36% (10/28)	49% (80/163)
4.7.2. Bone health?	50% (104/208)	71% (12/17)	46% (13/28)	48% (79/163)
Combination (Falls and/or Bone health)	56% (116/208)	71% (12/17)	54% (15/28)	55% (89/163)

'Identify the first fracture to prevent the second' is the second key objective of the DH Prevention package. Only 49% of the organisations that provide fracture clinic services have procedures that ensure the assessment or referral for further management of falls [4.7.1]. 50% have procedures for bone health [4.7.2]. Most services that had procedures for falls also had procedures for bone health, leaving 44% of sites (92/208) lacking procedures for either. Contrast this with the situation for hip fracture services, where the figures were 85% for falls [4.6.7.1] and 88% for osteoporosis [4.6.7.2]. Also, unlike hip fracture services, there has been no improvement since 2008. This is further evidence that the recent focus on improvement has been mainly on hip fracture care, driven by the financial incentive of BPT and without other aspects of the service being pulled up in the process. We can begin to see why only 32% of non-hip fracture patients received a falls assessment in the clinical audit [C3.1.1] and the same low percentage received osteoporosis assessment [C4.1.1].

We **recommend** that secondary prevention of falls and fractures is a priority for all health economies and requires urgent improvement, especially in the 44% of hospitals that lack procedures for assessment of falls risk or bone health following an acute fracture.

4.8. Fracture unit staffing and provision of care

Respondents: CSPs, acute and CHOs

Table 4.19: Fracture unit: staffing and provision of care

Provenance: NSF 6.29. At least one general ward in the acute hospital should be developed as a centre of excellence for orthogeriatric practice.

Blue book, standard 4. All patients presenting with a fragility fracture should be managed on an orthopaedic ward with routine access to acute orthogeriatric medical support from the time of admission.

patients received assessment of further fracture risk; whereas for sites with no fracture liaison nurse, the median figures were lower, at 67% and 18%, respectively.

Therefore, we recommend that fracture liaison services should be based on established models, particularly to capture non-admitted patients with non-hip fragility fractures, as described within the DH Prevention package.

Less than two-thirds of providers of inpatient fracture services provide routine screening for falls risk [4.8.2] and just over a third provide screening for osteoporosis risk [4.8.3]. Such patients were in hospital with a median length of stay of 7 days (non-hip fractures), which should allow ample time for assessment, if services were so developed. Hip fracture patients

4.8.1– 5 Fracture unit/clinic: staffing and provision of care	National	CSPs	CHOs	Acute
4.8.1. Is there further assessment and management of all appropriate fracture patients coordinated by a fracture liaison nurse or similar designated person?	38% (78/208)	29% (5/17)	43% (12/28)	37% (61/163)
Are older people who are admitted to hospital with a low trauma fracture, regardless of what ward or department:				
4.8.2. Routinely assessed for risk factors for further falls, which must include history of falls?	63% (130/208)	82% (14/17)	50% (14/28)	63% (102/163)
4.8.3. Routinely screened for osteoporosis risk?	37% (77/208)	47% (8/17)	43% (12/28)	35% (57/163)
4.8.4. Routinely seen by a physiotherapist for a falls assessment?	59% (122/208)	82% (14/17)	46% (13/28)	58% (95/163)
4.8.5. Routinely seen by an occupational therapist for a falls assessment?	51% (106/208)	76% (13/17)	36% (10/28)	51% (83/163)

Only 38% of acute providers of fracture services have a fracture liaison nurse or similar person to coordinate assessment and management of all appropriate fracture patients [4.8.1]. This figure correlates well with the 37% derived from the responses of all providers in [3.5.6] and is an improvement on 2008's figure of 31%. This confirms that fracture liaison services have yet to be established nationally, despite strong recommendations in the DH Prevention package.

We are concerned that there is a lack of consistent quality across the sites that provide fracture liaison services. Further analysis of our data reveals that 18% (14/78) of sites that provide a fracture liaison nurse [4.8.1] do not have hospital procedures designed to ensure that older people with fragility fractures are assessed or referred for further management of bone health [4.7.2]. Conversely, 31% (40/130) of sites claim to have such procedures even though they do not have a fracture liaison nurse. The situation was similar for the correlation between fracture liaison [4.8.1] and hospital procedures for further management of falls risk [4.7.1], suggesting that those organisations that provide adequate services for bone health also do so for falls risk, and vice versa.

Comparing the performance of sites with and without a fracture liaison nurse [4.8.1] with the relevant indicator in the clinical audit [C4.1.1], we find that in sites with a fracture liaison nurse, a median 86% of hip fracture and 45% of non-hip fracture

are in hospital for considerably longer. It is important to again note from the clinical audit that, in fact, a third of non-hip fragility fracture patients were assessed for falls risk and a similar number for osteoporosis. The figure was just under two-thirds for hip fractures. In other words, although services for osteoporosis seem to be less well developed, they are more effectively delivered, perhaps reflecting the relative complexity of falls assessment and management, compared to osteoporosis.

Failure to assess inpatients for falls and fracture risk may represent a clinical negligence risk to providers.

The proportion of admitted patients with fall-related fracture who are likely to receive falls assessment by physiotherapy [4.8.5] or occupational therapy [4.8.4] is lamentable, with just 59% and 51% respectively. This should be a prime focus to support and educate ward staff and to arrange follow-up visits to ensure appropriate services and equipment are provided to ensure a safe and successful discharge and reduce the risk of readmission with further falls or fractures.

We *recommend* that all providers of fracture services should develop a fracture liaison service linked to falls prevention services, to include physiotherapy and occupational therapy input to inpatients as routine.

Section 5 (was section 4 in 2008 audit): Specialist falls management

Respondents: CSPs, acute and CHOs.

Results by indicator with commentary

5.1. Multi-factorial falls risk assessment (MFFRA)

A falls specialist assessment should be a MFFRA performed by healthcare professionals with appropriate skill and experience, normally in the setting of a specialist falls service. This section seeks to determine whether the way the service operates is designed to ensure that all the necessary components are addressed and that there is a standardised approach. This could be through specific documentation, or a formatted report etc. To answer "Yes fully" the MFFRA should be used by all appropriate healthcare professionals in the trust/local health board. Answer 'yes partially' it should be used by at least 50% of appropriate healthcare professionals.

Table 5.1: MFFRA: clinical note proforma or similar tool

Provenance: NSF (2001 England, 2006 Wales). Specialist assessment should be carried out by the falls service in collaboration with primary care, voluntary and independent sector partners and social professionals. This should build on the single assessment process.

NICE CG21 Grade: A. 1.3.2 Following treatment for an injurious fall, older people should be offered a multidisciplinary assessment to identify and address future risk and intervention, aimed at promoting independence and improving physical and psychological function.

5.1.1 MFFRA	National	CSPs	CHOs	Acute
5.1.1. For patients considered locally to need a MFFRA is this undertaken by your trust using a clinical note proforma, or similar tool, which specifies the individual components?				
Yes, fully	56% (179/321)	71% (65/92)	65% (43/66)	44% (71/163)
Yes, partially	30% (95/321)	25% (23/92)	23% (15/66)	35% (57/163)
No, not at all	15% (47/321)	4% (4/92)	12% (8/66)	21% (35/163)

15% of falls service providers do not use a clinical proforma, or other tool, to support MFFRA [5.1.1] and a further 30% do not use it across the service. There has been a slight increase, from 50% to 56% in the proportion of sites using MFFRA fully since 2008.

Respondents: Only falls service providers that use a MFFRA proforma or other tool [5.1.1].

Table 5.2: MFFRA: components 1

Provenance: NICE CG 21 Grade: A. 1.3.2. Following treatment for an injurious fall, older people should be offered a multidisciplinary assessment to identify and address future risk and intervention, aimed at promoting independence and improving physical and psychological function.

5.1.2– 6 MFFRA: components 1	National	CSPs	CHOs	Acute
Does this proforma/tool for the MFFRA include the following components:				
5.1.2. Identification and diagnosis of patient specific risk factors for falls due to medical conditions?	96% (262/274)	97% (85/88)	95% (55/58)	95% (122/128)
5.1.3. Standardised gait, balance and mobility assessment?*	94% (258/274)	95% (84/88)	98% (57/58)	91% (117/128)
5.1.4. Standardised assessment for fracture risk or osteoporosis risk factors?	78% (215/274)	76% (67/88)	86% (50/58)	77% (98/128)
5.1.5. Is this a validated tool (can be locally developed and validated)?	80% (171/215)	76% (51/67)	86% (43/50)	79% (77/98)
5.1.6. Standardised assessment of psychological consequences of a fall that might limit independence (fear of further falls)?	55% (151/274)	70% (62/88)	72% (42/58)	37% (47/128)

Most falls service providers with a proforma or tool for MFFRA ask about medical causes for falls [5.1.2] and perform standardised assessments of gait, balance and mobility [5.1.3]. Standardised assessment for osteoporosis or fracture risk is linked to falls assessment in 78% of providers [5.1.4] and 20%

of these do not use a validated tool [5.1.5], even though simple tools, such as FRAX®, are readily available.** Slightly fewer sites are reporting linking osteoporosis assessment to MFFRA since 2008 but, of those that do, more are using a validated tool.

We *recommend* that all falls services routinely assess fallers for risk of fracture, using FRAX®.

Fear of falling is a significant risk factor for future falls and is, itself, a major cause of reduced independence following a fall. Only 55% of providers use a standardised assessment of fear of falling [5.1.6], which is down from 65% in the 2008 audit. Although there is no consensus on the best tool for assessing the psychological consequences of a fall that might limit independence and/or predispose to fear of further falls, it is recommended that a standardised tool is used. By standardised it is implied that the method of assessment is written, explicit and used throughout the local falls service by trained staff. By far the most commonly used validated tools in this Audit are the ConfBal and different versions of the Falls Efficacy Scale. In the clinical audit, only 21% of patients were assessed for fear of further falls using a standardised tool [C3.6.4].

Table 5.3: MFFRA: components 2

5.1.7– 11 MFFRA: components 2	National	CSPs	CHOs	Acute
5.1.7. Standardised assessment for vision impairment (with Snellen chart assessment of visual acuity as a minimum)?	39% (107/274)	31% (27/88)	45% (26/58)	42% (54/128)
5.1.8. Assessment of urinary pattern including presence or absence of incontinence?	84% (230/274)	83% (73/88)	95% (55/58)	80% (102/128)
5.1.9. Measurement of lying or standing blood pressure?	92% (253/274)	84% (74/88)	93% (54/58)	98% (125/128)
5.1.10. Routine ECG recording and analysis?	65% (177/274)	40% (35/88)	47% (27/58)	90% (115/128)
5.1.11. Documentation of medicines (including dose, route, frequencies)?	95% (261/274)	91% (80/88)	95% (55/58)	98% (126/128)

Low vision is a common risk factor for falls, yet the proportion of services providing routine simple visual assessment is only 39% [5.1.7], which is down from 50% in 2008. The apparent reduction in assessments may reflect a change in the audit indicator, which now specifies Snellen chart examination as minimum standard. There was feedback that some healthcare professionals feel that a requirement for Snellen chart testing is excessive in the acute setting, but this question is also concerned with falls assessments in clinics or other non-acute settings. It should be noted that, in the clinical audit, fewer than 1 in 5 patients who had fallen and sustained any kind of fracture had their vision assessed [C3.4.1] at any time or setting.

84% of providers include continence assessment as part of MFFRA [5.1.8], which has improved slightly since 2008. In the Clinical Audit, 69% of hip fracture patients and 28% of non-hip fracture patients received a continence assessment [C3.5.1], indicating another gap between protocol and practice.

Assessment of the heart and postural blood pressure is essential in those with falls. Only 65% of providers include ECG assessment as part of MFFRA [5.1.10], whereas over 90% of providers include postural blood pressure readings [5.1.9]. The clinical audit shows that only about 40% of patients with a fall serious enough to cause a non-hip fracture had an assessment of their heart, either an ECG or a heart examination [C3.3.1, C3.3.2]. Most hip fracture patients, of course, receive an ECG as part of pre-operative assessment. Far fewer (15% non-hips, 38% hips) had a postural blood pressure check [C3.3.4] documented at any time, either in the acute episode or the 12 weeks following injury.

Most patients had documentation of medication, though the clinical audit shows that medication interventions are not routinely performed.

We *recommend* that all falls service providers ensure that heart examination, ECG recording and analysis, and measurement of lying and standing blood pressures are included as standard in falls assessments.

**The FRAX tool is available from: www.shef.ac.uk/frax. [Accessed 11 April 2011].

Table 5.4: MFFRA: home hazards

5.1.12– 17 MFFRA: home hazards	National	CSPs	CHOs	Acute
5.1.12. Assessment of the potential hazards within the patient's home?	89% (245/274)	97% (85/88)	91% (53/58)	84% (107/128)
5.1.13. Is this performed by an occupational therapist?	70% (193/274)	66% (58/88)	74% (43/58)	72% (92/128)
5.1.14. Is a validated home hazard assessment used?	47% (130/274)	45% (40/88)	62% (36/58)	42% (54/128)
5.1.15. If yes, what validated home hazard assessments are used?				
a. Westmead Home Safety Assessment	15% (19/130)	13% (5/40)	19% (7/36)	13% (7/54)
b. Home fast	66% (86/130)	75% (30/40)	67% (24/36)	59% (32/54)
c. Safety assessment of function for rehabilitation – SAFER	6% (8/130)	5% (2/40)	3% (1/36)	9% (5/54)
d. Other locally validated tool**	22% (28/130)	18% (7/40)	22% (8/36)	24% (13/54)
5.1.16. Assessment of any limitations with activities of daily living that place the older person at an increased risk of falls?	95% (260/274)	99% (87/88)	95% (55/58)	92% (118/128)
5.1.17. Inquiry or assessment to establish how an older person deals with being on the floor following a fall (i.e. long lie training)?	86% (235/274)	91% (80/88)	95% (55/58)	78% (100/128)

89% of falls service providers include an assessment of potential hazards in the home as part of the MFFRA [5.1.12]. 70% of these stated that the assessment would be carried out by an occupational therapist [5.1.13] and under half use a validated assessment [5.1.14]. 95% stated that an assessment of any limitations with activities of daily living that place an older person at risk would be reviewed as part of the MFFRA [5.1.16]. This represents a slight improvement since 2008.

The figures yielded from the clinical audit [C3.7.1] again suggest discrepancies between policy and practice. 69% of older people who fell and had a hip fracture were considered appropriate for a home/environmental hazard assessment, of whom 65% actually had assessment carried out by an occupational therapist. 87% of older people who fell and had a non-hip fragility fracture were considered appropriate for the above. However only 19% actually had a home/environmental assessment carried out by an occupational therapist with a further 4% declining the intervention. Less than half of these assessments took place in the patients' homes [C3.7.2]. Only 22% of non-hip fragility fracture patients were offered home hazard interventions [C3.7.4].

Table 5.5: Cognitive function

5.1.18 Cognitive function	National	CSPs	CHOs	Acute
Validated screening assessment of cognitive function (excluding AMT4, as this is not sufficient in this setting)?	81% (221/274)	63% (55/88)	88% (51/58)	90% (115/128)

Dementia and delirium are strong risk factors for falls and fractures, as well as representing serious medical problems in their own right. 81% of falls service providers include cognitive testing as part of MFFRA [5.1.18] - down from 89% in 2008, but this may reflect a change in the wording of the indicator to exclude AMT4 as a suitable tool in this setting. In the clinical audit, only 17% of non-hip fragility fracture patients received an assessment of cognitive function [C3.1.5]. The figure was better, though still less than half, for hip fracture patients as cognitive assessment (Abbreviated Mental Test Score 10) is included in the NHFD.

We *recommend* that falls service providers ensure that cognitive assessment is performed on all patients being assessed for falls risk factors.

5.2 Exclusions

Table 5.6: Excluding older people with dementia

5.2 Excluding older people with dementia	National	CSPs	CHOs	Acute
Does the specialist falls service routinely exclude older people with dementia from their service for assessment and management of falls?				
Yes, routinely excludes	6% (20/321)	5% (5/92)	9% (6/66)	6% (9/163)

It is unacceptable that 6% of falls service providers routinely exclude older people with dementia from their service and this has not changed since 2008. Although there is less evidence of benefit from falls assessment and management in people with dementia, it is not safe to assume that individual patients in this group will not benefit, though assessments may need to be tailored or targeted. For example, syncope and use of inappropriate sedative medication are common in older people with dementia. Such discrimination has no place in the NHS.

We recommend that all falls service providers should take steps to include older people with dementia in assessment.

5.3. Intervention plan

Table 5.7: Intervention plan

Provenance: NSF 6.15. Interventions should be agreed with the older person.

There should be a mechanism whereby a documented intervention plan, derived from the individual multi-factorial assessment, is agreed in writing with the older person. 5.3.1 should be answered “No” if there are separate treatment plans prepared by various health professionals but not coordinated into a single agreed plan.

5.3.1 Intervention plan	National	CSPs	CHOs	Acute
Does the service routinely provide written, agreed intervention plans, which are given to patients?				
Yes	49% (157/321)	59% (54/92)	61% (40/66)	39% (63/163)

49% of services routinely provide written agreed intervention plans given to patients [5.3.1]. This supports the finding from our Patient Involvement Programme, which highlighted poor communication with healthcare professionals as a common concern.³⁸ There has been some improvement since 2008, when only 35% of services provided patients with intervention plans.

5.4. Interventions for falls prevention

Table 5.8: Exercise training

Provenance: NSF England (2001) and Wales (2006). NSF (England version) 6.15, 6.16, 6.32. Interventions should be agreed with the older person and should include rehabilitation including physiotherapy to improve confidence in mobility. Individually tailored exercise programmes administered by a qualified trained professional can reduce the incidence of subsequent falls in fit older people or as part of a multiple intervention approach to those at risk.

Question 5.4.3 should be answered: “Yes” to running FaME exercise programme if participants attend a weekly class run by a trained exercise instructor (could be physiotherapist, postural stability instructor, registered exercise professional) AND it lasts for one hour or more (including warm-up etc) AND the programme lasts at least 24 weeks AND the exercise is progressed according to individual progress AND the participants are encouraged to also perform the exercises at home at least twice weekly, and/or “Yes” to running the Otago home exercise programme if participants are seen at home by a trained exercise instructor (could be physiotherapist, postural stability instructor, Otago exercise leader, registered exercise professional) at least 3 times at the start of the programme (by Week 8), AND the participants are encouraged to also perform the exercises at home at least three times weekly for one hour or more (including warm-up etc) and to walk outdoors AND are encouraged to exercise for at least one year AND the exercise is progressed according to individual progress.

Table 5.9: Exercise training

5.4.1– 6 Exercise training	National	CSPs	CHOs	Acute
5.4.1. Does the intervention include supervised exercise training for strength and balance?	86% (277/321)	95% (87/92)	92% (61/66)	79% (129/163)
5.4.2. Does this include a validated exercise programme delivered by appropriately trained healthcare professionals and/or exercise specialists?	74% (239/321)	88% (81/92)	82% (54/66)	64% (104/163)
5.4.3. Which “evidence based” exercise programmes are used as standard for patients that are able to participate?				
a. FaME	25% (60/239)	27% (22/81)	35% (19/54)	18% (19/104)
b. Otago exercise programme	49% (117/239)	53% (43/81)	46% (25/54)	47% (49/104)
FaME and/or Otago	56% (134/239)	59% (48/81)	57% (31/54)	53% (55/104)
c. Modified FaME or Otago	61% (145/239)	65% (53/81)	59% (32/54)	58% (60/104)
d. Other*	8% (19/239)	11% (9/81)	7% (4/54)	6% (6/104)
5.4.4. What is the standard frequency of the supervised session between the healthcare professional and patient?				
Monthly	n=239 3% (6)	n=81 1% (1)	n=54 4% (2)	n=104 3% (3)
Weekly	74% (178)	74% (60)	80% (43)	72% (75)
Twice a week	10% (23)	4% (3)	9% (5)	14% (15)
Other	13% (32)	21% (17)	7% (4)	11% (11)
5.4.5. What is the standard duration of the programme?				
Under 6 weeks	n=239 7% (16)	n=81 7% (6)	n=54 2% (1)	n=104 9% (9)
Between 6 and 12 weeks	72% (172)	62% (50)	76% (41)	78% (81)
Over 12 weeks	21% (51)	31% (25)	22% (12)	13% (14)
5.4.6. Are the exercises progressed according to the participant's progress?	99% (237/239)	100% (81/81)	98% (53/54)	99% (103/104)

*Others were described as: “Postural Stability Instruction” or variations on this (9, probably FaME), Tai Chi (6), Tinetti (6), “chair based” (1), “one to one individualised Tinetti/AGILE” (1), “New Zealand” (1, probably Otago), “group exercise and extended exercise classes” (1), “Tailored targeted” 1-1 (1).

Note that there were another 12 sites that described ‘others’ that were not consistent with a validated exercise programme and coding for indicator 5.4.2 were revised accordingly, as were subsequent codes to 5.4.4, 5.4.5 and 5.4.6.

Table 5.10: Combinations of exercise programmes

Some sites offered only a single format of exercise, others offered combinations of exercise programmes:

5.4.3 Combinations of exercise programmes	All sites
FaME only	4% (10/239)
Otago only	23% (54/239)
Modified FaME/Otago only	39% (93/239)
“Other” only	3% (8/239)
FaME & Otago	8% (18/239)
FaME & Modified FaME/Otago	3% (7/239)
Otago & Modified FaME/Otago	8% (18/239)
One of (FaME, Otago or Modified FaME/Otago) with “Other”	2% (5/239)
FaME & Otago & Modified FaME/Otago	8% (20/239)
Two of (FaME, Otago or Modified FaME/Otago) with “Other”	2% (4/239)
FaME & Otago & Modified FaME/Otago & “Other”	1% (2/239)

Therapeutic exercise is the best-evidenced intervention for falls prevention and is the key to Objective 3 - early intervention to restore independence - of the DH Prevention package. It is effective as a single intervention as well as part of a package of multifactorial interventions.⁴⁰ Only two exercise programmes, Otago and FaME, demonstrate robust evidence for falls prevention.

It is very disappointing that 14% of falls services are still not providing any strength and balance training exercises [5.4.1] and a further 12% have programmes that are not professionally led [5.4.2]. This is a slight improvement since 2008, but it remains a concern that a quarter of falls service providers lack a professionally led therapeutic exercise programme.

Despite clear guidance from the DH about what exercise programmes are supported by evidence, a number of sites claiming to have evidence-based programmes are, in fact, providing exercise that may not prevent falls - e.g. T'ai Chi, Tinetti, chair based, “1-1 individual”, GP exercise and extend class. It is worrying that there is a lack of awareness about what constitutes evidence-based exercise and what does not. Just

over a half of services provide the gold standard Otago and/or FaME programmes [5.4.3].

The frequency of supervised sessions [5.4.4] will depend on the type of exercise programme and will vary depending on the instructions given to individual patients about exercise at home. No further specific comments can be made, though it is noted that most exercise programmes provide at least weekly supervision.

Fewer than 10% of patients in the clinical audit commenced evidence-based therapeutic exercise within 12 weeks of their index fracture [C3.6.6]. This is another clear demonstration of the policy-practice gap.

Exercise is not a 'quick fix' intervention - patients need to continue with exercise over a prolonged period to benefit in terms of falls reduction. Only 21% of programmes, and 16% of the evidence-based programmes, continued for over 12 weeks [5.4.5], which was the minimum 'dose' of exercise likely to be effective in trials.

These findings are supported by comments from our Patient Involvement Programme, which identified concerns regarding follow up from health classes and lack of provision of community classes e.g. in leisure services.³⁸

We *recommend* joint commissioning between health and local authorities to ensure the provision of sustainable Otago and FaME exercise programmes. This may mean disinvestment in non-evidenced programmes in order to transfer funding to the appropriate services in the community.

Table 5.11: Individualised programmes to enhance or optimise the safe performance of activities

Provenance: NSF 6.15. Interventions should be agreed with the older person and should include occupational therapy to identify home and environmental hazards.

NSF 6.33. The use of community alarm systems including pendant and phone-based systems for people who have fallen to summon help can increase the security and confidence of older people.

5.4.7– 9 Individualised programmes	National	CSPs	CHOs	Acute
Do the individualised programmes seek to enhance or optimise the safe performance of activities of daily living by:				
5.4.7. Working with the patient to identify difficulties with activities of daily living that place them at an increased risk of falls?	93% (298/321)	96% (88/92)	98% (65/66)	89% (145/163)
5.4.8. Advising on safety of the home environment and performance of activities of daily living with the ability to provide equipment, adaptations and repairs where necessary?	93% (299/321)	97% (89/92)	98% (65/66)	89% (145/163)
5.4.9. Are there mechanisms for providing or referring for alarms, call systems and other assistive technology?	94% (302/321)	97% (89/92)	98% (65/66)	91% (148/163)

93% of providers of falls services assess patients for difficulties with activities of daily living [5.4.7] and the same proportion advise on home safety, including equipment, adaptations and repairs [5.4.8]. 94% of providers have mechanisms for providing alarms, call systems or other assistive technology [5.4.9]. There has been a slight increase in all three figures since 2008. However, in the clinical audit [C3.7.5], only 21% of hip fracture patients and 8% of non-hip fragility fracture patients were referred for any form of Telecare, excluding patients where this was not appropriate or who had refused.

5.5. Interventions for osteoporosis

Table 5.12: Interventions for osteoporosis

Provenance: NICE TA160 and 161- both assume that women receiving osteoporosis treatment should be on vitamin D unless replete and have the following statement in the guidance:

‘This guidance assumes that women who receive treatment have an adequate calcium intake and are vitamin D replete. Unless clinicians are confident that women who receive treatment meet these criteria, calcium and/or vitamin D supplementation should be considered.’

TA160 guidance: Primary prevention refers to opportunistic identification, during visits to a healthcare professional for any reason, of postmenopausal women who are at risk of osteoporotic fragility fractures and who could benefit from drug treatment. It does not imply a dedicated screening programme.

TA160 relates only to treatments for the primary prevention of fragility fractures in postmenopausal women who have osteoporosis. Osteoporosis is defined by a T-score of ≥ 2.5 standard deviations (SD) or below on dual-energy X-ray absorptiometry (DXA) scanning.

If a woman aged 75 years or older who has two or more

independent clinical risk factors for fracture or indicators of low BMD has not previously had her BMD measured, a DXA scan may not be required if the responsible clinician considers it to be clinically inappropriate or unfeasible. Independent clinical risk factors for fracture are parental history of hip fracture, alcohol intake of 4 or more units per day, and rheumatoid arthritis.

For patient groups covered by existing NICE guidance (postmenopausal women who need secondary prevention), the guidance may be explicit in local protocols. For others, there may be locally agreed criteria for the use of DXA scanning and radiology to assess osteoporosis risk and decide treatment.

NSF 6.2. All patients should be offered lifestyle advice to reduce the risks of osteoporosis.

This should be a set process of providing information to patients, allowing discussion and documenting the provision of information by staff within the falls service or staff with specialist falls knowledge. The information provided to patients can be from leaflets already available in print such as those from Help the Aged, National Osteoporosis Society or those developed locally.

NSF 6.22. Older people who are frail or housebound or who have previous fragility fractures may benefit from supplements of calcium and vitamin D to help prevent hip fracture.

Table 5.13: Interventions for osteoporosis

5.5.1– 7 Interventions for osteoporosis	National	CSPs	CHOs	Acute
5.5.1. In accordance with NICE TA 161, are specific criteria used for deciding treatment for older people who have sustained a fragility fracture?				
Yes	80% (258/321)	58% (53/92)	86% (57/66)	91% (148/163)
5.5.2. Does your organisation provide direct access to DXA services by GPs (without the need to refer to a specialist service)?	63% (203/321)	34% (31/92)	74% (49/66)	75% (123/163)
5.5.3. How many DXA scans (per 100,000 population) do you provide in a year? (IF Yes to 5.5.2)	Median 568 IQR 240– 1093 N=184	Median 7 IQR 0– 573 N=28	Median 660 IQR 248– 1143 N=41	Median 630 IQR 380– 1073 N=115
5.5.4. Are patients with, or at risk of, osteoporosis routinely given written lifestyle advice on maintaining bone health in respect of smoking, diet, physical activity and alcohol use? (must cover all risk factors or be tailored to the individual)				
Yes	53% (170/321)	53% (49/92)	58% (38/66)	51% (83/163)
Does your trust provide prescribing advice e.g. a local protocol promoting routine offer of calcium and vitamin D to the following patient groups:				
5.5.5. Patients with previous fragility fracture(s) treated with a bone-sparing agent?	66% (211/321)	48% (44/92)	71% (47/66)	74% (120/163)
5.5.6. Patients who are housebound (regardless of fragility fracture)?	41% (133/321)	34% (31/92)	42% (28/66)	45% (74/163)
5.5.7. Residents of residential and nursing care homes?	44% (141/321)	34% (31/92)	41% (27/66)	51% (83/163)

80% of service providers use specific criteria for assessing older people for treatment for osteoporosis in line with NICE TA 161 [5.5.1], which is slightly better than the equivalent indicator in 2008.

Just fewer than two out of three organisations provide direct access to DXA services by GP's [5.5.2]. It is reassuring that the figures in this section are very similar to the figures provided by the commissioning organisations answering the same questions in Section 1 [1.4.4, 1.4.5]. However, it is difficult to see how the remaining third of localities can expect to deliver NICE TA 161 without direct access DXA.

Only 1 in 2 services provide patients with written lifestyle advice on the key modifiable risk factors for osteoporosis. (Comparison with the 2008 audit is not possible, due to changes in the structure of the question).

Policies to ensure evidence-based treatment of patients at risk of osteoporotic fracture are poorly developed. Prescribing advice regarding calcium and vitamin D is slightly down since 2008. Only 66% (compared with 74%) of services report protocols for treating patients with previous fragility fracture who are also being treated with bone sparing agents [5.5.5]. Only 41% (48% in 2008) have protocols for treating those who are housebound and 44% (52%) for care home residents. In the clinical audit, two-thirds of hip fracture patients and only one-third of non-hip fracture patients were receiving calcium and vitamin D3 supplementation 12 weeks after the index fracture [C4.2.4, C4.2.5]. This again shows a gap between protocol and clinical practice.

We **recommend** that NHS providers and commissioners ensure that there are adequate services for assessment and treatment of osteoporosis in their locality, including access to DXA scanning.

5.6. Syncope

Table 5.14: Syncope

Provenance: NSF 6.15/6.4. The team should develop referral arrangements to facilities for specialist syncope assessment.

NICE CG 109. Transient loss of consciousness in adults and young people.⁴⁰

Around a third of fallers will present with symptoms that could benefit from evaluation for syncope (recurrent or unexplained falls). In a population of 300,000, there will be approximately 15,000 fallers over the age of 65, of whom 5000 may have the type of falls that would require consideration of syncope investigation. In reality, not all of these 5000 patients will require formal syncope evaluation, but many will. However, all falls services must possess the facility to investigate fallers for transient loss of consciousness.

5.6.1– 4 Syncope	National	CSPs	CHOs	Acute
5.6.1. Is there an agreed process/ pathway to access syncope services for patients who have “unexplained falls” / blackouts?	65% (209/321)	57% (52/92)	64% (42/66)	71% (115/163)
Does this include:				
5.6.2. Access to tilt table testing with beat-to-beat monitoring?	95% (198/209)	90% (47/52)	90% (38/42)	98% (113/115)
5.6.3. Access to ECG loop recording?	95% (199/209)	88% (46/52)	95% (40/42)	98% (113/115)
5.6.4. How many new outpatients were seen in the last financial year (April 2009 to March 2010) for syncope evaluation? (Not necessarily in the fall or syncope clinic, providing the clinic has access to specialist investigation and expertise)	Median 121 IQR 64– 251 N=106 Service provided by another 62	Median 111 IQR 50– 129 N=12 Service provided by another 33	Median 118 IQR 47– 300 N=13 Service provided by another 20	Median 132 IQR 68– 256 N=81 Service provided by another 9

65% of service providers report an agreed process or pathway to access syncope services for patients with unexplained falls or blackouts [5.6.1], which is a small backward step from the 2008 figure of 73% despite the publication of NICE CG 109 last year. Where available, nearly all services include access to tilt table testing with beat-to-beat monitoring and ECG loop recording. Clinic capacity appears to have increased slightly, since 2008, from a median of 93 patients per year to 121 patients per year. This is still an order of magnitude short of the number of patients that we would expect to be seen in such a service.

We **recommend** that commissioners and providers ensure that there are adequate arrangements for the assessment and treatment of transient loss of consciousness in their locality. This may be as part of the falls service or a separate syncope service with explicit links to the falls service.

Section 6: Training and audit

Respondents: CSPs, acute, MHTs, specialist hospitals, care homes and CHOs. *Note that care homes are not included in the national statistic.*

Results by indicator with commentary

6.1 Training for staff

Table 6.1: Training for staff

Provenance: NSF 6.36. Staff in community health, primary and social care settings should be trained to recognise when older people are at risk of falling and be able to refer them to the falls service for assessment. Assessments should identify the risk factors for falls and osteoporosis and offer appropriate interventions.

6.1.1– 2 Training for staff	National	CSPs	CHOs	Acute	MHTs	Care homes	Specialist Hospital
6.1.1. Did members of the organisation receive training on falls and bone health in the past 12 months?							
Yes	76% (287/376)	71% (65/92)	82% (54/66)	83% (135/163)	60% (32/53)	39% (31/79)	50% (1/2)
6.1.2. Did the organisation provide training to its staff on falls and bone health in the past 12 months?							
Yes	73% (274/376)	65% (60/92)	74% (49/66)	81% (132/163)	58% (31/53)	27% (21/79)	100% (2/2)

1 in 4 provider organisations had not provided falls training to their staff in the previous 12 months [6.1.1, 6.1.2]. A small number of sites had staff that had been trained externally to the organisation. This has not improved since 2008.

6.2: Audit programme

Respondents: CSPs, acute, MHTs, specialist hospitals, care homes and CHOs, as appropriate to the question.

Table 6.2: Audit programme - bone health

6.2.1– 6.2.2.2 Audit programme – bone health	National	CSPs	CHOs	Acute
6.2.1. In the last 12 months (September 2009 to August 2010) have there been any local audits performed to assess any aspects of the falls and bone health service?	81% (260/321)	61% (56/92)	76% (50/66)	94% (154/163)
6.2.2. Has a representative audit been performed on bone health prescribing in primary care?	32% (34/106)	29% (16/56)	36% (18/50)	-
6.2.2.1. Has an audit been performed on calcium and vitamin D3 prescribing in high-risk groups (housebound women and/or residents in residential or nursing homes)?	41% (14/34)	63% (10/16)	22% (4/18)	-
6.2.2.2. Has an audit been performed on calcium and vitamin D3 co-prescribing with anti-resorptive medication (chiefly bisphosphonates) for osteoporosis in primary care?	688% (23/34)	81% (13/16)	56% (10/18)	-

Although most services report some local audit on falls and/or bone health in the previous 12 months [6.2.1], less than half of CSPs report any audit of bone health prescribing in any setting [6.2.2]. There has not been any significant improvement in this

since 2008. While initiation of medication for bone health often occurs in acute care; there is evidence from the clinical audit, among other sources, that continuation of therapy does not always persist in primary care.

Table 6.3: Audit programme - falls

6.2.3 Audit programme – falls	National	CSPs	CHOs	Acute	MHTs	Care homes	Specialist Hospital
6.2.3. Has an audit been performed on the implementation of the inpatient / resident falls policy?							
No policy	7% (22/315)	18% (10/56)	22% (11/50)	1% (1/154)	0% (0/53)	8% (6/79)	0% (0/2)
Yes (if a policy)	67% (196/293)	61% (28/46)	46% (18/39)	78% (119/153)	55% (29/53)	26% (19/73)	100% (2/2)

Around two-thirds of providers have audited against their inpatient falls policy in the last year [6.2.3], which is a significant improvement on the 2008 figure of 46%.

Only a quarter of care homes in our sample have audited against their falls policy and we *recommend* that they do so.

Table 6.4: Audit programme - acute care

6.2.4– 8 Audit programme - acute care	National	Combined	Acute
Has an audit been performed on any aspect of:			
6.2.4. Hip fracture management?	82% (168/204)	54% (27/50)	92% (141/154)
6.2.5. Bone health prescribing in secondary care?	61% (125/204)	32% (16/50)	71% (109/154)
6.2.6. Screening of older people attending A&E with regards to falls and fracture risk?	34% (69/204)	26% (13/50)	36% (56/154)
6.2.7. Has the trust registered with the National Hip Fracture Database?	87% (178/204)	50% (25/50)	99% (153/154)
6.2.8. Is complete data currently being entered into the National Hip Fracture Database?	85% (152/178)	76% (19/25)	87% (133/153)

In acute care, around 18% have not performed any audit on hip fracture management [6.2.4], even though 87% report membership of the NHFD [6.2.7]. It should be noted that a small number of sites answering this Section do not provide inpatient services for hip fracture [4.6], but some of these still responded that they did audit some aspect of hip fracture care, presumably post-discharge from acute care.

Only 61% report a recent audit on prescribing for bone health [6.2.5]. This has not improved since 2008, though it is double their counterparts in primary care [6.2.2].

Only 36% of acute providers audit their ability to screen older people for falls and fracture risk [6.2.6]. This has improved slightly since 2008 (28%). However, only 52% of acute providers reported screening for falls [4.4.1] and 15% for fracture risk [4.4.4] in the ED.

We *recommend* that all acute providers introduce routine screening of older people, presenting to EDs or MIUs, for falls and fractures and that this is audited at least annually.

15% of organisations that have registered with NHFD were not entering complete data at the time of this Audit [6.2.8]. This is consistent with information from the NHFD report at the time.

Table 6.5: Audit programme - action plans

6.2.9– 10 Audit programme – action plans	National	CSPs	CHOs	Acute	MHTs	Care home	Specialist Hospital
6.2.9. Does the local audit programme have an agreed process to develop and review action plans following audit results?							
Yes	90% (285/315)	95% (53/56)	76% (38/50)	92% (142/154)	94% (50/53)	52% (41/79)	100% (2/2)
6.2.10. Have any action plans been developed in response to local or national audits in the last 12 months?							
Yes	90% (282/315)	86% (48/56)	90% (45/50)	94% (145/154)	79% (42/53)	30% (24/79)	100% (2/2)

90% of sites report a process for developing and reviewing action plans following audit [6.2.9] and the same proportion report having developed action plans for falls/fractures following audit in the last 12 months [6.2.10]. As there has been little or no improvement in many aspects of falls and fracture services since 2008, we suggest that action plans are often not converted into action.

We *recommend* that compliance with falls and fracture service action plans are monitored at Board level as part of each organisation's clinical governance and/or patient safety processes.

6.3. Patient views

Respondents: CSPs, acute, and CHOs

Table 6.6: Patient views

Patient views 6.3.1– 4	National	CSPs	CHOs	Acute
6.3.1. Using questionnaires?	60% (194/321)	78% (72/92)	73% (48/66)	45% (74/163)
6.3.2. Using interviews?	19% (62/321)	21% (19/92)	33% (22/66)	13% (21/163)
Either or both:	61% (197/321)	78% (72/92)	74% (49/66)	47% (76/163)
6.3.3. Is written information about falls and bone health available in patient areas such as clinics and day centres?	75% (242/321)	76% (70/92)	82% (54/66)	72% (118/163)
6.3.4. Is written information about falls and bone health available in different languages?	41% (131/321)	45% (41/92)	52% (34/66)	34% (56/163)

It is disappointing that only 60% of organisations report the use of patient questionnaires [6.3.1] despite development of a validated questionnaire as part of our Patient Involvement Programme.³⁸ It is noted that there has, however, been a little improvement since 2008. Far fewer sites use patient interviews [6.3.2] to gain feedback on their falls services and these are almost exclusively the sites that also use questionnaires.

Although three-quarters of organisations report that written information on falls and bone health is available to the older public [6.3.3], less than half provide written information in different languages [6.3.4]. This again endorses the finding of poor communication in our report (RCP 2010).

We *recommend* that organisations that do not currently use a questionnaire should consider introducing the one developed by RCP:††

††Patient experience questionnaire available from: www.rcplondon.ac.uk/sites/default/files/experiences-of-falls-prevention-services-report-10-february-2010.pdf. [Accessed 13 April 2011].



Results: Clinical audit

Data collection and demographics

Table C1: Total sites (cases) with data, and median (Inter-Quartile Range) of cases per site

Total sites with data	National	CSP	CHO	Acute
Group 1: Non-hips	184 (6083) Median 38 IQR 26–40	4 (117) Median 31 IQR NA	22 (698) Median 37 IQR 26–40	158 (5268) Median 38 IQR 27–40
Group 2: Hips	176 (3484) Median 20 IQR 19–20	0	20 (361) Median 20 IQR 16–21	156 (3123) Median 20 IQR 19–20
Total	189 (9567) Median 57 IQR 40–60	4 (117) Median 31 IQR NA	23 (1059) Median 54 IQR 30–59	162 (8391) Median 59 IQR 44–60

Overall 14% (27/189) of sites submitted more than 60 audit cases.

Table C2: Group 1 - Non-hips: Type of fracture

Type of fracture	National (6083)	CSP (117)	CHO (698)	Acute (5268)
Wrist	60% (3629)	79% (93)	67% (471)	58% (3065)
Humerus	26% (1578)	20% (23)	22% (155)	27% (1400)
Vertebra	4% (239)	-	4% (28)	4% (211)
Pelvis	10% (637)	1% (1)	6% (44)	11% (592)

As expected from epidemiological data, the majority of non-hip fragility fractures were of the wrist. There are fewer vertebral fractures than would be expected from population prevalence studies, but this Audit specifically sought to explore falls management and the majority of vertebral fractures are not the result of even minor trauma. The distribution of fractures is very similar to the 2007 audit.

Table C3 Group 2 - Hips: Type of fracture

Type of fracture	National (3484)	CSP (0)	CHO (361)	Acute (3123)
Hip (intracapsular)	54% (1868)	-	56% (203)	53% (1665)
Hip (extracapsular)*	40% (1402)	-	37% (132)	41% (1270)
Hip (other)	6% (214)	-	7% (26)	6% (188)

* Intertrochanteric and subtrochanteric fractures

Table C4: Auditors for Non-hips - Group 1 (combinations were possible)

Auditors	National (6083)	CSP (117)	CHO (698)	Acute (5268)
Doctor	64% (3921)	0% (0)	65% (453)	66% (3468)
Nurse	25% (1544)	42% (49)	30% (209)	24% (1286)
Therapist	16% (986)	58% (68)	18% (128)	15% (790)
Pharmacist	0% (0)	0% (0)	0% (0)	0% (0)
Clinical audit	15% (922)	0% (0)	28% (194)	14% (728)
Other*	3% (206)	0% (0)	0% (0)	4% (206)

*Other comprised: Falls coordinators, managers, administrators, students (medical, physiotherapy, pharmacy) and operating department practitioners

Table C5: Auditors Hip fracture - Group 2 (combinations were possible)

Auditors	National (3484)	CSP (0)	CHO (361)	Acute (3123)
Doctor	71% (2479)	-	64% (232)	72% (2247)
Nurse	27% (925)	-	33% (120)	26% (805)
Therapist	14% (499)	-	15% (54)	14% (445)
Pharmacist	0% (0)	-	0% (0)	0% (0)
Clinical audit	14% (496)	-	23% (83)	13% (413)
Other*	3% (99)	-	0% (0)	3% (99)

*Other comprised: Falls coordinators, managers, pharmacy students.

Table C6: Age at presentation

Age		National	CSP	CHO	Acute
Non-hips	Mean	79	77.7	78	79.1
	SD	8.1	7.4	8.1	8.1
Hips	Mean	83.2	-	82.4	83.3
	SD	7.6	-	7.8	7.6

There is a 4 year difference between the mean ages of non-hip fracture and hip fracture patients in this Audit. This reflects the natural progression of the disease process of osteoporosis and a change in the nature and pattern of falls and injury with older age. There is, in fact, a greater lead time than four years, particularly between wrist fractures and hip fractures, but this Audit did not include those patients under the age of 65. Commissioners will need to be aware that effective management of non-hip fragility fractures might not impact on hip fracture rates for several years.

Table C7 Gender - female

Gender - female	National	CSP	CHO	Acute
Non-hips	86% (5237/6083)	85% (100/117)	83% (577/698)	87% (4560/5268)
Hips	79% (2735/3484)	-	76% (276/361)	79% (2459/3123)

As expected, the majority of fragility fracture patients were female. The approximate 4:1 female: male ratio of hip fractures is consistent with epidemiological studies and with our 2007 audit, as is the even higher proportion of female non-hip fractures.

Table C8: Where presented from
(usual place of residence before fall) (Non-hip)

Usual place of residence (Non-hip)	National (6083)	CSP (117)	CHO (698)	Acute (5268)
Private residence	86% (5221)	88% (103)	90% (625)	85% (4493)
Warden assisted	4% (225)	4% (5)	2% (14)	4% (206)
Residential care home	6% (338)	3% (4)	3% (23)	6% (311)
Care Home (with nursing)	4% (244)	3% (4)	5% (33)	4% (207)
Other*	1% (55)	1% (1)	0.4% (3)	1% (51)

*Other comprised: not known (41), long-stay hospital (7), hostel (3), convent (2), other (2)

Table C9 Where presented from
(usual place of residence before fall) (Hip)

Usual place of residence (Hip)	National (3484)	CSP (0)	CHO (361)	Acute (3123)
Private residence	72% (2517)	-	76% (276)	72% (2241)
Warden assisted	5% (191)	-	2% (9)	6% (182)
Residential care home	12% (418)	-	12% (44)	12% (374)
Care Home (with nursing)	10% (336)	-	8% (29)	10% (307)
Other*	0.6% (22)	-	0.8% (3)	0.6% (19)

*Other: not known (10), mental health unit (7), community hospital (3), hostel (1), prison (1)

10% of patients presenting with non-hip fragility fractures and 22% with hip fractures came from long term care settings, again similar to the figures in the 2007 audit. This underlines the need for effective falls and fracture prevention strategies to include residents of care homes and for services not to exclude older people with dementia.

Section 1: Presentation and pre-operative management

Results by indicator with commentary

1.1 Presentation

Table C1.1: Place of presentation (Non-hip)

Place of presentation (Non-hip) C1.1.1	National (6083)	CSP (117)	CHO (698)	Acute (5268)
A&E	96% (5811)	0% (0)	96% (673)	98% (5138)
MIU	4% (249)	100% (117)	3% (23)	2% (109)
Other*	0.4% (23)	0% (0)	0.3% (2)	0.4% (21)

*Other: Outpatients (orthopaedic/fracture), inpatient falls, clinical decision unit (or similar)

Table C1.2: Place of presentation (Hip)

Place of presentation (Hip) C1.1.1	National (3484)	CSP (0)	CHO (361)	Acute (3123)
A&E	99% (3453)	-	98% (354)	99% (3099)
MIU	0.3% (9)	-	0.8% (3)	0.2% (6)
Other*	0.6% (22)	-	1% (4)	0.6% (18)

*Other: Outpatients (orthopaedic/fracture), inpatient falls, clinical decision unit (or similar)

Table C1.3: Delay (days) from fall to presentation at hospital (Non-hip)

Non-hip	National (6081)	CSP (117)	CHO (698)	Acute (5266)
Same day	84% (5091)	75% (88)	79% (550)	85% (4453)
Next day	10% (601)	18% (21)	13% (90)	9% (490)
Later	6% (389)	7% (8)	8% (58)	6% (323)

Table C1.4: Delay (days) from fall to presentation at hospital (Non-hip)

Hip	National (3484)	CSP (0)	CHO (361)	Acute (3123)
Same day	91% (3157)	-	92% (333)	90% (2824)
Next day	6% (226)	-	6% (21)	6% (205)
Later	3% (101)	-	2% (7)	3% (94)

It is noted that a small, but significant number of fragility fracture patients do not present within 24 hours of injury, as was also apparent in 2007. It is unclear if this due to patient delays in seeking medical attention, or a failure of NHS services to identify the fracture initially in some cases. This would be an area worthy of further research or analysis.

Time of presentation at hospital. The results below reflect data cleaning arising from the comments received because of data entry issues, hence some missing data.

Table C1.5: Time of presentation at hospital (Non-hip)

Time : Non-hip C1.1.2	National (6069)	CSP (117)	CHO (695)	Acute (5257)
00:01 – 04:00	4% (231)	1% (1)	4% (27)	4% (203)
04:01 – 08:00	3% (205)	3% (4)	2% (17)	4% (184)
08:01 – 12:00	26% (1596)	48% (56)	27% (185)	26% (1355)
12:01 – 16:00	31% (1909)	39% (46)	33% (226)	31% (1637)
16:01 – 20:00	23% (1392)	7% (8)	22% (156)	23% (1228)
20:01 – 24:00	12% (736)	2% (2)	12% (84)	12% (650)

Table C1.6: Time of presentation at hospital (Hip)

Time : Hip C1.1.2	National (3481)	CSP (0)	CHO (359)	Acute (3122)
00:01 – 04:00	7% (255)	-	7% (27)	7% (228)
04:01 – 08:00	5% (186)	-	2% (8)	6% (178)
08:01 – 12:00	21% (720)	-	22% (78)	21% (642)
12:01 – 16:00	26% (918)	-	30% (106)	26% (812)
16:01 – 20:00	24% (831)	-	23% (84)	24% (747)
20:01 – 24:00	16% (571)	-	16% (56)	16% (515)

The precise time of presentation was unknown for a significant number of patients, resulting in about a 10% excess of records coded with a presentation time of 00:00, 01:00, 02:00, etc, i.e. of on the hour presentations by default. Correcting for this, only 20% of non-hip and 28% of hip fracture patients presented overnight, between 8 pm and 8 am. This means that it may be cost effective to concentrate specialist fracture services, such as nurse specialists, during the daytime. It may also have implications for timing of dedicated hip fracture theatre lists in order to avoid more than one night between presentation and surgery.

Day of presentation at hospital. The results below reflect data cleaning arising from the comments received because of data entry issues, hence some missing data.

Table C1.7: Day of presentation at hospital (Non-hip)

Day : Non-hip C1.1.2	National (6082)	CSP (117)	CHO (698)	Acute (5267)
Monday	15% (888)	21% (24)	15% (107)	14% (757)
Tuesday	15% (922)	17% (20)	15% (105)	15% (797)
Wednesday	13% (819)	13% (15)	13% (90)	14% (714)
Thursday	16% (946)	21% (25)	15% (105)	16% (816)
Friday	14% (865)	10% (12)	16% (113)	14% (740)
Saturday	14% (864)	13% (15)	12% (84)	15% (765)
Sunday	13% (778)	5% (6)	13% (94)	13% (678)

Table C1.8: Day of presentation at hospital (Hip)

Day : Hip C1.1.2	National (3484)	CSP (0)	CHO (361)	Acute (3123)
Monday	14% (498)	-	13% (47)	14% (451)
Tuesday	14% (480)	-	15% (54)	14% (426)
Wednesday	14% (481)	-	12% (45)	14% (436)
Thursday	17% (578)	-	17% (61)	17% (517)
Friday	15% (519)	-	17% (63)	15% (456)
Saturday	14% (492)	-	13% (48)	14% (444)
Sunday	13% (436)	-	12% (43)	13% (393)

There was an apparently higher number of admissions on Thursday. This is statistically significant ($p < 0.001$), but the difference is small and not sufficient to affect service design or capacity planning. Thursday was not the most common day of admission in the 2007 audit, so this is likely to be a chance finding.

Length of time (minutes) in ED. The results below reflect data cleaning arising from the comments received because of data entry issues, hence some missing data. A further issue with these data is the impact of 0 minute (on the hour) presentation times and similarly 0 minute (on the hour) exit times from the place of presentation. These would be compounded when differences are taken between them. Overall there were 29% of cases affected and the following table excludes these 29% of cases.

Table C1.9: Length of time (minutes) in ED (Non-hip)

Length of time in ED (Non-hip)	National (4301/6083)	CSP (52/117)	CHO (504/698)	Acute (3745/5268)
<=120 min	24% (1015)	60% (31)	29% (146)	22% (838)
121– 240 min	52% (2240)	33% (17)	42% (214)	54% (2009)
240– 1440 min	22% (953)	8% (4)	27% (138)	22% (811)
>1440 min (24h)	2% (93)	0% (0)	1% (6)	2% (87)

Table C1.10: Length of time (minutes) in ED (Hip)

Length of time in ED (Hip)	National (2343/3484)	CSP (0)	CHO	Acute (2089/3123)
<=120 min	16% (363)	-	26% (66)	14% (297)
121– 240 min	57% (1340)	-	41% (104)	59% (1236)
240– 1440 min	25% (596)	-	31% (79)	25% (517)
>1440 min (24h)	2% (44)	-	2% (5)	2% (39)

It is alarming that one-quarter of patients exceeded 4 hours in the ED, despite this being a well-established national target for all patients, as well as a specific standard for hip fracture patients. In the 2007 clinical audit, the figure was 23% for hip fracture patients, compared with 27% in 2010, but this may reflect changes in way in which times were recorded by auditors

on the web tool and cannot, therefore, be taken as evidence of a drop in standards.

The NHS Institute and SIGN recommend that hip fracture patients receive 'fast track' care and leave the ED within 2 hours, but only 16% of patients in the Audit achieved this.^{22, 41}

Table C1.11: Admitted to an acute unit?

The results below reflect data cleaning arising from the comments received because of data entry issues, hence some missing data.

Admitted to an acute unit? C1.1.4	National	CSP	CHO	Acute
Was the patient admitted to an Acute unit?				
Yes				
Non-hip	40% (2462/6083)	2% (2/117)	27% (186/698)	43% (2274/5268)
Hip	99.70% (3474/3484)	-	100% (361/361)	99.70% (3113/3123)

Table C1.12: Length of stay (LOS): Days from registration (C1.1.2) to discharge from inpatient NHS care (C1.1.5): Median (IQR)

Median (IQR) LOS	National	CSP	CHO	Acute
Non-hip	7 (2– 20) N=2434	-	9 (2– 27) N=186	7 (2– 19) N=2246
Hip	20 (11– 37) N=3428	-	25 (13– 46) N=357	19 (11– 36) N=3071

There has been an apparent increase in the proportion of non-hip fracture patients being admitted, from 34% in 2007, to 40% in 2010 [C1.1.4]. Patients that were admitted had a median length of stay of 7 days [C1.1.5]. Although there has, rightly, been a focus on the quality of care following hip fracture, discussions often assume that this is the only burden on unscheduled admissions. This increase appears to be supported by HES and may be a reflection of falling levels of personal support or increased difficulties in discharging older frail fallers

with a fracture from the ED directly to their own home. This finding requires further investigation in its own right, but cannot be explained data from this Audit.

There has been an apparent increase in the median length of acute hospital stay following hip fracture, from 16 days in 2007, to 20 days in 2010. This may reflect changes in the availability of community rehabilitation or social care, or it may be due to changes in acute hospital care processes.

Table C1.13: First week of admission (Non-hip)

First week of admission (Non-hip) C1.1.4.1	National (2462)	CSP (2)	CHO (186)	Acute (2274)
In the first week of admission (or acute peri-operative period) on what ward did the patient spend the majority of their time?				
Orthopaedic ward	47% (1164)	0% (0)	54% (100)	47% (1064)
Orthogeriatric ward	3% (79)	0% (0)	3% (5)	3% (74)
Dedicated hip fracture ward	0.5% (13)	0% (0)	0% (0)	0.6% (13)
General geriatric ward in Acute trust	12% (290)	0% (0)	5% (10)	12% (280)
Other Acute hospital ward	35% (858)	100% (2)	37% (68)	35% (788)
Community hospital - geriatrician input	1% (22)	0% (0)	1% (2)	1% (20)
Community hospital - other	0.7% (18)	0% (0)	0% (0)	0.8% (18)
Other*	0.7% (18)	0% (0)	0.5% (1)	0.7% (17)

*Other comprised: Unknown, intermediate care/rehabilitation wards, private hospital

Table C1.14: First week of admission (Hip)

First week of admission (Hip) C1.1.4.1	National (3474)	CSP (0)	CHO (361)	Acute (3113)
In the first week of admission (or acute peri-operative period) on what ward did the patient spend the majority of their time?				
Orthopaedic ward	76% (2635)	-	80% (289)	75% (2346)
Orthogeriatric ward	8% (275)	-	6% (23)	8% (252)
Dedicated hip fracture ward	8% (285)	-	4% (14)	9% (271)
General geriatric ward in Acute trust	0.8% (29)	-	0% (0)	0.9% (29)
Other Acute hospital ward	7% (232)	-	9% (31)	6% (201)
Community hospital - geriatrician input	0.1% (4)	-	0.8% (3)	0.03% (1)
Community hospital - other	0.1% (3)	-	0% (0)	0.1% (3)
Other*	0.3% (11)	-	0.3% (1)	0.3% (10)

*Other comprised: Unknown, orthopaedic rehabilitation ward, combined surgical-orthopaedic ward

Over 90% of hip fracture patients were admitted to an orthopaedic or orthogeriatric ward, but only 16% of hip fracture patients were admitted to a specialist ward despite this being an NSF recommendation.

Table C1.15: Transfer for rehabilitation

Transfer for rehabilitation C1.1.4.2		National	CSP	CHO	Acute
Was transfer for rehabilitation in an NHS setting required?					
Yes	Non-hip	26% (632/2462)	0% (0/2)	27% (50/186)	26% (582/2274)
	Hip	41% (1414/3474)	-	54% (196/361)	39% (1218/3113)

Table C1.16: Rehabilitation Setting (Non-hip)

Rehabilitation Setting (Non-hip) C1.1.4.3	National (632)	CSP (0)	CHO (50)	Acute (582)
In what type of NHS setting was rehabilitation performed for the patient? (Non-hip) (multiple answers possible)				
Orthopaedic ward	10% (64)	-	10% (5)	10% (59)
Orthogeriatric ward	1% (5)	-	0% (0)	0.9% (5)
Dedicated hip fracture ward	9% (54)	-	0% (0)	9% (54)
General geriatric ward in Acute trust	13% (83)	-	10% (5)	13% (78)
Other Acute hospital ward	9% (54)	-	0% (0)	9% (54)
Community hospital - geriatrician input	32% (202)	-	64% (32)	29% (170)
Community hospital - other	20% (125)	-	8% (4)	21% (121)
Other*	19% (123)	-	10% (5)	20% (118)

Table C1.17: Rehabilitation setting (Hip)

Rehabilitation Setting (Hip) C1.1.4.3	National (1414)	CSP (0)	CHO (196)	Acute (1218)
In what type of NHS setting was rehabilitation performed for the patient? (Hip) (multiple answers possible)				
Orthopaedic ward	18% (257)	-	21% (41)	18% (216)
Orthogeriatric ward	3% (47)	-	1% (2)	4% (45)
Dedicated hip fracture ward	6% (87)	-	2% (4)	7% (83)
General geriatric ward in Acute trust	9% (126)	-	7% (13)	9% (113)
Other Acute hospital ward	6% (87)	-	2% (4)	7% (83)
Community hospital - geriatrician input	34% (478)	-	44% (86)	32% (392)
Community hospital - other	17% (239)	-	10% (19)	18% (220)
Other*	16% (230)	-	17% (33)	16% (197)

*Other mostly comprised NHS rehabilitation units in a variety of settings, including care homes. Few of these received geriatrician input, some were nurse-led, but most lacked further information

It is noted that 26% of non-hip fracture patients move to a rehabilitation setting - half to a bedded unit away from the acute hospital, of which 62% received geriatrician input. 46% of hip fracture patients moved for rehabilitation, 51% were community hospital-based, 67% of these with geriatrician input.

There is a large use overall of community-based rehabilitation following all types of fragility fracture. Future audit is required to explore what is going on in these facilities as we have little detail on the quality of care and rehabilitation being provided. However, this Audit shows that patients in many localities lack many elements of the recommended care pathway.

Table C1.18: Days from registration to rehabilitation

The results below are after data cleaning arising from the comments received because of data entry issues.

Days from registration to rehabilitation (Non-hip)	National (632)	CSP (0)	CHO (50)	Acute (582)
0– 6 days	53% (335)	-	26% (13)	55% (322)
7– 13days	23% (145)	-	44% (22)	21% (123)
14– 27 days	16% (99)	-	22% (11)	15% (88)
28– 55 days	6% (39)	-	4% (2)	6% (37)
56– 111days	1% (8)	-	2% (1)	1% (7)
112+ days	0.2% (1)	-	2% (1)	-
NK	0.6% (5)	-	0% (0)	0.7% (5)

Table C1.19: Days from registration to rehabilitation (Hip)

Days from registration to rehabilitation (Hip)	National (1414)	CSP (0)	CHO (196)	Acute (1218)
0– 6 days	20% (277)	-	16% (31)	20% (246)
7– 13days	38% (544)	-	47% (92)	37% (452)
14– 27 days	31% (436)	-	26% (50)	32% (386)
28– 55 days	9% (128)	-	10% (19)	9% (109)
56– 111days	0.8% (11)	-	2% (3)	0.7% (8)
112+ days	0.1% (1)	-	0% (0)	0.1% (1)
NK	1% (17)	-	0.5% (1)	1% (16)

Table C1.20: Days from registration to rehabilitation

Median (IQR) Days	National	CSP	CHO	Acute
Non-hip	6 (2– 13) N=627*	-	10 (6– 18) N=50	5 (2– 12) N=577
Hip	12 (7– 18) N=1397*	-	11 (8– 17) N=195	12 (7– 18) N=1202

*This summarises the data from tables C1.18 and C1.19 (above), omitting those 5 and 17 patients where the information was not known.

Table C1.21: Ward majority of time spent on (Non-hip)

Ward majority of time spent on (Non-hip) C1.1.4.5	National (632)	CSP (0)	CHO (50)	Acute (582)
On what ward/unit did the patient spend the majority of time between Acute admission and discharge from NHS Care?				
Orthopaedic ward	12% (76)	-	12% (6)	12% (70)
Orthogeriatric ward	9% (55)	-	6% (3)	9% (52)
Dedicated hip fracture ward	0.6% (4)	-	0% (0)	0.7% (4)
General geriatric ward in Acute trust	17% (105)	-	10% (5)	17% (100)
Other Acute hospital ward	13% (81)	-	8% (4)	13% (77)
Community hospital - geriatrician input	25% (159)	-	52% (26)	23% (133)
Community hospital - other	13% (85)	-	4% (2)	14% (83)
Other*	11% (67)	-	8% (4)	11% (63)

*Other mostly comprised NHS rehabilitation units in a variety of settings, including care homes. Few of these received geriatrician input, some were nursed, but most lacked further information.

Table C1.22: Ward majority of time spent on (Hip)

Ward majority of time spent on (Hip) C1.1.4.5	National (1414)	CSP (0)	CHO (196)	Acute (1218)
On what ward/unit did the patient spend the majority of time between Acute admission and discharge from NHS Care?				
Orthopaedic ward	30% (426)	-	21% (42)	32% (384)
Orthogeriatric ward	15% (214)	-	18% (35)	15% (179)
Dedicated hip fracture ward	3% (46)	-	1% (2)	4% (44)
General geriatric ward in Acute trust	7% (95)	-	7% (13)	7% (82)
Other Acute hospital ward	4% (52)	-	2% (4)	4% (48)
Community hospital - geriatrician input	24% (341)	-	36% (70)	22% (271)
Community hospital - other	9% (124)	-	3% (5)	10% (119)
Other*	8% (116)	-	13% (25)	7% (91)

*Other mostly comprised NHS rehabilitation units in a variety of settings, including care homes. Few of these received geriatrician input, some were nurse-led, but most lacked further information

48% of hip fracture patients spend the majority of time on an orthopaedic ward [C1.1.4.5]. As patients seem to spend a various amount of time in one or several settings, it is a challenge for service providers to ensure that all patients receive adequate assessment and management of falls risk and bone health.

We *recommend* that service providers ensure that their hip (and non-hip) fracture pathways include falls risk and bone health regardless of the setting where the patient is treated.

Table C1.23: Discharge destination (Non-hip)

Discharge destination (Non-hip) C1.1.5.1	National (2462)	CSP (2)	CHO (186)	Acute (2274)
What was the discharge destination from this complete episode?				
Usual residence*	85%* (2096) 90% (see below)	100% (2)	84% (156)	85% (1938)
Other private address	1% (33)	0% (0)	2% (4)	1% (29)
Warden assisted (new)	0.2% (4)	0% (0)	0% (0)	0.2% (4)
Residential care home (new)	5% (114)	0% (0)	5% (9)	5% (105)
Nursing home (new)	4% (88)	0% (0)	6% (12)	6% (76)
Other*	5% (127)	0% (0)	3% (5)	5% (122)

*Other comprised at least 100 (out of 127) patients who were transferred to acute NHS settings or rehabilitation in a variety of locations, including care homes. Most of the remaining 'Other' are 'not known'. Excluding the 127 'Other' cases as invalid data gives 90% (2096/2335) patients returning to their usual residence.

Table C1.24: Discharge destination (Hip)

Discharge destination (Hip) C1.1.5.1	National (3474)	CSP (0)	CHO (361)	Acute (3113)
What was the discharge destination from this complete episode?				
Usual residence*	78%* (2723) 84% (see below)	-	84% (304)	78% (2419)
Other private address	1% (39)	-	2% (9)	1% (30)
Warden assisted (new)	0.3% (10)	-	0.3% (1)	0.3% (9)
Residential care home (new)	6% (197)	-	3% (11)	6% (186)
Nursing home (new)	8% (274)	-	7% (24)	8% (250)
Other*	7% (231)	-	3% (12)	7% (219)

*Other comprised mostly patients who were transferred to acute NHS settings or rehabilitation in a variety of locations, including care homes.

Most of the remaining 'Other' are 'not known'.

Excluding the 231 'Other' cases as invalid data gives 84% (2723/3243) patients returning to their usual residence.

It is noted that 10% of non-hip fracture patients and 16% of hip fracture patient are unable to return home. This figure is an under-estimate, particularly for hip fractures, as the Audit excluded patients who died during this episode of care. Nonetheless, this shows the impact of fragility fractures on older peoples function and independence and underlines the need for prevention. For many of these patients, it is now too late to improve services. One study found that 80% of older

women would rather die than end up in a care home following hip fracture. Although the NHFD captures information on death following hip fracture, it does not look at the large number of patients that require new long term care.

We *recommend* that the NHFD includes a record of new long term care placements as a routine outcome measure.

Table C1.25: Early supported discharge team

Early supported discharge team C1.1.6		National	CSP	CHO	Acute
Did the patient have rehabilitation or support at home from a specialist early supported discharge team?					
Yes	Non-hip	12% (704/6083)	5% (6/117)	8% (53/698)	12% (645/5268)
	Hip	26% (907/3484)	-	28% (102/361)	26% (805/3123)

26% of hip fracture patients and 12% of non-hip fracture patients received support from a specialist early supported discharge team [C1.1.6]. In 2007, 17% of hip fracture patients received such support. This suggests there has been some investment in early supported discharge services for hip fracture patients since the last Audit.

Table C1.26: Discharge destination if not admitted (non-hip)

Discharge destination if not admitted (non-hip) C1.1.7	National (3621)	CSP (115)	CHO (512)	Acute (2994)
If not admitted to Acute hospital, where was the patient discharged to following assessment at ED/MIU?				
Usual residence	97% (3498)	97% (111)	99% (506)	96% (2881)
Other private address	0.8% (29)	0% (0)	0.4% (2)	0.9% (27)
Warden assisted (new)	1% (43)	3% (3)	0.6% (3)	1% (37)
Residential care home (new)	0.2% (7)	0% (0)	0% (0)	0.2% (7)
Nursing home (new)	0.2% (6)	0% (0)	0% (0)	0.2% (6)
Other	1% (38)	1% (1)	0.2% (1)	1% (36)

*Other comprised 'Not known' (19), rehabilitation units, mental health units, respite care, and family home.

[C1.1.7] Ten hip fracture patients were not admitted: 5 returned to their previous residence, one to a (new) nursing home and 4 did not have their discharge destination recorded.

Table C1.27: Readmissions

Readmissions C1.1.8		National	CSP	CHO	Acute
Did the patient have any unplanned readmissions within 28 days of discharge from the presenting episode?					
Yes	Non-hip	7% (438/6083)	2% (2/117)	6% (39/698)	8% (397/5268)
	Hip	9% (303/3484)	-	8% (28/361)	9% (275/3123)

There is a high rate of readmission for both hip fracture patients (9%) and non-hip fracture patients (7%) despite long primary admissions. These rates are slightly higher in patients admitted from residential or nursing care homes (11% and 9%, respectively). In the 2007 audit, we asked about readmissions within 12 weeks of non-hip fracture only (11%), so the figures are not directly comparable. However, the 2002 NHS performance indicators figures give a rate of emergency re-admissions following a fractured hip of 7.7%.⁴² This apparent increase in readmission rates is concerning, but requires confirmation.

1.2 Presentation and pre-operative management

Table C1.28: Assessment of pain

Assessment of pain C1.2.1.1	National (3484)	CHO (361)	Acute (3123)
Was there documented assessment of pain severity (e.g. pain score) within the place of first presentation?			
Yes	56% (1942)	54% (196)	56% (1746)

Table C1.29: Analgesia

Analgesia C1.2.1.2	National (3484)	CHO (361)	Acute (3123)
Was adequate analgesia administered within 60 minutes of hospital attendance, or prior to attendance by ambulance personnel?			
Yes	65% (2278)	64% (231)	66% (2047)

Table C1.30: Minutes from registration to analgesia being administered (v1.2.2- v1.1.2)

The results below reflect data cleaning arising from the comments received because of data entry issues, hence some missing data. A further issue with these data is the impact of the 0 minute (on the hour) presentation times and similarly 0 minute (on the hour) times for analgesia. There was also a lot of rounding to the nearest half-hour. These approximations will be compound when differences are taken between them, and may then seem to contradict C1.2.1.2. Consequently, the data in the table below must be viewed with caution.

IF YES to 1.2.1.2, minutes from registration to analgesia	National (2278)	CHO (231)	Acute (2047)
<0 i.e. pre-registration	28% (645)	26% (61)	29% (584)
0– 30 mins	25% (563)	23% (53)	25% (510)
31– 60 mins	25% (559)	31% (71)	24% (488)
61+ mins	21% (476)	18% (42)	21% (434)
Not known	2% (35)	2% (4)	2% (31)

Table C1.31: Pressure ulcer risk assessment

Pressure ulcer risk assessment C1.2.3	National (3484)	CHO (361)	Acute (3123)
Was pressure ulcer risk assessment carried out and appropriate equipment documented as used within 4 hours, or documented as assessed and not required?			
No	48% (1658)	45% (164)	48% (1494)
Not required	4% (149)	7% (26)	4% (123)
Yes	48% (1677)	47% (171)	48% (1506)

Table C1.32: IV fluids

IV fluids C1.2.4	National (3484)	CHO (361)	Acute (3123)
Were IV fluids both prescribed and administered within 12 hours of presentation, or documented as assessed and not required?			
No	14% (488)	10% (37)	14% (451)
Not required	3% (100)	5% (19)	3% (81)
Yes	83% (2896)	85% (305)	83% (2591)

1 in 3 hip fracture patients do not receive adequate pain relief within 60 minutes [C1.2.1.2]. This may have improved since 2007 (46%), though the indicator was calculated differently, but is still unacceptable. 56% of patients were assessed for pain using a pain score [C1.2.1.1], but it should be noted that this is of limited benefit as, *even if not in pain at rest, nearly all hip fracture patients will experience incident pain on moving*, e.g. for X-ray or onto a bed pan to pass urine.

This patient group is highly vulnerable to pressure ulcers and there is, in addition, the risk of existing pressure damage from a 'long lie' at the time of their fall. There is poor documentation of pressure ulcer risk assessment with around a half of patients receiving a pressure ulcer risk assessment and appropriate management within 4 hours [C1.2.3]. There has not been any significant change since 2007. We are concerned about the belief that 4% of hip fracture patients in this Audit were not at risk of pressure sores. It should be noted that the NICE Guidelines (CG29) on pressure ulcer management were published in 2005 and, since that time, all providers in England are obliged to report pressure sores of grade 2 and above as local clinical incidents. There is good evidence from the NPSA that this is not happening. It is possible that some dedicated orthogeriatric services who have high specification pressure relieving mattresses as standard on all beds may provide a better service in reality than audit of documentation suggests, but on the basis of this Audit almost half of patients have

been at risk of hospital-acquired damage to pressure areas whilst waiting more than four hours to receive pressure ulcer assessment and/or appropriate equipment.

14% of patients did not receive intravenous fluids within 12 hours of presentation [C1.2.4], which has not changed significantly since 2007.

These three aspects of care (pain relief, pressure area care and intravenous fluids) form an acute care bundle for hip fracture patients. Only 30% (1056/3484) received all three aspects of this care bundle.

We *recommend* that all acute providers introduce a care bundle approach to the initial management of hip fracture patients, to include pain relief, pressure area care and intravenous fluids, as a minimum.

We also *recommend* that use of an acute care bundle is included in the Best Practice Tariff for hip fracture.

Table C1.33: Pre-operative clinical assessment

Pre-operative clinical assessment C1.2.5– 11	National (3484)	CHO (361)	Acute (3123)
Are the following documented within the patient's initial and / or pre-operative clinical records:			
C1.2.5 Details of co-morbidities with specific mention of the presence or absence of both cardiac and respiratory disease?			
Yes	84% (2941)	88% (317)	84% (2624)
C1.2.6 History of cognitive impairment / dementia prior to the fracture?			
Yes	51% (1770)	45% (163)	51% (1607)
C1.2.7 Assessment of cognitive function using a standardised scale? (NOTE: AMT4 insufficient in this setting)			
Yes	39% (1356)	27% (98)	40% (1258)
C1.2.7.i Whether the results were normal or abnormal?			
Abnormal	37% (507/1356)	42% (41/98)	37% (466/1258)
C1.2.8 List of current medications including doses and frequencies?			
Yes	79% (2761)	76% (276)	80% (2485)
C1.2.9 A record of the presence or absence of cardiac murmurs?			
Yes	84% (2920)	82% (297)	84% (2623)
C1.2.10 Full blood count and renal function test results?			
Yes	86% (2992)	84% (303)	86% (2689)
C1.2.11 Oxygen saturation on room air?			
Yes	93% (3238)	93% (335)	93% (2903)

Most basic elements of pre-operative clinical assessment were performed in the majority of patients, but all at slightly lower rates than in the 2007 audit. However, only 26% (916/3484) patients received an assessment package consisting of all of the above (except C1.2.6).

The main disappointment was cognitive function testing, which was only recorded in 39% of patients [C1.2.7], which is still an improvement since 2008 (29%). This important assessment is still being omitted despite inclusion in NICE guidelines on both falls (CG21 2004) and delirium (CG103 2010), the DH urgent care pathway (DH 2007) and the NHFD.18, 43, 33 The cognitive test was abnormal in 37% of those tested, suggesting that

many hundreds more patients in our sample had untested and, therefore, unrecognised cognitive impairment.

1 in 5 patients did not have details of medication recorded [C1.2.8]. This is important, as regular medications may be being missed and this is a common cause for peri- or post-operative complications, including delirium.

We *recommend* that all providers of hip fracture services introduce a care pathway or admission proforma that includes prompts for all relevant information and assessments.

Table C1.34: Thromboprophylaxis

Thromboprophylaxis C1.2.12– 13	National (3484)	CHO (361)	Acute (3123)
Are the following documented within the patient's initial and / or pre-operative clinical records:			
C1.2.12 Administration of some form of medical thromboprophylaxis within 24 hours of admission?	77% (2686)	79% (284)	77% (2402)
C1.2.13 (if NO to C1.2.12) A clinical decision NOT to prescribe thromboprophylaxis?	21% (170/798)	34% (26/77)	20% (144/721)

Thromboprophylaxis has not improved despite a clear DH requirement. 23% (21% last time) of patients did not receive medical thromboprophylaxis [C1.2.12], but this may be due to many trusts having policies not to give heparin until after surgery. It is hoped that the forthcoming NICE Clinical Guideline on hip fracture will clarify this situation.

Table C1.35: Medical assessment by a geriatrician

Medical assessment by a geriatrician C1.2.14	National (3484)	CHO (361)	Acute (3123)
Was the patient seen within 72 hours of admission for specialist medical assessment by a geriatrician?			
Yes	52% (1804)	43% (156)	53% (1648)

72% of providers report having a protocol for early orthogeriatric input [4.6.8], but only 52% of patients were seen by a senior (Consultant, non-consultant career grade or ST3+ trainee) within 72 hours of admission [C1.2.14]. This is one of the standards required for BPT in England and was not met in nearly half of the patients. By contrast, 60% of patients received surgery within 36 hours, [table C2.2], which is another core BPT standard.

Table C1.36: Hip fracture care pathway

Hip fracture care pathway C1.2.15	National (3484)	CHO (361)	Acute (3123)
Has an integrated hip fracture care pathway been used (that has been agreed by geriatrician, orthopaedic surgeon and anaesthetist)?			
Yes	55% (1905)	44% (160)	56% (1745)

55% of patients were treated following an integrated hip fracture care pathway [C1.2.15]. This is another of the standards required for BPT in England, but was not met in nearly half of the patients. This has improved slightly since 2007 (48%), presumably in response to the introduction of BPT.

Section 2: Surgery and post-operative management

Results by indicator with commentary

Table C2.1: Operative phase

Operative phase C2.1.1	National (3484)	CHO (361)	Acute (3123)
Was the patient operated on?			
Yes	98% (3400)*	98% (354)	98% (3046)

*Note - There were 84 hip fracture patients who were not operated on [C2.1.1]. Their data has not been included in most of the following section on surgery, as well as [C2.2], which deals with the post-operative phase.

Table C2.2: Hours from registration to operation

The results below reflect data cleaning arising from the comments received because of data entry issues.

Provenance: BPT for Hip Fractures.44 Surgery within 36 hours from arrival in an ED, or time of diagnosis if an inpatient to the start of anaesthesia.

Hours	National (3400)	CHO (354)	Acute (3046)
0– 23 (<24 hours)	38% (1304)	31% (108)	39% (1196)
24– 35 HOURS	22% (738)	19% (68)	22% (670)
0– 35 (<36 hours)	60% (2042)	50% (176)	61% (1866)
36– 47	15% (500)	15% (53)	15% (447)
48– 95	17% (571)	22% (77)	16% (494)
≥96	6% (199)	9% (31)	6% (168)
Not known	3% (88)	5% (17)	2% (71)

Surgery within 36 hours is a core standard of the BPT in England. 62% of the patients with known times were operated on within 36 hours. The 36 hour standard is new since the 2007 audit but, for the purposes of comparison, 77% operated on within 48 hours in 2010, which is an improvement on 69% in 2007. However 6% of patients are still waiting 96 hours or more for surgery, not all of whom were delayed for medical reasons (see tables below).

Table C2.3: Reasons for delays to surgery

What was the main or only reason indicated? C2.1.5	Hours from registration to surgery			
	36– 47 hours	48– 95 hours	≥96 hours	Not known
Awaiting orthopaedic diagnosis or investigation (including X-ray)	13	21	22	1
Medically unfit requiring stabilisation preoperatively	80	177	102	10
Awaiting medical review	6	11	2	0
Awaiting medical investigation	15	24	9	1
Organisational or capacity issues	82	120	16	7
Other	6	3	13	0

Table C2.4: Reasons for other delays to surgery

OTHER- What was the main or only reason indicated? C2.1.5	Hours from registration to surgery		
	36– 47 hours	48– 95 hours	≥96 hours
#Hospital 22/04/2010	0	0	1
Failed spinal anaesthetic attempt / failure of equipment	2	0	0
Late diagnosis	0	1	2
Late presentation to hospital	1	0	0
Living will	0	0	1
Patient capacity to consent	1	0	0
Patient refused surgery initially/ Severe anxiety/refusing	0	0	3
Patient choice/ patient requested specific consultant who was away until 3.6.10	1	0	1
Trial of conservative treatment	0	0	5
Unknown/not documented/notes confused	1	2	0

Overall, the care of just 22% (738/3400) of patients met three of the core BPT standards of surgery within 36 hours, specialist geriatric assessment within 72 hours [C1.2.14] and use of an agreed pathway [C1.2.15]. BPT only applies in England but the standards are markers of good practice that are supported by the British Orthopaedic Association. A further 13% (435/3400) of patients received geriatric assessment and were managed using a care pathway, but were not operated on within 36 hours.

Table C2.5: Surgery delays

Surgery delays C.2.1.4– 5 (patients with surgery delayed >36 hours)	National (1270)	CHO (161)	Acute (1109)
C2.1.4 Do the clinical notes indicate a reason or reasons for surgery being delayed > 36 hrs from presentation?			
Yes (of those patients delayed >36 hrs)	58% (741/1270)	72% (116/161)	56% (625/1109)
C2.1.5 (If yes to C2.1.4), what was the main or the only reason indicated?			
Awaiting orthopaedic diagnosis or investigation (including X-ray)	8% (57/741)	9% (10/116)	8% (47/1109)
Medically unfit requiring stabilisation preoperatively	50% (369/741)	45% (52/116)	51% (317/1109)
Awaiting medical review	3% (19/741)	2% (2/116)	3% (17/1109)
Awaiting medical investigation	7% (49/741)	5% (6/116)	7% (43/1109)
Organisational or capacity issues	30% (225/741)	39% (45/116)	29% (180/1109)
Other*	3% (22/741)	0.9% (1/116)	3% (21/1109)

*Other included 6 patients who initially refused surgery, 5 who had conservative management initially, 4 where the diagnosis was made late, and 2 where there was a technical problem in theatre

Where surgery was delayed by more than 36 hours, there was no clearly documented reason for this delay in 42% of clinical notes [C2.1.4]. Though this is concerning, it does represent an improvement since 2007. 30% of patients whose operations were more than 36 hours after presentation were delayed due to operational or capacity issues [2.1.5] which is not acceptable and has not improved since 2007. It should be noted that the financial value of BPT (in England) is calculated on the assumption that 10- 15% of patients will have surgery delayed for medical reasons.

We *recommend* that providers of acute hip fracture services should look at their procedures for getting patients to theatre promptly and to carry out local audit into reasons for delay, where relevant.

Table C2.6: Pressure-relieving equipment

Provenance: NICE CG29.⁴⁵ For patients undergoing surgery, as a minimum provision a high specification foam theatre mattress or other pressure redistributing surface should be used.

Pressure-relieving equipment C2.1.2	National (3400)	CHO (354)	Acute (3046)
Was pressure-relieving equipment documented as being used in theatre, or assessed and not required?			
Yes	47% (1587)	46% (163)	47% (1424)
Not required	4% (142)	3% (12)	4% (130)

NICE CG29 recommends the routine use of pressure relieving mattresses, or equivalent, in the operating theatre. Just under half of operative records, in patients undergoing surgery for hip fracture, included documentation that pressure-relieving equipment was used [C2.1.2]. 4% were documented as not requiring equipment, which is unlikely to be correct. Comments from auditors suggest that documentation of pressure area care is poor, both on the ward and in the operating theatre. There is growing focus on pressure sore prevention, with specific inclusion of new Grade 3-4 pressure sores in the NHS Outcomes Framework 2011/12.46

We *recommend* that pressure area care, and its documentation, is an area for urgent improvement, particularly in the peri-operative period.

Table C2.7: Cement

Cement C2.1.3	National (3400)	CHO (354)	Acute (3046)
Was cement used as part of the operative process?			
Yes	32% (1101)	41% (145)	31% (956)

Note that this is a descriptive indicator, as not all hip fracture operations require cement.

Table C2.8: Canal irrigation

Surgical technique: Provenance: NPSA Rapid Response Report: Mitigating surgical risk in patients undergoing hip arthroplasty for fractures of the proximal femur.⁴⁷ Surgical technique should include: thorough pressurised lavage of the femoral canal before broaching the canal and further instrumentation of the femur; consideration of a suction catheter to reduce the pressure in the intramedullary canal; introducing cement into the femur in retrograde fashion via a cement gun.

Canal irrigation C2.1.3.1	National (1101)	CHO (145)	Acute (956)
Was it clearly documented in the operative notes that canal irrigation was performed prior to broaching the canal and that this was introduced using a cement gun, or equivalent?			
Yes	49% (543)	59% (86)	48% (457)

Use of cement is soon to be recommended, by NICE, for all hip arthroplasties following hip fracture. A small minority of patients die, or suffer severe complications, as a result of marrow fat embolisation following bone cement introduction. The risk of this can be minimised with the correct procedures.⁴⁷ However, only 49% of surgical procedures using cement had clear documentation of safe practice in the use of cement [C2.1.3.1].

We *recommend* that all providers of hip fracture services ensure that they have a protocol for safer practice in the use of cement and that this audited at least annually.

Table C2.9: Presence of consultant

Provenance: SIGN 111 7.1. Evidence suggests that the best results are obtained when hip fracture operations are undertaken by an experienced surgeon

Presence of consultant C2.1.6– 7	National (3400)	CHO (354)	Acute (3046)
C2.1.6 What was the grade of the most senior Surgeon present?			
Consultant	51% (1747)	46% (164)	52% (1583)
Non-consultant career grade	20% (677)	26% (93)	19% (584)
ST3+ speciality trainee	26% (890)	26% (91)	26% (799)
Other – more junior than ST3	0.2% (8)	0.3% (1)	0.2% (7)
Other – others*	2% (78)	1% (5)	2% (73)
C2.1.7 What was the grade of the most senior Anaesthetist present?			
Consultant	61% (2076)	58% (206)	61% (1870)
Non-consultant career grade	17% (579)	22% (78)	16% (501)
ST3+ speciality trainee	14% (478)	14% (50)	14% (428)
Other – more junior than ST3	1% (45)	0.3% (1)	1% (44)
Other – others*	7% (222)	5% (19)	7% (203)

*In free text comments, 'Other' usually indicated that the grade was either not documented or illegible. In some cases, the name only was given. Overall, this means that 300 (4%) clinicians' grades were inadequately documented. In each case, these records fall short of the NHS Litigation Authority (NHS LA)'s Clinical Negligence Scheme for Trusts (CNST) documentation standards.⁴⁸

It is recommended that hip fractures are operated on by senior surgeons and anaesthetists (consultants or non-consultant career grades). 51% of patients were operated on by consultant surgeons with a further 20% by non consultant career grades [C2.1.6]. The rate of senior surgeons has gone down since 2007, when 83% of operations had a senior present. 61% of patients had anaesthetic input by a consultant, with a further 17% from a non-consultant career grade [C2.1.7]. This is unchanged since 2007.

In 2010, National Confidential Enquiry into Patient Outcome and Death (NCEPOD) reviewed the care of older (aged 80+) surgical patients and found a lack of clear guidance on the appropriate level of input into the pre- and peri-operative care of hip fracture patients. They recommended that the:

*British Orthopaedic Association and The British Geriatric Society should provide more specific guidance on the ideal levels of seniority and speciality input into the assessment and decision making phase of the care pathway for patients with fractured neck of femur.*⁴⁹

We support this recommendation.

Table C2.10: Pre-admission function ability, mobility and social support

Pre-admission function ability, mobility and social support C2.2.1– 3	National (3400)	CHO (354)	Acute (3046)
Do the clinical notes made pre-surgery or within 48 hours post surgery include the following documentation:			
C2.2.1 Pre-admission functional ability (minimum of wash, dress, meals)?	86% (2912)	87% (309)	85% (2603)
C2.2.2 Pre-admission mobility including use of walking aids?	95% (3237)	95% (337)	95% (2900)
C2.2.3 Pre-admission social support?	89% (3020)	81% (286)	90% (2734)

Most patients were assessed for their pre-admission functional ability [C2.2.1], mobility [C2.2.2] and social support [C2.2.3], though a significant minority were not. This has not changed since 2007.

We *recommend* that pre-admission functional ability, mobility and social support should be recorded as routine for all hip fracture patients on admission using standardised documentation, such as a care pathway or proforma.

Table C2.11: Multidisciplinary team

Multidisciplinary team meeting C.2.2.4	National (3400)	CHO (354)	Acute (3046)
Do the clinical notes (including care pathway documentation) indicate that a multidisciplinary team (medical, nursing and AHP) has discussed this patient within 7 days of admission?			
Yes	63% (2157)	59% (208)	64% (1949)

Geriatrician-led multidisciplinary care is a core standard of the BPT, in England. Only 63% of hip fracture patients were discussed by a multidisciplinary team within a week of admission [C2.2.4], though this is a significant improvement from 39% in the 2007 audit. Nonetheless, over a third of patients lack formal multidisciplinary care.

Table C2.12: Cognitive assessment

Cognitive assessment C2.2.5	National (3400)	CHO (354)	Acute (3046)
Was a formal assessment of cognitive function, including where indicated a delirium screen (e.g. CAM), performed within 72 hours of surgery?			
Yes	28% (949)	23% (80)	29% (869)

Even if a patient had normal cognition pre-operatively, which was only assessed in 39% of cases [C1.2.7], there is still a significant risk of delirium post-operatively due to the additional physiological and psychological stress of surgery and the effects of medication and hospitalisation. It is recommended by NICE (Clinical Guideline 103 Delirium, and also the forthcoming NICE Clinical Guideline on Hip Fracture that all hip fracture patients are screened for delirium at admission and regularly thereafter.††) Only 28% of patients were documented to have been screened for delirium, which is no better than in 2007.

We *recommend* that providers of acute hip fracture services introduce a mechanism for routine and regular screening for delirium in older patients, including those with hip fractures, in line with NICE CG103.

Table C2.13: Mobilisation

Provenance: NHS Institute Focus of fractured neck of femur. Early mobilisation is associated with reduced length of stay.²²

Mobilisation C2.2.6– 7	National (3400)	CHO (354)	Acute (3046)
C2.2.6 Was an attempt made within 24 hours of surgery to mobilise the patient?	68% (2299) 77%, of patients fit to mobilise	57% (201)	69% (2098)
C2.2.6.i If no, was sitting out of bed documented as being delayed for medical reasons other than delay in post-operative X-ray?	37% (407/1101)	37% (57/153)	37% (350/948)
C2.2.7 Was the patient seen within 24 hours of surgery by a physiotherapist or trained worker?	72% (2459)	63% (223)	73% (2236)
C2.2.8 Was patient seen within 72 hours of surgery (or admission if not operated) by an occupational therapist or supervised OT technical assistant?	49% (1675)	31% (108)	51% (1567)

Early mobilisation following hip fracture surgery reduces the risk of complications such as pressure sores and infections as well as reducing length of stay. Only 77% of patients were mobilised (2299 of those 2993 that were fit to do so) within 24 hours [C2.2.6]. Medical reasons only accounted for 37% of those who were delayed in sitting out of bed [2.2.6.i], which suggests there is something service-orientated to account for most delays. It

††The NICE draft guideline on the management of hip fractures in adults is out for consultation. It is available via this link: www.nice.org.uk/nicemedia/ive/11968/51532/51532.pdf. [Accessed 14 April 2011]

should be noted that early mobilisation does not necessarily require the input of a physiotherapist, but may be performed by the nursing or care staff as part of an agreed protocol or care pathway. 1 in 4 patients were not seen by physiotherapist within 24 hours of surgery [C2.2.7]. We suspect that these deficiencies are, in part a reflection of a lack of therapist provision at weekends. There has been improvement since 2007, when only 49% of patients had sat out of bed within 24 hours.

We note that the forthcoming NICE Clinical Guideline on Hip Fracture recommends “physiotherapy assessment and, unless medically or surgically contraindicated, mobilisation on the day after surgery”. (NICE 2011, in draft).

There were low rates of early occupational therapy engagement, with only 49% of patients being seen by a member of that service within 72 hours of surgery [C2.2.8]. Even allowing for 10% of patients coming from nursing care homes, where OT assessment is unlikely to be indicated, this is unsatisfactory. Patients from residential care homes will usually require OT input, at least with regard to transfers.

Table C2.14: Input from a geriatrician

Input from a geriatrician C2.2.9	National (3400)	CHO (354)	Acute (3046)
Was there regular (at least twice-weekly) documented input from a geriatrician (consultant, NCCG or supervised trainee of ST3 level or above) during the acute care spell?			
Yes	47% (1612)	47% (167)	47% (1445)

Just under half of the patients in this Audit received regular input from a geriatrician during the acute care spell [C2.2.9]. Anecdotally, there has been an increase in advertisements for orthogeriatricians in the last 12 months, many of which were new posts. This is welcomed as, at the time of the Audit, there were specialist medical care needs of many older people which could be improved. Many providers do not have sufficient hours of orthogeriatrician time in consultant job plans [4.6.9].

Table C2.15: Discharge planning

Discharge planning C2.2.10	National (3400)	CHO (354)	Acute (3046)
Is it documented that patient and /or carer views were used in discharge planning?			
Yes	77% (2611)	66% (232)	78% (2379)

It is essential to good practice to include patient and/or carer views in discharge planning, in keeping with the principle of ‘no decisions about me without me’. 50 77% of patients had their views, and/or their carers’ views, used in discharge planning [C2.2.10]. It is good to note that this has improved since 2007, when the figure was 69%.

Table C2.16: National Hip Fracture Database (NHFD)

NHFD C2.2.11	National (3400)	CHO (354)	Acute (3046)
Has the patient’s data been entered into the NHFD?			
Yes	81% (2759)	69% (244)	83% (2515)

81% of hip fracture patients in this Audit had their episodes included in the NHFD [C2.2.11]. This is similar to figures reported by NHFD in their National Report covering the same period and provides evidence that the Audit data is representative of other nationally-collected statistics.

Section 3: Multi-factorial risk assessment and intervention

Results by indicator with commentary

Unless stated otherwise the following denominators apply throughout Section 3:

Table C3.1: Denominators

	National	CSP	CHO	Acute
Non-hip	6083	117	698	5268
Hip	3484	0	361	3123

Table C3.2: Falls

Provenance: NICE CG 21 Recommendation 1.3.2. Following treatment for an injurious fall, older people should be offered a multidisciplinary assessment to identify and address future risk and intervention, aimed at promoting independence and improving physical and psychological function.

Falls C3.1– 3.1.5		National	CSP	CHO	Acute
C3.1. Was a multi-factorial risk assessment performed?	Non-hip	32% (1974)	8% (9)	22% (152)	34% (1813)
	Hip	68% (2380)	-	68% (244)	68% (2136)
Did the falls assessment include documentation of:					
C3.1.1 a history of falls in the past year?	Non-hip	32% (1945)	28% (33)	23% (163)	33% (1749)
	Hip	63% (2193)	-	60% (615)	63% (1978)
C3.1.2 the context of the Presenting fall (place and activity)?	Non-hip	70% (4285)	48% (56)	57% (398)	73% (3831)
	Hip	83% (2886)	-	75% (271)	84% (2615)
C3.1.3 consideration of the cause of the index fall (aetiology) including transient loss of consciousness?	Non-hip	51% (3090)	38% (45)	40% (277)	53% (2768)
	Hip	70% (2444)	-	70% (251)	70% (2193)
C3.1.4 the presence or absence of any previous syncope, blackout, or unexplained fall(s)?	Non-hip	30% (1853)	23% (27)	23% (163)	32% (1663)
	Hip	52% (1828)	-	56% (203)	52% (1625)
C3.1.5 Does the clinical record include a standardised assessment of cognitive function? (Includes hip fracture patients with normal pre-operative cognitive function from 1.2.7.i)	Non-hip	17% (1007)	3%(3)	13%(90)	17% (914)
	Hip*	45% (1578)	-	34% (122)	47% (1456)

*numerator includes any normal result to any assessment of cognitive function using a standardised scale [C1.2.7 and C1.2.7.i] - all positive cases are identified in bold in the table C3.3, page 101:

Table C3.3: Positive cases

Positive cases C1.2.7, C1.2.7i, C3.1.5	Assessment of cognitive function using a standardised scale? C1.2.7	Whether the results were normal or abnormal? C1.2.7i	Does the clinical record include a standardised assessment of cognitive function (not including pre-op for hip fracture, unless this was normal)? C3.1.5		
			N	Y	Total
CHO	No		226	37	263
	Yes	Abnormal	13	28	41
	Yes	Normal	0	0	57
Acute	No		1507	358	1865
	Yes	Abnormal	160	306	466
	Yes	Normal	0	0	792
Total	No		1733	395	2128
	Yes	Abnormal	173	334	507
	Yes	Normal	0	0	849

Note - Several indicators in this section were worded differently to the equivalent indicators in the 2007 audit. The changes in wording were usually to improve clarity following feedback from auditors in 2007, but this may result in unpredictable changes in the way in which some questions were answered. Consequently, direct comparisons of results between the two audits may be less robust. Therefore, only major changes have been highlighted in the commentary.

In the organisational audit [5.1.1], 85% of services reported fully or partially using a clinical note proforma for those patients needing MFFRA. Even if only used partially, we would expect MFFRA to be used on high-risk patient, particularly those that had presented to acute care with a fragility fracture. However, MFFRA was only performed for 32% non-hip fracture and 68% hip fracture patients [C3.1]. The figure of 68% correlates well with the figure of 60% of hip fracture patients receiving inpatient falls assessment, and a further 3% receiving falls clinic referral, in the 2010 report of the National Hip Fracture Database.⁵¹ It is an important finding that non-hip fracture patients are only half as likely as hip fracture patients to receive assessment for falls prevention. This represents many missed opportunities to 'respond to a first fracture and prevent the second' - the 2nd Objective of the DH Prevention package.

We **recommend** that all appropriate patients sustaining a fragility fracture should receive a multi-factorial falls risk assessment.

Regarding the details of the falls risk assessment, only 32% of non-hip fracture and 63% of hip fracture patients had a history of falls documented in the preceding 12 months [3.1.1], though this is an improvement since 2007 (25% and 45% respectively). Important information about the possibility of blackouts [C3.1.4] in those sustaining fractures was considered in 30% of non-hip fracture and 52% of hip fracture patients. Although poor, this is still an improvement since 2007.

Dementia and delirium are significant risk factors for falls and 81% of trusts state they assess cognitive function of fallers [5.1.18]. Yet only a fraction of those presenting with injurious falls were screened for these problems - 17% of non-hip fracture and 45% of hip fracture patients. Again, this is poor but showing signs of improvement since 2007 (13% and 32% respectively).

Table C3.4: Medication Review

Medication Review C3.2.1– 3		National	CSP	CHO	Acute
C3.2.1 Does the clinical record include any features of a medication assessment at the time of the fall?	Non-hip	57% (3474)	49% (57)	40% (278)	60% (3139)
	Hip	74% (2595)	-	71% (256)	75% (2339)
C3.2.2 Was the patient on any psychotropic medication at the time of the fall?	Non-hip	10% (618)	2% (2)	9% (60)	11% (556)
	Hip	18% (614)	-	22% (81)	17% (533)
C3.2.3 Was the patient on night sedation medication at the time of the fall?	Non-hip	7% (410)	3% (3)	9% (60)	7% (347)
	Hip	12% (401)	-	14% (51)	11% (350)

Table C3.5: Medication intervention

Medication intervention C3.2.1– 6		National	CSP	CHO	Acute
By 12 weeks after the fall:					
C3.2.4 Was there evidence of a medication review?	Non-hip	33% (2000)	21% (24)	29% (204)	34% (1772)
	Hip	57% (1972)	-	61% (220)	56% (1752)
C3.2.5 Was the patient on any psychotropic medication?	Non-hip	8% (489)	2% (2)	8% (54)	8% (433)
	Hip	14% (494)	-	21% (77)	13% (417)
C3.2.6 Was the patient on any night sedation?	Non-hip	5% (332)	2% (2)	7% (52)	5% (278)
	Hip	9% (314)	-	13% (46)	9% (268)

Medications, particularly those that cause sedation or otherwise affect the brain (psychotropics), are associated with an increased risk of falls and fractures. Medication assessment and intervention was included in most studies of multi-factorial interventions for falls prevention and is felt to be a key intervention. Basic medication assessment, at the time of the fall, was recorded in 57% of non-hip fracture and 74% of hip fracture patients. However, 95% of sites using MFFRA stated that medication was routinely recorded as part of falls assessment [5.1.11]. Only a third of non-hip fracture and 57% of hip fracture patients had documented evidence of medication review [C3.2.4].

The proportion of patients on psychotropics or night sedation at 12 weeks was lower than at time of fall in both patient groups [C3.2.2, C3.2.3 compared to C3.2.5, C3.2.6]. Reduction to zero use would be unachievable, as some patients will require the medication or be unable to safely withdraw from it. However, in no group did the use of such medication reduce by more than a third, which suggests that there is still room for improvement. It is worth noting that the proportion of patients on psychotropic medication or night sedation in this Audit is almost identical to the national picture in the 2007 audit, though there has been a slight improvement in the reduction of night sedation use by 12 weeks.

We note that a much higher proportion of care home (residential and nursing) residents were on psychotropic or sedative medication at the time of a fall (see table C3.6). 29% of non-hip and 40% of hip fracture patients were on psychotropic medication. The rates for night sedation were 17% and 23% respectively. Again, the use of both classes of drugs was lower at 12 weeks in both groups of patients.

We therefore *recommend* that NHS organisations ensure robust medication assessment and review of all older people identified as being at risk of falls. In particular, providers need to do more to systematically identify and manage older people on sedative or psychotropic medication, reducing or stopping such medication where possible, especially in care homes.

Table C3.6: Medication intervention by usual place of residence

Medication intervention (care home with nursing/residential care home) C3.2.2– 6	Non-hips	Hips
C3.2.2 Was the patient on any psychotropic medication at the time of the fall?	29% (171/582)	40% (298/754)
C3.2.5 By 12 weeks after the fall was the patient on any psychotropic medication?	19% (110/582)	30% (228/754)
C3.2.3 Was the patient on night sedation medication at the time of the fall?	17% (97/582)	23% (170/754)
C3.2.6 By 12 weeks after the fall was the patient on any night sedation?	12% (71/582)	17% (129/754)

Table C3.7: Cardiovascular assessment

Cardiovascular assessment C3.3.1– 6		National	CSP	CHO	Acute
Did the patient's cardiovascular assessment include:					
C3.3.1 Documentation of presence or absence of heart murmurs?	Non-hip	38% (2304)	18% (21)	23% (163)	40% (2120)
	Hip	83% (2879)	-	75% (271)	84% (2608)
C3.3.2 Performance of an ECG?	Non-hip	37% (2243)	3% (3)	23% (159)	40% (2081)
	Hip	90% (3141)	-	77% (277)	92% (2864)
C3.3.3 (if YES to 3.3.2) Documentation that the ECG was analysed?	Non-hip	29% (1787)	3% (3)	17% (122)	32% (1662)
	Hip	77% (2689)	-	59% (213)	79% (2476)
C3.3.4 Documented lying and standing blood pressure readings? (or recorded that patient is unable to stand)	Non-hip	15% (934)	6% (7)	9% (61)	16% (866)
	Hip	38% (1325)	-	40% (146)	38% (1179)
C3.3.5 Did cardiac assessment reveal an abnormality requiring further investigation or onward referral?	Non-hip	6% (356)	1% (1)	3% (20)	6% (335)
	Hip	14% (471)	-	12% (43)	14% (428)
C3.3.6 (if Yes to C3.3.5) Is there evidence of referral for further investigation or assessment for cardiac disease?	Non-hip	72% (257/356)	100% (1/1)	80% (16/20)	72% (240/335)
	Hip	79% (373/471)	-	67% (29/43)	80% (344/428)

Cardiovascular diseases, particularly postural hypotension and dysrhythmias, are common treatable causes for falls in older people. The clinical audit shows there are significant missed opportunities here: Most patients did not receive adequate assessment of postural blood pressure and most non-hip fracture patients did not receive adequate cardiovascular examination or ECG analysis. It is likely that this is due to the lack of routine medical input to falls assessments, except in acute inpatient settings.

Most hip fracture patients had documentation of examination for heart murmurs [C3.3.1] and of an ECG [C3.3.3], though this is to be expected in a population of older people undergoing surgery. It is therefore a concern that 17% had no documented examination for murmurs and 23% no evidence of analysis of an ECG. It should be noted that cardiac dysrhythmias are a common complication of hip fracture surgery, particularly when

cement is used, so a baseline ECG is essential. Only 38% of non-hip fracture patients were examined for murmurs [C3.3.1] and even fewer, 29%, had evidence of ECG analysis [C3.3.3].

Only 15% of non-hip fracture and 38% of hip fracture patients are documented as having lying and standing BP assessed [C3.3.4]. This has improved since 2007, when the equivalent figures were 13% and 23% respectively. Even allowing for a minority of patients that will be unable to stand, this remains unacceptably poor.

Overall, 10% of patients had cardiovascular abnormalities identified, but there was no evidence of onward referral or assessment in a quarter of these cases.

These indicators again demonstrate the general trend to both hip and non-hip fracture patients receiving sub-optimal care, despite slight improvements since 2007, with the non-hip

fracture patients getting half as good care as those with hip fractures.

We *recommend* that falls service staffing should include access to a consultant or other senior doctor specialising in older people. Alternatively, falls nurses and/or allied health professionals (AHPs) must be trained in cardiac examination, including measurement of lying and standing blood pressure, and ECG analysis.

Table C3.8: Visual assessment and intervention

Visual assessment C.3.4.1	National	CSP	CHO	Acute
C3.4.1 Did the patient have an assessment for visual impairment? (Or it is recorded that the patient is registered blind)				
Non-hip	10% (604)	4% (5)	9% (64)	10% (535)
Hip	17% (579)	-	15% (54)	17% (525)

Very few patients received a visual function assessment [C3.4.1]. Only 10% of non-hip fracture and 17% of hip fracture patients were assessed for visual impairment, which has not improved significantly since 2007. 39% of providers claimed to assess vision routinely as part of falls risk assessment [5.1.7]. In the 2007 audit, we found that visual impairment was present in over a third of patients whose vision had been assessed. Therefore, there are still many older people who are presenting with a serious injury following a fall and who are not assessed for a potentially treatable risk factor for further falls and fractures.

Table C3.9: Continence

Continence C3.5.1– 3	National	CSP	CHO	Acute
C3.5.1 Did the patient have any assessment of urinary function, including continence status?				
Non-hip	28% (1686)	3% (4)	17% (121)	30% (1561)
Hip	69% (2395)	-	64% (230)	69% (2165)
C3.5.2 (if Yes to 3.5.1) Was there any impairment of urinary function or continence?				
Non-hip	24% 413/1686	25% (1/4)	26% (32/121)	24% 380/1561
Hip	36% 56/2395	-	35% (81/230)	36% (775/2165)
C3.5.3 (if YES to 3.5.2) Was referral made for continence problems from the assessment, or is there clear documentation that referral was not required? Yes / Not required				
Non-hip	58% (239/413)	100% (1/1)	47% (15/32)	59% (223/380)
Hip	51% (439/856)	-	64% (52/81)	50% (387/775)

Urinary incontinence is common in older people and is associated with an increased risk of falls, particularly in hospital. Continence assessment should be a routine part of inpatient assessment, but only 69% of hip fracture patients had documented evidence of such assessment [C3.5.1]. This is a slight improvement since 2007 (63%). Over a third of hip fracture patients were identified as having impaired urinary function [3.5.2], but only 51% of these were referred for further assessment. Again, this is an improvement since 2007 (28%) but remains sub-standard.

For non-hip fragility fracture patients, only 28% received urinary assessment (21% in 2007), with 24% having impaired urinary function and 58% of these being referred for further assessment (40% in 2007). The improved rates of assessment and referral may be a positive reflection on the national audit of continence care, among other initiatives.

Table C3.10: Gait, balance and mobility assessment

Gait, balance and mobility assessment C3.6.1		National	CSP	CHO	Acute
C3.6.1 Do the clinical records indicate that a gait, balance and mobility assessment was performed within 12 weeks of the fall?					
Relevant*	Non-hip	99% (6030)	99% (116)	99.6% (695)	99% (5219)
	Hip	97% (3364)	0	98% (352)	96% (3012)
Declined	Non-hip	2% (103/6030)	9% (11/116)	2% (15/695)	1% (77/5219)
	Hip	1% (46/3364)	-	0.6% (2/352)	1% (44/3012)
Yes	Non-hip	34% (2028/5927)	10% (10/105)	27% (183/680)	36% (1835/5142)
	Hip	72% (2389/3318)	-	67% (236/350)	73% (2153/2968)

*Note - Relevant means that patients that were bedbound would not be expected to be assessed for mobility. However, all other patients, even those with no previous falls who were able to walk normally before the fracture should still receive at least a simple bedside assessment of mobility (e.g. Timed Up and Go Test) in order to assess their risk of further falls.

Table C3.11: Gait, balance and mobility assessment

Gait, balance and mobility assessment C3.6.2– 4	National	CSP	CHO	Acute
(if YES to C3.6.1) Does the clinical record of this assessment include:				
C3.6.2 Result of a gait, balance and mobility assessment, using a standardised tool (or a decision that further assessment is inappropriate, e.g. severely limited mobility)?				
Non-hip	49% (984/2028)	40% (4/10)	51% (94/183)	48% (886/1835)
Hip	51% (1213/2389)	-	50% (119/236)	51% (1094/2153)
C3.6.3 Statement of person's perceived functional ability?				
Non-hip	58% (176/2028)	20% (2/10)	61% (112/183)	58% (1062/1835)
Hip	58% (1385/2389)	-	66% (155/236)	57% (1230/2153)
C3.6.4 Record of fear of falling during activities of daily living using a recognised assessment tool?				
Non-hip	22% (447/2028)	20% (2/10)	30% (55/183)	21% (390/1835)
Hip	20% (485/2389)	-	23% (54/236)	20% (431/2153)

Only 34% of non-hip and 72% of hip fracture patients received a gait, balance and mobility assessment at all [C3.6.1], showing a slight improvement since 2007 (28% and 68%). Once again, non-hip fracture patients are half as likely as hip fracture patients to receive assessment. Only around half of those assessments were using a standardised tool [C3.6.2] which is worrying and raises a question about what quality of assessment the other half of patients received.

Only 22% of non-hip and 20% of hip fracture patients were assessed for fear of falling [C3.6.4], which is slightly worse than in 2007 (27% and 24%).

We *recommend* that fear of falling, an important measure of fall-related morbidity, is performed routinely in all patients presenting with a history of injurious or repeated falls. A simple visual analogue scale can usually be used very quickly.

We note that 94% of sites using a tool or proforma for MFFRA report that their tools include standardised gait, balance and mobility assessment [5.1.3]. This highlights a gross disparity between protocol and delivery.

Table C3.12: Strength and balance training interventions

Strength and balance training C3.6.5-8		National	CSP	CHO	Acute
C3.6.5 Has the patient participated in any form of exercise programme?					
Relevant	Non-hip	87% (5263)	90% (105)	86% (601)	87% (4557)
	Hip	89% (3095)	-	94% (340)	88% (2755)
Declined	Non-hip	3% (154/5263)	6% (6/105)	4% (22/601)	3% (126/4557)
	Hip	2% (57/3095)	-	0.6% (2/340)	2% (55/2755)
Yes	Non-hip	19% (965/5109)	5% (5/99)	11% (63/579)	20% (897/4431)
	Hip	44% (1346/3038)	-	43% (146/338)	44% (1200/2700)
C3.6.6 (If Relevant and not declined to C3.6.5) Was this an Otago or FaME programme > 12 weeks duration?					
Yes	Non-hip	2% (109/5109)	0% (0/99)	2% (13/579)	2% (96/4431)
	Hip	4% (123/3038)	-	3% (10/338)	4% (113/2700)
No	Non-hip	95% (4860/5109)	99% (98/99)	97% (559/579)	95% (4203/4431)
	Hip	91% (2765/3038)	-	93% (315/338)	91% (2450/2700)
Modified	Non-hip	3% (140/5109)	1% (1/99)	1% (7/579)	3% (132/4431)
	Hip	5% (150/3038)	-	4% (13/338)	5% (137/2700)
C3.6.7 (If Yes to C3.6.5) Has the strength and balance programme been prescribed by an appropriately trained professional?					
Yes	Non-hip	87% (835/965)	20% (1/5)	89% (56/63)	87% (778/897)
	Hip	93% (1254/1346)	-	95% (138/146)	93% (1116/1200)
C3.6.8 (If Yes to C3.6.5) Has the strength and balance programme been monitored by an appropriately trained professional competent to modify and progress the exercise programme?					
Yes	Non-hip	83% (800/965)	20% (1/5)	92% (58/63)	83% (741/897)
	Hip	92% (1237/1346)	-	95% (138/146)	92% (1099/1200)

86% of services reported that they provide supervised strength and balance exercise training for falls prevention [5.4.1]. However, only 19% of relevant non-hip fracture patients in the clinical audit participated in any form of exercise programme [C3.6.5], which represents a major wasted opportunity in terms of 'respond to a first fracture prevent the second'. 44% of relevant hip fracture patients participated in exercise post-fracture, but we suspect that much of this was part of their rehabilitation to restore mobility, rather than exercise for falls prevention. These figures have not improved since 2007 and, again, show a clear gap between service provision and delivery. Most exercise was prescribed [C3.6.7] and monitored [C3.6.8] by an appropriately trained professional.

It is important to note that many hip fracture patients will be unable to cope with Otago or FaME exercise programmes within 12 weeks of injury. However, it is clear that there is very limited access to evidence based exercise programmes in many localities. Less than one in twenty patients, even in the non-hip fracture group, commenced an evidence-based therapeutic exercise programme of more than 12 week duration [C.3.6.6].

We *recommend* that all appropriate patients sustaining a fragility fracture should have access to evidence-based strength and balance exercises.

Table 3.13: Safety at home

Safety at home C3.7.1– 3		National	CSP	CHO	Acute
C3.7.1 Was the patient's home assessed by an occupational therapist for home/environmental hazards?					
Relevant	Non-hip	87% (5303)	93% (109)	90% (630)	87% (4564)
	Hip	69% (2398)	-	73% (264)	68% (2134)
Declined	Non-hip	4% (235/5303)	18% (20/109)	10% (64/630)	3% (151/4564)
	Hip	2% (37/2398)	-	0.80% (2/264)	2% (35/2134)
Yes	Non-hip	19% (981/5068)	7% (6/89)	15% (83/566)	20% (892/4413)
	Hip	65% (1529/2361)	-	69% (180/262)	64% (1349/2099)
C3.7.2 (If Relevant and not declined to 3.7.1) Was an access or home visit/assessment performed in the patient's own environment?					
Declined	Non-hip	0.4% (18/5068)	0% (0/89)	0.4% (2/566)	0.4% (16/4413)
	Hip	0.4% (10/2361)	-	0% (0/262)	0.5% (10/2099)
Yes	Non-hip	10% (525/5068)	7% (6/89)	8% (44/566)	11% (475/4413)
	Hip	38% (891/2361)	-	47% (124/262)	37% (767/2099)
C3.7.3 (If Yes to C3.7.2) What home hazard assessment was performed in the patient's own environment?					
Westmead	Non-hip	3% (16/525)	0% (0/6)	0% (0/44)	3% (16/475)
	Hip	2% (16/891)	-	0% (0/124)	2% (16/767)
Homefast	Non-hip	13% (68/525)	17% (1/6)	14% (6/44)	13% (61/475)
	Hip	9% (79/891)	-	13% (16/124)	8% (63/767)
SAFER*	Non-hip	4% (23/525)	0% (0/6)	9% (4/44)	4% (19/475)
	Hip	5% (41/891)	-	15% (19/124)	3% (22/767)
Locally validated tool	Non-hip	13% (66/525)	33% (2/6)	9% (4/44)	13% (60/475)
	Hip	12% (104/891)	-	6% (8/124)	13% (96/767)
Unvalidated or no tool	Non-hip	67% (352/525)	50% (3/6)	68% (30/44)	67% (319/475)
	Hip	73% (651/891)	-	65% (81/124)	74% (570/767)

* Safety assessment of function for rehabilitation

There is generally poor access to home hazard assessment and intervention, particularly for non-hip fracture patients. 65% of hip fracture and 19% of non-hip fracture patients received home hazard assessment by an occupational therapist [C3.7.1], less than half of which took place in the patient's home environment [C3.7.2]. There has been an increase in the number of occupational therapy assessments since 2007, but a decrease in assessments in the patient's home. This may reflect changes in the organisation of community occupational therapy services, or a change in occupational therapy practice to improve time efficiency. Most (67% non-hip and 73% hip fracture patient) home hazard assessments were performed using unvalidated tools or no tool at all [C3.7.3]. This should be contrasted with 47% sites reporting that they use a validated tool [5.1.14] in the organisational audit.

Table C3.14: Home hazard interventions

Home hazard interventions C3.7.4– 5		National	CSP	CHO	Acute
C3.7.4 Were appropriate home hazard interventions offered?					
Relevant	Non-hip	66% (4038)	82% (96)	70% (489)	66% (3453)
	Hip	58% (2038)	-	66% (238)	58% (1800)
Declined	Non-hip	4% (158/4038)	13% (12/96)	6% (30/489)	3% (116/3453)
	Hip	2% (39/2038)	-	0.8% (2/238)	2% (37/1800)
Yes	Non-hip	22% (847/3880)	6% (5/84)	16% (75/459)	23% (767/3337)
	Hip	72% (1446/1999)	-	78% (183/236)	72% (1263/1763)
C3.7.5 Was the patient recommended any form of telecare (such as a pendant alarm) to assist in the management of their falls risk?					
Relevant	Non-hip	64% (3922)	84% (98)	67% (470)	64% (3354)
	Hip	49% (1708)	-	55% (199)	48% (1509)
Declined	Non-hip	3% (124/3922)	2% (2/98)	7% (33/470)	3% (89/3354)
	Hip	4% (61/1708)	-	3% (5/199)	4% (56/1509)
Yes (of those relevant and not declined)	Non-hip	8% (294/3798)	4% (4/96)	6% (26/437)	8% (264/3265)
	Hip	21% (352/1647)	-	28% (54/194)	21% (298/1453)

72% of hip fracture patients were offered home hazard interventions, where appropriate [C3.7.4], but only 22% of non-hip fracture patients were offered interventions. This is further evidence that many localities have inadequate focus on preventing second fractures, even though the relevant preventative services exist.

21% of hip fracture and just 8% of non-hip fracture patients were offered any form of telecare, even a pendant alarm [C3.7.5]. This is an improvement since 2007 (16% and 5%), but remains poor.

We *recommend* that local services consider introducing a scheme for all fallers to be offered a free care alarm for a trial period on discharge from hospital. This scheme is already available in some localities.

Table C3.15: Social care

Social care C3.8.1– 2		National	CSP	CHO	Acute
C3.8.1 Was the patient assessed for their need of social care support?					
Relevant	Non-hip	74% (4477)	94% (110)	81% (565)	72% (3802)
	Hip	72% (2523)	-	77% (279)	72% (2244)
Declined	Non-hip	4% (163/4477)	7% (8/110)	6% (32/565)	3% (123/3802)
	Hip	2% (63/2523)	-	2% (5/279)	3% (58/2244)
Yes	Non-hip	38% (1630/4314)	29% (30/102)	30% (161/533)	39% (1439/3679)
	Hip	83% (2041/2460)	-	77% (210/274)	84% (1831/2186)
C3.8.2 (If 3.8.1 is YES) Was referral for Social services input offered?					
Relevant	Non-hip	78% (1271/1630)	43% (13/30)	81% (131/161)	78% (1127/1439)
	Hip	84% (1719/2041)	-	88% (185/210)	84% (1534/1831)
Declined	Non-hip	8% (105/1271)	38% (5/13)	5% (7/131)	8% (93/1127)
	Hip	4% (77/1719)	-	3% (5/185)	5% (72/1534)
Yes	Non-hip	86% (1008/1166)	63% (5/8)	89% (110/124)	86% (893/1034)
	Hip	88% (1450/1642)	-	89% (160/180)	88% (1290/1462)

38% of non-hip and 83% of hip fracture patients were assessed for social care, if appropriate [C3.8.1], similar to the picture in 2007. Of these patients, 86% and 88% were offered social care input [C3.8.2]. This highlights a significant lack of documented

social care assessment for non-hip fracture patients, though many of these would only require a quick screen of their care needs rather than formal referral.

Table 3.16: Organisation of care

Organisation of care C3.9.1– 4		National	CSP	CHO	Acute
C3.9.1 Did the multi-factorial falls risk assessment involve a multidisciplinary falls clinic/service?					
Appropriate	Non-hip	88% (5352)	83% (97)	87% (608)	88% (4647)
	Hip	86% (2986)	-	87% (314)	86% (2672)
Yes	Non-hip	12% (630/5352)	7% (7/97)	9% (57/608)	12% (566/4647)
	Hip	25% (756/2986)	-	24% (74/314)	26% (682/2672)
C3.9.2 Did the multi-factorial falls clinic/service include medical assessment supervised by a consultant or non-consultant career grade?					
Yes	Non-hip	9% (488/5352)	1% (1/97)	7% (45/608)	10% (442/4647)
	Hip	22% (652/2986)	-	19% (61/314)	22% (591/2672)
C3.9.3 Did the multi-factorial falls risk assessment of this patient lead to an individualised intervention plan recorded in the clinical notes?					
Relevant	Non-hip	86% (5245)	84% (98)	85% (593)	86% (4554)
	Hip	87% (3041)	-	92% (331)	87% (2710)
Yes	Non-hip	14% (746/5245)	16% (16/98)	8% (50/593)	15% (680/4554)
	Hip	31% (947/3041)	-	25% (83/331)	32% (864/2710)
C3.9.4 (If Yes to C3.9.3) Was the intervention plan shared with the patient in writing?					
Yes	Non-hip	31% (232/746)	81% (13/16)	28% (14/50)	30% (205/680)
	Hip	22% (209/947)	-	19% (16/83)	22% (193/864)

The NSF recommended formal multidisciplinary multi-factorial assessment of fallers presenting with a fall and fracture. This is supported by evidence from the PROFET study, which recruited fallers presenting to the ED.⁵² It is reasonable to extrapolate this to the acute non-hip fragility fracture population. While it may be argued that some younger patients presenting with their first fall and fracture may not need a full assessment, we would have expected more than 12% of non-hip and 25% of hip fracture patients to be seen in a falls clinic, or equivalent [C3.9.1]. A significant minority of these patients were seen in non-medical clinics [C3.9.2]. Both of these figures appear to have improved since 2007, though the indicator wording has changed between audits.

Only 14% of non-hip and 31% of hip fracture patients had a documented falls intervention plan recorded in the clinical notes [C3.9.3] and this was shared with the patient in under a third of cases [C3.9.4]. Again, this supports the finding, in the related Patient Involvement project, that patients find communication from falls services to be poor.

The minority of patients that received falls assessment in a falls clinic, or similar service, were more likely to receive each and all of the components of a MFFRA, including medication review (see tables C3.17-C3.25). This is compelling evidence for the benefit of organised care as a means of delivering the interventions required for secondary falls prevention.

We *recommend* that commissioners ensure adequate local provision of falls clinics, or similar, particularly for those older people who have fallen and fractures or who are at risk of fracture.

Tables C3.17-C3.25: Analysis of the association between use of a falls clinic/service and individual components of assessment, intervention, and documentation

Table C3.17: Evidence of medication review

Association between use of a falls clinic/service and evidence of medication review C3.9.2 and C3.2.4		
Did the multi-factorial falls clinic/service include medical assessment supervised by a consultant or non-consultant career grade? C3.9.2		
By 12 weeks after the fall was there evidence of a medication review? (Can be in hospital, at home, in clinic etc.) C3.2.4		
Non-hips	No	27% (1327/4864)
	Yes	73% (355/488)
Hips	No	50% (1190/2334)
	Yes	73% (478/652)

Table C3.18: Presence or absence of any previous syncope, blackout, or unexplained fall(s)

Association between use of a falls clinic/service and presence or absence of any previous syncope, blackout, or unexplained fall(s) C3.9.2 and C3.1.4		
Did the multi-factorial falls clinic/service include medical assessment supervised by a consultant or non-consultant career grade? C3.9.2		
Did the assessment document the presence or absence of any previous syncope, blackout, or unexplained fall(s)? C3.1.4		
Non-hips	No	24% (1127/4722)
	Yes	74% (465/630)
Hips	No	45% (1006/2230)
	Yes	75% (564/756)

Table C3.19: Standardised assessment of cognitive function

Association between use of a falls clinic/service and cognitive function C3.9.2 and C3.1.5		
Did the multi-factorial falls clinic/service include medical assessment supervised by a consultant or non-consultant career grade? C3.9.2		
Does the clinical record include a standardised assessment of cognitive function (not including pre-op for hip fracture, unless this was normal)? C3.1.5		
Non-hips	No	12% (565/4722)
	Yes	51% (319/630)
Hips*	No	40% (888/2230)
	Yes	59% (447/756)

*numerator includes any normal result to any assessment of cognitive function using a standardised scale [C1.2.7 and C1.2.7i]

Table C3.20: Cardiovascular assessment include documented lying and standing blood pressure readings

Association between use of a falls clinic/service and cardiovascular assessment C3.9.2 and C3.3.4		
Did the multi-factorial falls clinic/service include medical assessment supervised by a consultant or non-consultant career grade? C3.9.2		
Documented lying and standing blood pressure readings? (Exception – if patient is unable to stand) (Did the patient's cardiovascular assessment include) C3.3.4 Yes/unable to stand		
Non-hips	No	10% (478/4722)
	Yes	51% (324/630)
Hips	No	32% (711/2230)
	Yes	46% (348/756)

Table C3.21: Assessment for visual impairment

Association between use of a falls clinic/service and vision assessment C3.9.2 and C3.4.1		
Did the multi-factorial falls clinic/service include medical assessment supervised by a consultant or non-consultant career grade? C3.9.2		
Did the patient have any assessment for visual impairment? (Assessing reading only is insufficient, as near sight is not relevant to falls risk) C3.4.1 Yes/registered blind		
Non-hips	No	7% (307/4722)
	Yes	35% (219/630)
Hips	No	12% (276/2230)
	Yes	31% (235/756)

Table C3.22: Assessment of urinary function including continence status

Association between use of a falls clinic/service and continence C3.9.2 and C3.5.1		
Did the multi-factorial falls clinic/service include medical assessment supervised by a consultant or non-consultant career grade? C3.9.2		
Did the patient have any assessment of urinary function, including continence status? C3.5.1		
Non-hips	No	23% (1075/4722)
	Yes	60% (381/630)
Hips	No	64% (1423/2230)
	Yes	81% (601/756)

Table C3.23: Gait, balance and mobility assessment performed within 12 weeks of the fall

Association between use of a falls clinic/service and gait, balance and mobility assessment C3.9.2 and C3.6.1			
Did the multi-factorial falls clinic/service include medical assessment supervised by a consultant or non-consultant career grade? C3.9.2		Do the clinical records indicate that a gait, balance and mobility assessment was performed within 12 weeks of the fall? C3.6.1	
		Relevant	Yes
Non-hips	No	99% (4656)	28% (1301/4656)
	Yes	97% (612)	79% (485/612)
Hips	No	97% (2167)	67% (1446/2167)
	Yes	97% (730)	86% (626/730)

Table C3.25: Multi-factorial falls assessment lead to an individualised intervention plan recorded in the clinical notes

Association between use of a falls clinic/service and organisation of care C3.9.2 and C3.9.3			
Did the multi-factorial falls clinic/service include medical assessment supervised by a consultant or non-consultant career grade? C3.9.2		Did the multi-factorial falls risk assessment of this patient lead to an individualised intervention plan recorded in the clinical notes? C3.9.3	
		Relevant	Yes
Non-hips	No	95% (4485)	6% (249/4485)
	Yes	93% (586)	74% (431/586)
Hips	No	95% (2126)	16% (332/2126)
	Yes	92% (696)	73% (506/696)

Table C3.24: Patient's home assessed by an occupational therapist for home/environmental hazards

Association between use of a falls clinic/service and safety at home C3.9.2 and C3.7.1			
Did the multi-factorial falls clinic/service include medical assessment supervised by a consultant or non-consultant career grade? C3.9.2		Was the patient's home assessed by an occupational therapist for home/environmental hazards? C3.7.1	
		Relevant	Yes
Non-hips	No	86% (4064)	16% (631/4064)
	Yes	82% (518)	54% (281/518)
Hips	No	71% (1578)	62% (981/1578)
	Yes	73% (550)	71% (391/550)

Section 4: Bone health and secondary fracture prevention

For section 4 many sites commented that they had difficulty obtaining information, in particular obtaining information from local GPs about the follow-up status of their audit patients. The audit questions did not contain any 'Not known' options, in hindsight a mistake, and sites were obliged to answer certain questions (particularly 4.2.4 thru 4.2.7) in the negative in order to progress with subsequent web data entry. The rates reported in this section 4 should thus be interpreted as YES Vs NO/Not Known.

Results by indicator with commentary

Provenance: NICE TA161 guidance relates only to treatments for the secondary prevention of fragility fractures in postmenopausal women who have osteoporosis and have sustained a clinically apparent osteoporotic fragility fracture. Osteoporosis is defined by a T-score¹ of - 2.5 standard deviations (SD) or lower on dual-energy X-ray absorptiometry (DXA) scanning.

TA161 guidance assumes that women who receive treatment have an adequate calcium intake and are vitamin D replete. Unless clinicians are confident that women who receive treatment meet these criteria, calcium and/or vitamin D supplementation should be considered.

If a woman aged 75 years or older who has one or more independent clinical risk factors for fracture or indicators of low BMD has not previously had her BMD measured, a DXA scan may not be required if the responsible clinician considers it to be clinically inappropriate or unfeasible. Indicators of low BMD are low body mass index (defined as less than 22 kg/m²), medical conditions such as ankylosing spondylitis, Crohn's disease, conditions that result in prolonged immobility, and untreated premature menopause.

Table C4.1: Was a clinical assessment of osteoporosis/fracture risk performed in line with NICE TA 161 or good practice for men? (Including decision to commence treatment in women aged 75, women 65- 74 years and men aged 65 and over with osteoporosis.)

Clinical assessment of osteoporosis/fracture risk C4.1.1		National	CSP	CHO	Acute
Yes	Non-hip	32% (1933)	9% (10)	34% (238)	32% (1685)
	Hip	67% (2324)	-	72% (259)	66% (2065)

Only 32% of non-hip fracture patients had clinical assessment of osteoporosis or fracture risk [C4.1.1] compared with 67% for hip fracture patients. This has improved significantly since the clinical audit in 2007 (19% for non-hips and 35% for hips)

and is one of the few positive findings in this report. However, there is still a significant deficit in assessment of bone health, particularly in non-hip fracture patients.

Table C4.2: Previous DXA scan

Previous DXA scan C4.1.2– 4		National	CSP	CHO	Acute
C4.1.2 Does the patient have documented evidence of a previous fragility fracture?					
Yes	Non-hip	16% (971)	5% (6)	16% (115)	16% (850)
	Hip	19% (655)	-	22% (78)	18% (577)
C4.1.3 Has the patient had a DXA scan in the 2 years prior to the presenting fracture?					
Yes	Non-hip	4% (251)	6% (7)	6% (42)	4% (202)
	Hip	3% (106)	-	3% (10)	3% (96)
C4.1.4 (If Yes to C4.1.3) Did the patient's DXA scan show evidence of osteoporosis?					
Scan results available	Non-hip	90% (227/251)	86% (6/7)	93% (39/42)	90% (182/202)
	Hip	89% (94/106)	-	90% (9/10)	89% (85/96)
Yes	Non-hip	65% (148/227)	67% (4/6)	62% (24/39)	66% (120/182)
	Hip	83% (78/94)	-	89% (8/9)	82% (70/85)

Only 16% of non-hip fracture and 19% of hip fracture patients had documented evidence of previous hip fractures [C4.1.2], though epidemiologically the figures should be closer to 40% in hip fracture patients^{§§}. We assume that this reflects poor recording of prior fractures, which will make it difficult for

organisations to target interventions to high-risk individuals. Very few had had DXA scans in the previous 2 years [4.1.3], even though this had been highlighted in previous audits: 4% of non hip fracture and 3% hip fracture patients. Most of these scans were, as expected diagnostic for osteoporosis [C4.1.4].

§§ Note - The proportion of patients with a previous fracture are low compared to published data.⁵²⁻³

Table C4.3: New DXA scan (for age <75 at presentation)

New DXA scan (<75) C4.1.5– 7		National	CSP	CHO	Acute
C4.1.5 Has the patient been referred for a DXA scan following the presenting fracture? Or was a clinical decision documented to commence treatment without DXA? Or had a DXA been performed previously?					
Clinical decision	Non-hip	4% (75/1939)	0% (0/43)	2% (6/256)	4% (69/1640)
	Hip	22% (109/503)	-	18% (11/62)	22% (98/441)
Previous DXA	Non-hip	3% (55/1939)	2% (1/43)	3% (8/256)	3% (46/1640)
	Hip	2% (12/503)	-	3% (2/62)	2% (10/441)
No	Non-hip	68% (1322/1939)	93% (40/43)	67% (171/256)	68% (1111/1640)
	Hip	47% (236/503)	-	47% (29/62)	47% (207/441)
Yes	Non-hip	25% (487/1939)	5% (2/43)	28% (71/256)	25% (414/1640)
	Hip	29% (146/503)	-	32% (20/62)	29% (126/441)
C4.1.6 (If Yes to C4.1.5) Was the DXA scan performed within 6 weeks of the index fracture?					
Yes	Non-hip	40% (194/487)	50% (1/2)	17% (12/71)	44% (181/414)
	Hip	26% (38/146)	-	10% (2/20)	29% (36/126)
C4.1.7 (If Yes to C4.1.5) Did the patient's DXA scan following the presenting fracture show evidence of osteoporosis?					
Yes	Non-hip	37% (178/487)	50% (1/2)	32% (23/71)	37% (154/414)
	Hip	39% (57/146)	-	40% (8/20)	39% (49/126)

Table C4.4: New DXA scan (for age 75+ at presentation)

New DXA scan (<75) C4.1.5– 7		National	CSP	CHO	Acute
C4.1.5 Has the patient been referred for a DXA scan following the presenting fracture? Or was a clinical decision documented to commence treatment without DXA? Or had a DXA been performed previously?					
Clinical decision	Non-hip	4% (75/1939)	0% (0/43)	2% (6/256)	4% (69/1640)
	Hip	22% (109/503)	-	18% (11/62)	22% (98/441)
Previous DXA	Non-hip	3% (55/1939)	2% (1/43)	3% (8/256)	3% (46/1640)
	Hip	2% (12/503)	-	3% (2/62)	2% (10/441)
No	Non-hip	68% (1322/1939)	93% (40/43)	67% (171/256)	68% (1111/1640)
	Hip	47% (236/503)	-	47% (29/62)	47% (207/441)
Yes	Non-hip	25% (487/1939)	5% (2/43)	28% (71/256)	25% (414/1640)
	Hip	29% (146/503)	-	32% (20/62)	29% (126/441)
C4.1.6 (If Yes to C4.1.5) Was the DXA scan performed within 6 weeks of the index fracture?					
Yes	Non-hip	40% (194/487)	50% (1/2)	17% (12/71)	44% (181/414)
	Hip	26% (38/146)	-	10% (2/20)	29% (36/126)
C4.1.7 (If Yes to C4.1.5) Did the patient's DXA scan following the presenting fracture show evidence of osteoporosis?					
Yes	Non-hip	37% (178/487)	50% (1/2)	32% (23/71)	37% (154/414)
	Hip	39% (57/146)	-	40% (8/20)	39% (49/126)

A small proportion of patients aged under 75 had a clinical decision not to request DXA: 4% of non-hip and 22% of hip fracture patients [C4.1.5]. Only a further 25% (non-hip) and 29% (hip) fracture patients received a DXA scan in this age group, though NICE recommends that all such patients should have a DXA scan unless, like 2 or 3%, they had already had one. More patients in the older group had a recorded decision not to perform a DXA scan and it is assumed that the remainder of decisions were not recorded.

Most patients in all groups waited over 6 weeks for a DXA scan [C4.1.6].

Just under 40% of the DXA scans were diagnostic of osteoporosis [C4.1.7] in the under 75's. Surprisingly, the rate of osteoporosis was only around 40% in the small number of scans done on patients 75 and over.

Table C4.5: Prior to the fracture was patient prescribed calcium, vitamin D, bisphosphonates or other osteoporosis medications

Pre fracture prescription C4.2.1– 3		National	CSP	CHO	Acute
C4.2.1 Was the patient prescribed calcium (1 g per day) prior to the fracture?					
Yes	Non-hip	18% (1084)	10% (12)	18% (128)	18% (944)
	Hip	24% (836)	-	24% (85)	24% (751)
C4.2.2 Was the patient prescribed Vitamin D3 (800 iU per day) prior to the fracture?					
Yes	Non-hip	16% (978)	8% (9)	16% (113)	16% (856)
	Hip	22% (777)	-	22% (81)	22% (696)
C4.2.3 Was the patient prescribed a bisphosphonate or other appropriate medication prior to the fracture? (Other licensed and recommended medications are strontium, parathyroid hormone analogues, raloxifene)					
Yes	Non-hip	13% (794)	6% (7)	15% (105)	13% (682)
	Hip	18% (611)	-	18% (64)	18% (547)

Table C4.6: Post-fracture prescription of calcium, vitamin D, bisphosphonate or other osteoporosis medications

Post fracture prescription C4.2.4– 7		National	CSP	CHO	Acute
C4.2.4 At 12 weeks post fracture, was the patient prescribed calcium (1 g per day or equivalent)?**					
Yes	Non-hip	34% 2046/6014)	8% (9/114)	34% (233/691)	35% (1804/5209)
	Hip	68% (2335/3428)	-	74% (262/352)	67% (2073/3076)
C4.2.5 At 12 weeks post fracture, was the patient prescribed Vitamin D (800 iU per day or equivalent)?**					
Yes	Non-hip	32% (1921/6020)	8% (9/114)	31% (215/691)	33% (1697/5215)
	Hip	67% (2285/3436)	-	72% (253/352)	66% (2032/3084)
C4.2.6 At 12 weeks post fracture, was the patient prescribed a bisphosphonate?*					
Yes	Non-hip	25% (1488/5917)	5% (6/113)	27% (184/685)	25% (1298/5119)
	Hip	54% (1768/3276)	-	62% (211/341)	53% (1557/2935)
C4.2.7 (If NO or contraindicated to C4.2.6) At 12 weeks post fracture, was the patient prescribed other appropriate therapy for osteoporosis (strontium, parathyroid hormone (PTH), raloxifene or denosumab)?**					
Yes	Non-hip	3% (118/4493)	0.9% (1/108)	3% (13/505)	3% (104/3880)
	Hip	14% (219/1606)	-	10% (14/137)	14% (205/1479)

**denominators exclude patients who had documented contraindications to treatments

There has been some improvement in bone health treatment since 2007, but it remains substandard for the majority of patients. 33% (2037/6083) of non-hip fracture and 60% (2092/3484) of hip fracture patients received appropriate management for bone health, either a normal DXA [C4.1.7], or treatment with anti-resorptive therapy [C4.2.6, C4.2.7]. The gap between provision for non-hip and hip fracture patients is important, and it highlights the need for fracture liaison services. Our figure of 60% for hip fracture patients correlates well with the 57% of hip fracture patients discharged on osteoporosis treatment, and a further 7% awaiting outpatient osteoporosis assessment, in the 2010 report of the National Hip Fracture Database.⁵¹

It is also noted that male fracture patients in both groups and of all ages were less likely than women to receive adequate treatment for osteoporosis (see tables C4.7 and C4.8 below). Although male patients were not covered by NICE Technology Appraisal, there is good evidence and licensed treatment for osteoporosis in this group.

We **recommend** that falls and fracture services ensure that all fragility fracture patients receive assessment and treatment for bone health in line with NICE guidance and that a fracture liaison service is the best evidenced model to deliver this.

Table C4.7: Analysis of osteoporosis treatment in hip fracture patients by patient sex

Osteoporosis treatment in hip fracture patients		
Sex	Age group	Yes
*** HIPS Was the patient prescribed bisphosphonate or other appropriate anti-resorptive therapy for osteoporosis (or did a DXA scan result exclude osteoporosis)?		
Females	<75	68% (245/361)
	75+	61% (1446/2374)
	Total	62% (1691/2735)
Males	<75	47% (67/142)
	75+	55% (334/607)
	Total	54% (401/749)
Both	<75	62% (312/503)
	75+	60% (1780/2981)
	Total	60% (2092/6083)

Table C4.8: Analysis of osteoporosis treatment in non-hip fracture patients by patient sex

Osteoporosis treatment in non-hip fracture patients		
Sex	Age group	Yes
*** NON-HIPS Was the patient prescribed bisphosphonate or other appropriate anti-resorptive therapy for osteoporosis (or did a DXA scan result exclude osteoporosis)?		
Females	<75	35% (564/1633)
	75+	36% (1288/3604)
	Total	35% (1852/5237)
Males	<75	15% (45/306)
	75+	26% (140/540)
	Total	22% (185/846)
Both	<75	31% (609/1939)
	75+	35% (1428/4144)
	Total	34% (2037/6083)

Section 5: Information

Results by indicator with commentary

Table C5.1: Provision of information

Provision of information C5.1– 6		National	CSP	CHO	Acute
C5.1 Is it documented within the medical, nursing or therapy notes that oral falls prevention information has been given to the patient or their carer?					
Yes	Non-hip	14% (841)	18% (21)	15% (108)	14% (712)
	Hip	23% (814)	-	27% (96)	23% (718)
C5.2 Is it documented within the medical, nursing or therapy notes that written falls prevention information has been given to the patient or their carer?					
Yes	Non-hip	7% (450)	5% (6)	8% (56)	7% (388)
	Hip	12% (416)	-	13% (48)	12% (368)
C5.3 (If Yes to C5.2) Has the written falls information been provided in the patients own (or preferred) language?					
Yes	Non-hip	95% (426/450)	100% (6/6)	100% (56/56)	94% (364/388)
	Hip	95% (394/416)	-	100% (48/48)	94% (346/368)
C5.4 Is it documented within the medical, nursing or therapy notes that oral information with regard to bone health has been given to the patient or their carer?					
Yes	Non-hip	12% (706)	3% (4)	15% (103)	11% (599)
	Hip	18% (630)	-	27% (99)	17% (531)
C5.5 Is it documented within the medical, nursing or therapy notes that written bone health information has been given to the patient or their carer?					
Yes	Non-hip	9% (528)	3% (3)	11% (78)	8% (447)
	Hip	11% (382)	-	24% (87)	9% (295)
C5.6 (If Yes to C5.5) Has the written information on bone health been provided in the patients own (or preferred) language?					
Yes	Non-hip	97% (511/528)	100% (3/3)	99% (77/78)	96% (431/447)
	Hip	97% (369/382)	-	100% (87/87)	96% (282/295)

Few patients appear to be provided with oral or written information on falls or bone health. There has not been a significant improvement since the 2007 audit. This casts doubt on the organisational audit finding that 75% services say they routinely provide information on falls and bone health in patient areas such as clinics [6.3.3]. It is possible that information had been provided, but that this was poorly documented.

These results support the finding of our report, Older people's experiences of falls and bone health services, regarding the lack of communication about appropriate interventions.³⁸ This is important, as there is good evidence that better communication will improve compliance with interventions.

The very high rate of information, where provided, being in the patient's own language is a bit misleading as over 90% of older people speak English as a first language.

We *recommend* that falls and fracture services use a locally standardised form for documentation, which includes specific prompts for recording that appropriate oral and/or written information has been given to the patient.



Appendices

Appendix 1

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Appendix 2

Falls and Bone Health Steering Group Members

Steering group member

Representing

Dr Jonathan Tremblé, Associate director	Clinical Effectiveness and Evaluation Unit, Royal College Of Physicians (Chair)
Dr Jonathan Potter, Director	Clinical Effectiveness and Evaluation Unit, Royal College Of Physicians
Mrs Janet Husk, Project manager	Clinical Effectiveness and Evaluation Unit, Royal College Of Physicians
Mrs Naomi Vasilakis, Project co-ordinator	Clinical Effectiveness and Evaluation Unit, Royal College Of Physicians
Dr Jay Banerjee	College of Emergency Medicine
Dr Jonathan Bayly	Primary care / National Osteoporosis Society
Dr Tim Beringer	Northern Ireland
Dr Hugh Chadderton	British Geriatrics Society Nurse Consultants Special Interest Group
Mrs Amy Charters	Age UK
Mr Kostakis Christodoulou	Public health
Dr Philip Clissett	Royal College of Nursing
Dr Gary Cook	Epidemiology, Public health
Dr Graham Davenport	General Practice
Dr Andrew Davies	British Geriatrics Society
Dr Frances Healey	National Patient Safety Agency
Dr Antony Johansen	Wales
Ms Rachel King	AGILE, Clinical Interest Group of the Chartered Society of Physiotherapy
Ms Zoe Long	Occupational Therapy
Mr Gordon Maclellan	Orthopaedics
Dr Finbarr Martin	British Geriatrics Society
Ms Catherina Nolan	College of Occupational therapy Specialist Section Older People, occupational therapy
Dr Margit Physant	Age UK
Dr Susan Poulton	British Geriatrics Society
Ms Jackie Riglin	Community, primary care services
Dr Nick Sorby	Royal College of Psychiatrists
Mrs Debbie Stone	Wales, nursing and osteoporosis
Ms Gail Tucker	Social services
Dr Robert Wakeman	Orthopaedics
Dr Jane Youde	British Geriatrics Society
Ms Sarah Zareian	Royal Pharmaceutical Society of Great Britain

Appendix 3

Reliability analyses

The 188 sites participating in the clinical audit were asked to re-audit their first 5 cases, using a different auditor. 162 sites submitted 940 cases, median 5, range 1-14 cases per site, comprising 819 cases from 140 acute sites, 120 from 21 combined healthcare sites and 1 from 1 community service provider organisation. There was insufficient data to stratify analyses by type of site.

There was auditor disagreement for 5 cases as to whether there was a hip or non-hip fracture. Otherwise there was agreement on 431 hip and 504 non-hip cases. Hip cases were submitted by 135 sites (median 3, range 1-6 cases) and non-hip cases from 143 sites (median 4, range 1-9 cases).

The mix of staff auditing repeat cases was very similar to those auditing main cases apart from slightly less involvement of doctors in auditing hip-fracture cases (see table below).

	Doctor	Nurse	Therapist	Pharmacist	Clinical Audit	Other
NON-HIPS (504)						
MAIN data	68% (343)	24% (120)	15% (76)	0% (0)	11% (54)	3% (13)
Duplicate data	65% (326)	24% (121)	14% (69)	0% (0)	10% (51)	3% (17)
HIPS (431)						
MAIN data	72% (310)	27% (118)	16% (71)	0% (0)	14% (61)	4% (17)
Duplicate data	61% (262)	29% (127)	15% (65)	0% (0)	16% (71)	2% (9)

Note that reliability (agreement between auditors) is not the same as validity (accuracy of measure). However establishing good agreement between auditors is an important part of the process of validation as valid data by definition will have to be reliable.

For categorical data the kappa statistic was used to measure agreement. Kappa values of 0.41 to 0.60 are said to indicate moderate agreement, values of 0.61 – 0.80 indicate good agreement whilst values of over 0.80 are very good. In practice any value of kappa much below 0.50 will indicate inadequate agreement.

The kappa statistic does not measure the nature of any disagreement between auditors and for this it is necessary to inspect the raw data tables. Attempts to improve the reliability of audit questions in future audits will bear most fruit if they focus on the more frequent discrepancies in judgement.

Summary

The level of agreement was generally 'good' to 'very good' for the key indicators and indeed across all the audit items.

Kappa values below 0.60 based on a substantial number of cases were as follow:

- 3.9.3 Did the multi-factorial falls risk assessment of this patient lead to an individualised intervention plan recorded in the clinical notes (HIPS kappa = 0.22; NON-HIPS kappa = 0.27)
- 1.2.11. Oxygen saturation on room air? (HIPS kappa = 0.32)
- 1.2.4 Were IV fluids both prescribed and administered within 12 hours of presentation, or documented as assessed and not required? (HIPS kappa = 0.49)
- 2.2.2 Pre-admission mobility including use of walking aids (HIPS kappa = 0.49)
- 2.2.3 Pre-admission social support? (HIPS kappa = 0.51)
- 1.2.5 Details of co-morbidities with specific mention of the presence or absence of both cardiac and respiratory disease? (HIPS kappa = 0.53)
- 2.2.1 Pre-admission functional ability (minimum of wash, dress, meals) (HIPS kappa = 0.56)
- 3.1.2 Did the falls assessment include the context of the presenting fall (place and activity)? (HIPS kappa = 0.58)

Details of the reliability analyses of the Key indicators and across the whole range of audit items can be in the next table.

Key indicators

Question	Variable label	Kappa value	Agreement (eg YY, NN) and disagreement (Y vs N)
1.2.1.2 HIPS	Was adequate analgesia administered within 60 minutes of hospital attendance, or prior to attendance by ambulance personnel?	0.69	YY 262 NN 111 Y vs N 58 disagreement
2.2.5 HIPS	Was a formal assessment of cognitive function, including where indicated a delirium screen (e.g. Confusion Assessment Method), performed within 72 hours of surgery?	0.65	YY 83 NN 271 Y vs N 65 disagreement No surgery agreement 12
2.2.6 HIPS	Was an attempt made within 24 hours of surgery to mobilise the patient?	0.70	YY 237 NN 119 Y vs N 63 disagreement No surgery agreement 12
3.3.4 HIPS	Are there documented lying and standing blood pressure readings (or is it documented that the patient is unable to stand)?	0.71	YY 139 NN 233 Y vs N 59 disagreement
3.3.4 NON-HIPS	Are there documented lying and standing blood pressure readings (or is it documented that the patient is unable to stand)?	0.74	YY 60 NN 410 Y vs N 34 disagreement
3.6.5 HIPS	Did the patient attend an exercise programme within 12 weeks of the fall? (Excluding cases where it was recorded that exercise was not relevant, or declined by patient)	0.71	YY 142 NN 185 Y vs N 46 disagreement Agree not relevant 32 Disagree relevance 26
3.6.5 NON-HIPS	Did the patient attend an exercise programme within 12 weeks of the fall? (Excluding cases where it was recorded that exercise was not relevant, or declined by patient)	0.66	YY 69 NN 307 Y vs N 28 disagreement Agree not relevant 45 Disagree relevance 55
3.7.1 3.7.2 HIPS	Was home hazard assessment performed in the patient's own environment? (Excluding cases where home assessment was not relevant, or declined by patient 3.7.1)	0.82	YY 110 NN 145 Y vs N 26 disagreement Agree not relevant 124 Disagree relevance 26
3.7.1 3.7.2 NON-HIPS	Was home hazard assessment performed in the patient's own environment? (Excluding cases where home assessment was not relevant, or declined by patient 3.7.1)	0.83	YY 41 NN 331 Y vs N 18 disagreement Agree not relevant 91 Disagree relevance 23
4.1.7 4.2.6 4.2.7 HIPS	Was the patient prescribed bisphosphonate or other appropriate anti-resorptive therapy for osteoporosis (or was treatment unnecessary after a DXA scan result excluded osteoporosis)?	0.85	YY 233 NN 166 Y vs N 32 disagreement
4.1.7 4.2.6 4.2.7 NON-HIPS	Was the patient prescribed bisphosphonate or other appropriate anti-resorptive therapy for osteoporosis (or was treatment unnecessary after a DXA scan result excluded osteoporosis)?	0.85	YY 151 NN 320 Y vs N 33 disagreement
5.2 HIPS	Is it documented within the medical, nursing or therapist notes that written falls prevention information has been given to the patient or their carer?	0.78	YY 47 NN 362 Y vs N 22 disagreement
5.2 NON-HIPS	Is it documented within the medical, nursing or therapist notes that written falls prevention information has been given to the patient or their carer?	0.79	YY 25 NN 467 Y vs N 12 disagreement

A full range of audit questions

NOTE that YY denotes agreement on 'YES' by both auditors, NN agreement on 'NO', whilst YN denotes disagreement whereby one auditor says 'YES' whilst the other says 'NO'. Other agreements or disagreements are described as they occur.

Variables	Categories being compared between auditors for agreement	NON-HIPS (504) Kappa	NON-HIPS (504) Nature of agreement and disagreement	HIPS (431) Kappa	HIPS (431) Nature of agreement and disagreement
Age group	<75, 75+	0.98	Agreement <75: 152 Agreement 75+: 348 Disagreement 4	0.96	Agreement <75: 66 Agreement 75+: 360 Disagreement 5
Sex	M, F	0.97	FF 446 MM 55 FM 3	0.97	FF 334 MM 92 FM 5
Usual place of residence	Private, warden assisted, residential care home, care home with nursing, other	0.87	agreement on residence 483/504	0.87	agreement on residence 407/431
Does this patient live alone?	Y, N Not Recorded, blank=care home	0.85	YY 167 NN 195 NR agreement 33 Care home agreement 60 YN disagreement 25 Other disagreement 24	0.94	YY 185 NN 136 NR agreement 1 Care home agreement 91 YN disagreement 7 Other disagreement 11
Injury incurred	NON-HIP: wrist, humerus, vertebra, pelvis HIPS: intracapsular, extracapsular to include intertrochanteric & subtrochanteric, hip-other	0.99	agreement on injury 502/504	0.87	agreement on injury 402/430 disagreement on intra Vs extra capsular 20
1.1.1 Place of presentation (Where patient attended NHS services for assessment / treatment)	A&E, MIU, Other	0.82	A&E agreement 484 MIU agreement 11 'Other' agreement 3 Disagreements 6	Not computable	427/431 agreement on A&E
Days from fall to Registration	Same day, next day, later	0.85	Same day agreement 400 Next day agreement 57 Later agreement 23 Disagreements 24	0.85	Same day agreement 379 Next day agreement 26 Later agreement 13 Disagreements 13
Day of week of registration	Monday thru Sunday	0.98	agreement on day 496/504	1.00	agreement on day 431/431
Time of day of presentation	4 hourly periods from midnight	0.93	agreement on period 474/504	0.95	agreement on period 412/431
Minutes in A&E	≤120, 121-240, 240-1440, >1440, NK	0.73	Category agreement 412 Neighbouring categories 57 Other disagreement 35	0.72	Category agreement 355 Neighbouring categories 53 Other disagreement 23

Variables	Categories being compared between auditors for agreement	NON-HIPS (504) Kappa	NON-HIPS (504) Nature of agreement and disagreement	HIPS (431) Kappa	HIPS (431) Nature of agreement and disagreement
1.1.4 Was the patient (pt) admitted to an acute unit?	Y, N	0.96	YY 204 NN 291 YN 9	Not computable	430/431 both auditors agreed patient was admitted
1.1.4.1 In the first week of admission (or acute peri operative period) on what ward did the patient spend the majority of their time?	Orthopaedic, orthogeriatric ward, dedicated hip fracture ward, general geriatric ward in acute trust, other acute hospital ward, community hospital with geriatrician input, other community hospital, other	0.78 for n=204 both auditors agreed pt admitted	agreement on type of ward 176/204	0.82 for n=430 both auditors agreed pt admitted	agreement on type of ward 394/430
1.1.4.2 Was transfer for rehabilitation in an NHS setting required?	Y, N	0.92	YY 50 NN 148 YN 6	0.91	
1.1.4.3 - Orthogeriatric (In what type of NHS setting was rehabilitation performed for the patient?)	Y, N	1.00	YY 2 NN 48	0.76	27 YY 134 NN 13 YN
1.1.4.3 Dedicated hip fracture ward (In what type of NHS setting was rehabilitation performed for the patient?)	Y, N	Not computable	NN 49 YN 1	0.43	YY 2 NN 167 YN 5
1.1.4.3 General geriatric ward (In what type of NHS setting was rehabilitation performed for the patient?)	Y, N	0.70	YY 6 NN 40 YN 4	0.77	YY 11 NN 157 YN 6
1.1.4.3 Acute hospital ward (In what type of NHS setting was rehabilitation performed for the patient?)	Y, N	0.50	YY 4 NN 40 YN 6	0.67	YY 8 NN 159 YN 7
1.1.4.3 Community hosp geriatrician input (In what type of NHS setting was rehabilitation performed for the patient?)	Y, N	0.65	YY 8 NN 36 YN 6	0.77	YY 49 NN 107 YN 18
1.1.4.3 - community hospital other (In what type of NHS setting was rehabilitation performed for the patient?)	Y, N	0.55	YY 6 NN 37 YN 7	0.72	YY 19 NN 143 YN 12
Days from registration to rehabilitation v1144 minus registration	<7, 7-13, 14-27, 28-55, 56+ days	0.86	Category agreement 45/50	0.94	Category agreement 167/174
1.1.4.5 On what ward/unit did the patient spend the majority of time between acute admission and discharge	Orthopaedic, Orthogeriatric ward, dedicated hip fracture ward, general geriatric ward in acute trust, other acute hospital ward, community hospital with	0.76	Category agreement 40/50	0.70	Category agreement 132/174

Variables	Categories being compared between auditors for agreement	NON-HIPS (504) Kappa	NON-HIPS (504) Nature of agreement and disagreement	HIPS (431) Kappa	HIPS (431) Nature of agreement and disagreement
from NHS care?	geriatrician input, other community hospital, other				
1.1.5.1 What was the discharge destination from this complete episode?	Usual residence, other private address, Residential care home (new), Nursing home (new), Other	0.85	Category agreement 194/204	0.79	Category agreement 396/430
LOS in hospital	0-6, 7-13, 14-27, 28-55, 56+, NK days	0.88	Category agreement 186/204	0.92	Category agreement 404/430
1.1.6 Did the patient have rehabilitation or support at home from a specialist early supported discharge team?	Y, N	0.66	YY 41 NN 428 YN 35	0.75	YY 96 NN 293 YN 42
1.1.8 Did the patient have any unplanned readmissions within 28 days of discharge from the presenting episode?	Y, N	0.81	YY 28 NN 464 YN 12	0.78	YY 26 NN 392 YN 13
1.2.11 Was there documented assessment of pain severity (e.g. pain score) within the place of first presentation?	Y, N	na	na	0.61	YY 191 NN 157 YN 83
1.2.12 Was adequate analgesia administered within 60 minutes of hospital attendance, or prior to attendance by ambulance personnel?	Y, N	na	na	0.69	YY 262 NN 111 YN 58
Minutes from registration to analgesia being administered (v122- v112)	Pre-registration, 0-30m, 31-60m, 61+m, NK	na	na	0.68	Category agreement 324 Neighbouring categories 27 Other disagreement 80
1.2.3 Was pressure ulcer risk assessment carried out and appropriate equipment documented as used within 4 hours, or documented as assessed and not required?	Y, N, Not required	na	na	0.62	YY 179 NN 152 NR agreement 11 YN disagreement 71 Other disagreement 18
1.2.4 Were IV fluids both prescribed and administered within 12 hours of presentation, or documented as assessed and not required?	Y, N, Not required	na	na	0.49	YY 334 NN 24 NR agreement 13 YN disagreement 57 Other disagreement 3

		NON-HIPS (504)	NON-HIPS (504)	HIPS (431)	HIPS (431)
Variables	Categories being compared between auditors for agreement	Kappa	Nature of agreement and disagreement	Kappa	Nature of agreement and disagreement
1.2.5 Details of co-morbidities with specific mention of the presence or absence of both cardiac and respiratory disease?	Y, N	na	na	0.53	YY 346 NN 36 YN 49
1.2.6 History of cognitive impairment / dementia prior to the fracture?	Y, N	na	na	0.68	YY 172 NN 190 YN 69
1.2.7 Assessment of cognitive function using a standardised scale? (Note that the AMT4 is insufficient in this setting).	Y, N	na	na	0.83	YY 148 NN 248 YN 35
1.2.7i Whether the results were normal or abnormal?	A, N	na	na	0.88	AA 50/148 NN 90/148 AN disagreement 8/148
1.2.8 List of current medications including doses and frequencies?	Y, N	na	na	0.67	YY 316 NN 67 YN 48
1.2.9 A record of the presence or absence of cardiac murmurs?	Y, N	na	na	0.69	YY 344 NN 51 YN 36
1.2.10 Full blood count and renal function test results?	Y, N	na	na	0.66	YY 358 NN 40 YN 33
1.2.11 Oxygen saturation on room air?	Y, N	na	na	0.32	YY 390 NN 9 YN 32
1.2.12 Administration of some form of medical thromboprophylaxis within 24 hours of admission?	Y, N	na	na	0.61	YY 305 NN 68 YN 58
1.2.13 Does the clinical record show documentation of a clinical decision NOT to prescribe thromboprophylaxis?	Y, N	na	na	0.81	YY 15/68 NN 48/68 YN 5/68
1.2.14 Was the patient seen within 72 hours of admission for specialist medical assessment by a geriatrician?	Y, N	na	na	0.87	YY 179 NN 225 YN 27

Variables	Categories being compared between auditors for agreement	NON-HIPS (504) Kappa	NON-HIPS (504) Nature of agreement and disagreement	HIPS (431) Kappa	HIPS (431) Nature of agreement and disagreement
1.2.15 Has an integrated hip fracture care pathway been used (that has been agreed by geriatrician, orthopaedic surgeon and anaesthetist)?	Y, N	na	na	0.77	YY 207 NN 175 YN 49
2.1.1 Was the patient operated on?	Y, N	na	na	1.00	YY 419 NN 12
hours from registration to surgery v2111 minus v112	0-23, 24-35, 36-47, 48-95, 96+, NK hours	na	na	0.87	Category agreement 378 Neighbouring categories 25 Other disagreement 16
2.1.2 Was pressure-relieving equipment documented as being used in theatre, or assessed and not required?	Y, N, Not Required	na	na	0.63	YY 141 NN 195 NR agreement 4 YN disagreement 66 Other disagreement 13
2.1.3 Was cement used as part of the operative process?	Y, N	na	na	0.88	YY 123 NN 274 YN 22
2.1.3.1 Was it clearly documented in the operative notes that canal irrigation was performed prior to broaching the canal and that this was introduced using a cement gun, or equivalent?	Y, N	na	na	0.72	YY 51 NN 55 YN 17
2.1.4 Do the clinical notes indicate a reason or reasons for surgery being delayed > 36 hours from presentation?	Y, N	na	na	0.67	YY 76 NN 54 YN 25
2.1.5 What was the main or the only reason indicated?	Awaiting orthopaedic diagnosis or Investigation (including X-ray, Medically unfit requiring stabilisation preoperatively, Awaiting medical review, Awaiting medical investigation, Organisational or capacity issues, Other Consultant, Non-consultant career grade, ST3+ specialty trainee, Other - more junior than ST3)	na	na	0.90	Category agreement 71/76
2.1.6 What was the grade of the most senior Surgeon present?	Consultant, Non-consultant career grade, ST3+ specialty trainee, Other - more junior than ST3	na	na	0.73	Category agreement 352/419
2.1.7 What was the grade of the most	Consultant, Non-consultant career grade,	na	na	0.74	Category agreement 351/419

Variables	Categories being compared between auditors for agreement	NON-HIPS (504) Kappa	NON-HIPS (504) Nature of agreement and disagreement	HIPS (431) Kappa	HIPS (431) Nature of agreement and disagreement
senior Anaesthetist present?	ST3+ specialty trainee, Other - more junior than ST3				
2.2.1 Pre-admission functional ability (minimum of wash, dress, meals)?	Y, N	na	na	0.56	YY 325 NN 43 YN 51
2.2.2 Pre-admission mobility including use of walking aids?	Y, N	na	na	0.49	YY 393 NN 9 YN 17
2.2.3 Pre-admission social support?	Y, N	na	na	0.51	YY 335 NN 34 YN 50
2.2.4 Do the clinical notes (including care pathway documentation) indicate that a multidisciplinary team (medical, nursing and AHP) has discussed this patient within 7 days of admission?	Y, N	na	na	0.67	YY 224 NN 129 YN 66
2.2.5 Was a formal assessment of cognitive function, including where indicated a delirium screen (e.g. CAM), performed within 72 hours of surgery (or admission if not operated)?	Y, N	na	na	0.61	YY 83 NN 271 YN 65
2.2.6 Was an attempt made within 24 hours of surgery to mobilise the patient? (As a minimum, documentation should reflect attempts to stand up, transfer and walk a few steps)	Y, N	na	na	0.67	YY 237 NN 119 YN 63
2.2.7 Was the patient seen within 24 hours of surgery by a physiotherapist or trained worker?	Y, N	na	na	0.74	YY 242 NN 126 YN 51
2.2.8 Was patient seen within 72 hours of surgery (or admission if not operated) by an occupational therapist or supervised OT technical assistant?	Y, N	na	na	0.80	YY 165 NN 213 YN 41
2.2.9 Was there regular (at least twice-	Y, N	na	na	0.77	YY 164

Variables	Categories being compared between auditors for agreement	NON-HIPS (504) Kappa	NON-HIPS (504) Nature of agreement and disagreement	HIPS (431) Kappa	HIPS (431) Nature of agreement and disagreement
weekly) documented input from a geriatrician (consultant, NCCG or supervised trainee of ST3 level or above) during the acute care spell?					NN 208 YN 47
2.2.10 Is it documented that patient and/or carer views were used in discharge planning?	Y, N	na	na	0.60	YY 290 NN 69 YN 60
2.2.11 Has the patient's data been entered into the National Hip Fracture Database (NHFD)?	Y, N	na	na	0.81	YY 313 NN 79 YN 27
3.1.1.0 Was a multi-factorial risk assessment performed?	Y, N	0.81	YY 132 NN 331 YN 41	0.79	YY 253 NN 136 YN 42
3.1.1.1 Did the falls assessment include a history of falls in the past year?	Y, N	0.74	YY 129 NN 319 YN 56	0.72	YY 222 NN 150 YN 59
3.1.1.2 Did the falls assessment include the context of the presenting fall (place and activity)?	Y, N	0.64	YY 276 NN 143 YN 85	0.58	YY 313 NN 59 YN 59
3.1.1.3 Was there documented evidence of the consideration of the cause of the index fall (aetiology) including transient loss of consciousness?	Y, N	0.67	YY 193 NN 227 YN 84	0.64	YY 266 NN 99 YN 66
3.1.1.4 Did the assessment document the presence or absence of any previous syncope, blackout, or unexplained fall(s)?	Y, N	0.72	YY 113 NN 335 YN 56	0.69	YY 183 NN 182 YN 66
3.1.1.5 Does the clinical record include a standardised assessment of cognitive function (<i>not including pre-op for hip fracture, unless this was normal</i>)?	Y, N, (blank: <i>pre-op for hip fracture, unless this was normal</i>)	0.74	YY 61 NN 409 YN 34	0.75	YY 68 NN 209 YN disagreement 35 'Blank' agreement 90 'Blank' disagreement 29
3.2.1 Does the clinical record include any features of a medication assessment at	Y, N	0.69	YY 226 NN 201	0.61	YY 280 NN 84

Variables	Categories being compared between auditors for agreement	NON-HIPS (504)	NON-HIPS (504)	HIPS (431)	HIPS (431)
investigation or onward referral?					
3.3.6 Is there evidence of referral to/for further investigation or assessment for cardiac disease?	Y, N	0.83		0.72	
3.4.1 Did the patient have any assessment for visual impairment? (Assessing reading only is insufficient, as near sight is not relevant to falls risk)	Y, N, Registered blind	0.71		0.69	
3.5.1 Did the patient have any assessment of urinary function, including continence status?	Y, N	0.78		0.66	
3.5.2 Was there any impairment of urinary function or continence?	Y, N	0.75		0.81	
3.5.3 Was referral made for continence problems from the assessment, or is there clear documentation that referral was not required?	Y, N, Not Required	0.50		0.78	
3.6.1 Do the clinical records indicate that a gait, balance and mobility assessment was performed within 12 weeks of the fall?	Y, N, Immobile, Declined	0.76		0.61	
3.6.2 Does the clinical record of this assessment include Result of a gait, balance and mobility assessment, using a standardised tool (or a decision that further assessment is inappropriate, e.g. severely limited mobility)?	Y, N	0.84		0.66	
3.6.3 Does the clinical record of this assessment include Statement of	Y, N	0.66		0.66	

		NON-HIPS (504)	NON-HIPS (504)	HIPS (431)	HIPS (431)
Variables	Categories being compared between auditors for agreement	Kappa	Nature of agreement and disagreement	Kappa	Nature of agreement and disagreement
Investigation or onward referral?			YN 16		YN 33
3.3.6 Is there evidence of referral to/for further investigation or assessment for cardiac disease?	Y, N	0.83	YY 17 NN 3 YN 1	0.72	YY 35 NN 3 YN 2
3.4.1 Did the patient have any assessment for visual impairment? (Assessing reading only is insufficient, as near sight is not relevant to falls risk)	Y, N, Registered blind	0.71	YY 28 NN 448 Agreed Reg blind 4 YN disagreement 21 Other disagreement 3	0.69	YY 46 NN 340 Agreed Reg blind 7 YN disagreement 34 Other disagreement 4
3.5.1 Did the patient have any assessment of urinary function, including continence status?	Y, N	0.78	YY120 NN 339 YN 45	0.66	YY 258 NN 109 YN 64
3.5.2 Was there any impairment of urinary function or continence?	Y, N	0.75	YY 31 NN 76 YN 13	0.81	YY 76 NN 160 YN 22
3.5.3 Was referral made for continence problems from the assessment, or is there clear documentation that referral was not required?	Y, N, Not Required	0.50	YY 7 NN 9 Agreed 'not required' 5 YN disagreement 4 Other disagreement 6	0.78	YY 14 NN 36 Agreed 'not required' 16 YN disagreement 1 Other disagreement 9
3.6.1 Do the clinical records indicate that a gait, balance and mobility assessment was performed within 12 weeks of the fall?	Y, N, Immobile, Declined	0.76	YY 140 NN 303 Agreed immobile 3 Agreed declined 2 YN disagreement 51 Other disagreement 5	0.61	YY 252 NN 90 Agreed immobile 6 Agreed declined 4 YN disagreement 68 Other disagreement 11
3.6.2 Does the clinical record of this assessment include Result of a gait, balance and mobility assessment, using a standardised tool (or a decision that further assessment is inappropriate, e.g. severely limited mobility)?	Y, N	0.84	YY 67 NN 62 YN 11	0.66	YY 107 NN 102 YN 43
3.6.3 Does the clinical record of this assessment include Statement of	Y, N	0.66	YY 79 NN 39	0.66	YY 144 NN 69

Variables	Categories being compared between auditors for agreement	NON-HIPS (504) Kappa	NON-HIPS (504) Nature of agreement and disagreement	HIPS (431) Kappa	HIPS (431) Nature of agreement and disagreement
person's perceived functional ability?			YN 22		YN 39
3.6.4 Does the clinical record of this assessment include Record of fear of falling during activities of daily living using recognised	Y, N	0.76	YY 20 NN 110 YN 10	0.74	YY 46 NN 183 YN 23
3.6.5 Strength and Balance Training interventions Has the patient participated in any form of exercise programme	Y, N, Not Relevant, Declined	0.66	YY 69 NN 307 Agreed declined 7 Agreed not relevant 38 YN disagreement 28 Other disagreement 55	0.71	YY 142 NN 185 Agreed declined 5 Agreed not relevant 27 YN disagreement 46 Other disagreement 26
3.6.6 Was this an Otago or FaME programme > 12 weeks duration? (Modification or shorter duration is only acceptable if this is clearly documented as being on clinical grounds, including frailty, not if a modified programme is offered as standard).	Y, N, Modified	0.69	YY 4 NN 48 Agreed Modified 8 YN disagreement 3 Other disagreement 6	0.76	YY 13 NN 99 Agreed Modified 16 YN disagreement 8 Other disagreement 6
3.6.7 Has the strength and balance programme been prescribed by an appropriately trained professional?	Y, N	0.74	YY 55 NN 9 YN 5	0.91	YY 129 NN 11 YN 2
3.6.8 Has the strength and balance programme been monitored by an appropriately trained professional competent to modify and progress the exercise programme?	Y, N	0.83	YY 57 NN 9 YN 3	0.92	YY 128 NN 12 YN 2
3.7.1 Was the patient's home assessed by an Occupational Therapist for home/environmental hazards?	Y, N, Declined, Did not return home, blank=from care home	0.83	YY 70 NN 296 Agreed declined 11 Agreed not return home 18 Agreed care home 60 YN disagreement 24 Other disagreement 25	0.80	YY 175 NN 74 Agreed declined 4 Agreed not return home 28 Agreed care home 91 YN disagreement 32 Other disagreement 27
3.7.2 Was an access or home visit/assessment performed in the	Y, N, Declined	0.76	YY 41 NN 20	0.79	YY 110 NN 48

Variables	Categories being compared between auditors for agreement	NON-HIPS (504) Kappa	NON-HIPS (504) Nature of agreement and disagreement	HIPS (431) Kappa	HIPS (431) Nature of agreement and disagreement
patient's own environment?			Agreed declined 1 YN disagreement 8		Agreed declined 1 YN disagreement 16
3.7.3 What home hazard assessment was performed in the patient's own environment?	Westmead, Home fast, Safety assessment of function for rehabilitation (SAFER), Locally validated tool (provide supporting evidence of validation), Unvalidated tool or no tool	0.81	Category agreement 38/41	0.85	Category agreement 102/110
3.7.4 Were appropriate home hazard interventions offered?	Y, N, Not relevant; Declined	0.61	YY 50 NN 6 Agreed not relevant 3 Agreed declined 1 YN disagreement 6 Other disagreement 4	0.74	YY 137 NN 6 Agreed not relevant 17 Agreed declined 1 YN disagreement 5 Other disagreement 9
3.7.5 Was the patient recommended any form of telecare (such as a pendant alarm) to assist in the management of their falls risk?	Y, N, Not relevant; Declined	0.66	YY 12 NN 30 Agreed not relevant 10 Agreed declined 3 YN disagreement 4 Other disagreement 11	0.71	YY 30 NN 63 Agreed not relevant 47 Agreed declined 2 YN disagreement 7 Other disagreement 26
3.8.1 Was the patient assessed for their need of social care support?	Y, N, Not relevant; Declined	0.68	YY 139 NN 162 Agreed not relevant 65 Agreed declined 7 YN disagreement 27 Other disagreement 74	0.60	YY 196 NN 37 Agreed not relevant 61 Agreed declined 5 YN disagreement 36 Other disagreement 54
3.8.2 Was referral for Social services input offered?	Y, N, Not relevant or private care, Declined	0.77	YY 92 NN 5 Agreed not relevant/PC 22 Agreed declined 5 YN disagreement 2 Other disagreement 13	0.64	YY 130 NN 6 Agreed not relevant 21 Agreed declined 8 YN disagreement 13 Other disagreement 18
3.9.1 Did the multi-factorial falls risk assessment involve a multidisciplinary falls clinic/service?	Y, N, Not appropriate	0.68	YY 44 NN 357 Agreed not appropriate 42 YN disagreement 18 Other disagreement 43	0.71	YY 69 NN 241 Agreed not appropriate 54 YN disagreement 32 Other disagreement 35
3.9.2 Did the multi-factorial falls	Y, N	0.95	YY 29	0.94	YY 59

Variables	Categories being compared between auditors for agreement	NON-HIPS (504)	NON-HIPS (504)	HIPS (431)	HIPS (431)
		Kappa	Nature of agreement and disagreement	Kappa	Nature of agreement and disagreement
clinic/service include medical assessment supervised by a consultant or non-consultant career grade?			NN 14 YN 1		NN 9 YN 1
3.9.3 Did the multi-factorial falls risk assessment of this patient (pt) lead to an individualised intervention plan recorded in the clinical notes?	Y, N, Not relevant	0.27	YY 51 NN 326 Agreed not relevant 52 YN disagreement 31 Other disagreement 44	0.22	YY 87 NN 210 Agreed not relevant 42 YN disagreement 47 Other disagreement 45
3.9.4 Was the intervention plan shared with the patient in writing?	Y, N	0.75	YY 17 NN 28 YN 6	0.81	YY 10 NN 73 YN 4
4.1.1 Was a clinical assessment of osteoporosis/fracture risk performed in line with NICE TA 161 or good practice for men? (including decision to commence treatment in women aged 75, women 65-74 years and men aged 65 and over with osteoporosis.)	Y, N	0.78	YY 133 NN 323 YN 48	0.74	YY 264 NN 118 YN 49
4.1.2 (Previous DXA Scan) Does the patient have documented evidence of a previous fragility fracture?	Y, N	0.70	YY 74 NN 382 YN 48	0.80	YY 64 NN 342 YN 25
4.1.3 (Previous DXA Scan) Has the pt had a DXA scan in the 2 years prior to the presenting fracture?	Y, N	0.86	YY 13 NN 487 YN 4	0.82	YY 7 NN 421 YN 3
4.1.4 (Previous DXA Scan) Did the pt's DXA scan show evidence of osteoporosis?	Y, N	1.00	YY 7 NN 6	0.59	YY 5 NN 1 YN 1
4.1.5 (New DXA scan) Has the pt been referred for a DXA scan following the presenting fracture? Or was a clinical decision documented to commence treatment without DXA in female pt aged 75 and over? Or had a DXA been performed previously?	Y, N, Clinical decision, Previous DXA	0.87	YY 61 NN 336 Agreed clinical decision 66 Agreed previous DXA 10 YN disagreement 12 Other disagreement 19	0.73	YY 24 NN 179 Agreed clinical decision 158 Agreed previous DXA 3 YN disagreement 8 Other disagreement 59

Variables	Categories being compared between auditors for agreement	NON-HIPS (504) Kappa	NON-HIPS (504) Nature of agreement and disagreement	HIPS (431) Kappa	HIPS (431) Nature of agreement and disagreement
4.1.6 (New DXA scan) Was the DXA scan performed within 6 weeks of the index fracture?	Y, N	0.85	YY 18 NN 39 YN 4	1.00	YY 4 NN 20
4.1.7 (New DXA scan) Did the patient's DXA scan following the presenting fracture show evidence of osteoporosis?	Y, N	0.93	YY 22 NN 37 YN 2	0.90	YY 7 NN 16 YN 1
4.2.1 Was the patient prescribed Calcium (1 g per day) prior to the fracture?	Y, N	0.80	YY 73 NN 402 YN 29	0.79	YY 77 NN 324 YN 30
4.2.2 Was the patient prescribed Vitamin D3 (800 iU per day) prior to the fracture?	Y, N	0.80	YY 65 NN 413 YN 26	0.77	YY 69 NN 331 YN 31
4.2.3 Was the patient prescribed a bisphosphonate or other appropriate medication prior to the fracture? (Other licensed and recommended medications are Strontium, Parathyroid hormone analogues, Raloxifene)	Y, N	0.78	YY 49 NN 432 YN 23	0.72	YY 43 NN 360 YN 28
4.2.4 At 12 weeks post fracture, was the patient prescribed Calcium (1 g per day or equivalent)?	Y, N, Contraindicated	0.87	YY 152 NN 321 Agreed contraindicated 2 YN disagreement 25 Other disagreement 4	0.88	YY 267 NN 134 Agreed contraindicated 5 YN disagreement 22 Other disagreement 3
4.2.5 12 weeks post fracture, was the patient prescribed Vitamin D (800 iU per day or equivalent)?	Y, N, Contraindicated	0.83	YY 138 NN 328 Agreed contraindicated 0 YN disagreement 32 Other disagreement 6	0.87	YY 258 NN 142 Agreed contraindicated 4 YN disagreement 24 Other disagreement 3
4.2.6 At 12 weeks post fracture, was the patient prescribed a bisphosphonate?	Y, N, Contraindicated	0.83	YY 108 NN 351 Agreed contraindicated 9 YN disagreement 26 Other disagreement 10	0.80	Agreed contraindicated 14 YN disagreement 24 Other disagreement 23

Variables	Categories being compared between auditors for agreement	NON-HIPS (504) Kappa	NON-HIPS (504) Nature of agreement and disagreement	HIPS (431) Kappa	HIPS (431) Nature of agreement and disagreement
4.2.7 At 12 weeks post fracture, was the patient prescribed other appropriate therapy for osteoporosis (strontium, parathyroid hormone (PTH), or raloxifene or denosumab)?	Y, N	0.80	YY 4 NN 345 YN 2	0.93	YY 14 NN 165 YN 2
5.1 Is it documented within the medical, nursing or therapy notes that oral falls prevention information has been given to the patient or their carer?	Y, N	0.77	YY 53 NN 424 YN 27	0.72	YY 92 NN 291 YN 48
5.2 Is it documented within the medical, nursing or therapy notes that written falls prevention information has been given to the patient or their carer?	Y, N	0.79	YY 25 NN 467 YN 12	0.78	YY 47 NN 362 YN 22
5.3 Has the written falls information been provided in the patients own (or preferred) language?	Y, N	1.00	YY 24 NN 1	0.73	YY 42 NN 3 YN 2
5.4 Is it documented within the medical, nursing or therapy notes that oral information with regard to bone health has been given to the patient or their carer?	Y, N	0.80	YY 43 NN 442 YN 19	0.78	YY 68 NN 334 YN 29
5.5 Is it documented within the medical, nursing or therapy notes that written bone health information has been given to the patient or their carer?	Y, N	0.73	YY 30 NN 454 YN 20	0.86	YY 41 NN 378 YN 12
5.6 Has the written information on bone health been provided in the patients own (or preferred) language?	Y, N	1.00	YY 30	1.00	YY 40 NN 1

Key indicators by region and country

Table 4: Location by type of service: Table cells indicate N of audit sites

	PCC	CSPs	CHO	Acute	MHT
NHS East Midlands	4	4	2	10	5
NHS East of England	10	10	2	17	6
NHS London	17	21	7	25	8
NHS North East	6	4	5	9	2
NHS North West	10	11	7	28	9
NHS South Central	6	11	2	9	4
NHS South East Coast	5	6	2	14	2
NHS South West	5	6	8	18	5
NHS West Midlands	11	10	6	19	6
NHS Yorkshire and the Humber	11	9	3	13	6
NHS England	85	92	44	162	53
Northern Ireland	0	0	5	1	0
Wales	0	0	15	0	0
Islands	0	0	2	0	0

Table 5: Organisational key indicators by region.

Indicator	National	NHS East Midlands	NHS East of England	NHS London	NHS North East	NHS North West	NHS South Central	NHS South East Coast	NHS South West	NHS West Midlands	NHS Yorkshire & Humber	NHS England	Northern Ireland	Wales	Islands
Section 1	Local Strategies and Commissioning														
1.3.1	Is a report presented at least annually at <i>Board level</i> that includes local hip fracture rates?														
	33% (45/135)	50% (3/6)	8% (1/12)	18% (4/22)	0% (0/8)	19% (3/16)	63% (5/8)	0% (0/7)	54% (7/13)	59% (10/17)	43% (6/14)	32% (39/123)	0% (0/2)	60% (6/10)	-
1.4.2	Is there a mechanism at PCO level for auditing the compliance of primary care management guidance expressed within TAG 161 for post menopausal women who have had a fragility fractures (including both previous and new fractures)?														
	23% (31/135)	17% (1/6)	17% (2/12)	18% (4/22)	38% (3/8)	25% (4/16)	13% (1/8)	0% (0/7)	23% (3/13)	24% (4/17)	36% (5/14)	22% (27/123)	0% (0/2)	40% (4/10)	-
Section 4	Service Settings														
4.3.10	Has the trust (or home) calculated its serious injurious in-patient (or resident) falls rate against activity (e.g. per admission or occupied bed day)?														
	55% (165/299)	69% (11/16)	52% (15/29)	60% (29/48)	79% (11/14)	56% (22/39)	76% (16/21)	71% (15/21)	47% (15/32)	40% (14/35)	48% (10/21)	57% (158/276)	17% (1/6)	33% (5/15)	50% (1/2)
4.4.1	Are older people who fall and attend A&E departments or MIUs routinely screened for risk of future falls?														
	52% (127/246)	69% (9/13)	39% (9/23)	39% (13/33)	25% (3/12)	53% (17/32)	75% (12/16)	47% (9/19)	60% (18/30)	55% (16/29)	56% (9/16)	52% (115/223)	50% (3/6)	60% (9/15)	0% (0/2)
4.8.1	4.8.1. Is there further assessment and management of all appropriate fracture patients coordinated by a fracture liaison nurse or similar designated person?														
	38% (78/208)	50% (5/10)	32% (6/19)	30% (9/30)	78% (7/9)	19% (6/31)	46% (6/13)	53% (8/15)	17% (4/23)	55% (12/22)	21% (3/14)	35% (66/186)	67% (4/6)	43% (6/14)	100% (2/2)
Section 5	Specialist Management														
5.1.12	Does an occupational therapist routinely assess for potential hazards within the patient's home (of those 274 sites using a falls assessment tool or proforma)?														
5.1.13	Denominators exclude those sites indicating they never used a tool in 5.1.1														
	70% (193/274)	60% (9/15)	71% (17/24)	68% (34/50)	78% (14/18)	62% (21/34)	86% (18/21)	71% (12/17)	69% (18/26)	71% (20/28)	72% (8/25)	70% (181/258)	100% (6/6)	63% (5/8)	50% (1/2)
5.4.3	Evidence-based therapeutic exercise programmes (Otago or FaME) are used for falls prevention (5.4.3), with a standard duration of over 12 weeks (5.4.5)														
5.4.5	16% (51/321)	19% 3/16	24% 7/29	11% 6/53	17% 3/18	13% 6/46	41% 9/22	0% 0/22	13% 4/32	14% 5/35	24% 6/25	16% 49/298	17% 1/6	7% 1/15	0% 0/2
Section 6	Training and audit														
6.3.1	Is there a mechanism to record patients' views of the falls and bone health service using questionnaires and/or interviews?														
6.3.2	61% (197/321)	44% (7/16)	59% (17/29)	60% (32/53)	72% (13/18)	61% (28/46)	77% (17/22)	55% (12/22)	59% (19/32)	69% (24/35)	64% (16/25)	62% (85/298)	50% (3/6)	53% (8/15)	50% (1/2)

Table 6: Location by type of service: Table cells indicate N of Audit cases (from N of audit sites)

	CSP	CHO	Acute
NHS East Midlands	0	0	518 (10)
NHS East of England	0	0	852 (17)
NHS London	0	61 (1)	1213 (26)
NHS North East	0	0	520 (9)
NHS North West	0	0	1341 (27)
NHS South Central	18 (1)	20 (1)	476 (9)
NHS South East Coast	0	0	630 (12)
NHS South West	99 (3)	0	994 (18)
NHS West Midlands	0	0	997 (19)
NHS Yorkshire and the Humber	0	0	801 (13)
NHS England	117 (4)	81 (2)	8342 (160)

Table 7: Clinical key indicators by region

	National	NHS East Midlands	NHS East of England	NHS London	NHS North East	NHS North West	NHS South Central	NHS South East Coast	NHS South West	NHS West Midlands	NHS Yorkshire & Humber	NHS England	Northern Ireland	Wales	Islands
Section 1 Presentation and pre-operative management of hip fracture patients															
C1.2.1.2. Was adequate analgesia administered within 60 minutes of hospital attendance, or prior to attendance by ambulance personnel?															
Hip	65% (2278/3484)	71% (142/200)	72% (214/297)	56% (290/515)	72% (122/170)	65% (333/510)	62% (121/195)	65% (161/249)	72% (253/352)	65% (235/361)	66% (191/291)	66% (2062/3140)	52% (49/94)	66% (151/228)	73% (16/22)
Section 2 Surgery and post operative management of hip fracture patients (Excludes 84 patients who were managed non-operatively)															
C2.2.5 Was a formal assessment of cognitive function, including where indicated a delirium screen (e.g. Confusion Assessment Method), performed within 72 hours of surgery?															
Hip	28% (949/3400)	28% (56/197)	20% (60/294)	38% (189/504)	35% (58/168)	20% (101/503)	39% (75/194)	41% (99/240)	24% (83/349)	28% (93/333)	21% (59/281)	29% (873/3063)	46% (43/94)	14% (31/221)	9% (2/22)
C2.2.6 Was an attempt made within 24 hours of surgery to mobilise the patient?															
Hip	68% (2299/3400)	74% (145/197)	71% (208/294)	68% (344/504)	75% (126/168)	67% (339/503)	74% (143/194)	60% (144/240)	67% (234/349)	69% (230/333)	69% (194/281)	69% (2107/3063)	57% (54/94)	58% (128/221)	45% (10/22)
Section 3 Secondary falls prevention following fall and fracture															
C3.3.4 Are there documented lying and standing blood pressure readings (or is it documented that the patient is unable to stand)?															
Non-Hip	15% (934/6083)	13% (41/318)	18% (100/555)	19% (144/759)	15% (51/350)	12% (101/831)	30% (96/319)	16% (61/381)	12% (90/741)	12% (77/636)	22% (114/510)	16% (875/5400)	16% (30/186)	6% (28/450)	2% (1/47)
Hip	38% (1325/3484)	42% (83/200)	39% (117/297)	43% (222/515)	36% (61/170)	29% (148/510)	62% (120/195)	36% (90/249)	27% (95/352)	42% (153/361)	41% (118/291)	38% (1207/3140)	45% (42/94)	28% (63/228)	59% (13/22)
C3.6.5 Did the patient attend an exercise programme within 12 weeks of the fall? (Excludes where recorded that exercise not relevant, or declined by patient)															
Non-Hip	19% (965/5109)	23% (60/264)	25% (110/448)	22% (142/659)	34% (96/282)	13% (96/742)	21% (55/258)	26% (81/314)	8% (53/637)	21% (111/519)	21% (88/417)	20% (892/4540)	31% (50/161)	5% (20/388)	15% (3/20)
Hip	44% (1346/3038)	48% (82/172)	36% (92/254)	59% (265/452)	46% (64/140)	38% (171/445)	46% (81/176)	31% (94/205)	38% (95/304)	52% (119/315)	44% (129/249)	44% (1192/2712)	73% (68/93)	32% (67/212)	90% (19/21)
C3.7.1, C3.7.2 Was home hazard assessment performed in the patient's own environment? (Excludes where home assessment not relevant, or declined by patient)															
Non-Hip	10% (525/5068)	8% (23/276)	7% (32/455)	15% (101/665)	12% (35/281)	10% (71/703)	16% (43/268)	11% (35/305)	7% (41/606)	12% (64/546)	10% (41/415)	11% (486/4520)	10% (14/143)	5% (20/372)	15% (5/33)
Hip	38% (891/2361)	17% (24/142)	28% (56/197)	60% (226/379)	60% (62/104)	35% (110/313)	30% (39/129)	18% (31/171)	26% (64/246)	36% (90/250)	43% (79/183)	37% (781/2114)	32% (19/59)	45% (77/173)	93% (14/15)
Section 4 Secondary bone health management following fall and fracture															
C4.1.7, C4.2.6, C4.2.7 Was the patient prescribed bisphosphonate or other appropriate anti-resorptive therapy for osteoporosis (or was treatment unnecessary after a DXA scan result excluded osteoporosis)?															
Non-Hip	33% (2037/6083)	42% (135/318)	34% (190/555)	32% (244/759)	46% (162/350)	23% (191/831)	42% (133/319)	38% (145/381)	35% (263/741)	28% (178/636)	26% (134/510)	33% (1775/5400)	45% (83/186)	36% (164/450)	32% (15/47)
Hip	60% (2092/3484)	56% (112/200)	59% (176/297)	67% (343/515)	73% (124/170)	52% (263/510)	65% (126/195)	63% (157/249)	66% (232/352)	55% (198/361)	47% (136/291)	59% (1867/3140)	69% (65/94)	67% (153/228)	32% (7/22)
Section 5 Information provision following fall and fracture															
C5.2 Is it documented within the medical, nursing or therapist notes that written falls prevention information has been given to the patient or their carer?															
Non-Hip	7% (450/6083)	3% (8/318)	6% (32/555)	7% (55/759)	6% (20/350)	4% (34/831)	20% (65/319)	11% (41/381)	5% (38/741)	13% (82/636)	3% (17/510)	7% (392/5400)	17% (31/186)	6% (26/450)	2% (1/47)
Hip	12% (416/3484)	6% (12/200)	8% (23/297)	15% (75/515)	12% (20/170)	8% (40/510)	40% (78/195)	12% (30/249)	5% (18/352)	7% (67/361)	12% (21/291)	16% (384/3140)	16% (15/94)	7% (15/228)	9% (2/22)

Organisational audit key indicators (all sites)

Use table 2 to identify the indicator content

Region	Site name	Site type	Question number							
			1.3.1	1.4.2	4.3.10	4.4.1	4.8.1	5.1.12, 5.1.13	5.4.3, 5.4.5	6.3.1, 6.3.2
Islands										
	Guernsey Health and Social Services	CHO			NO	NO	YES	NO	NO	YES
	States of Jersey Health & Social Services	CHO			YES	NO	YES	YES	NO	NO
NHS East Midlands										
	Derbyshire County Primary Care Trust	PCC	NO	NO						
	NHS Derby City	PCC	NO	NO						
	NHS Lincolnshire	PCC	NO	YES						
	NHS Nottinghamshire County	PCC	YES	NO						
	Derbyshire Community Healthcare Services	CSP			YES	YES		NO	NO	YES
	Lincolnshire Community Health Services	CSP			YES	YES		NO	NO	NO
	NHS Derby City - Provider Services and Operations	CSP			NO			NO	YES	YES
	NHS Northamptonshire Provider Service	CSP			YES	NO		NO	NO	YES
	NHS Bassetlaw	CHO	YES	NO	NO			YES	NO	YES
	NHS Nottingham City	CHO	YES	NO	YES			YES	YES	YES
	Chesterfield Royal Hospital NHS Foundation Trust	Acute			YES	NO	NO		NO	NO
	Derby Hospitals NHS Foundation Trust	Acute			YES	NO	YES	YES	YES	YES
	Kettering General Hospital NHS Foundation Trust	Acute			YES	YES	YES	YES	NO	NO
	Northampton General Hospital NHS Trust	Acute			YES	NO	NO	YES	NO	NO
	Northern Lincolnshire & Goole Hospitals NHS Foundation Trust (Diana, Princess of Wales Hospital)	Acute			NO	YES	YES	YES	NO	NO
	Northern Lincolnshire & Goole Hospitals NHS Foundation Trust (Scunthorpe General Hospital)	Acute			YES	YES	NO	YES	NO	NO
	Nottingham University Hospitals NHS Trust	Acute			YES	YES	YES	YES	NO	NO
	Sherwood Forest Hospitals Trust	Acute			NO	YES	NO	NO	NO	YES
	United Lincolnshire Hospitals NHS Trust	Acute			NO	YES	YES	NO	NO	NO
	University Hospitals of Leicester NHS Trust	Acute			YES	YES	NO	YES	NO	NO
NHS East of England										
	NHS Bedfordshire	PCC	NO	NO						
	NHS Cambridgeshire	PCC	NO	NO						
	NHS Great Yarmouth and Waveney	PCC	NO	NO						
	NHS Mid Essex	PCC	NO	NO						
	NHS Norfolk	PCC	YES	NO						
	NHS North East Essex	PCC	NO	YES						
	NHS Peterborough	PCC	NO	NO						
	NHS South West Essex	PCC	NO	NO						
	NHS West Essex	PCC	NO	NO						
	South East Essex PCT	PCC	NO	NO						
	Bedfordshire Community Health Services	CSP			NO			YES	NO	NO
	Cambridgeshire Community Services	CSP			YES	NO		YES	YES	YES
	Central Essex Community Services	CSP			YES			NO	YES	YES
	NHS Great Yarmouth and Waveney - Community Services	CSP			YES	YES		NO	YES	YES
	NHS North East Essex Provider Services	CSP			YES	YES	NO	YES	YES	YES
	NHS South East Essex Community Healthcare	CSP			YES			YES	NO	YES
	NHS South West Essex Community Services	CSP			YES	YES		YES	NO	YES
	Norfolk Community Health Care	CSP			NO		NO	YES	NO	YES
	Peterborough Community Services	CSP			NO			NO	NO	NO
	West Essex Community Health Services	CSP			YES			YES	NO	NO
	NHS Hertfordshire and Hertfordshire Community Health Services	CHO	NO	NO	YES	YES		YES	YES	YES
	NHS Suffolk	CHO	NO	YES	YES	NO		YES	NO	YES
	Basildon and Thurrock University Hospitals NHS Foundation Trust	Acute			YES	YES	YES	YES	NO	YES
	Bedford Hospital NHS Trust	Acute			YES	NO	NO		NO	NO
	Cambridge University Hospitals NHS Foundation Trust	Acute			YES	NO	YES	NO	NO	YES
	Colchester Hospital University NHS Foundation Trust	Acute			YES	NO	NO	YES	NO	YES
	East and North Hertfordshire NHS Trust	Acute			NO	NO	YES	YES	YES	YES

Region	Sitename	Site type	Question number							
			1.3.1	1.4.2	4.3.10	4.4.1	4.8.1	5.1.12, 5.1.13	5.4.3, 5.4.5	6.3.1, 6.3.2
	Hinchingbrooke Health Care NHS Trust	Acute			YES	NO	NO		NO	NO
	James Paget University Hospitals NHS Foundation Trust	Acute			NO	NO	NO		NO	NO
	Luton and Dunstable Hospital NHS Foundation Trust	Acute			YES	NO	NO	NO	NO	YES
	Mid Essex Hospital Services NHS Trust	Acute			NO	NO	YES	YES	YES	YES
	Norfolk and Norwich University Hospital NHS Trust	Acute			NO	NO	NO	YES	NO	NO
	Peterborough & Stamford Hospitals NHS Foundation Trust	Acute			NO	YES	YES	YES	NO	NO
	Southend University Hospital NHS Foundation Trust	Acute			NO	YES	NO	NO	NO	NO
	The Ipswich Hospital NHS Trust	Acute			NO	NO	YES	NO	NO	YES
	The Princess Alexandra Hospital NHS Trust	Acute			NO	NO	NO		NO	NO
	The Queen Elizabeth Hospital King's Lynn	Acute			NO	YES	NO	YES	NO	YES
	West Hertfordshire Hospitals NHS Trust	Acute			NO	NO	NO	YES	NO	NO
	West Suffolk Hospitals NHS Trust	Acute			NO	YES	NO		NO	NO
NHS London										
	Hounslow Primary Care Trust	PCC	NO	YES						
	NHS Barking and Dagenham	PCC	NO	NO						
	NHS Barnet	PCC	NO	NO						
	NHS Brent	PCC	NO	YES						
	NHS Camden	PCC	NO	NO						
	NHS Croydon	PCC	YES	NO						
	NHS Greenwich	PCC	NO	NO						
	NHS Havering	PCC	NO	YES						
	NHS Islington	PCC	NO	NO						
	NHS Kensington and Chelsea	PCC	NO	NO						
	NHS Kingston	PCC	NO	NO						
	NHS Lambeth	PCC	NO	NO						
	NHS Lewisham	PCC	NO	NO						
	NHS Redbridge	PCC	NO	NO						
	NHS Waltham Forest	PCC	YES	NO						
	NHS Westminster	PCC	NO	NO						
	Southwark PCT	PCC	NO	NO						
	Barking and Dagenham Community Health Services	CSP			NO		NO	YES	NO	YES
	Barnet Community Services	CSP			NO	NO		YES	NO	YES
	Central London Community Healthcare (Hammersmith and Fulham)	CSP			YES	YES		NO	NO	YES
	Central London Community Healthcare (Kensington and Chelsea)	CSP			NO	NO		YES	NO	YES
	Central London Community Healthcare (Westminster)	CSP			YES			YES	YES	YES
	Croydon Community Health Services	CSP						NO	NO	YES
	Ealing and Harrow Community Services	CSP			YES			YES	NO	YES
	Greenwich Community Health Services	CSP			NO			YES	NO	YES
	Hillingdon Community Health	CSP			NO			NO	NO	NO
	Hounslow and Richmond Community Healthcare	CSP						YES	NO	YES
	Lambeth Community Health	CSP			YES			YES	NO	YES
	NHS Brent Provider Service	CSP			YES		NO	YES	NO	YES
	NHS Camden Provider Services	CSP			YES			YES	NO	YES
	NHS Haringey Community Health Services	CSP			YES			NO	NO	YES
	NHS Islington - Provider Services	CSP			NO			YES	NO	YES
	NHS Kingston Provider Services	CSP			NO			NO	NO	YES
	Outer North East London Community Service (Redbridge)	CSP			NO		NO	NO	NO	NO
	Outer North East London Community Services (Havering)	CSP			NO			YES	NO	NO
	Outer North East London Community Services (Waltham Forest)	CSP			NO			YES	NO	NO
	Southwark Provider Services	CSP						NO	YES	YES
	Tower Hamlets Community Health Services	CSP			YES			YES	NO	YES
	Lewisham Healthcare NHS Trust	CHO			NO	NO	NO	YES	NO	YES
	NHS City and Hackney	CHO	NO	YES				YES	NO	NO
	NHS Harrow, NHS Ealing and Ealing Hospital	CHO	YES	NO	YES	NO	NO	YES	YES	YES
	NHS Newham	CHO	NO	NO	YES			YES	NO	YES
	NHS Sutton and Merton	CHO	YES	NO		YES		YES	NO	YES
	NHS Wandsworth	CHO	NO	NO	YES	NO		NO	YES	YES

Region	Sitename	Site type	Question number							
			1.3.1	1.4.2	4.3.10	4.4.1	4.8.1	5.1.12, 5.1.13	5.4.3, 5.4.5	6.3.1, 6.3.2
	Oxleas NHS Foundation Trust	CHO			NO	NO		YES	NO	YES
	Barking, Havering & Redbridge University Hospitals NHS Trust	Acute			NO	NO	YES	YES	NO	NO
	Barnet & Chase Farm Hospitals NHS Trust	Acute			NO	NO	NO	NO	NO	NO
	Barts and the London NHS Trust	Acute			YES	YES	NO	YES	NO	NO
	Chelsea and Westminster Hosp NHS Foundation Trust	Acute			YES	YES	YES	YES	NO	YES
	Ealing Hospital NHS Trust	Acute			YES	NO	NO		NO	NO
	Epsom & St Helier University Hospitals NHS Trust, Epsom Hospital	Acute			YES	YES	YES	YES	NO	NO
	Epsom & St Helier University Hospitals NHS Trust, St Helier Hospital	Acute								
	Guy's & St Thomas' NHS Foundation Trust	Acute			YES	YES	YES	NO	NO	YES
	Hillingdon Hospital NHS Trust	Acute			YES	NO	YES		NO	NO
	Homerton University Hospital NHS Foundation Trust	Acute			NO	NO	YES	YES	NO	NO
	Imperial College Healthcare NHS Trust	Acute			YES	NO	NO	YES	NO	NO
	King's College Hospital NHS Foundation Trust	Acute			YES	YES	NO	YES	YES	NO
	Kingston Hospital NHS Trust	Acute			YES	NO	NO	NO	NO	NO
	Mayday Healthcare NHS Trust	Acute			YES	NO	NO	NO	NO	YES
	Newham University Hospital NHS Trust	Acute			YES	NO	NO	YES	NO	NO
	North Middlesex University Hospital NHS Trust	Acute			NO	YES	NO	NO	NO	YES
	Royal Free Hampstead NHS Trust	Acute			YES	NO	NO	NO	YES	YES
	South London Healthcare NHS Trust (Bromley Hospital)	Acute			YES	NO	NO	YES	NO	NO
	South London Healthcare NHS Trust (Queen Elizabeth Hospital Woolwich)	Acute			YES	YES	YES	NO	NO	YES
	St George's Healthcare NHS Trust	Acute			NO	YES	YES	YES	NO	YES
	The North West London Hospitals NHS Trust (Central Middlesex Hospital)	Acute			NO	NO	NO	YES	NO	NO
	The North West London Hospitals NHS Trust (Northwick Park Hospital)	Acute			YES	NO	NO	YES	NO	YES
	University College London Hospitals NHSFT	Acute			YES	YES	NO		NO	NO
	West Middlesex University Hospital NHS Trust	Acute			YES	NO	NO	NO	NO	NO
	Whipps Cross University Hospital NHS Trust	Acute			YES	YES	YES	YES	NO	NO
	Whittington Hospital NHS Trust	Acute			NO	YES	NO	YES	NO	YES
NHS North East										
	NHS Hartlepool	PCC	NO	NO						
	NHS Middlesbrough	PCC	NO	NO						
	NHS Newcastle Primary Care Trust	PCC	NO	NO						
	NHS Redcar and Cleveland	PCC	NO	NO						
	NHS Stockton-on-Tees	PCC	NO	NO						
	Northumberland Care Trust	PCC	NO	YES						
	Hartlepool Community Services	CSP						YES	NO	YES
	Middlesbrough, Redcar and Cleveland PCTs and Community Services	CSP			NO	YES		YES	YES	YES
	Newcastle Community Provider Services	CSP			YES			YES	YES	YES
	North Tees Community Services	CSP						YES	NO	YES
	Gateshead Primary Care Trust	CHO				NO		YES	NO	NO
	NHS County Durham	CHO	NO	YES	YES			YES	NO	YES
	NHS Darlington	CHO	NO	YES	YES			YES	NO	YES
	South Tyneside PCT	CHO						YES	NO	YES
	Sunderland Teaching Primary Care Trust	CHO			NO	NO		NO	NO	YES
	City Hospitals Sunderland NHS Foundation Trust	Acute			NO	YES	YES	NO	NO	YES
	County Durham & Darlington NHS Foundation Trust (Darlington Memorial Hospital)	Acute			YES	NO	YES	YES	NO	NO
	County Durham & Darlington NHS Foundation Trust (University Hospital of North Durham)	Acute			YES	NO	YES	YES	NO	NO
	Gateshead Health NHS Foundation Trust	Acute			YES	NO	YES	YES	NO	YES
	North Tees & Hartlepool NHS Foundation Trust	Acute			YES	NO	NO	YES	NO	NO
	Northumbria Healthcare NHS Foundation Trust	Acute			YES	NO	YES	NO	NO	YES
	South Tees Hospitals NHS Trust	Acute			YES	YES	YES	YES	YES	YES
	South Tyneside NHS Foundation Trust	Acute			YES	NO	NO	YES	NO	NO
	The Newcastle Upon Tyne Hospitals NHS Foundation Trust	Acute			YES	NO	YES	NO	NO	YES

Region	Sitename	Site type	Question number							
			1.3.1	1.4.2	4.3.10	4.4.1	4.8.1	5.1.12, 5.1.13	5.4.3, 5.4.5	6.3.1, 6.3.2
NHS North West										
	Central and Eastern Cheshire Primary Care Trust	PCC	NO	YES						
	Liverpool Primary Care Trust	PCC	NO	NO						
	NHS Blackburn and Darwen	PCC	NO	NO						
	NHS Blackpool	PCC	YES	NO						
	NHS Heywood, Middleton and Rochdale	PCC	NO	NO						
	NHS Manchester	PCC	NO	NO						
	NHS Oldham	PCC	NO	YES						
	NHS Sefton	PCC	NO	YES						
	NHS Tameside and Glossop	PCC	NO	NO						
	Salford Primary Care Trust	PCC	NO	YES						
	Bury Community Services	CSP			NO			YES	NO	NO
	Cheshire East Community Health	CSP			NO				NO	NO
	Heywood, Middleton and Rochdale Community Healthcare	CSP						NO	NO	YES
	Mancunian Community Health (South)	CSP			NO	NO	NO	NO	YES	YES
	NHS Blackburn and Darwen - Provider Services Unit	CSP			NO				NO	NO
	NHS Blackpool - Community Health Services	CSP			NO			YES	NO	YES
	NHS Halton and St Helens- provider services	CSP			NO			YES	YES	YES
	NHS Liverpool - Community Health	CSP			NO			YES	NO	YES
	NHS Warrington - Community Services Unit	CSP						NO	NO	YES
	Oldham Community Health Services	CSP			YES	YES		NO	YES	YES
	Salford Community Health Services	CSP					NO	YES	NO	YES
	NHS Ashton, Leigh & Wigan	CHO	NO	NO	NO			YES	YES	YES
	NHS Central Lancashire	CHO	NO	NO	NO	NO		YES	NO	YES
	NHS East Lancashire	CHO	YES	NO	YES	YES	NO	YES	NO	YES
	NHS Knowsley	CHO	NO	NO				NO	NO	NO
	NHS North Lancashire	CHO	YES	NO	NO			NO	NO	YES
	NHS Stockport	CHO						NO	YES	YES
	NHS Western Cheshire Community Care and Western Cheshire PCT	CHO	NO	NO				NO	NO	YES
	Aintree University Hospitals NHS Foundation Trust	Acute			YES	YES	YES	YES	NO	YES
	Blackpool, Fylde & Wyre Hospitals NHS Foundation Trust	Acute			YES	YES	NO		NO	NO
	Central Manchester University Hospitals NHS Foundation Trust	Acute			YES	YES	NO	YES	YES	YES
	Countess of Chester Hospital	Acute			NO	NO	YES	YES	NO	NO
	East Cheshire NHS Trust	Acute			YES	YES	NO		NO	NO
	East Lancashire Hospitals NHS Trust	Acute			NO	YES	NO	YES	NO	NO
	Lancashire Teaching Hospital NHS Foundation Trust	Acute			YES	YES	NO	YES	NO	YES
	Mid Cheshire Hospitals NHS Foundation Trust	Acute			YES	NO	NO		NO	NO
	North Cumbria Acute Hospitals NHS Trust (Cumberland Infirmary)	Acute			YES	YES	YES	NO	NO	YES
	North Cumbria Acute Hospitals NHS Trust (West Cumberland Hospital)	Acute			NO	NO	YES		NO	NO
	Royal Bolton Hospital NHS Foundation Trust	Acute			YES	NO	NO		NO	NO
	Salford Royal Hospitals NHS Foundation Trust	Acute			YES	YES	NO	YES	NO	YES
	Southport & Ormskirk Hospital NHS Trust	Acute			NO	NO	YES	YES	NO	NO
	St Helens & Knowsley Hospitals NHS Trust	Acute			YES	NO	NO		NO	NO
	Stockport NHS Foundation Trust	Acute			YES	YES	NO	YES	NO	YES
	Tameside Hospital NHS Foundation Trust	Acute			YES	NO	NO	NO	NO	YES
	The Pennine Acute Hospitals NHS Trust (Fairfield General Hospital)	Acute			YES	YES	NO		NO	YES
	The Pennine Acute Hospitals NHS Trust (North Manchester General Hospital)	Acute			YES	YES	NO		NO	YES
	The Pennine Acute Hospitals NHS Trust (Rochdale Infirmary)	Acute			YES	YES	NO		NO	YES
	The Pennine Acute Hospitals NHS Trust (Royal Oldham Hospital)	Acute			YES	NO	NO	YES	NO	YES
	The Royal Liverpool & Broadgreen University Hospitals	Acute				YES	NO	NO	NO	YES
	Trafford Healthcare NHS Trust	Acute			NO	NO	NO	YES	NO	YES
	University Hospital of South Manchester NHS Foundation Trust	Acute			NO	NO	NO	NO	NO	YES
	University Hospitals of Morecambe Bay NHS Trust (Furness General Hospital)	Acute			YES	NO	NO	YES	NO	NO

Region	Sitename	Site type	Question number							
			1.3.1	1.4.2	4.3.10	4.4.1	4.8.1	5.1.12, 5.1.13	5.4.3, 5.4.5	6.3.1, 6.3.2
	University Hospitals of Morecambe Bay NHS Trust (Royal Lancaster Infirmary)	Acute			YES	YES	NO	NO	NO	NO
	Warrington and Halton Hospitals NHS Foundation Trust	Acute			YES	NO	NO		NO	NO
	Wirral University Teaching Hospital NHS Foundation Trust	Acute			NO	NO	NO	YES	NO	NO
	Wrightington, Wigan & Leigh NHS Foundation Trust	Acute			YES	YES	YES	YES	NO	NO
NHS South Central										
	NHS Berkshire East	PCC	NO	NO						
	NHS Berkshire West	PCC	YES	YES						
	NHS Buckinghamshire	PCC	NO	NO						
	NHS Hampshire	PCC	YES	NO						
	NHS Milton Keynes	PCC	YES	NO						
	Oxfordshire PCT	PCC	YES	NO						
	Berkshire East Community Health Services	CSP			YES			YES	NO	YES
	Berkshire East Community Health Services (Bracknell Forest)	CSP						YES	NO	NO
	Berkshire East Community Health Services (Windsor, Ascot and Maidenhead)	CSP			YES			YES	NO	YES
	Hampshire Community Health Care - North East	CSP			YES	YES		YES	YES	YES
	Hampshire Community Health Care - South East Area	CSP			YES			YES	YES	YES
	Hampshire Community Health Care - West	CSP			YES	YES		YES	YES	YES
	Milton Keynes Community Health Services	CSP			NO			YES	YES	YES
	NHS Berkshire West - Community Health	CSP			YES	YES	YES	YES	NO	NO
	Oxfordshire Primary Care Trust - Community Health Services	CSP			YES	YES	YES	NO	YES	YES
	Solent Healthcare (Southampton)	CSP			NO	YES	NO	NO	NO	YES
	South Downs NHS Trust	CSP			NO			YES	YES	YES
	Isle of Wight NHS Primary Care Trust	CHO	YES	NO	YES	NO	NO	YES	NO	YES
	Portsmouth City Primary Care Trust	CHO	NO	NO	YES	YES		YES	YES	YES
	Basingstoke and North Hampshire NHS Foundation Trust	Acute			YES	YES	YES	YES	NO	YES
	Buckinghamshire Hospitals NHS Trust	Acute			NO	YES	YES	NO	NO	YES
	Heatherwood & Wexham Park Hospitals NHS Foundation Trust	Acute			YES	NO	NO	YES	NO	NO
	Milton Keynes NHS Foundation Trust	Acute			NO	NO	NO		NO	NO
	Oxford Radcliffe Hospitals NHS Trust	Acute			YES	YES	YES	YES	YES	YES
	Portsmouth Hospitals NHS Trust	Acute			YES	YES	NO	YES	YES	YES
	Royal Berkshire NHS Foundation Trust	Acute			YES	YES	NO	YES	NO	YES
	Southampton University Hospitals NHS Trust	Acute			YES	NO	NO	YES	NO	NO
	Winchester & Eastleigh Healthcare NHS Trust	Acute			YES	YES	YES	YES	NO	YES
NHS South East Coast										
	Brighton and Hove Primary Care Trust	PCC	NO	NO						
	NHS Eastern and Coastal Kent	PCC	NO	NO						
	NHS Medway	PCC	NO	NO						
	NHS West Kent	PCC	NO	NO						
	West Sussex Primary Care Trust	PCC	NO	NO						
	Eastern and Coastal Kent Community Services	CSP			NO	NO		YES	NO	YES
	Medway Community Healthcare	CSP			YES			YES	NO	YES
	Surrey Community Health - East	CSP						NO	NO	YES
	Surrey Community Health - North West	CSP			YES	NO		YES	NO	YES
	Surrey Community Health - South West	CSP			YES	YES		YES	NO	YES
	West Kent Community Services	CSP			YES	NO	YES	NO	NO	NO
	NHS East Sussex Downs and Weald	CHO	NO	NO	NO	NO		YES	NO	YES
	NHS Hastings and Rother	CHO	NO	NO	NO			NO	NO	YES
	Ashford & St Peter's Hospital NHS Trust	Acute			YES	YES	NO	YES	NO	NO
	Brighton and Sussex University Hospitals NHS Trust	Acute			YES	YES	YES	NO	NO	NO
	Dartford and Gravesham NHS Trust	Acute			YES	NO	NO		NO	YES
	East Kent Hospitals University NHS Foundation Trust	Acute			YES	NO	YES	YES	NO	YES
	East Sussex Hospitals NHS Trust (Conquest Hospital)	Acute			YES	YES	YES	YES	NO	YES
	East Sussex Hospitals NHS Trust (Eastbourne District General Hospital)	Acute			YES	YES	NO	YES	NO	NO

Region	Site name	Site type	Question number							
			1.3.1	1.4.2	4.3.10	4.4.1	4.8.1	5.1.12, 5.1.13	5.4.3, 5.4.5	6.3.1, 6.3.2
	Frimley Park Hospital NHS Foundation Trust	Acute			YES	YES	YES	NO	NO	NO
	Maidstone and Tunbridge Wells NHS Trust (Kent and Sussex Hospital)	Acute			NO	YES	NO		NO	NO
	Maidstone and Tunbridge Wells NHS Trust (Maidstone Hospital)	Acute			NO	NO	NO		NO	NO
	Medway NHS Foundation Trust	Acute			YES	NO	YES	YES	NO	YES
	Royal Surrey County Hospital NHS Trust	Acute			YES	YES	YES	YES	NO	YES
	Surrey & Sussex Healthcare NHS Trust	Acute			NO	NO	YES		NO	NO
	Western Sussex Hospitals Trust, St Richard's Hospital	Acute			YES	YES	NO		NO	NO
	Western Sussex Hospitals Trust, Worthing Hospital	Acute			YES	NO	NO	YES	NO	NO
NHS South West										
	NHS Cornwall and Isles of Scilly	PCC	YES	NO						
	NHS Devon	PCC	YES	YES						
	NHS Dorset	PCC	YES	NO						
	NHS Gloucestershire	PCC	NO	YES						
	NHS Wiltshire	PCC	YES	NO						
	Dorset Community Health Services	CSP			YES	YES		NO	NO	YES
	NHS Cornwall and Isles of Scilly - Community Services	CSP			YES	YES		NO	NO	NO
	NHS Devon Provider Services	CSP			NO	NO	NO	YES	NO	YES
	NHS Gloucestershire - Gloucestershire Care Services	CSP			NO	YES	NO	YES	NO	YES
	NHS Wiltshire - Community Health Services	CSP			NO	YES	NO	NO	NO	NO
	Torbay Care Trust - Provider Services	CSP			NO	NO		YES	YES	NO
	NHS Bath & North East Somerset	CHO	NO	NO	NO	NO	NO	YES	NO	YES
	NHS Bournemouth and Poole	CHO	YES	NO	YES			YES	NO	YES
	NHS Bristol	CHO	NO	NO	NO			NO	NO	NO
	NHS Plymouth	CHO	YES	YES	NO	YES		YES	NO	YES
	NHS Somerset	CHO	YES	NO	YES	YES	NO	YES	NO	YES
	North Somerset Primary Care Trust	CHO	NO	NO	NO	NO			NO	YES
	South Gloucestershire Primary Care Trust	CHO	NO	NO	NO	YES		YES	YES	NO
	Swindon Primary Care Trust	CHO	NO	NO	YES	NO		YES	YES	YES
	Dorset County Hospital NHS Foundation Trust	Acute			YES	NO	NO	YES	NO	NO
	Gloucestershire Hospitals NHS Foundation Trust (Cheltenham General Hospital)	Acute			NO	YES	YES	YES	NO	YES
	Gloucestershire Hospitals NHS Foundation Trust (Gloucestershire Royal Hospital)	Acute			NO	YES	YES	NO	NO	YES
	Great Western Hospitals NHS Foundation Trust	Acute			YES	YES	NO	YES	YES	YES
	North Bristol NHS Trust	Acute			YES	YES	NO	YES	NO	YES
	Northern Devon Healthcare NHS Trust	Acute			NO	YES	NO	YES	NO	NO
	Plymouth Hospitals NHS Trust	Acute			NO	NO	NO	NO	NO	YES
	Poole Hospital NHS Foundation Trust	Acute			YES	YES	NO		NO	NO
	Royal Cornwall Hospitals NHS Trust	Acute			NO	NO	NO	NO	NO	NO
	Royal Devon & Exeter NHS Foundation Trust	Acute			YES	NO	NO		NO	YES
	Royal United Hospital Bath NHS Trust	Acute			NO	YES	YES		NO	NO
	Salisbury NHS Foundation Trust	Acute			NO	NO	NO	YES	NO	YES
	South Devon Healthcare NHS Foundation Trust	Acute			YES	YES	NO		NO	YES
	Taunton & Somerset NHS Foundation Trust	Acute			NO	YES	NO	NO	NO	NO
	The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	Acute			YES	YES	NO	YES	NO	YES
	University Hospitals Bristol NHS Foundation Trust	Acute			YES	NO	NO	YES	NO	YES
	Weston Area Health Trust	Acute			YES	YES	YES	YES	NO	NO
	Yeovil District Hospital NHS Foundation Trust	Acute			YES	NO	NO		NO	NO
NHS West Midlands										
	NHS Birmingham East and North	PCC	YES	NO						
	NHS Coventry	PCC	NO	YES						
	NHS Dudley	PCC	YES	YES						
	NHS Herefordshire	PCC	YES	NO						
	NHS South Birmingham	PCC	YES	NO						
	NHS Stoke on Trent	PCC	YES	NO						
	NHS Walsall	PCC	NO	NO						
	NHS Worcestershire	PCC	YES	YES						
	North Staffordshire Joint Commissioning Unit	PCC	NO	NO						
	Shropshire County Primary Care Trust	PCC	YES	NO						

Region	Sitename	Site type	Question number							
			1.3.1	1.4.2	4.3.10	4.4.1	4.8.1	5.1.12, 5.1.13	5.4.3, 5.4.5	6.3.1, 6.3.2
	South Staffordshire Joint Commissioning Unit	PCC	NO	NO						
	Coventry Community Health Services	CSP			NO				NO	NO
	Dudley Community Services	CSP			NO	YES	YES	NO	YES	YES
	Herefordshire PCT - Provider Services	CSP			NO	YES		YES	NO	YES
	NHS North Staffordshire - Community Health	CSP			NO	NO		YES	NO	YES
	NHS Stoke on Trent Community Healthcare Services	CSP			YES		YES	YES	NO	YES
	NHS Walsall - Community Heath	CSP			NO			YES	YES	YES
	NHS Worcestershire - Provider Services	CSP			NO	NO		YES	NO	NO
	Shropshire PCT - Community Services	CSP			NO	NO		YES	NO	YES
	South Birmingham Community Health	CSP			NO				NO	YES
	South Staffordshire Primary Care Trust - Provider	CSP			YES	YES		YES	NO	YES
	Heart of Birmingham Teaching Primary Care Trust (City Hospital Site)	CHO	NO	NO	NO			NO	YES	YES
	NHS Warwickshire	CHO	YES	NO	NO	NO		YES	NO	YES
	Sandwell Primary Care Trust and Sandwell Community Healthcare Services	CHO	NO	YES	NO			YES	NO	NO
	Solihull NHS Care Trust	CHO	YES	NO	NO	NO		YES	NO	YES
	Telford & Wrekin Primary Care Trust	CHO	YES	NO	YES	YES	YES	YES	NO	YES
	Wolverhampton City Primary Care Trust	CHO	NO	NO	NO	NO		YES	NO	YES
	Burton Hospitals NHS Trust	Acute			YES	NO	YES	YES	NO	YES
	George Eliot Hospital NHS Trust	Acute			NO	YES	NO	NO	NO	YES
	Heart of England NHS Foundation Trust (Good Hope Hospital)	Acute			YES	NO	NO	YES	NO	YES
	Heart of England NHS Foundation Trust (Heartlands Hospital)	Acute			NO	NO	NO	YES	NO	NO
	Hereford Hospitals NHS Trust	Acute			YES	NO	YES	NO	NO	NO
	Mid Staffordshire NHS Foundation Trust	Acute			NO	YES	YES	YES	NO	YES
	Sandwell & West Birmingham Hospitals NHS Trust (City Hospital)	Acute			YES	YES	YES	YES	NO	YES
	Sandwell & West Birmingham Hospitals NHS Trust (Sandwell Hospital)	Acute			YES	YES	NO	NO	NO	NO
	South Warwickshire General Hospitals NHS Trust	Acute			NO	YES	YES		NO	NO
	The Dudley Group of Hospitals NHS Foundation Trust	Acute			YES	YES	NO	NO	NO	YES
	The Royal Wolverhampton Hospitals NHS Trust	Acute			YES	NO	YES	NO	NO	YES
	The Shrewsbury & Telford Hospital NHS Trust (The Princess Royal Hospital)	Acute			YES	YES	YES	YES	NO	YES
	The Shrewsbury & Telford Hospital NHS Trust (The Royal Shrewsbury Hospital)	Acute			NO	YES	NO		NO	NO
	University Hospital Birmingham NHS Foundation Trust	Acute			YES	NO	NO	NO	NO	YES
	University Hospital of North Staffs NHS Trust	Acute			YES	NO	YES		NO	NO
	University Hospitals Coventry & Warwickshire NHST	Acute			NO	YES	NO		NO	NO
	Walsall Hospitals NHS Trust	Acute			YES	YES	YES	YES	YES	YES
	Worcestershire Acute Hospitals NHS Trust (The Alexandra Hospital)	Acute			NO	YES	NO		NO	NO
	Worcestershire Acute Hospitals NHS Trust (Worcestershire Royal Hospital)	Acute			NO	YES	NO	YES	YES	YES
NHS Yorkshire and the Humber										
	Doncaster PCT	PCC	NO	NO						
	NHS Barnsley	PCC	YES	NO						
	NHS Bradford and Airedale	PCC	NO	NO						
	NHS Calderdale	PCC	NO	YES						
	NHS East Riding of Yorkshire	PCC	NO	NO						
	NHS Kirklees	PCC	YES	NO						
	NHS Leeds Primary Care Trust	PCC	NO	NO						
	NHS North Lincolnshire	PCC	NO	NO						
	NHS Rotherham	PCC	YES	YES						
	NHS Sheffield	PCC	YES	YES						
	NHS Wakefield District	PCC	NO	NO						
	Bradford and Airedale Community Health Services	CSP			NO			YES	NO	NO
	Doncaster Primary Care Trust Provider Service	CSP			NO			YES	YES	YES
	Leeds Community Healthcare	CSP			YES			YES	NO	YES
	NHS Barnsley Care Services Direct	CSP			NO			NO	NO	YES

Region	Sitename	Site type	Question number							
			1.3.1	1.4.2	4.3.10	4.4.1	4.8.1	5.1.12, 5.1.13	5.4.3, 5.4.5	6.3.1, 6.3.2
	NHS Calderdale - Provider Services	CSP						NO	YES	YES
	NHS East Riding of Yorkshire - Community Services	CSP			YES	YES		YES	YES	YES
	NHS North Lincolnshire - Community Services	CSP						NO	NO	YES
	NHS Rotherham - Community Health Services	CSP			NO			YES	YES	YES
	NHS Sheffield - Provider Services	CSP			NO		NO	NO	NO	YES
	NHS Hull	CHO	YES	YES		YES		NO	YES	YES
	North East Lincolnshire Care Trust Plus	CHO	YES	YES	NO	NO		YES	NO	YES
	North Yorkshire and York Primary Care Trust	CHO	NO	NO				NO	NO	YES
	Airedale NHS Trust	Acute			YES	YES	NO	YES	NO	NO
	Barnsley Hospital NHS Foundation Trust	Acute			NO	NO	NO	YES	NO	NO
	Bradford Teaching Hospitals NHS Foundation Trust	Acute			NO	NO	NO	YES	NO	NO
	Calderdale & Huddersfield NHS Foundation Trust	Acute			NO	NO	NO	YES	NO	NO
	Doncaster & Bassetlaw Hospitals NHS Foundation Trust	Acute			YES	YES	NO	YES	NO	YES
	Harrogate and District NHS Foundation Trust	Acute			YES	YES	NO	YES	NO	YES
	Hull and East Yorkshire Hospitals NHS Trust	Acute			NO	NO	YES	YES	YES	YES
	Scarborough & North East Yorkshire Healthcare NHS Trust	Acute			YES	NO	NO	NO	NO	NO
	Sheffield Teaching Hospitals Health NHS Foundation Trust	Acute			YES	YES	YES	YES	NO	YES
	The Leeds Teaching Hospitals NHS Trust	Acute			NO	YES	NO	YES	NO	NO
	The Mid Yorkshire Hospitals NHS Trust	Acute			YES	YES	YES	YES	NO	NO
	The Rotherham NHS Foundation Trust	Acute			YES	YES	NO	YES	NO	NO
	York Hospitals NHS Foundation Trust	Acute			YES	NO	NO	YES	NO	YES
Northern Ireland										
	Belfast Health and Social Care Trust	CHO			NO	YES	YES	YES	NO	YES
	Northern Health and Social Care Trust	CHO			NO	YES	NO	YES	NO	NO
	Southern Health and Social Care Trust (Craigavon Area Hospital)	CHO	NO	NO	NO	NO	YES	YES	NO	NO
	Southern Health and Social Care Trust (Daisy Hill Hospital)	CHO	NO	NO	YES	NO	YES	YES	NO	NO
	Western Health and Social Care Trust	CHO			NO	YES	NO	YES	NO	YES
	South Eastern Health and Social Care Trust	Acute			NO	NO	YES	YES	YES	YES
Wales										
	Abertawe Bro Morgannwg University NHS Trust (Neath Port Talbot Hospital)	CHO			YES	NO	NO	YES	NO	YES
	Abertawe Bro Morgannwg University NHS Trust (Princess of Wales Hospital)	CHO			YES	NO	YES	NO	NO	YES
	Abertawe Bro Morgannwg University NHS Trust (Singleton/Morrison Hospital)	CHO			YES	YES	YES		NO	NO
	Aneurin Bevan Health Board, Neville Hall Hospital	CHO	YES	NO	NO	YES	NO	YES	NO	YES
	Aneurin Bevan Health Board, St Woolos Hospital	CHO								
	Betsi Cadwaladr University Local Health Board (Glan Clwyd Hospital)	CHO	NO	NO	NO	YES	YES		NO	NO
	Betsi Cadwaladr University Local Health Board (Wrexham Medical Institute)	CHO			NO	NO	NO	YES	NO	YES
	Betsi Cadwaladr University Local Health Board (Ysbyty Gwynedd and Llandudno General Hospital)	CHO			NO	YES	YES	YES	NO	YES
	Cardiff and Vale University Health Board	CHO	YES	NO	NO	NO	YES	YES	NO	YES
	Cwm Taf NHS Trust (Prince Charles Hospital)	CHO	NO	NO	YES	NO	NO		NO	YES
	Cwm Taf NHS Trust (Royal Glamorgan Hospital)	CHO	NO	NO	YES	NO	NO		NO	YES
	Hywel Dda Local Health Board (Bronglais General Hospital)	CHO	YES	YES	NO	YES	YES	NO	YES	NO
	Hywel Dda Local Health Board (Prince Philip Hospital)	CHO	YES	YES	NO	YES	NO		NO	NO
	Hywel Dda Local Health Board (West Wales General Hospital)	CHO	YES	YES	NO	YES	NO		NO	NO
	Hywel Dda Local Health Board (Withybush General Hospital)	CHO	YES	YES	NO	YES	NO		NO	NO
	Powys Teaching Health Board	CHO	NO	NO	NO	YES		NO	NO	NO

Clinical audit key indicators (all sites)

Use table 3 to identify the indicator content

No of clinical cases	Site name	1.2.12 (hips)		2.2.5 (hips)		2.2.6 (hips)		3.3.4 (hips)		3.3.4 (non-hips)	
		%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
Islands											
39	States of Jersey Health & Social Services	83	15/18	11	2/18	44	8/18	67	12/18	5	1/21
NHS East Midlands											
41	Chesterfield Royal Hospital NHS Foundation Trust	100	16/16	13	2/16	75	12/16	63	10/16	40	10/25
60	Derby Hospitals NHS Foundation Trust	80	16/20	68	13/19	63	12/19	15	3/20	13	5/40
53	Kettering General Hospital NHS Foundation Trust	95	18/19	32	6/19	100	19/19	74	14/19	0	0/34
56	Northampton General Hospital NHS Trust	35	6/17	6	1/17	47	8/17	18	3/17	18	7/39
59	Northern Lincolnshire & Goole Hospitals NHS Foundation Trust (Diana, Princess of Wales Hospital)	89	17/19	6	1/18	72	13/18	37	7/19	15	6/40
56	Northern Lincolnshire & Goole Hospitals NHS Foundation Trust (Scunthorpe General Hospital)	100	19/19	16	3/19	53	10/19	32	6/19	0	0/37
59	Nottingham University Hospitals NHS Trust	100	19/19	89	17/19	89	17/19	74	14/19	5	2/40
26	Sherwood Forest Hospitals Trust	71	10/14	14	2/14	71	10/14	79	11/14	50	6/12
60	United Lincolnshire Hospitals NHS Trust	18	8/44	19	8/43	74	32/43	14	6/44	13	2/16
48	University Hospitals of Leicester NHS Trust	100	13/13	23	3/13	92	12/13	69	9/13	9	3/35
NHS East of England											
60	Basildon and Thurrock University Hospitals NHS Foundation Trust	45	9/20	15	3/20	75	15/20	50	10/20	5	2/40
58	Bedford Hospital NHS Trust	45	9/20	0	0/20	85	17/20	85	17/20	21	8/38
60	Cambridge University Hospitals NHS Foundation Trust	100	20/20	95	19/20	100	20/20	40	8/20	25	10/40
55	Colchester Hospital University NHS Foundation Trust	25	5/20	5	1/20	50	10/20	15	3/20	23	8/35
33	East and North Hertfordshire NHS Trust	75	6/8	38	3/8	88	7/8	63	5/8	28	7/25
60	Hinchingbrooke Health Care NHS Trust	73	22/30	20	6/30	70	21/30	43	13/30	13	4/30
60	James Paget University Hospitals NHS Foundation Trust	85	17/20	10	2/20	35	7/20	90	18/20	3	1/40
60	Luton and Dunstable Hospital NHS Foundation Trust	80	16/20	11	2/19	37	7/19	0	0/20	18	7/40
60	Mid Essex Hospital Services NHS Trust	95	19/20	5	1/20	85	17/20	15	3/20	8	3/40
56	Norfolk and Norwich University Hospital NHS Trust	80	16/20	10	2/20	60	12/20	35	7/20	6	2/36
29	Peterborough & Stamford Hospitals NHS Foundation Trust	91	10/11	82	9/11	100	11/11	27	3/11	39	7/18
10	Southend University Hospital NHS Foundation Trust		0		0		0		0	50	5/10
62	The Ipswich Hospital NHS Trust	95	19/20	20	4/20	85	17/20	25	5/20	29	12/42
12	The Princess Alexandra Hospital NHS Trust	17	2/12	17	2/12	100	12/12	33	4/12		0
57	The Queen Elizabeth Hospital King's Lynn	88	14/16	7	1/14	64	9/14	19	3/16	27	11/41
60	West Hertfordshire Hospitals NHS Trust	75	15/20	10	2/20	65	13/20	45	9/20	8	3/40
60	West Suffolk Hospitals NHS Trust	75	15/20	15	3/20	65	13/20	45	9/20	25	10/40
NHS London											
67	Barking, Havering & Redbridge University Hospitals NHS Trust	29	7/24	0	0/24	79	19/24	17	4/24	9	4/43
79	Barnet & Chase Farm Hospitals NHS Trust	42	13/31	13	4/31	61	19/31	16	5/31	8	4/48
29	Barts and the London NHS Trust	100	11/11	0	0/11	45	5/11	45	5/11	33	6/18
38	Chelsea and Westminster Hosp NHS Foundation Trust	90	19/21	56	9/16	75	12/16	95	20/21	82	14/17
39	Ealing Hospital NHS Trust	60	12/20	5	1/20	5	1/20	40	8/20	5	1/19
38	Epsom & St Helier University Hospitals NHS Trust, Epsom Hospital		0		0		0		0	5	2/38
52	Epsom & St Helier University Hospitals NHS Trust, St Helier Hospital	42	10/24	29	7/24	67	16/24	4	1/24	0	0/28
50	Guy's & St Thomas' NHS Foundation Trust	25	4/16	63	10/16	56	9/16	19	3/16	21	7/34
45	Hillingdon Hospital NHS Trust	53	8/15	21	3/14	71	10/14	33	5/15	10	3/30
60	Homerton University Hospital NHS Foundation Trust	60	12/20	30	6/20	85	17/20	40	8/20	28	11/40
60	Imperial College Healthcare NHS Trust	57	13/23	39	9/23	78	18/23	39	9/23	14	5/37
40	King's College Hospital NHS Foundation Trust	50	8/16	53	8/15	40	6/15	13	2/16	13	3/24

No of clinical cases	Site name	1.2.12 (hips)		2.2.5 (hips)		2.2.6 (hips)		3.3.4 (hips)		3.3.4 (non-hips)	
		%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
70	Kingston Hospital NHS Trust	50	12/24	26	6/23	91	21/23	21	5/24	17	8/46
61	Lewisham Healthcare NHS Trust	70	14/20	65	13/20	90	18/20	75	15/20	15	6/41
63	Mayday Healthcare NHS Trust	40	8/20	25	5/20	60	12/20	35	7/20	14	6/43
30	Newham University Hospital NHS Trust	58	11/19	68	13/19	68	13/19	53	10/19	36	4/11
49	North Middlesex University Hospital NHS Trust	95	19/20	85	17/20	100	20/20	90	18/20	52	15/29
16	Royal Free Hampstead NHS Trust	44	7/16	69	11/16	44	7/16	13	2/16		0
55	South London Healthcare NHS Trust (Bromley Hospital)	52	12/23	5	1/22	59	13/22	78	18/23	25	8/32
39	South London Healthcare NHS Trust (Queen Elizabeth Hospital Woolwich)	71	17/24	88	21/24	63	15/24	13	3/24	20	3/15
60	St George's Healthcare NHS Trust	50	10/20	0	0/19	68	13/19	45	9/20	35	14/40
15	The North West London Hospitals NHS Trust (Central Middlesex Hospital)	33	1/3	0	0/3	33	1/3	33	1/3	17	2/12
52	The North West London Hospitals NHS Trust (Northwick Park Hospital)	35	7/20	68	13/19	79	15/19	40	8/20	3	1/32
27	University College London Hospitals NHSFT	64	9/14	43	6/14	43	6/14	36	5/14	23	3/13
65	West Middlesex University Hospital NHS Trust	56	18/32	28	9/32	94	30/32	47	15/32	15	5/33
25	Whipps Cross University Hospital NHS Trust	78	14/18	50	9/18	78	14/18	89	16/18	14	1/7
49	Whittington Hospital NHS Trust	65	13/20	35	7/20	65	13/20	95	19/20	28	8/29
NHS North East											
61	City Hospitals Sunderland NHS Foundation Trust	80	16/20	70	14/20	75	15/20	40	8/20	10	4/41
62	County Durham & Darlington NHS Foundation Trust (Darlington Memorial Hospital)	73	16/22	9	2/22	86	19/22	27	6/22	23	9/40
67	County Durham & Darlington NHS Foundation Trust (University Hospital of North Durham)	85	22/26	56	14/25	84	21/25	35	9/26	15	6/41
60	Gateshead Health NHS Foundation Trust	75	15/20	0	0/19	79	15/19	5	1/20	3	1/40
60	North Tees & Hartlepool NHS Foundation Trust	55	11/20	5	1/20	85	17/20	5	1/20	5	2/40
28	Northumbria Healthcare NHS Foundation Trust		0		0		0		0	11	3/28
62	South Tees Hospitals NHS Trust	91	20/22	18	4/22	91	20/22	100	22/22	8	3/40
60	South Tyneside NHS Foundation Trust	85	17/20	90	18/20	55	11/20	30	6/20	33	13/40
59	The Newcastle Upon Tyne Hospitals NHS Foundation Trust	21	4/19	26	5/19	42	8/19	42	8/19	25	10/40
NHS North West											
62	Aintree University Hospitals NHS Foundation Trust	90	19/21	52	11/21	52	11/21	10	2/21	2	1/41
60	Blackpool, Fylde & Wyre Hospitals NHS Foundation Trust	85	17/20	75	15/20	80	16/20	75	15/20	48	19/40
41	Central Manchester University Hospitals NHS Foundation Trust	40	8/20	30	6/20	95	19/20	15	3/20	5	1/21
54	Countess of Chester Hospital	65	11/17	12	2/17	53	9/17	41	7/17	11	4/37
48	East Cheshire NHS Trust	70	14/20	0	0/20	30	6/20	100	20/20	0	0/28
63	East Lancashire Hospitals NHS Trust	68	17/25	8	2/25	56	14/25	16	4/25	5	2/38
59	Lancashire Teaching Hospital NHS Foundation Trust	70	14/20	30	6/20	65	13/20	15	3/20	0	0/39
54	Mid Cheshire Hospitals NHS Foundation Trust	90	18/20	0	0/19	37	7/19	45	9/20	6	2/34
33	North Cumbria Acute Hospitals NHS Trust (Cumberland Infirmary)	67	12/18	0	0/18	83	15/18	6	1/18	7	1/15
21	Royal Bolton Hospital NHS Foundation Trust	58	7/12	8	1/12	83	10/12	42	5/12	11	1/9
60	Salford Royal Hospitals NHS Foundation Trust	40	8/20	10	2/20	70	14/20	5	1/20	35	14/40
57	Southport & Ormskirk Hospital NHS Trust	75	27/36	14	5/36	92	33/36	36	13/36	10	2/21
59	St Helens & Knowsley Hospitals NHS Trust	80	16/20	10	2/20	65	13/20	20	4/20	5	2/39
60	Stockport NHS Foundation Trust	55	11/20	30	6/20	65	13/20	5	1/20	3	1/40
60	Tameside Hospital NHS Foundation Trust	71	15/21	20	4/20	60	12/20	19	4/21	8	3/39
46	The Pennine Acute Hospitals NHS Trust (Fairfield General Hospital)	48	11/23	0	0/22	50	11/22	13	3/23	9	2/23

No of clinical cases	Site name	1.2.12 (hips)		2.2.5 (hips)		2.2.6 (hips)		3.3.4 (hips)		3.3.4 (non-hips)	
		%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
39	The Pennine Acute Hospitals NHS Trust (North Manchester General Hospital)	71	10/14	7	1/14	79	11/14	57	8/14	12	3/25
11	The Pennine Acute Hospitals NHS Trust (Rochdale Infirmary)		0		0		0		0	0	0/11
43	The Pennine Acute Hospitals NHS Trust (Royal Oldham Hospital)	90	19/21	38	8/21	67	14/21	10	2/21	9	2/22
60	The Royal Liverpool & Broadgreen University Hospitals	60	12/20	15	3/20	60	12/20	45	9/20	33	13/40
48	Trafford Healthcare NHS Trust	53	8/15	15	2/13	62	8/13	27	4/15	9	3/33
40	University Hospital of South Manchester NHS Foundation Trust	26	5/19	11	2/19	79	15/19	32	6/19	14	3/21
57	University Hospitals of Morecambe Bay NHS Trust (Furness General Hospital)	67	10/15	0	0/13	77	10/13	47	7/15	12	5/42
59	University Hospitals of Morecambe Bay NHS Trust (Royal Lancaster Infirmary)	70	14/20	25	5/20	35	7/20	45	9/20	5	2/39
39	Warrington and Halton Hospitals NHS Foundation Trust	60	12/20	30	6/20	90	18/20	15	3/20	16	3/19
51	Wirral University Teaching Hospital NHS Foundation Trust	75	12/16	6	1/16	75	12/16	6	1/16	11	4/35
56	Wrightington, Wigan & Leigh NHS Foundation Trust	38	6/16	69	11/16	100	16/16	25	4/16	20	8/40
NHS South Central											
18	NHS Berkshire West - Community Health		0		0		0		0	6	1/18
20	Isle of Wight NHS Primary Care Trust	55	11/20	5	1/20	40	8/20	100	20/20		0
54	Basingstoke and North Hampshire NHS Foundation Trust	67	12/18	89	16/18	100	18/18	50	9/18	58	21/36
60	Buckinghamshire Hospitals NHS Trust	50	10/20	55	11/20	45	9/20	90	18/20	20	8/40
36	Heatherwood & Wexham Park Hospitals NHS Foundation Trust	90	19/21	5	1/21	76	16/21	29	6/21	7	1/15
61	Milton Keynes NHS Foundation Trust	41	9/22	9	2/22	86	19/22	100	22/22	8	3/39
59	Oxford Radcliffe Hospitals NHS Trust	45	9/20	37	7/19	89	17/19	65	13/20	13	5/39
62	Portsmouth Hospitals NHS Trust	90	19/21	90	19/21	76	16/21	81	17/21	49	20/41
58	Royal Berkshire NHS Foundation Trust	35	7/20	30	6/20	70	14/20	40	8/20	42	16/38
34	Southampton University Hospitals NHS Trust	62	8/13	38	5/13	100	13/13	38	5/13	48	10/21
52	Winchester & Eastleigh Healthcare NHS Trust	85	17/20	35	7/20	65	13/20	10	2/20	34	11/32
NHS South East Coast											
59	Ashford & St Peter's Hospital NHS Trust	86	18/21	71	15/21	48	10/21	43	9/21	18	7/38
59	Brighton and Sussex University Hospitals NHS Trust	75	15/20	37	7/19	5	1/19	15	3/20	10	4/39
20	Dartford and Gravesham NHS Trust	60	12/20	11	2/18	50	9/18	5	1/20		0
59	East Kent Hospitals University NHS Foundation Trust	65	13/20	65	13/20	85	17/20	45	9/20	49	19/39
21	East Sussex Hospitals NHS Trust (Conquest Hospital)	71	12/17	59	10/17	53	9/17	35	6/17	0	0/4
36	Frimley Park Hospital NHS Foundation Trust	95	18/19	42	8/19	84	16/19	32	6/19	35	6/17
75	Maidstone and Tunbridge Wells NHS Trust (Kent and Sussex Hospital)	39	11/28	7	2/27	56	15/27	50	14/28	6	3/47
60	Medway NHS Foundation Trust	35	7/20	53	10/19	84	16/19	0	0/20	3	1/40
59	Royal Surrey County Hospital NHS Trust	37	7/19	0	0/19	89	17/19	100	19/19	23	9/40
57	Surrey & Sussex Healthcare NHS Trust	80	16/20	40	8/20	85	17/20	60	12/20	5	2/37
60	Western Sussex Hospitals Trust, St Richard's Hospital	80	16/20	78	14/18	67	12/18	30	6/20	5	2/40
62	Western Sussex Hospitals Trust, Worthing Hospital	68	15/22	35	7/20	10	2/20	18	4/22	20	8/40
NHS South West											
38	NHS Cornwall and Isles of Scilly - Community Services		0		0		0		0	8	3/38
30	NHS Devon Provider Services		0		0		0		0	10	3/30
31	NHS Gloucestershire - Gloucestershire Care Services		0		0		0		0	0	0/31
60	Dorset County Hospital NHS Foundation Trust	50	10/20	20	4/20	55	11/20	15	3/20	0	0/40
56	Gloucestershire Hospitals NHS Foundation Trust (Cheltenham General Hospital)	48	11/23	9	2/23	100	23/23	48	11/23	6	2/33

No of clinical cases	Site name	1.2.12 (hips)		2.2.5 (hips)		2.2.6 (hips)		3.3.4 (hips)		3.3.4 (non-hips)	
		%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
60	Gloucestershire Hospitals NHS Foundation Trust (Gloucestershire Royal Hospital)	35	7/20	35	7/20	80	16/20	15	3/20	8	3/40
60	Great Western Hospitals NHS Foundation Trust	65	13/20	30	6/20	35	7/20	30	6/20	8	3/40
62	North Bristol NHS Trust	68	15/22	0	0/21	52	11/21	41	9/22	25	10/40
50	Northern Devon Healthcare NHS Trust	69	11/16	31	5/16	56	9/16	25	4/16	15	5/34
58	Plymouth Hospitals NHS Trust	100	19/19	47	9/19	89	17/19	5	1/19	13	5/39
57	Poole Hospital NHS Foundation Trust	80	16/20	15	3/20	95	19/20	15	3/20	24	9/37
62	Royal Cornwall Hospitals NHS Trust	74	17/23	22	5/23	65	15/23	35	8/23	31	12/39
60	Royal Devon & Exeter NHS Foundation Trust	85	17/20	80	16/20	60	12/20	10	2/20	3	1/40
36	Royal United Hospital Bath NHS Trust	68	13/19	33	6/18	61	11/18	42	8/19	24	4/17
62	Salisbury NHS Foundation Trust	82	18/22	5	1/22	45	10/22	18	4/22	8	3/40
60	South Devon Healthcare NHS Foundation Trust	75	15/20	5	1/20	80	16/20	45	9/20	28	11/40
67	Taunton & Somerset NHS Foundation Trust	76	19/25	20	5/25	72	18/25	28	7/25	5	2/42
35	The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust		0		0		0		0	23	8/35
40	University Hospitals Bristol NHS Foundation Trust	94	17/18	11	2/18	50	9/18	44	8/18	14	3/22
65	Weston Area Health Trust	92	23/25	44	11/25	80	20/25	36	9/25	5	2/40
44	Yeovil District Hospital NHS Foundation Trust	60	12/20	0	0/19	53	10/19	0	0/20	4	1/24
NHS West Midlands											
60	Burton Hospitals NHS Trust	85	17/20	5	1/20	55	11/20	50	10/20	13	5/40
60	George Eliot Hospital NHS Trust	40	8/20	25	5/20	20	4/20	5	1/20	5	2/40
60	Heart of England NHS Foundation Trust (Good Hope Hospital)	60	12/20	0	0/20	80	16/20	20	4/20	23	9/40
60	Heart of England NHS Foundation Trust (Heartlands Hospital)	55	11/20	19	3/16	75	12/16	40	8/20	40	16/40
42	Hereford Hospitals NHS Trust	62	8/13	31	4/13	54	7/13	31	4/13	7	2/29
60	Mid Staffordshire NHS Foundation Trust	60	12/20	16	3/19	89	17/19	95	19/20	5	2/40
40	Sandwell & West Birmingham Hospitals NHS Trust (City Hospital)	100	13/13	100	9/9	100	9/9	100	13/13	30	8/27
30	Sandwell & West Birmingham Hospitals NHS Trust (Sandwell Hospital)	50	5/10	0	0/10	100	10/10	0	0/10	20	4/20
19	South Warwickshire General Hospitals NHS Trust	32	6/19	0	0/19	53	10/19	16	3/19		0
59	The Dudley Group of Hospitals NHS Foundation Trust	61	14/23	32	7/22	64	14/22	52	12/23	17	6/36
67	The Royal Wolverhampton Hospitals NHS Trust	64	18/28	27	4/15	80	12/15	64	18/28	0	0/39
59	The Shrewsbury & Telford Hospital NHS Trust (The Princess Royal Hospital)	70	14/20	5	1/19	74	14/19	0	0/20	0	0/39
62	The Shrewsbury & Telford Hospital NHS Trust (The Royal Shrewsbury Hospital)	65	13/20	61	11/18	100	18/18	65	13/20	17	7/42
52	University Hospital Birmingham NHS Foundation Trust	65	13/20	20	4/20	0	0/20	20	4/20	16	5/32
60	University Hospital of North Staffs NHS Trust	80	16/20	47	9/19	79	15/19	95	19/20	0	0/40
60	University Hospitals Coventry & Warwickshire NHST	47	9/19	50	9/18	89	16/18	26	5/19	12	5/41
45	Walsall Hospitals NHS Trust	89	16/18	22	4/18	100	18/18	100	18/18	19	5/27
45	Worcestershire Acute Hospitals NHS Trust (The Alexandra Hospital)	100	19/19	100	19/19	89	17/19	0	0/19	0	0/26
57	Worcestershire Acute Hospitals NHS Trust (Worcestershire Royal Hospital)	58	11/19	0	0/19	53	10/19	11	2/19	3	1/38
NHS Yorkshire and the Humber											
59	Airedale NHS Trust	45	9/20	0	0/19	32	6/19	25	5/20	10	4/39
61	Barnsley Hospital NHS Foundation Trust	76	16/21	0	0/21	81	17/21	33	7/21	20	8/40
62	Bradford Teaching Hospitals NHS Foundation Trust	48	10/21	0	0/21	86	18/21	33	7/21	32	13/41
60	Calderdale & Huddersfield NHS Foundation Trust	65	13/20	50	9/18	39	7/18	10	2/20	5	2/40
56	Doncaster & Bassetlaw Hospitals NHS Foundation Trust	100	20/20	0	0/20	90	18/20	90	18/20	64	23/36

No of clinical cases	Site name	1.2.12 (hips)		2.2.5 (hips)		2.2.6 (hips)		3.3.4 (hips)		3.3.4 (non-hips)	
		%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
60	Harrogate and District NHS Foundation Trust	62	13/21	10	2/21	48	10/21	33	7/21	5	2/39
60	Hull and East Yorkshire Hospitals NHS Trust	70	14/20	40	8/20	85	17/20	25	5/20	23	9/40
84	Scarborough & North East Yorkshire Healthcare NHS Trust	57	28/49	45	21/47	96	45/47	35	17/49	29	10/35
60	Sheffield Teaching Hospitals Health NHS Foundation Trust	40	8/20	10	2/20	55	11/20	25	5/20	10	4/40
59	The Leeds Teaching Hospitals NHS Trust	68	13/19	26	5/19	21	4/19	42	8/19	30	12/40
60	The Mid Yorkshire Hospitals NHS Trust	90	18/20	24	4/17	82	14/17	55	11/20	48	19/40
60	The Rotherham NHS Foundation Trust	100	20/20	17	3/18	94	17/18	95	19/20	15	6/40
60	York Hospitals NHS Foundation Trust	45	9/20	25	5/20	50	10/20	35	7/20	5	2/40
Northern Ireland											
60	Belfast Health and Social Care Trust	79	15/19	53	10/19	37	7/19	95	18/19	15	6/41
40	Northern Health and Social Care Trust		0		0		0		0	3	1/40
60	Southern Health and Social Care Trust (Craigavon Area Hospital)	30	6/20	65	13/20	95	19/20	30	6/20	38	15/40
13	Southern Health and Social Care Trust (Daisy Hill Hospital)	78	7/9	100	9/9	0	0/9	56	5/9	25	1/4
57	Western Health and Social Care Trust	50	11/22	5	1/22	45	10/22	27	6/22	9	3/35
49	South Eastern Health and Social Care Trust	43	10/23	43	10/23	74	17/23	30	7/23	15	4/26
Wales											
26	Abertawe Bro Morgannwg University NHS Trust (Neath Port Talbot Hospital)		0		0		0		0	38	10/26
58	Abertawe Bro Morgannwg University NHS Trust (Princess of Wales Hospital)	70	14/20	10	2/20	40	8/20	55	11/20	5	2/38
49	Abertawe Bro Morgannwg University NHS Trust (Singleton/Morriston Hospital)	35	8/23	22	5/23	35	8/23	13	3/23	4	1/26
57	Aneurin Bevan Health Board, Neville Hall Hospital	63	17/27	59	16/27	67	18/27	19	5/27	7	2/30
59	Aneurin Bevan Health Board, St Woolos Hospital	86	24/28	0	0/27	44	12/27	29	8/28	10	3/31
25	Betsi Cadwaladr University Local Health Board (Glan Clwyd Hospital)	70	7/10	0	0/10	40	4/10	30	3/10	20	3/15
58	Betsi Cadwaladr University Local Health Board (Ysbyty Gwynedd and Llandudno General Hospital)	86	18/21	10	2/20	100	20/20	86	18/21	11	4/37
54	Cardiff and Vale University Health Board	94	16/17	6	1/17	41	7/17	6	1/17	0	0/37
60	Cwm Taf NHS Trust (Prince Charles Hospital)	55	11/20	5	1/19	84	16/19	20	4/20	3	1/40
54	Cwm Taf NHS Trust (Royal Glamorgan Hospital)	38	6/16	20	3/15	40	6/15	31	5/16	0	0/38
30	Hywel Dda Local Health Board (Bronglais General Hospital)	68	13/19	0	0/17	59	10/17	5	1/19	0	0/11
40	Hywel Dda Local Health Board (Prince Philip Hospital)		0		0		0		0	0	0/40
60	Hywel Dda Local Health Board (West Wales General Hospital)	58	11/19	6	1/18	72	13/18	0	0/19	0	1/40
48	Hywel Dda Local Health Board (Withybush General Hospital)	75	6/8	0	0/8	75	6/8	50	4/8	5	2/40

Site name	3.6.5 (hips)		3.6.5 (non-hips)		3.7.1, 3.7.2 (hips)		3.7.1, 3.7.2 (non-hips)	
	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
Islands								
States of Jersey Health & Social Services	94	16/17	0	0/5	100	11/11	15	3/20
NHS East Midlands								
Chesterfield Royal Hospital NHS Foundation Trust	0	0/7	0	0/22	33	3/9	32	6/19
Derby Hospitals NHS Foundation Trust	76	13/17	26	10/38	36	5/14	3	1/31
Kettering General Hospital NHS Foundation Trust	47	7/15	8	2/25	0	0/15	0	0/31
Northampton General Hospital NHS Trust	44	7/16	19	7/36	57	8/14	8	3/38
Northern Lincolnshire & Goole Hospitals NHS Foundation Trust (Diana, Princess of Wales Hospital)	83	15/18	38	15/39	8	1/13	3	1/33
Northern Lincolnshire & Goole Hospitals NHS Foundation Trust (Scunthorpe General Hospital)	63	12/19	42	14/33	0	0/11	3	1/32
Nottingham University Hospitals NHS Trust	16	3/19	0	0/20	6	1/18	3	1/37
Sherwood Forest Hospitals Trust	0	0/13	50	5/10	29	2/7	75	9/12
United Lincolnshire Hospitals NHS Trust	69	24/35	100	7/7	0	0/31	0	0/13
University Hospitals of Leicester NHS Trust	8	1/13	0	0/34	40	4/10	3	1/30
NHS East of England								
Basildon and Thurrock University Hospitals NHS Foundation Trust	50	9/18	3	1/32	60	9/15	6	2/35
Bedford Hospital NHS Trust	0	0/18	41	15/37	7	1/14	6	2/34
Cambridge University Hospitals NHS Foundation Trust	82	14/17	0	0/22	94	15/16	4	1/28
Colchester Hospital University NHS Foundation Trust	75	15/20	58	18/31	60	9/15	7	2/28
East and North Hertfordshire NHS Trust	0	0/7	5	1/20	0	0	0	0/17
Hinchingbrooke Health Care NHS Trust	0	0/24	0	0/24	5	1/20	0	0/27
James Paget University Hospitals NHS Foundation Trust	10	2/20	36	13/36	18	3/17	10	3/31
Luton and Dunstable Hospital NHS Foundation Trust	45	9/20	22	8/37	8	1/12	3	1/36
Mid Essex Hospital Services NHS Trust	0	0/17	29	5/17	0	0/15	9	3/35
Norfolk and Norwich University Hospital NHS Trust	38	3/8	9	2/23	20	2/10	10	3/30
Peterborough & Stamford Hospitals NHS Foundation Trust	0	0/10	7	1/15	0	0/11	7	1/15
Southend University Hospital NHS Foundation Trust	0	0	71	5/7	0	0	29	2/7
The Ipswich Hospital NHS Trust	53	8/15	19	6/32	40	6/15	10	3/31
The Princess Alexandra Hospital NHS Trust	0	0/7	0	0	100	3/3	0	0
The Queen Elizabeth Hospital King's Lynn	60	9/15	60	24/40	25	3/12	15	5/34
West Hertfordshire Hospitals NHS Trust	95	19/20	23	9/39	33	3/9	0	0/32
West Suffolk Hospitals NHS Trust	22	4/18	6	2/36	0	0/13	11	4/35
NHS London								
Barking, Havering & Redbridge University Hospitals NHS Trust	13	3/24	7	3/41	31	5/16	11	4/38
Barnet & Chase Farm Hospitals NHS Trust	60	18/30	37	17/46	61	17/28	8	3/38
Barts and the London NHS Trust	45	5/11	41	7/17	29	2/7	12	2/17
Chelsea and Westminster Hosp NHS Foundation Trust	26	5/19	13	2/15	25	4/16	36	4/11
Ealing Hospital NHS Trust	95	18/19	16	3/19	58	7/12	6	1/17
Epsom & St Helier University Hospitals NHS Trust, Epsom Hospital	0	0	24	9/38	0	0	0	0/37
Epsom & St Helier University Hospitals NHS Trust, St Helier Hospital	6	1/18	4	1/27	27	4/15	12	3/25
Guy's & St Thomas' NHS Foundation Trust	43	6/14	20	5/25	27	3/11	9	3/32
Hillingdon Hospital NHS Trust	87	13/15	15	4/26	50	6/12	10	3/29
Homerton University Hospital NHS Foundation Trust	100	17/17	19	6/31	92	12/13	31	11/36
Imperial College Healthcare NHS Trust	91	21/23	9	3/33	84	16/19	15	5/33
King's College Hospital NHS Foundation Trust	21	3/14	5	1/22	42	5/12	4	1/23
Kingston Hospital NHS Trust	95	18/19	18	8/44	56	10/18	13	5/40
Lewisham Healthcare NHS Trust	88	15/17	17	6/35	73	11/15	19	7/37
Mayday Healthcare NHS Trust	33	6/18	10	4/40	86	12/14	19	7/37
Newham University Hospital NHS Trust	62	8/13	22	2/9	60	9/15	22	2/9
North Middlesex University Hospital NHS Trust	50	5/10	21	3/14	53	8/15	14	3/22
Royal Free Hampstead NHS Trust	21	3/14	0	0	50	6/12	0	0
South London Healthcare NHS Trust (Bromley Hospital)	0	0/22	0	0/32	52	11/21	10	3/31
South London Healthcare NHS Trust (Queen Elizabeth Hospital Woolwich)	100	24/24	92	12/13	100	17/17	92	12/13
St George's Healthcare NHS Trust	47	9/19	36	13/36	67	10/15	18	6/34
The North West London Hospitals NHS Trust (Central Middlesex Hospital)	100	2/2	17	2/12	50	1/2	9	1/11

Site name	3.6.5 (hips)		3.6.5 (non-hips)		3.7.1, 3.7.2 (hips)		3.7.1, 3.7.2 (non-hips)	
	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
The North West London Hospitals NHS Trust (Northwick Park Hospital)	0	0/15	33	6/18	82	14/17	4	1/26
University College London Hospitals NHSFT	82	9/11	30	3/10	82	9/11	15	2/13
West Middlesex University Hospital NHS Trust	90	27/30	48	16/33	29	6/21	7	2/30
Whipps Cross University Hospital NHS Trust	76	13/17	25	1/4	64	7/11	0	0/6
Whittington Hospital NHS Trust	94	15/16	26	5/19	100	13/13	50	10/20
NHS North East								
City Hospitals Sunderland NHS Foundation Trust	25	5/20	28	10/36	29	5/17	6	2/32
County Durham & Darlington NHS Foundation Trust (Darlington Memorial Hospital)	47	9/19	59	17/29	46	6/13	25	7/28
County Durham & Darlington NHS Foundation Trust (University Hospital of North Durham)	79	19/24	59	24/41	69	11/16	13	5/40
Gateshead Health NHS Foundation Trust	0	0/20	3	1/40	91	10/11	6	2/34
North Tees & Hartlepool NHS Foundation Trust	0	0/16	15	4/27	60	9/15	6	2/33
Northumbria Healthcare NHS Foundation Trust		0	9	2/22		0	22	4/18
South Tees Hospitals NHS Trust	100	20/20	79	26/33	70	7/10	11	4/36
South Tyneside NHS Foundation Trust	71	10/14	27	9/33	71	10/14	9	3/33
The Newcastle Upon Tyne Hospitals NHS Foundation Trust	17	1/6	14	3/21	50	4/8	22	6/27
NHS North West								
Aintree University Hospitals NHS Foundation Trust	100	20/20	12	5/41	8	1/12	3	1/39
Blackpool, Fylde & Wyre Hospitals NHS Foundation Trust	17	2/12	0	0/23	31	4/13	47	15/32
Central Manchester University Hospitals NHS Foundation Trust	59	10/17	17	3/18	44	8/18	0	0/19
Countess of Chester Hospital	27	3/11	23	7/31	40	2/5	7	2/27
East Cheshire NHS Trust	100	19/19	0	0/28	40	4/10	0	0/26
East Lancashire Hospitals NHS Trust	17	4/23	10	3/30	47	8/17	3	1/35
Lancashire Teaching Hospital NHS Foundation Trust	5	1/19	11	4/37	43	3/7	0	0/35
Mid Cheshire Hospitals NHS Foundation Trust	5	1/20	3	1/32	31	4/13	5	1/22
North Cumbria Acute Hospitals NHS Trust (Cumberland Infirmary)	0	0/18	13	2/15	8	1/13	14	2/14
Royal Bolton Hospital NHS Foundation Trust	60	6/10	11	1/9	100	6/6	0	0/7
Salford Royal Hospitals NHS Foundation Trust	7	1/15	35	13/37	8	1/13	37	14/38
Southport & Ormskirk Hospital NHS Trust	0	0/35	5	1/20	65	15/23	36	5/14
St Helens & Knowsley Hospitals NHS Trust	47	8/17	3	1/38	64	9/14	19	6/31
Stockport NHS Foundation Trust	69	11/16	5	2/40	11	1/9	0	0/34
Tameside Hospital NHS Foundation Trust	21	4/19	6	2/34	17	2/12	0	0/33
The Pennine Acute Hospitals NHS Trust (Fairfield General Hospital)	57	12/21	19	4/21	35	6/17	5	1/22
The Pennine Acute Hospitals NHS Trust (North Manchester General Hospital)	33	4/12	17	3/18	22	2/9	0	0/25
The Pennine Acute Hospitals NHS Trust (Rochdale Infirmary)		0	0	0/11		0	0	0/8
The Pennine Acute Hospitals NHS Trust (Royal Oldham Hospital)	100	16/16	33	7/21	50	6/12	6	1/17
The Royal Liverpool & Broadgreen University Hospitals	0	0/17	6	2/32	15	2/13	6	2/33
Trafford Healthcare NHS Trust	83	10/12	13	4/32	10	1/10	10	3/29
University Hospital of South Manchester NHS Foundation Trust	94	15/16	50	8/16	18	2/11	5	1/19
University Hospitals of Morecambe Bay NHS Trust (Furness General Hospital)	14	2/14	8	3/38	42	5/12	8	3/37
University Hospitals of Morecambe Bay NHS Trust (Royal Lancaster Infirmary)	32	6/19	10	3/31	0	0/15	0	0/33
Warrington and Halton Hospitals NHS Foundation Trust	6	1/18	11	2/18	44	4/9	10	1/10
Wirral University Teaching Hospital NHS Foundation Trust	87	13/15	42	14/33	60	6/10	14	4/28
Wrightington, Wigan & Leigh NHS Foundation Trust	15	2/13	3	1/38	67	6/9	22	8/36
NHS South Central								
NHS Berkshire West - Community Health		0	0	0/18		0	0	0/18
Isle of Wight NHS Primary Care Trust	0	0/18		0	33	4/12		0
Basingstoke and North Hampshire NHS Foundation Trust	31	5/16	30	3/10	8	1/12	27	8/30
Buckinghamshire Hospitals NHS Trust	74	14/19	14	5/35	8	1/13	18	6/33
Heatherwood & Wexham Park Hospitals NHS Foundation Trust	65	13/20	47	7/15	58	7/12	36	5/14
Milton Keynes NHS Foundation Trust	0	0/22	3	1/37	6	1/17	8	3/36
Oxford Radcliffe Hospitals NHS Trust	33	6/18	6	2/35	14	2/14	6	2/34

Site name	3.6.5 (hips)		3.6.5 (non-hips)		3.7.1, 3.7.2 (hips)		3.7.1, 3.7.2 (non-hips)	
	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
Portsmouth Hospitals NHS Trust	75	9/12	33	11/33	76	13/17	41	13/32
Royal Berkshire NHS Foundation Trust	45	9/20	38	13/34	36	5/14	7	2/29
Southampton University Hospitals NHS Trust	54	7/13	37	7/19	13	1/8	12	2/17
Winchester & Eastleigh Healthcare NHS Trust	100	18/18	27	6/22	40	4/10	8	2/25
NHS South East Coast								
Ashford & St Peter's Hospital NHS Trust	0	0/15	10	3/31	7	1/15	16	5/31
Brighton and Sussex University Hospitals NHS Trust	46	6/13	6	2/33	17	2/12	15	5/33
Dartford and Gravesham NHS Trust	75	15/20		0	0	0/14		0
East Kent Hospitals University NHS Foundation Trust	92	11/12	54	13/24	33	5/15	12	4/33
East Sussex Hospitals NHS Trust (Conquest Hospital)	38	6/16	0	0/4	38	5/13	0	0/3
Frimley Park Hospital NHS Foundation Trust	50	8/16	53	8/15	17	2/12	21	3/14
Maidstone and Tunbridge Wells NHS Trust (Kent and Sussex Hospital)	0	0/27	6	3/47	0	0/18	0	0/43
Medway NHS Foundation Trust	50	10/20	11	4/35	53	8/15	0	0/29
Royal Surrey County Hospital NHS Trust	100	19/19	65	24/37	13	2/16	26	9/34
Surrey & Sussex Healthcare NHS Trust	20	3/15	18	6/34	30	3/10	8	2/25
Western Sussex Hospitals Trust, St Richard's Hospital	23	3/13	29	10/34	7	1/15	13	4/30
Western Sussex Hospitals Trust, Worthing Hospital	71	12/17	40	8/20	14	2/14	10	3/30
NHS South West								
NHS Cornwall and Isles of Scilly - Community Services		0	5	1/21		0	29	5/17
NHS Devon Provider Services		0	14	4/29		0	4	1/27
NHS Gloucestershire - Gloucestershire Care Services		0	0	0/31		0	0	0/27
Dorset County Hospital NHS Foundation Trust	68	13/19	6	2/33	38	6/16	13	4/32
Gloucestershire Hospitals NHS Foundation Trust (Cheltenham General Hospital)	0	0/21	3	1/30	6	1/18	4	1/27
Gloucestershire Hospitals NHS Foundation Trust (Gloucestershire Royal Hospital)	0	0/18	3	1/35	7	1/15	0	0/39
Great Western Hospitals NHS Foundation Trust	11	2/19	3	1/39	21	3/14	5	2/39
North Bristol NHS Trust	0	0/19	5	2/40	50	6/12	9	3/33
Northern Devon Healthcare NHS Trust	0	0/12	8	2/26	30	3/10	6	2/32
Plymouth Hospitals NHS Trust	82	14/17	5	2/37	42	5/12	6	2/32
Poole Hospital NHS Foundation Trust	6	1/18	3	1/33	7	1/15	11	4/35
Royal Cornwall Hospitals NHS Trust	0	0/19	5	2/38	18	3/17	4	1/28
Royal Devon & Exeter NHS Foundation Trust	61	11/18	32	12/38	6	1/18	6	2/31
Royal United Hospital Bath NHS Trust	87	13/15	25	4/16	93	13/14	12	2/17
Salisbury NHS Foundation Trust	50	10/20	5	2/40	21	3/14	0	0/32
South Devon Healthcare NHS Foundation Trust	36	5/14	16	4/25	73	11/15	23	7/30
Taunton & Somerset NHS Foundation Trust	0	0/17	2	1/42	13	2/15	3	1/40
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust		0	15	3/20		0	15	3/20
University Hospitals Bristol NHS Foundation Trust	39	7/18	14	3/21	38	5/13	0	0/16
Weston Area Health Trust	95	19/20	26	5/19	0	0/14	0	0/32
Yeovil District Hospital NHS Foundation Trust	0	0/20	0	0/24	0	0/14	5	1/20
NHS West Midlands								
Burton Hospitals NHS Trust	32	6/19	36	14/39	13	2/15	8	3/36
George Eliot Hospital NHS Trust	0	0/10		0	0	0/14	0	0/35
Heart of England NHS Foundation Trust (Good Hope Hospital)	71	12/17	30	12/40	65	11/17	11	4/35
Heart of England NHS Foundation Trust (Heartlands Hospital)	100	18/18	59	22/37	80	8/10	64	14/22
Hereford Hospitals NHS Trust	0	0/13	4	1/25	63	5/8	8	2/26
Mid Staffordshire NHS Foundation Trust	100	18/18	52	14/27	69	9/13	31	9/29
Sandwell & West Birmingham Hospitals NHS Trust (City Hospital)	100	13/13	50	11/22	90	9/10	23	6/26
Sandwell & West Birmingham Hospitals NHS Trust (Sandwell Hospital)	100	9/9	45	9/20	38	3/8	17	3/18
South Warwickshire General Hospitals NHS Trust	29	5/17		0	64	9/14		0
The Dudley Group of Hospitals NHS Foundation Trust	6	1/18	3	1/30	45	5/11	19	6/31
The Royal Wolverhampton Hospitals NHS Trust	19	5/26	39	14/36	13	2/16	17	5/30
The Shrewsbury & Telford Hospital NHS Trust (The Princess Royal Hospital)	50	6/12	3	1/33	40	4/10	3	1/33
The Shrewsbury & Telford Hospital NHS Trust (The Royal Shrewsbury Hospital)	19	3/16	11	4/35	29	4/14	5	2/37

Site name	3.6.5 (hips)		3.6.5 (non-hips)		3.7.1, 3.7.2 (hips)		3.7.1, 3.7.2 (non-hips)	
	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
University Hospital Birmingham NHS Foundation Trust	13	2/15	14	3/22	20	3/15	10	3/29
University Hospital of North Staffs NHS Trust	5	1/20	3	1/40	73	11/15	5	2/39
University Hospitals Coventry & Warwickshire NHST	89	17/19	13	4/32	8	1/13	5	2/38
Walsall Hospitals NHS Trust	0	0/17	0	0/17	20	3/15	7	2/27
Worcestershire Acute Hospitals NHS Trust (The Alexandra Hospital)	11	2/19	0	0/26	0	0/17	0	0/18
Worcestershire Acute Hospitals NHS Trust (Worcestershire Royal Hospital)	5	1/19	0	0/38	7	1/15	0	0/37
Airedale NHS Trust	27	4/15	3	1/33	33	6/18	0	0/34
NHS Yorkshire and the Humber								
Barnsley Hospital NHS Foundation Trust	0	0/18	13	3/24	0	0/9	6	2/32
Bradford Teaching Hospitals NHS Foundation Trust	25	4/16	11	4/37	22	2/9	7	2/30
Calderdale & Huddersfield NHS Foundation Trust	0	0/18	0	0/40	27	3/11	0	0/35
Doncaster & Bassetlaw Hospitals NHS Foundation Trust	57	8/14	18	2/11	60	6/10	17	4/24
Harrogate and District NHS Foundation Trust	61	11/18	31	11/35	30	3/10	9	3/34
Hull and East Yorkshire Hospitals NHS Trust	20	3/15	35	11/31	15	2/13	7	2/30
Scarborough & North East Yorkshire Healthcare NHS Trust	96	46/48	90	26/29	42	14/33	17	5/30
Sheffield Teaching Hospitals Health NHS Foundation Trust	60	12/20	8	3/38	73	11/15	8	3/37
The Leeds Teaching Hospitals NHS Trust	27	4/15	21	8/38	45	5/11	36	13/36
The Mid Yorkshire Hospitals NHS Trust	40	6/15	43	10/23	21	3/14	4	1/25
The Rotherham NHS Foundation Trust	94	16/17	18	7/38	73	8/11	12	4/33
York Hospitals NHS Foundation Trust	80	16/20	5	2/40	89	16/18	6	2/35
Northern Ireland								
Belfast Health and Social Care Trust	89	17/19	17	6/36	33	4/12	6	2/32
Northern Health and Social Care Trust			26	10/39		0/0	14	4/28
Southern Health and Social Care Trust (Craigavon Area Hospital)	100	19/19	64	14/22	75	9/12	20	5/25
Southern Health and Social Care Trust (Daisy Hill Hospital)	44	4/9	75	3/4	13	1/8	0	0/4
Western Health and Social Care Trust	18	4/22	3	1/35	27	4/15	3	1/35
South Eastern Health and Social Care Trust	100	23/23	64	16/25	8	1/12	11	2/19
Wales								
Abertawe Bro Morgannwg University NHS Trust (Neath Port Talbot Hospital)		0/0	0	0/17		0/0	0	0/20
Abertawe Bro Morgannwg University NHS Trust (Princess of Wales Hospital)	82	14/17	9	3/32	41	7/17	3	1/34
Abertawe Bro Morgannwg University NHS Trust (Singleton/Morrison Hospital)	19	4/21	22	5/23	50	6/12	4	1/23
Aneurin Bevan Health Board, Neville Hall Hospital	0	0/23	0	0/30	64	14/22	12	3/25
Aneurin Bevan Health Board, St Woolos Hospital	0	0/28	0	0/30	57	13/23	8	2/26
Betsi Cadwaladr University Local Health Board (Glan Clwyd Hospital)	0	0/7	0	0/9	29	2/7	25	3/12
Betsi Cadwaladr University Local Health Board (Ysbyty Gwynedd and Llandudno General Hospital)	94	17/18	83	5/6	38	6/16	14	1/7
Cardiff and Vale University Health Board	94	16/17	3	1/36	31	4/13	9	3/33
Cwm Taf NHS Trust (Prince Charles Hospital)	35	7/20	3	1/39	88	14/16	3	1/34
Cwm Taf NHS Trust (Royal Glamorgan Hospital)	50	8/16	3	1/38	27	3/11	11	4/36
Hywel Dda Local Health Board (Bronglais General Hospital)	0	0/19	0	0/8	0	0/16	0	0/11
Hywel Dda Local Health Board (Prince Philip Hospital)		0/0	0	0/40		0/0	0	0/35
Hywel Dda Local Health Board (West Wales General Hospital)	0	0/19	0	0/41	50	6/12	0	0/37
Hywel Dda Local Health Board (Withybush General Hospital)	14	1/7	10	4/39	25	2/8	3	1/39

	4.1.7, 4.2.6 and 4.2.7 (hip)		4.1.7, 4.2.6 and 4.2.7 (non-hip)		5.2 (hip)		5.2 (non-hip)	
Site name	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
Islands								
States of Jersey Health & Social Services	28	5/18	5	1/21	0	0/18	5	1/21
NHS East Midlands								
Chesterfield Royal Hospital NHS Foundation Trust	38	6/16	28	7/25	0	0/16	0	0/25
Derby Hospitals NHS Foundation Trust	80	16/20	68	27/40	0	0/20	5	2/40
Kettering General Hospital NHS Foundation Trust	32	6/19	12	4/34	0	0/19	0	0/34
Northampton General Hospital NHS Trust	29	5/17	31	12/39	0	0/17	5	2/39
Northern Lincolnshire & Goole Hospitals NHS Foundation Trust (Diana, Princess of Wales Hospital)	58	11/19	53	21/40	37	7/19	8	3/40
Northern Lincolnshire & Goole Hospitals NHS Foundation Trust (Scunthorpe General Hospital)	53	10/19	27	10/37	11	2/19	0	0/37
Nottingham University Hospitals NHS Trust	89	17/19	83	33/40	11	2/19	0	0/40
Sherwood Forest Hospitals Trust	79	11/14	92	11/12	0	0/14	8	1/12
United Lincolnshire Hospitals NHS Trust	52	23/44	38	6/16	2	1/44	0	0/16
University Hospitals of Leicester NHS Trust	54	7/13	11	4/35	0	0/13	0	0/635
NHS East of England								
Basildon and Thurrock University Hospitals NHS Foundation Trust	95	19/20	58	23/40	30	6/20	53	21/40
Bedford Hospital NHS Trust	55	11/20	18	7/38	0	0/20	0	0/38
Cambridge University Hospitals NHS Foundation Trust	85	17/20	65	26/40	30	6/20	5	2/40
Colchester Hospital University NHS Foundation Trust	45	9/20	51	18/35	0	0/20	0	0/35
East and North Hertfordshire NHS Trust	13	1/8	24	6/25	0	0/8	0	0/25
Hinchingbrooke Health Care NHS Trust	80	24/30	33	10/30	0	0/20	0	0/30
James Paget University Hospitals NHS Foundation Trust	45	9/20	28	11/40	5	1/20	0	0/40
Luton and Dunstable Hospital NHS Foundation Trust	15	3/20	15	6/40	0	0/20	5	2/40
Mid Essex Hospital Services NHS Trust	60	12/20	28	11/40	0	0/20	3	1/40
Norfolk and Norwich University Hospital NHS Trust	60	12/20	8	3/36	0	0/20	0	0/36
Peterborough & Stamford Hospitals NHS Foundation Trust	27	3/11	44	8/18	9	1/11	17	3/18
Southend University Hospital NHS Foundation Trust		0/0	50	5/10		0/0	0	0/10
The Ipswich Hospital NHS Trust	50	10/20	45	19/42	15	3/20	2	1/42
The Princess Alexandra Hospital NHS Trust	67	8/12		0/0	0	0/12		0/0
The Queen Elizabeth Hospital King's Lynn	75	12/16	41	17/41	6	1/16	2	1/41
West Hertfordshire Hospitals NHS Trust	90	18/20	20	8/40	0	0/20	0	0/40
West Suffolk Hospitals NHS Trust	40	8/20	30	12/40	25	5/20	3	1/40
NHS London								
Barking, Havering & Redbridge University Hospitals NHS Trust	67	16/24	49	21/43	8	2/24	14	6/43
Barnet & Chase Farm Hospitals NHS Trust	87	27/31	38	18/48	6	2/31	0	0/48
Barts and the London NHS Trust	45	5/11	33	6/18	18	2/11	17	3/18
Chelsea and Westminster Hosp NHS Foundation Trust	33	7/21	24	4/17	76	16/21	71	12/17
Ealing Hospital NHS Trust	35	7/20	0	0/19	5	1/20	5	1/19
Epsom & St Helier University Hospitals NHS Trust, Epsom Hospital		0/0	13	5/38		0/0	0	0/38
Epsom & St Helier University Hospitals NHS Trust, St Helier Hospital	83	20/24	21	6/28	4	1/24	0	0/28
Guy's & St Thomas' NHS Foundation Trust	56	9/16	56	19/34	0	0/16	6	2/34
Hillingdon Hospital NHS Trust	60	9/15	20	6/30	0	0/15	3	1/30
Homerton University Hospital NHS Foundation Trust	80	16/20	30	12/40	10	2/20	0	0/40
Imperial College Healthcare NHS Trust	87	20/23	38	14/37	35	8/23	8	3/37
King's College Hospital NHS Foundation Trust	56	9/16	29	7/24	38	6/16	0	0/24
Kingston Hospital NHS Trust	92	22/24	22	10/46	4	1/24	2	1/46
Lewisham Healthcare NHS Trust	75	15/20	20	8/41	0	0/20	2	1/41
Mayday Healthcare NHS Trust	80	16/20	33	14/43	15	3/20	5	2/43
Newham University Hospital NHS Trust	95	18/19	55	6/11	5	1/19	0	0/11
North Middlesex University Hospital NHS Trust	90	18/20	55	16/29	30	6/20	34	10/29
Royal Free Hampstead NHS Trust	69	11/16		0/0	13	2/16		0/0
South London Healthcare NHS Trust (Bromley Hospital)	61	14/23	75	24/32	0	0/23	0	0/32
South London Healthcare NHS Trust (Queen Elizabeth Hospital Woolwich)	96	23/24	67	10/15	13	3/24	13	2/15
St George's Healthcare NHS Trust	55	11/20	23	9/40	20	4/20	18	7/40

Site name	4.1.7, 4.2.6 and 4.2.7 (hip)		4.1.7, 4.2.6 and 4.2.7 (non-hip)		5.2 (hip)		5.2 (non-hip)	
	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
The North West London Hospitals NHS Trust (Central Middlesex Hospital)	0	0/3	17	2/12	0	0/3	0	0/12
The North West London Hospitals NHS Trust (Northwick Park Hospital)	75	15/20	6	2/32	0	0/20	0	0/32
University College London Hospitals NHSFT	79	11/14	46	6/13	0	0/14	0	0/13
West Middlesex University Hospital NHS Trust	16	5/32	15	5/33	0	0/32	0	0/33
Whipps Cross University Hospital NHS Trust	11	2/18	14	1/7	33	6/18	43	3/7
Whittington Hospital NHS Trust	85	17/20	45	13/29	40	8/20	3	1/29
NHS North East								
City Hospitals Sunderland NHS Foundation Trust	90	18/20	46	19/41	10	2/20	0	0/41
County Durham & Darlington NHS Foundation Trust (Darlington Memorial Hospital)	73	16/22	50	20/40	9	2/22	15	6/40
County Durham & Darlington NHS Foundation Trust (University Hospital of North Durham)	35	9/26	37	15/41	0	0/26	0	0/41
Gateshead Health NHS Foundation Trust	85	17/20	50	20/40	0	0/20	0	0/40
North Tees & Hartlepool NHS Foundation Trust	50	10/20	10	4/40	0	0/20	0	0/40
Northumbria Healthcare NHS Foundation Trust		0/0	50	14/28		0/0	0	0/28
South Tees Hospitals NHS Trust	82	18/22	43	17/40	73	16/22	33	13/40
South Tyneside NHS Foundation Trust	95	19/20	53	21/40	0	0/20	0	0/40
The Newcastle Upon Tyne Hospitals NHS Foundation Trust	84	16/19	80	32/40	0	0/19	3	1/40
NHS North West								
Aintree University Hospitals NHS Foundation Trust	81	17/21	51	21/41	0	0/21	0	0/41
Blackpool, Fylde & Wyre Hospitals NHS Foundation Trust	90	18/20	78	31/40	0	0/20	0	0/40
Central Manchester University Hospitals NHS Foundation Trust	60	12/20	5	1/21	0	0/20	0	0/21
Countess of Chester Hospital	76	13/17	46	17/37	6	1/17	5	2/37
East Cheshire NHS Trust	45	9/20	0	0/28	0	0/20	0	0/28
East Lancashire Hospitals NHS Trust	72	18/25	18	7/38	8	2/25	0	0/38
Lancashire Teaching Hospital NHS Foundation Trust	50	10/20	15	6/39	5	1/20	0	0/39
Mid Cheshire Hospitals NHS Foundation Trust	25	5/20	9	3/34	5	1/20	0	0/34
North Cumbria Acute Hospitals NHS Trust (Cumberland Infirmary)	78	14/18	13	2/15	0	0/18	0	0/15
Royal Bolton Hospital NHS Foundation Trust	75	9/12	44	4/9	0	0/12	0	0/9
Salford Royal Hospitals NHS Foundation Trust	25	5/20	53	21/40	25	5/20	48	19/40
Southport & Ormskirk Hospital NHS Trust	14	5/36	14	3/21	6	2/36	0	0/21
St Helens & Knowsley Hospitals NHS Trust	35	7/20	5	2/39	5	1/20	0	0/39
Stockport NHS Foundation Trust	45	9/20	13	5/40	0	0/20	0	0/40
Tameside Hospital NHS Foundation Trust	5	1/21	0	0/39	10	2/21	0	0/39
The Pennine Acute Hospitals NHS Trust (Fairfield General Hospital)	39	9/23	0	0/23	0	0/23	0	0/23
The Pennine Acute Hospitals NHS Trust (North Manchester General Hospital)	50	7/14	8	2/25	64	9/14	0	0/25
The Pennine Acute Hospitals NHS Trust (Rochdale Infirmary)		0/0	9	1/11		0/0	0	0/11
The Pennine Acute Hospitals NHS Trust (Royal Oldham Hospital)	62	13/21	9	2/22	0	0/21	0	0/22
The Royal Liverpool & Broadgreen University Hospitals	95	19/20	43	17/40	15	3/20	10	4/40
Trafford Healthcare NHS Trust	73	11/15	24	8/33	0	0/15	0	0/33
University Hospital of South Manchester NHS Foundation Trust	74	14/19	24	5/21	16	3/19	10	2/21
University Hospitals of Morecambe Bay NHS Trust (Furness General Hospital)	27	4/15	7	3/42	20	3/15	0	0/42
University Hospitals of Morecambe Bay NHS Trust (Royal Lancaster Infirmary)	15	3/20	23	9/39	25	5/20	5	2/39
Warrington and Halton Hospitals NHS Foundation Trust	75	15/20	26	5/19	5	1/20	5	1/19
Wirral University Teaching Hospital NHS Foundation Trust	56	9/16	34	12/35	6	1/16	6	2/35
Wrightington, Wigan & Leigh NHS Foundation Trust	38	6/16	10	4/40	0	0/16	5	2/40
NHS South Central								
NHS Berkshire West - Community Health		0/0	0	0/18		0/0	0	0/18
Isle of Wight NHS Primary Care Trust	50	10/20		0/0	95	19/20		0/0
Basingstoke and North Hampshire NHS Foundation Trust	89	16/18	81	29/36	17	3/18	39	14/36
Buckinghamshire Hospitals NHS Trust	85	17/20	25	10/40	55	11/20	40	16/40

Site name	4.1.7, 4.2.6 and 4.2.7 (hip)		4.1.7, 4.2.6 and 4.2.7 (non-hip)		5.2 (hip)		5.2 (non-hip)	
	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
Heatherwood & Wexham Park Hospitals NHS Foundation Trust	29	6/21	20	3/15	10	2/21	20	3/15
Milton Keynes NHS Foundation Trust	36	8/22	18	7/39	14	3/22	8	3/39
Oxford Radcliffe Hospitals NHS Trust	75	15/20	49	19/39	75	15/20	23	9/39
Portsmouth Hospitals NHS Trust	67	14/21	46	19/41	76	16/21	24	10/41
Royal Berkshire NHS Foundation Trust	75	15/20	53	20/38	45	9/20	13	5/38
Southampton University Hospitals NHS Trust	92	12/13	52	11/21	0	0/13	10	2/21
Winchester & Eastleigh Healthcare NHS Trust	65	13/20	47	15/32	0	0/20	9	3/32
NHS South East Coast								
Ashford & St Peter's Hospital NHS Trust	90	19/21	29	11/38	0	0/21	0	0/38
Brighton and Sussex University Hospitals NHS Trust	60	12/20	18	7/39	0	0/20	0	0/39
Dartford and Gravesham NHS Trust	60	12/20		0/0	0	0/20		0/0
East Kent Hospitals University NHS Foundation Trust	95	19/20	90	35/39	80	16/20	77	30/39
East Sussex Hospitals NHS Trust (Conquest Hospital)	29	5/17	0	0/4	6	1/17	0	0/4
Frimley Park Hospital NHS Foundation Trust	68	13/19	41	7/17	16	3/19	24	4/17
Maidstone and Tunbridge Wells NHS Trust (Kent and Sussex Hospital)	11	3/28	21	10/47	4	1/28	0	0/47
Medway NHS Foundation Trust	90	18/20	65	26/40	10	2/20	0	0/40
Royal Surrey County Hospital NHS Trust	89	17/19	58	23/40	5	1/19	0	0/40
Surrey & Sussex Healthcare NHS Trust	50	10/20	30	11/37	30	6/20	14	5/37
Western Sussex Hospitals Trust, St Richard's Hospital	80	16/20	5	2/40	0	0/20	0	0/40
Western Sussex Hospitals Trust, Worthing Hospital	55	12/22	33	13/40	0	0/22	5	2/40
NHS South West								
NHS Cornwall and Isles of Scilly - Community Services		0/0	8	3/38		0/0	13	5/38
NHS Devon Provider Services		0/0	20	6/30		0/0	3	1/30
NHS Gloucestershire - Gloucestershire Care Services		0/0	0	0/31		0/0	0	0/31
Dorset County Hospital NHS Foundation Trust	40	8/20	10	4/40	0	0/20	8	3/40
Gloucestershire Hospitals NHS Foundation Trust (Cheltenham General Hospital)	74	17/23	58	19/33	0	0/23	3	1/33
Gloucestershire Hospitals NHS Foundation Trust (Gloucestershire Royal Hospital)	90	18/20	65	26/40	0	0/20	8	3/40
Great Western Hospitals NHS Foundation Trust	85	17/20	28	11/40	0	0/20	0	0/40
North Bristol NHS Trust	73	16/22	50	20/40	18	4/22	3	1/40
Northern Devon Healthcare NHS Trust	25	4/16	18	6/34	0	0/16	3	1/34
Plymouth Hospitals NHS Trust	84	16/19	64	25/39	5	1/19	18	7/39
Poole Hospital NHS Foundation Trust	30	6/20	16	6/37	10	2/20	3	1/37
Royal Cornwall Hospitals NHS Trust	70	16/23	54	21/39	4	1/23	0	0/39
Royal Devon & Exeter NHS Foundation Trust	85	17/20	58	23/40	20	4/20	5	2/40
Royal United Hospital Bath NHS Trust	84	16/19	71	12/17	5	1/19	0	0/17
Salisbury NHS Foundation Trust	55	12/22	23	9/40	14	3/22	0	0/40
South Devon Healthcare NHS Foundation Trust	35	7/20	23	9/40	0	0/20	0	0/40
Taunton & Somerset NHS Foundation Trust	84	21/25	48	20/42	0	0/25	2	1/42
The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust		0/0	31	11/35		0/0	29	10/35
University Hospitals Bristol NHS Foundation Trust	72	13/18	45	10/22	6	1/18	5	1/22
Weston Area Health Trust	76	19/25	53	21/40	0	0/25	3	1/40
Yeovil District Hospital NHS Foundation Trust	45	9/20	4	1/24	5	1/20	0	0/24
NHS West Midlands								
Burton Hospitals NHS Trust	80	16/20	30	12/40	10	2/20	5	2/40
George Eliot Hospital NHS Trust	55	11/20	15	6/40	0	0/20	0	0/40
Heart of England NHS Foundation Trust (Good Hope Hospital)	80	16/20	23	9/40	0	0/20	3	1/40
Heart of England NHS Foundation Trust (Heartlands Hospital)	40	8/20	25	10/40	60	12/20	53	21/40
Hereford Hospitals NHS Trust	31	4/13	10	3/29	0	0/13	0	0/29
Mid Staffordshire NHS Foundation Trust	85	17/20	38	15/40	15	3/20	5	2/40
Sandwell & West Birmingham Hospitals NHS Trust (City Hospital)	77	10/13	22	6/27	100	13/13	59	16/27
Sandwell & West Birmingham Hospitals NHS Trust (Sandwell Hospital)	80	8/10	30	6/20	10	1/10	15	3/20
South Warwickshire General Hospitals NHS Trust	74	14/19		0/0	0	0/19		0/0
The Dudley Group of Hospitals NHS Foundation Trust	78	18/23	25	9/36	57	13/23	25	9/36

Site name	4.1.7, 4.2.6 and 4.2.7 (hip)		4.1.7, 4.2.6 and 4.2.7 (non-hip)		5.2 (hip)		5.2 (non-hip)	
	%	Num./Den.	%	Num./Den.	%	Num./Den.	%	Num./Den.
The Royal Wolverhampton Hospitals NHS Trust	54	15/28	26	10/39	4	1/28	5	2/39
The Shrewsbury & Telford Hospital NHS Trust (The Princess Royal Hospital)	70	14/20	28	11/39	0	0/20	0	0/39
The Shrewsbury & Telford Hospital NHS Trust (The Royal Shrewsbury Hospital)	90	18/20	40	17/42	10	2/20	5	2/42
University Hospital Birmingham NHS Foundation Trust	45	9/20	28	9/32	25	5/20	0	0/32
University Hospital of North Staffs NHS Trust	25	5/20	68	27/40	40	8/20	25	10/40
University Hospitals Coventry & Warwickshire NHST	5	1/19	17	7/41	21	4/19	0	0/41
Walsall Hospitals NHS Trust	28	5/18	41	11/27	17	3/18	52	14/27
Worcestershire Acute Hospitals NHS Trust (The Alexandra Hospital)	16	3/19	12	3/26	0	0/19	0	0/26
Worcestershire Acute Hospitals NHS Trust (Worcestershire Royal Hospital)	32	6/19	18	7/38	0	0/19	0	0/38
NHS Yorkshire and the Humber								
Airedale NHS Trust	20	4/20	26	10/39	0	0/20	0	0/39
Barnsley Hospital NHS Foundation Trust	52	11/21	35	14/40	14	3/21	13	5/40
Bradford Teaching Hospitals NHS Foundation Trust	19	4/21	15	6/41	0	0/21	5	2/41
Calderdale & Huddersfield NHS Foundation Trust	40	8/20	8	3/40	0	0/20	0	0/40
Doncaster & Bassetlaw Hospitals NHS Foundation Trust	40	8/20	19	7/36	30	6/20	6	2/36
Harrogate and District NHS Foundation Trust	52	11/21	21	8/39	5	1/21	0	0/39
Hull and East Yorkshire Hospitals NHS Trust	35	7/20	33	13/40	5	1/20	0	0/40
Scarborough & North East Yorkshire Healthcare NHS Trust	67	33/49	40	14/35	0	0/49	0	0/35
Sheffield Teaching Hospitals Health NHS Foundation Trust	75	15/20	55	22/40	0	0/20	3	1/40
The Leeds Teaching Hospitals NHS Trust	5	1/19	18	7/40	0	0/19	5	2/40
The Mid Yorkshire Hospitals NHS Trust	35	7/20	45	18/40	0	0/20	8	3/40
The Rotherham NHS Foundation Trust	60	12/20	20	8/40	30	6/20	5	2/40
York Hospitals NHS Foundation Trust	70	14/20	10	4/40	20	4/20	0	0/40
Northern Ireland								
Belfast Health and Social Care Trust	68	13/19	51	21/41	0	0/19	12	5/41
Northern Health and Social Care Trust		0/0	23	9/40		0/0	5	2/40
Southern Health and Social Care Trust (Craigavon Area Hospital)	100	20/20	80	32/40	30	6/20	45	18/40
Southern Health and Social Care Trust (Daisy Hill Hospital)	100	9/9	100	4/4	67	6/9	75	3/4
Western Health and Social Care Trust	45	10/22	14	5/35	0	0/22	0	0/35
South Eastern Health and Social Care Trust	57	13/23	46	12/26	13	3/23	12	3/26
Wales								
Abertawe Bro Morgannwg University NHS Trust (Neath Port Talbot Hospital)		0/0	42	11/26		0/0	4	1/26
Abertawe Bro Morgannwg University NHS Trust (Princess of Wales Hospital)	55	11/20	66	25/38	25	5/20	39	15/38
Abertawe Bro Morgannwg University NHS Trust (Singleton/Morrison Hospital)	87	20/23	15	4/26	9	2/23	0	0/26
Aneurin Bevan Health Board, Neville Hall Hospital	81	22/27	47	14/30	4	1/27	3	1/30
Aneurin Bevan Health Board, St Woolos Hospital	71	20/28	35	11/31	0	0/28	0	0/31
Betsi Cadwaladr University Local Health Board (Glan Clwyd Hospital)	50	5/10	33	5/15	0	0/10	0	0/15
Betsi Cadwaladr University Local Health Board (Ysbyty Gwynedd and Llandudno General Hospital)	95	20/21	86	32/37	5	1/21	0	0/37
Cardiff and Vale University Health Board	65	11/17	62	23/37	0	0/17	0	0/37
Cwm Taf NHS Trust (Prince Charles Hospital)	45	9/20	10	4/40	10	2/20	5	2/40
Cwm Taf NHS Trust (Royal Glamorgan Hospital)	50	8/16	24	9/38	25	4/16	5	2/38
Hywel Dda Local Health Board (Bronglais General Hospital)	63	12/19	64	7/11	0	0/19	36	4/11
Hywel Dda Local Health Board (Prince Philip Hospital)		0/0	10	4/40		0/0	3	1/40
Hywel Dda Local Health Board (West Wales General Hospital)	58	11/19	37	15/41	0	0/19	0	0/41
Hywel Dda Local Health Board (Withybush General Hospital)	50	4/8	0	0/40	0	0/8	0	0/40

Organisational audit data collection form

1 LOCAL STRATEGIES AND COMMISSIONING

(Section 1: Primary care commissioners or commissioners only and full healthcare organisations)

1 Does your organisation commission services? O Yes O No
If Yes go to 1.1. If No go to 2.11.)

1.1 COMMISSIONING STRATEGY

1.1.1 Is there a written local commissioning (service development in Wales) strategy which covers issues pertaining to falls prevention? O Yes O No
If Yes go to 1.1.2. If No go to 1.1.6

Does this strategy include:

1.1.2 Commissioning an integrated specialist falls service? O Yes O No

1.1.3 Consideration of care home residents? O Yes O No

1.1.4 Commissioning medication reviews for care home residents? O Yes O No

1.1.5 Consideration of patients within mental health services? O Yes O No

1.1.6 Has there been a joint strategic needs assessment (JSNA) in the last 12 months that includes both falls and bone health (osteoporosis)? O Yes O No

1.1.7 Is there a written local commissioning strategy (service development in Wales) for bone health? O Yes O No

If Yes to both 1.1.1 and 1.1.7 go to 1.1.8. If No to either 1.1.1 or 1.1.7 you cannot answer 1.1.8 and need to go to 1.1.9. If no to both 1.1.1 and 1.1.7, you cannot answer 1.1.8 and need to go to 1.1.9.

1.1.8 Are the falls and bone health commissioning strategies coordinated? O Yes O No
Only answer this if you have said yes to 1.1.1 and 1.1.7

1.1.9 Has there been a public health analysis contribution to any aspect of the falls and/or bone health commissioning strategy? O Yes O No

1.2 COMMISSIONING LEAD

Is there a lead within the commissioning (strategic in Wales) body who is responsible for services for:

1.2.1 Falls? O Yes O No

1.2.2 Bone health? O Yes O No

1.3 REPORTING

1.3.1 Is a report presented at least annually at Board level that includes local hip fracture rates? O Yes O No

1.3.2 Is a report presented at least annually at Board level that includes non-hip fragility fracture rates? O Yes O No

1 LOCAL STRATEGIES AND COMMISSIONING

1.3 REPORTING (continued)

1.3.3 What is the overall rate of low-trauma fragility fracture in women over 50, per 100,000 (per year) of the PCO population?

O Not known

- 1.3.4 Is a local report from the national hip fracture database (NHFD) presented at Board level at least annually? O Yes O No
- 1.3.5 Are in-patient falls (within commissioned services) resulting in serious injuries, including fractures, reported at Board level? Yes ☐
No ☐
No inpatients ☐
- 1.3.6 Has CQUIN been used to support commissioning any aspect of the falls or fracture service? O Yes
O No
O N/a Wales
- 1.3.7 Has the Osteoporosis DES been implemented within the PCO? O Yes
O No
O N/a Wales
If Yes go to 1.3.7.1. If no go to 1.3.8.
- 1.3.7.1 What percentage of GP practices have implemented the Osteoporosis DES and are submitting local data? ☐
☐
- 1.3.7.2 Is there regular (at least annual) monitoring of the Osteoporosis DES by PCO Commissioners? O Yes O No
- 1.3.8 Are any other incentive schemes for falls and/or bone health (e.g. Local Enhanced Service, Practice Based Commissioning initiative) in use within the PCO? O Yes O No
If yes, can you tell us what they are? (allowed 100 characters)
- 1.4 NICE GUIDANCE**
- 1.4.1 Is there a mechanism at PCO level for auditing compliance of primary care management of people at risk of osteoporosis in line with TAG 160? O Yes O No
- 1.4.2 Is there a mechanism at PCO level for auditing the compliance of primary care with management guidance expressed within TAG 161 for post menopausal women who have had a fragility fracture (including both previous and new fractures)? **If yes go to 1.4.3. If no go to 1.5.1.** O Yes O No
- 1.4.3 What percentage of women, aged 65 and over and who are eligible for treatment under TA 161, are recorded as receiving it? ☐
☐
- 1.4.4 Does your organisation commission direct access to DXA services by GPs (without the need to refer to a specialist service)? O Yes O No
- 1.4.5 How many DXA scans (per 100, 000 population) do you commission in a year?
- 1.5 CARE HOMES**
- 1.5.1 Does the PCO request information from care homes on falls incidents or fall-related injuries? O Yes O No
- 1.5.2 Does the PCO keep or have access to a register of older people that fall in care homes? O Yes O No

2 CASE FINDING AND REFERRAL

(Section 2: Community service providers, mental health trusts and full healthcare organisations)

2.1 FIRST LEVEL SCREENING

- 2.1.1 Has a first-level screening tool been implemented and used by a majority of healthcare professionals whereby older people are systematically asked whether they have fallen within a defined time period (e.g. in the previous 12 months)? O Yes O No
- 2.1.2 Has a first-level screening tool been implemented and used by a majority of healthcare professionals whereby older people are systematically asked whether they have sustained a fragility fracture within a defined time period (e.g. in the previous 12 months)? O Yes O No
- 2.1.3 Does the screening tool both trigger and direct further assessments according to a locally agreed falls pathway? O Yes O No

3 STRUCTURE AND STAFFING OF THE FALLS AND BONE HEALTH SERVICE

(Section 3: Community service providers, acute and full healthcare organisations)

3.1 SERVICE

- 3.1.1 Is there a local coordinated, integrated, multi-professional and multi-agency falls service? Please read and consider the **WHOLE** definition before answering O Yes O No

Falls Service definition:*Coordinated:* using a regular mechanism or meeting to agree strategy and review progress towards objectives.*Multi-agency:* e.g. health, social service, voluntary sector*Multi-professional:* e.g. medical, nursing, physiotherapy, occupational therapy, social work*Integrated:* working to agreed protocols & pathways, utilising agreed communication pathways

- 3.1.2 Does your trust provide some or all of the local falls service? Yes all ☐
If Yes all or Yes parts only answer 3.1.2.1. If No don't answer the rest of section 3 and go to section 4 Yes parts only ☐
 No ☐
- 3.1.2.1 Is any *interventional* part of the falls service (e.g. therapeutic exercise or equipment provision, but not handyman schemes only) provided by the voluntary sector? O Yes O No

3.2 MEDICAL STAFF INPUT TO SERVICES

- 3.2.1 Does your trust provide a clinic (s) or equivalent facility where individual patients attend for assessment and interventions related to falls prevention **with** direct clinical involvement of consultant grade or other trained medical staff? **If Yes go to 3.2.2. If No, go to 3.3.** O Yes O No
- 3.2.2 **If yes**, what type of doctor leads these clinics? Consultant ☐
 Tick list (more than one can apply): Staff grade or associate specialist ☐
 GP with special interest ☐
 Other (please specify) ☐
- 3.2.3 Does your trust provide a multidisciplinary service(s) where individual *inpatients* receive specialist falls risk assessment and management with direct clinical involvement of consultant grade or other trained medical staff? O Yes O No

3.3 NON-MEDICAL INPUT TO SERVICES

- 3.3.1 Does your trust provide a clinic (s) or equivalent facility where individual patients attend for assessment and interventions related to falls prevention *without* trained medical staff (consultant grade or other)?
If Yes go to 3.3.2. If No go to 3.4. If No to both 3.2.1 and 3.3.1 go to 3.5
- 3.3.2 Does the clinic (s) without trained medical staff have referral links to medical consultants?
- 3.3.3 What other disciplines provide routine input to the falls clinic(s) or equivalent (i.e. on a regular planned/sessional basis, not just by referral)?
Tick list (more than one can apply)
- | | |
|------------------------|--------------------------|
| Physiotherapy | <input type="checkbox"/> |
| Occupational Therapy | <input type="checkbox"/> |
| Specialist Nurse | <input type="checkbox"/> |
| Pharmacy | <input type="checkbox"/> |
| Other (please specify) | <input type="checkbox"/> |

3.4. ALL CLINICS

- 3.4.1 How many new patients were seen by the falls clinic(s), or equivalent, from 1st to 28th June 2010 (*Only include patients seen specifically and solely for falls, but does not have to be in a clinic setting*)
- 3.4.2 For a new patient on 1st June how many total weeks ahead was the next available medical falls clinic, or equivalent, session/appointment (based on date of commencement of first assessment, excluding screening)?

3.5 STAFFING

- 3.5.1 Do you have a Consultant (s) in geriatric medicine with a commitment to the falls service (not including orthogeriatrics alone) within their job description / job plan? If not in Job Plan, do you have a consultant that provides time for the falls service?
If Yes go to 3.5.2. If No, don't answer 3.5.2 to 3.5.4, and go to 3.5.5.
Note the next two questions relate specifically to hours included in the job plan. Therefore, if the consultant(s) provide time over and above their job plan this will be captured.
- 3.5.2 **If yes**, how many hours per week does a designated consultant (s) in geriatric medicine devote to the falls service in total?
- 3.5.3 **If yes**, how many hours per week are for clinical duties and included in the Job Plan (DCC – Direct Clinical Care)?
- 3.5.4 **If yes**, how many hours per week are for non-clinical duties and included in the job plan (SPA – Supporting Professional Activities)?
- 3.5.5 Do you have a Falls service coordinator(s) and/or specialist nurse/therapist(s) *working* within your organisation?
(Please respond whether or not they are employed and funded by your organisation). If Yes go to 3.5.5.1. If No go to 3.5.6
- 3.5.5.1 Are they employed by your organisation?
- 3.5.5.2 Are they funded by your organisation?
- 3.5.5.3 Do they work across care boundaries (i.e. primary-secondary)?
- Falls service coordinator(s) and/or specialist nurse/therapist(s) *working* within your organisation (continued)**

- 3.5.5.4 Does their remit cross agency boundaries (i.e. social services, local authorities, voluntary sector)? O Yes O No
- 3.5.5.5 How many hours on average per week are spent specifically on falls management and prevention in your organisation?
- 3.5.5.6 What is the estimated number of hours per week (from 3.5.5.5) spent on management?
- 3.5.5.7 What is the estimated number of hours per week (from 3.5.5.5) spent on direct patient contact?
- 3.5.6 Do you have a Fracture Liaison Nurse (s) or similar designated person(s) working within your organisation? *They must be specifically tasked with identification, assessment and management (either initiation or recommendation of treatment) of patients presenting with incident and/or prevalent fractures. If Yes go to 3.5.6.1. If No go to 3.5.7.* O Yes O No
- 3.5.6.1 Are they employed and funded by your organisation? O Yes O No
- 3.5.6.2 Do they work across care boundaries (i.e. primary-secondary)? O Yes O No
- 3.5.6.3 How many hours on average per week are spent specifically on fracture liaison and in your organisation?
- 3.5.6.4 What is the estimated number of hours per week (from 3.5.6.3) spent on management?
- 3.5.6.5 What is the estimated number of hours per week (from 3.5.6.3) spent on direct patient contact?
- 3.5.7 Do you have a specialist pharmacist with a specific remit for falls prevention as all or part of their job plan? O Yes O No
- 3.5.8 Do you have a specialist pharmacist with a specific remit for bone health as all or part of their job plan? O Yes O No

4 SERVICE SETTINGS

4.1 RESIDENTIAL AND NURSING CARE HOMES

Section 4.1 is for residential and nursing care homes only.

- 4.1.1 Town?
- 4.1.2 Postcode? *State the first half such as EC1 or DY18*
- 4.1.3 Is your care home part of a chain? **If yes answer 4.1.4. If no, go to 4.1.5.** O Yes O No
- 4.1.4 **If yes:** What is the name of the organisation? Anchor ☐
Barchester Healthcare ☐
Care UK ☐
Other ☐
- 4.1.5 What is the total number of beds in your care home?
- 4.1.6 **Please indicate what type of beds you have: Tick all that apply:**
- a. Care home (residential)? ☐

- b. Care home (with nursing)? ☐
- c. Dementia care? ☐
- d. Intermediate care? ☐
- e. Interim care? ☐
- f. Palliative care? ☐
- g. NHS continuing care ☐
- h. Other (specify and add into comments) ☐
- 4.1.7 Are any of your residents receiving NHS (fully funded) continuing healthcare? ☐ Yes ☐ No
If yes answer 4.1.8. If no, go to 4.1.11.
- 4.1.8 Do you have a contract and service specification with the commissioner with regards to the prevention or management of falls for these residents? ☐ Yes ☐ No
- 4.1.9 Is there an agreement with the NHS for specific input or other resources for these NHS funded residents? ☐ Yes ☐ No
- 4.1.10 Is there an agreement with the NHS for specialist consultant input for these residents? ☐ Yes ☐ No
- 4.1.11 Do you have a falls prevention/reduction policy or procedures? ☐ Yes ☐ No
If yes answer 4.1.12. If no, go to 4.1.13.
Further questions on resident falls are in section 4.3.
- 4.1.12 Does the falls prevention/reduction policy or procedures include any reference to involvement of the specialist falls service with individual residents? ☐ Yes ☐ No
- 4.1.13 Do you provide the commissioners with any data regarding the rate of falls or injurious falls, in the home? ☐ Yes ☐ No
- 4.1.14 Does your resident admission assessment include falls risk? ☐ Yes ☐ No
- 4.1.15 Do your residents have access to the local community physiotherapy service for assessment, treatment and mobility aid provision in respect of falls? ☐ Yes ☐ No
Answer yes only if the service provides all of these aspects.
- 4.1.16 Do your residents have access to the local community occupational therapy service for assessment, treatment and equipment provision in respect of falls? ☐ Yes ☐ No
Answer yes only if the service provides all of these aspects.
- 4.1.17 Can you access local community mental health services for assessment and/or treatment of residents where their cognitive or behavioural problems are contributing to them falling? ☐ Yes ☐ No
- 4.1.18 Do your residents have regular (at least annual) routine medication reviews by the local community pharmacy service? ☐ Yes ☐ No
- 4.1.19 Do your residents have regular (at least annual) routine medication reviews by a general practitioner? ☐ Yes ☐ No
- 4.1.20 Are there falls prevention exercise groups (run in the care home or outside locally) to which suitable residents may attend? ☐ Yes ☐ No

4.2 SERVICE PROVIDED TO CARE HOMES

(Section 4.2.1 to 4.2.5: Community service providers, acute and full healthcare organisations)

FALLS SERVICE

Does the falls service provide the following training to care homes:

- 4.2.1 Signposting of when to refer to primary care teams? ☐ Yes to all ☐
☐ Yes to some ☐

		No	<input type="checkbox"/>
4.2.2	How to undertake critical incident analysis following a fall?	Yes to all	<input type="checkbox"/>
		Yes to some	<input type="checkbox"/>
		No	<input type="checkbox"/>
4.2.3	How to identify falls risks to minimise future incidents?	Yes to all	<input type="checkbox"/>
		Yes to some	<input type="checkbox"/>
		No	<input type="checkbox"/>

Does the falls service provide services for assessment and interventions when appropriate – this maybe done via attendance at out-patient clinics, falls clinic or via a community based visit for:

4.2.4	Residential care homes?	O Yes	O No
4.2.5	Care homes with nursing?	O Yes	O No

COMMUNITY MENTAL HEALTH SERVICE

(Section 4.2.6 to 4.2.7: Mental health trusts, community service providers, and full healthcare organisations)

Does the community mental health service provide assessment and/or treatment for behavioural problems causing falls in care home residents in:

Select 'No service' if your site does not provide community mental health services

4.2.6	Care homes with specialist dementia registration?	Yes	O
		No	O
		No service	O
4.2.7	Care homes without specialist dementia registration?	Yes	O
		No	O
		No service	O

COMMUNITY THERAPIES

(Section 4.2.1 to 4.2.5: Community service providers and full healthcare organisations)

4.2.8	Does the community physiotherapy service routinely exclude residents in any residential care homes?	O Yes	O No
4.2.9	Does the community physiotherapy service routinely exclude residents in any nursing care homes?	O Yes	O No
4.2.10	Does the community occupational therapy service routinely exclude residents in any residential care homes?	O Yes	O No
4.2.11	Does the community occupational therapy service routinely exclude residents in any nursing care homes?	O Yes	O No

4.3 IN-PATIENTS OR RESIDENT FALLS

(Section 4.3: Community service providers, acute, mental health, specialist hospitals, care homes and full healthcare organisations)

4.3.1	Does your organisation have any in-patients or residents? If yes go to 4.3.2. If no, go to section 4.4.	O Yes	O No
4.3.2	Does your organisation have a current falls prevention/reduction policy? If Yes go to 4.3.3. If no, go to 4.3.4.	O Yes	O No

4.3.3	Is the in patient policy based on the National Patient Safety Agency, Slips, trips, and falls in hospital report or the Patient Safety First guide?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	Not applicable as care home	<input type="checkbox"/>	
4.3.4	Is there a policy regarding the following (may be a separate policy or included within the falls policy):		
4.3.4.1	The use of bedrails?	O Yes	O No
4.3.4.2	Information about the use of low-profiling beds?	O Yes	O No
4.3.4.3	How to record, report and monitor falls?	O Yes	O No
4.3.4.4	Guidance on clinical actions taken after a patient or resident has fallen, specifically including observations if head injury is suspected?	O Yes	O No
GATHERING AND ANALYSING INFORMATION			
4.3.5	Are there systems to record, analyse and report in-patient or resident falls (e.g. incident forms or databases)?	O Yes	O No
4.3.6	Are there mechanisms for critical incident analysis, root cause analysis or similar investigations following a serious in-patient or resident fall?	O Yes	O No
4.3.7	Does your organisation routinely review the overall pattern and trends for in-patient or resident falls?	O Yes	O No
	If yes go to 4.3.8. If No, go to 4.3.11.		
4.3.8	Does this include use of the overall pattern and trends for in-patient or resident falls to inform:		
4.3.8.1	Revisions in policy, protocols or procedures?	O Yes	O No
4.3.8.2	Staff training on falls?	O Yes	O No
4.3.9	Has the organisation calculated its overall in-patient falls rate against activity (e.g. per admission or occupied bed day) and presented this at board level?	O Yes	O No
4.3.10	Has the organisation calculated its serious injurious in-patient falls rate against activity (e.g. per admission or occupied bed day) and presented this at board level? Serious injurious falls are defined as falls resulting in fracture, intracranial injury or death.	O Yes	O No
4.3.11	Does your organisation use assessment documentation such as a proforma for use by healthcare staff which incorporates the following questions for all older people on admission? Tick all that apply	Previous history of falls <input type="checkbox"/>	Current mobility or balance problems <input type="checkbox"/>
		An assessment of fracture or osteoporosis risk in older people with previous falls or mobility problems <input type="checkbox"/>	
		None of the above <input type="checkbox"/>	
4.3.12	Is there provision for all patients who need walking aids to be able to routinely access these within 24 hours of admission?	O Yes	O No
EMERGENCY DEPARTMENT (ED) or MINOR INJURY UNIT (MIU)			
(Section 4.4: Community service providers, acute and full healthcare organisations)			
4.4	Does your organisation provide an Emergency Department (ED) or Minor Injury Unit (MIU)? If Yes go to 4.4.1. If No go to 4.5	O Yes	O No
4.4.1	Are older people who fall and attend ED or MIU routinely screened for risk	O Yes	O No

	of future falls? If Yes go to 4.4.2. If No go to 4.4.4.		
4.4.2	Is screening performed on site in ED/MIU? If Yes go to 4.4.3. If No go to 4.4.4.	O Yes	O No
4.4.3	Is this available 7 days per week?	O Yes	O No
4.4.4	Are older people who attend ED/MIU following <u>a fall</u> routinely assessed for osteoporosis risk?	O Yes	O No
4.4.5.1	Within ED/MIU are there systems for providing onward direct referral for falls assessments/treatment for all relevant patients?	O Yes	O No
4.4.5.2	Within ED/MIU are there systems for providing onward direct referral for bone health assessments/treatment for all relevant patients?	O Yes	O No
4.4.6	Can patients who have fallen and who present to ED/MIU be assessed by a physiotherapist 7 days/week?	O Yes	O No
4.4.7	Can patients who have fallen and who present to ED/MIU be assessed by an occupational therapist 7 days/week?	O Yes	O No
4.5	AMBULANCE SERVICE		
	(Section 4.5: Community service providers, acute and full healthcare organisations)		
	Does the local ambulance service assess patients that they have attended following a fall but do not convey to hospital:		
4.5.1	For future falls risk (with agreement of local falls service)?	O Yes	O No
4.5.2	For suitability for referral to a falls service (by agreement of local falls service)?	O Yes	O No
	FRACTURE SERVICE (HIP FRACTURES)		
	(Section 4.6: Community service providers, acute and full healthcare organisations)		
4.6	Does your organisation provide any medical service for hip fracture patients? If Yes go to 4.6.1. If No, go to 4.7.	O Yes	O No
4.6.1	Is there a fast track admission protocol in ED for older people with a fractured hip? If Yes go to 4.6.2. If No go to 4.6.3.	O Yes	O No
4.6.2	Does this fast track admission protocol include procedures which ensure that these older people are admitted directly to an orthopaedic/ trauma or orthogeriatric ward?	O Yes	O No
4.6.3	Are there hospital procedures in place designed to operate to repair hip fractures within 36 hours of admission to hospital?	O Yes	O No
4.6.4	Does your hospital use procedure or audit to periodically monitor the number of patients that have hip fracture surgery within 36 hrs of admission to hospital?	O Yes	O No
4.6.5	Are there hospital procedures in place designed to mobilise patients following surgery for fractured hip within 24 hours?	O Yes	O No
4.6.6	Is there a specialist orthogeriatric service?	O Yes	O No
	Are hospital procedures designed to ensure that older people who have had a fractured hip receive routine specialist (e.g. by orthogeriatric service) assessment of:		
4.6.7.1	Falls risk?	O Yes	O No

4.6.7.2	Bone health?	O Yes	O No
4.6.8	Are there arrangements for routine medical assessment and treatment on the orthopaedic ward by a geriatrician (consultant, ST3+ trainee, or equivalent) within 72 hours of hip fracture admission?	O Yes	O No
4.6.9	How many hours per week are included in the job plan / job description for senior clinical (medical) orthogeriatric input?	<input type="text"/> <input type="text"/>	
4.6.10	How many hours per a week are spent on senior clinical (medical) orthogeriatric input?	<input type="text"/> <input type="text"/>	
4.6.11	Is there at least one general ward in the hospital developed as a centre of excellence for orthogeriatric practice?	O Yes	O No
4.6.12	Is there routine provision of physiotherapy for all hip fracture patients?	O Yes	O No
4.6.13	Is there routine provision of occupational therapy for all hip fracture patients?	O Yes	O No
FRACTURE UNIT/CLINIC			
(Section 4.7: Community service providers, acute and full healthcare organisations)			
4.7	Does the organisation provide any a fracture clinic or inpatient services for fracture patients other than hip fractures?	O Yes	O No
If Yes go to 4.7.1. If No go to Section 5.			
4.7.1	Are hospital procedures designed to ensure that all older people with fragility fractures are assessed or referred for further management of falls risk?	O Yes	O No
4.7.2	Are hospital procedures designed to ensure that all older people with fragility fractures are assessed or referred for further management of bone health?	O Yes	O No
4.8	FRACTURE UNIT STAFFING AND PROVISION OF CARE		
(Section 4.8: Community service providers, acute and full healthcare organisations)			
4.8.1	Is there further assessment and management of all appropriate fracture patients coordinated by a fracture liaison nurse or similar designated person?	O Yes	O No
4.8.2	Are older people who are <u>admitted to hospital with any low-trauma fracture</u> , regardless of what ward or department, routinely assessed for risk factors for further falls, which must include history of falls?	O Yes	O No
4.8.3	Are older people who are <u>admitted to hospital with any low-trauma fracture</u> , regardless of what ward or department, routinely screened for osteoporosis risk?	O Yes	O No
4.8.4	Are older people who are <u>admitted to hospital with any low-trauma fracture</u> , regardless of what ward or department, routinely seen by a physiotherapist for falls assessment?	O Yes	O No
4.8.5	Are older people who are <u>admitted to hospital with any low-trauma fracture</u> , regardless of what ward or department, routinely seen by an occupational therapist for falls assessment?	O Yes	O No

5 SPECIALIST FALLS MANAGEMENT

(Section 5: Community service providers, acute and full healthcare organisations)

5.1 MULTI-FACTORIAL FALLS RISK ASSESSMENT (MFFRA)

- 5.1.1 For patients considered locally to need a MFFRA is this undertaken by your trust using a clinical note proforma or similar tool which specifies the individual components? **Tick one only. If Yes fully or Yes partially go to 5.1.2. If No never go to 5.2.**
- | | |
|---------------|--------------------------|
| Yes fully | <input type="checkbox"/> |
| Yes partially | <input type="checkbox"/> |
| No never | <input type="checkbox"/> |

Does this proforma/tool for the MFFRA include the following components:

- | | | | |
|---------|--|---------------------------------|--------------------------|
| 5.1.2 | Identification and diagnosis of patient-specific risk factors for falls due to medical conditions? | O Yes | O No |
| 5.1.3 | Standardised gait, balance and mobility assessment? | O Yes | O No |
| 5.1.4 | Standardised assessment for fracture risk or osteoporosis risk factors?
If Yes go to 5.1.5. If No go to 5.1.6. | O Yes | O No |
| 5.1.5 | Is this a validated tool (can be locally developed and validated)? | O Yes | O No |
| 5.1.6 | Standardised assessment of psychological consequences of a fall that might limit independence (<i>fear of further falls</i>)?
If Yes go to 5.1.6.1. If No go to 5.1.7. | O Yes | O No |
| 5.1.6.1 | If yes please give details? (100 characters allowed in web tool text box) | | |
| 5.1.7 | Standardised assessment for vision impairment (with Snellen chart assessment of visual acuity as a minimum)? | O Yes | O No |
| 5.1.8 | Assessment of urinary pattern, including presence or absence of incontinence? | O Yes | O No |
| 5.1.9 | Measurement of lying and standing blood pressure? | O Yes | O No |
| 5.1.10 | Routine ECG recording and analysis? | O Yes | O No |
| 5.1.11 | Documentation of medicines (including dose, route and frequencies)? | O Yes | O No |
| 5.1.12 | Assessment of the potential hazards within the patient's home?
If Yes go to 5.1.13. If No go to 5.1.16. | O Yes | O No |
| 5.1.13 | Is this performed by an occupational therapist? | O Yes | O No |
| 5.1.14 | Is a validated home hazard assessment used?
If Yes go to 5.1.15. If No go to 5.1.16. | O Yes | O No |
| 5.1.15 | If yes, what validated home hazard assessment (s) is used?
Tick all that apply.
(100 characters allowed in web tool text box to specify other) | Westmead Home Safety Assessment | <input type="checkbox"/> |
| | Home fast | | <input type="checkbox"/> |
| | Safety assessment of function for rehabilitation (SAFER) | | <input type="checkbox"/> |
| | Other locally validated tool (please specify) | | <input type="checkbox"/> |
| 5.1.16 | Assessment of any limitations with activities of daily living that place the older person at an increased risk of falls? | O Yes | O No |
| 5.1.17 | Inquiry or assessment to establish how an older person deals with being on | O Yes | O No |

- the floor following a fall (i.e. long lie training)?
- 5.1.18 Validated screening assessment of cognitive function (excluding AMT 4, as this is not sufficient in this setting)? O Yes O No
- 5.2 EXCLUSIONS**
- 5.2.1 Does the specialist falls service routinely **exclude** older people with dementia from their service for assessment and management of falls? O Yes O No
- 5.3 INTERVENTION PLAN**
- 5.3.1. Does the service *routinely* provide written, agreed intervention plans which are given to patients? O Yes O No
- 5.4 INTERVENTIONS FOR FALLS PREVENTION**
- 5.4.1 Does the intervention include supervised exercise training for strength and balance? **If Yes go to 5.4.2. If No, go to 5.4.7.** O Yes O No
- 5.4.2 Does this include a validated exercise programme delivered by appropriately trained healthcare professionals and/or exercise specialists? **If Yes go to 5.4.3. If No go to 5.4.7.** O Yes O No
- 5.4.3 Which “evidence based” exercise programme(s) are used **as standard** for patients that are able to participate? **Tick all that apply**
Note – please make sure to read the help notes for definitions of the programmes before answering this question.
- | | |
|--------------------------|--------------------------|
| FaME | <input type="checkbox"/> |
| Otago exercise programme | <input type="checkbox"/> |
| Modified FaME or Otago | <input type="checkbox"/> |
| Other (give details) | <input type="checkbox"/> |
- 5.4.4 What is the *standard* frequency of the supervised session between the healthcare professional and patient? **Tick one**
- | | |
|----------------------|--------------------------|
| Monthly | <input type="checkbox"/> |
| Weekly | <input type="checkbox"/> |
| Twice a week | <input type="checkbox"/> |
| Other (give details) | <input type="checkbox"/> |
- 5.4.5 What is the *standard* duration of the programme? **Tick one**
- | | |
|------------------------|--------------------------|
| Under 6 weeks | <input type="checkbox"/> |
| Between 6 and 12 weeks | <input type="checkbox"/> |
| Over 12 weeks | <input type="checkbox"/> |
- 5.4.6 Are the exercises progressed according to the participant’s progress? O Yes O No
- Do the individualised programmes seek to enhance or optimise the safe performance of activities of daily living by:**
- 5.4.7 Working with the patient to identify difficulties with activities of daily living that place them at an increased risk of falls? O Yes O No
- 5.4.8 Advising on safety of the home environment and performance of activities of daily living with the ability to provide of equipment, adaptations and repairs, where necessary? O Yes O No
- 5.4.9 Are there mechanisms for providing or referring for alarms, call systems and other assistive technology? O Yes O No

5.5 INTERVENTIONS FOR OSTEOPOROSIS

- 5.5.1 In accordance with NICE TA 161, are specific criteria used for deciding treatment for older people who have sustained a fragility fracture? O Yes O No
- 5.5.2 Does your organisation provide direct access to DXA services by GPs (without the need to refer to a specialist service)? O Yes O No
- 5.5.3 How many DXA scans (per 100,000 population) do you provide in a year?
- 5.5.4 Are patients with, or at risk of, osteoporosis **routinely** given written lifestyle advice on maintaining bone health in respect of smoking, diet, physical activity and alcohol use? (Must cover all risk factors or be tailored to the individual). O Yes O No
- Does your trust provide prescribing advice e.g. a local protocol promoting routine offer of Calcium and Vitamin D to the following patient groups:**
- 5.5.5 Patients with previous fragility fracture(s) treated with a bone sparing agent? O Yes O No
- 5.5.6 Patients who are housebound (regardless of fragility fracture)? O Yes O No
- 5.5.7 Residents of residential and nursing care homes? O Yes O No

5.6 SYNCOPE

- 5.6.1 Is there an agreed process/pathway to access syncope services for patients who have “unexplained falls” / blackouts?
If Yes go to 5.6.2. If No go to Section 6. O Yes O No
- Does this include:**
- 5.6.2 Access to tilt table testing with beat to beat monitoring? O Yes O No
- 5.6.3 Access to ECG loop recording? O Yes O No
- 5.6.4 How many new outpatients were seen in the last financial year (April 2009 to March 2010) for syncope evaluation?
(Not necessarily in the falls or syncope clinic, providing the clinic has access to specialist investigation and expertise).
(Enter 0 if this service is not provided by your organisation)

6 LOCAL TRAINING AND AUDIT

(Section 6.1: Community service providers, acute, mental health, specialist hospitals, care homes and full healthcare organisations)

6.1 TRAINING

- 6.1.1 Did members of the organisation receive training on falls and bone health in the last 12 months? O Yes O No
- 6.1.2 Did the organisation provide training to its staff on falls and bone health in the last 12 months? O Yes O No

6.2 AUDIT PROGRAMME

(Section 6.2.1: Community service providers, acute, and full healthcare organisations)

- 6.2.1 In the last 12 months (September 2009 to August 2010) have there been any local audits performed to assess any aspects of the falls and bone health service? If Yes go to 6.2.2 if community service provider. If Yes go to O Yes O No

6 LOCAL TRAINING AND AUDIT**6.2.4 if acute. If No go to 6.3.**

6.2.2 Has a representative audit been performed on bone health prescribing in primary care? **If Yes go to 6.2.2.1. If No go to 6.2.3.** O Yes O No

6.2.2.1 Has an audit been performed on calcium and vitamin D3 prescribing in high-risk groups (housebound women and/or residents in residential and nursing homes)? O Yes O No

6.2.2.2 Has an audit been performed on calcium and vitamin D3 co-prescribing with anti-resorptive medication (chiefly bisphosphonates) for osteoporosis in primary care? O Yes O No

6.2.3 Has an audit been performed on the implementation of the in-patient/resident falls policy? Yes ☐
No ☐
(Q.6.2.3: Community service providers, acute, mental health, specialist hospitals, care homes and full healthcare organisations) No policy ☐

Has an audit been performed on any aspect of:
Section 6.2.4 to 6.2.8: Acute and full healthcare organisations)

6.2.4 Hip fracture management? O Yes O No

6.2.5 Bone health prescribing in secondary care? O Yes O No

6.2.6 Screening of older people attending A&E with regards to falls and fracture risk? O Yes O No

6.2.7 Has the trust registered with the National Hip Fracture Database? O Yes O No
If Yes go to 6.2.8. If No go to 6.2.9.

6.2.8 Is *complete* data currently being entered into the National Hip Fracture Database? O Yes O No

(Q.6.2.9 and 10: Community service providers, acute, mental health, specialist hospitals, care homes and full healthcare organisations)

6.2.9 Does the local audit programme have an agreed process to develop *and review* action plans following audit results? O Yes O No

6.2.10 Have any action plans been developed in response to local or national audits in the last 12 months? O Yes O No

6.3 PATIENT VIEWS

(Section 6.3: Community service providers, acute, and full healthcare organisations)

Is there a mechanism to record patients views of the falls and bone health service:

6.3.1 Using questionnaires? O Yes O No

6.3.2 Using interviews? O Yes O No

6.3.3 Is written information about falls and bone health available in patient areas such as clinics, day centres? O Yes O No

6.3.4 Is written information about falls and bone health available in different languages? O Yes O No

Appendix 8

Clinical audit data collection form

DEMOGRAPHICS AND CASE MIX

Is this a data validation check?

☐ Yes

☐ No

Enter your number for this patient here

Patient audit number (web tool)

(Assigned by web tool on data inputting)

(Add number here when entering data on web tool)

Auditor

(please select all that apply)

☐ Doctor

☐ Nurse

☐ Therapist

☐ Pharmacist

☐ Clinical Audit

☐ Other (please specify)

Age

Sex

☐ Female

☐ Male

Usual place of residence

☐ Private residence

☐ Warden assisted

☐ Residential care home

☐ Care home (with nursing)

☐ Other (please specify)

Does this patient live alone?

☐ Yes

☐ No

Has the patient fractured as the result of a fall
(exclude high-trauma injuries)?

☐ Yes

☐ No

Date of the fall

/ / (DD/MM/YYYY)

(Only include patients that fall & fracture a maximum of 5 days prior to presentation date)

Injury incurred – what was fractured?

☐ Wrist

☐ Humerus

☐ Vertebra

☐ Pelvis

☐ Hip (intracapsular)

☐ Hip (extracapsular to include intertrochanteric & subtrochanteric)

☐ Hip (other)

1.1 PRESENTATION

- 1.1.1 Place of presentation
(Where patient attended NHS services for assessment / treatment)
- ☐ A&E
☐ MIU
☐ Other (give details)
- 1.1.2 Registration date (DD/MM/YYYY)
(Week-day will be automatically displayed on the web tool)
Registration time (24 hour clock)
- DD/MM/YYYY
□□/□□/□□□□
HH:MM
□□:□□ hours
- 1.1.3 Date of discharge / admission / transfer from place of presentation?
(Date of discharge / transfer from A&E / MIU etc)
Time of discharge / admission to a ward/ transfer from another department from place of presentation? (if not documented, use time of first notes entry *following* transfer)
- DD/MM/YYYY
□□/□□/□□□□
HH:MM
□□:□□ hours
- 1.1.4 Was the patient admitted to an acute unit?
(If **yes**, go to 1.1.4.1. If you have answered **No** go to 1.1.6)
If **yes**, you will not be able to answer 1.1.7
- O Yes O No
- 1.1.4.1 In the first week of admission (or acute peri operative period) on what ward did the patient spend the majority of their time?
- ☐ Orthopaedic ward
☐ Orthogeriatric ward
☐ Dedicated hip fracture ward
☐ General geriatric ward in acute trust
☐ Other acute hospital ward (give details)
☐ Community hospital – Geriatrician input
☐ Community hospital - other
☐ Other (give details)
- 1.1.4.2 Was transfer for rehabilitation in an NHS setting required?
(If **yes**, go to 1.1.4.3. If you have answered **No** go to 1.1.5)
- O Yes O No
- 1.1.4.3 In what type of NHS setting was rehabilitation performed for the patient?
- ☐ Orthogeriatric ward
☐ Dedicated hip fracture ward
☐ General geriatric ward in acute trust
☐ Other acute hospital ward (give details)
☐ Community hospital – Geriatrician input
☐ Community hospital - other
☐ Other (give details)
- 1.1.4.4 Date patient moved to rehabilitation setting
- DD/MM/YYYY
□□/□□/□□□□

- 1.1.4.5 On what ward/unit did the patient spend the majority of time between acute admission and discharge from NHS care?
- ☐ Orthopaedic ward
☐ Orthogeriatric ward
☐ Dedicated hip fracture ward
☐ General geriatric ward in acute trust
☐ Other acute hospital ward
☐ Community hospital – Geriatrician input
☐ Community hospital - other
☐ Other (give details)

- 1.1.5 Date of discharge from inpatient NHS care? (i.e. the date of return to usual residence or new **permanent** residence)
- DD/MM/YYYY
 / /

- 1.1.5.1 What was the discharge destination from this complete episode?
- ☐ Usual residence
☐ Other private address
☐ Warden assisted (new)
☐ Residential care home (new)
☐ Nursing home (new)
☐ Other (give details)

- 1.1.6 Did the patient have rehabilitation or support at home from a specialist early supported discharge team? O Yes O No

- 1.1.7 **If not admitted to acute hospital**, where was the patient discharged to following assessment at ED/MIU?
 (If you have answered **Yes** to 1.1.4 you cannot answer this question)
- ☐ Usual residence
☐ Other private address
☐ Intermediate care bed
☐ Residential care home (new)
☐ Nursing home (new)
☐ Other (give details)

- 1.1.8 Did the patient have any *unplanned* readmissions within 28 days of discharge from the presenting episode? O Yes O No

1.2. Initial and pre-operative management of hip fracture patient

- 1.2.11 Was there documented assessment of pain severity (e.g. pain score) within the place of first presentation?

- 1.2.12 Was adequate analgesia administered within 60 minutes of hospital attendance, or prior to attendance by ambulance personnel? O Yes O No
 (If **yes** then answer 1.2.2. If **no** go to 1.2.3)

- 1.2.2 Date analgesia **first** administered? DD/MM/YYYY
 / /
 HH:MM
 : hours

Time analgesia **first** administered?

- 1.2.3 Was pressure ulcer risk assessment carried out and appropriate equipment documented as used within 4 hours, or documented as assessed and not required?
- ☐ Yes
☐ No
☐ Not required

- 1.2.4 Were IV fluids both prescribed and administered within 12 hours of presentation, or documented as assessed and not required? ☐ Yes
☐ No
☐ Not required
- Are the following documented within the patient's initial and / or pre-operative clinical records:**
- 1.2.5 Details of co-morbidities with specific mention of the presence or absence of both cardiac and respiratory disease? O Yes O No
- 1.2.6 History of cognitive impairment / dementia prior to the fracture? O Yes O No
- 1.2.7 Assessment of cognitive function using a standardised scale? (Note that the AMT4 is insufficient in this setting).
If **yes** go to 1.2.7i. If **no** go to 1.2.8 O Yes O No
- 1.2.7i Whether the results were normal or abnormal? ☐ Normal
☐ Abnormal
- 1.2.8 List of current medications including doses and frequencies? O Yes O No
- 1.2.9 A record of the presence or absence of cardiac murmurs? O Yes O No
- 1.2.10 Full blood count and renal function test results? O Yes O No
- 1.2.11 Oxygen saturation on room air? O Yes O No
- 1.2.12 Administration of some form of medical thromboprophylaxis within 24 hours of admission? (If **yes** go to 1.2.14. If **no** go to 1.2.13) O Yes O No
- 1.2.13 Does the clinical record show documentation of a clinical decision NOT to prescribe thromboprophylaxis? O Yes O No
- 1.2.14 Was the patient seen within 72 hours of admission for specialist medical assessment by a geriatrician? O Yes O No
- 1.2.15 Has an integrated hip fracture care pathway been used (that has been agreed by geriatrician, orthopaedic surgeon and anaesthetist)? O Yes O No

2.1 OPERATIVE PHASE

- 2.1.1 Was the patient operated on?
(If you answered **Yes** go to 2.1.1.1. If you have answered **No** you need to go to 2.2. You cannot answer 2.2.6 - 2.2.7.) O Yes O No
- 2.1.1.1 Surgery date?
(Day of surgery is automatically calculated)
(If **not operated on**, then go to section 2.2) DD/MM/YYYY
 / /
- Surgery time?
(Time from registration to surgery is automatically calculated on the web tool) (If time to surgery ≤ 36 hours skip 2.1.4 - 2.1.5) HH:MM
 : hours
- 2.1.2 Was pressure-relieving equipment documented as being used in theatre, or assessed and not required? ☐ Yes
☐ No
☐ Not required
- 2.1.3 Was cement used as part of the operative process? O Yes O No
(If **Yes** go to 2.1.3.1. If **No** go to 2.1.4)

- 2.1.3.1 Was it clearly documented in the operative notes that canal irrigation was performed prior to broaching the canal and that this was introduced using a cement gun, or equivalent? O Yes O No
- 2.1.4 Do the clinical notes indicate a reason or reasons for surgery being delayed > 36 hours from presentation? Skip this question if time to surgery ≤ 36 hours. (If **Yes** to 2.1.4 go to 2.1.5, If **No** go to 2.1.6) O Yes O No
- 2.1.5 What was the main or the only reason indicated? ☐ Awaiting orthopaedic diagnosis or investigation (including X-ray)
☐ Medically unfit requiring stabilisation preoperatively
☐ Awaiting medical review
☐ Awaiting medical investigation
☐ Organisational or capacity issues
☐ Other (give details)
(Tick one option only)
 Skip this question if time to surgery ≤ 36 hours.
- 2.1.6 What was the grade of the most senior Surgeon present? ☐ Consultant
☐ Non-consultant career grade
☐ ST3+ speciality trainee
☐ Other
- 2.1.7 What was the grade of the most senior Anaesthetist present? ☐ Consultant
☐ Non-consultant career grade
☐ ST3+ speciality trainee
☐ Other
- 2.2 POST OPERATIVE PHASE**
- Do the clinical notes made pre-surgery or within 48 hours post surgery include the following documentation:**
- 2.2.1 Pre-admission functional ability (minimum of wash, dress, meals)? O Yes O No
- 2.2.2 Pre-admission mobility including use of walking aids? O Yes O No
- 2.2.3 Pre-admission social support? O Yes O No
- 2.2.4 Do the clinical notes (including care pathway *documentation*) indicate that a multidisciplinary team (medical, nursing and AHP) has discussed this patient within 7 days of admission? O Yes O No
- 2.2.5 Was a formal assessment of cognitive function, including where indicated a delirium screen (e.g. CAM), performed within 72 hours of surgery (or admission if not operated)? O Yes O No
- If not operated on: do not answer 2.2.6 or 2.2.7.**
- 2.2.6 Was an attempt made within 24 hours of surgery to mobilise the patient? (As a minimum, documentation should reflect attempts to stand up, transfer and walk a few steps) (If **yes** go to 2.2.7. If **No** go to 2.2.6.1) O Yes O No
- 2.2.6.1 Was sitting out of bed documented as being delayed for medical reasons *other than delay in post-operative X-ray*? O Yes O No

2.2.7	Was the patient seen within 24 hours of surgery by a physiotherapist or trained worker?	O Yes	O No
2.2.8	Was patient seen within 72 hours of surgery (or admission if not operated) by an occupational therapist or supervised OT technical assistant?	O Yes	O No
2.2.9	Was there regular (at least twice-weekly) documented input from a geriatrician (consultant, NCCG or supervised trainee of ST3 level or above) during the acute care spell?	O Yes	O No
2.2.10	Is it documented that patient and /or carer views were used in discharge planning?	O Yes	O No
2.2.11	Has the patient's data been entered into the National Hip Fracture Database (NHFD)?	O Yes	O No

SECONDARY PREVENTION can be completed at various stages after the fall and fracture

3.1 MULTI-FACTORIAL FALLS RISK ASSESSMENT

Not all components of a multi factorial risk assessment are relevant for all patients. Components may be performed at various stages after the fall has occurred and not all simultaneously.

The data to be collected here should be derived from assessments that are carried out by the local falls service team or by staff adhering to processes within a locally developed falls pathway.

3.1 FALLS

3.1.0	Was a multi-factorial risk assessment performed?	O Yes	O No
3.1.1	Did the falls assessment include a history of falls in the past year?	O Yes	O No
3.1.2	Did the falls assessment include the context of the <i>presenting</i> fall (place and activity)?	O Yes	O No
3.1.3	Was there documented evidence of the consideration of the cause of the index fall (aetiology) <i>including</i> transient loss of consciousness?	O Yes	O No
3.1.4	Did the assessment document the presence or absence of any previous syncope, blackout, or unexplained fall(s)?	O Yes	O No
3.1.5	Does the clinical record include a standardised assessment of cognitive function (<i>not including pre-op for hip fracture, unless this was normal</i>)?	O Yes	O No

You cannot answer this question if the answer to 1.2.7i was **Normal**.

3.2 MEDICATION

Medication review

3.2.1	Does the clinical record include any features of a medication assessment at the time of the fall?	O Yes	O No
3.2.2	Was the patient on any psychotropic (see help notes) medication at the time of the fall?	O Yes	O No
3.2.3	Was the patient was on night sedation (see help notes) medication at the time of the fall?	O Yes	O No

Medication intervention

3.2.4	By 12 weeks after the fall was there <i>evidence</i> of a medication review? (Can be in hospital, at home, in clinic etc.)	O Yes	O No
3.2.5	By 12 weeks after the fall was the patient on any psychotropic (see help notes 3.2.2) medication?	O Yes	O No

- 3.2.6 By 12 weeks after the fall was the patient on any night sedation (see help notes 3.2.3) medication? O Yes O No
- 3.3 CARDIOVASCULAR**
Did the patient's cardiovascular assessment include:
- 3.3.1 Documentation of presence or absence of heart murmurs? O Yes O No
- 3.3.2 Performance of an ECG? O Yes O No
 (If you have answered **Yes** go to 3.3.3. If you have answered **No** go to 3.3.4.)
- 3.3.3 Documentation that the ECG was analysed? O Yes O No
- 3.3.4 Documented lying and standing blood pressure readings? ☐ Yes
 (Exception – if patient is unable to stand) ☐ No
☐ Unable to stand
- 3.3 CARDIOVASCULAR (continued)**
Did the patient's cardiovascular assessment include:
- 3.3.5 Did cardiac assessment reveal an abnormality requiring further investigation or onward referral? (Also answer No if no assessment done) O Yes O No
 (If **Yes** go to 3.3.6, If **No** go to 3.4)
- 3.3.6 Is there evidence of referral to/for further investigation or assessment for cardiac disease? O Yes O No
- 3.4 VISION**
- 3.4.1 Did the patient have any assessment for visual impairment? ☐ Yes
 (Assessing reading only is insufficient, as near sight is not relevant to falls risk) ☐ No
☐ Registered blind
- 3.5 CONTINENCE**
- 3.5.1 Did the patient have any assessment of urinary function, including continence status? (If you have answered **Yes** go to 3.5.2. If **No** go to 3.6.) O Yes O No
- 3.5.2 Was there any impairment of urinary function or continence? O Yes O No
 (If you have answered **Yes** go to 3.5.3. If **No** go to 3.6.)
- 3.5.3 Was referral made for continence problems from the assessment, or is there clear documentation that referral was not required? ☐ Yes
☐ No
☐ Not required
- 3.6 ASSESSMENT OF MOBILITY AND FUNCTION**
- 3.6.1 Do the clinical records indicate that a gait, balance and mobility assessment was performed within 12 weeks of the fall? ☐ Yes
 (If you have answered **Yes** go to 3.6.2. If you have answered **No**, **Immobile** or **Declined** go to 3.6.5.) ☐ No
☐ Immobile
☐ Declined
- Does the clinical record of this assessment include:**
- 3.6.2 Result of a gait, balance and mobility assessment, using a standardised tool (or a decision that further assessment is inappropriate, e.g. severely limited mobility)? O Yes O No
- 3.6.3 Statement of person's perceived functional ability? O Yes O No
- 3.6.4 Record of fear of falling during activities of daily living using recognised assessment tool? O Yes O No
- Strength and Balance Training interventions**
- 3.6.5 Has the patient participated in any form of exercise programme? ☐ Yes
 (If you have answered **Yes** go to 3.6.6. If you have answered **No**, **Not relevant** or

Declined go to 3.7.)

- ☐ No
☐ Not relevant
☐ Declined

3.6.6 Was this an Otago or FaME programme > 12 weeks duration?
 (Modification or shorter duration is only acceptable if this is clearly documented as being on clinical grounds, including frailty, not if a modified programme is offered as standard).

- ☐ Yes
☐ No
☐ Modified

3.6.7 Has the strength and balance programme been **prescribed** by an appropriately trained professional?

O Yes O No

3.6.8 Has the strength and balance programme been **monitored** by an appropriately trained professional competent to modify and progress the exercise programme?

O Yes O No

3.7 SAFETY AT HOME

Skip 3.7 if usual place of residence is a residential or nursing home

3.7.1 Was the patient's home assessed by an Occupational Therapist for home/environmental hazards?

(If **yes** answer got to 3.7.2. If **no, not relevant or declined** go to 3.7.4)

- ☐ Yes
☐ No
☐ Declined
☐ Did not return home

3.7.2 Was an access or home visit/assessment performed in the patient's own environment?

(If you have answered **Yes** go to 3.7.3. If you have answered **No** or **Declined** go to 3.7.4.)

- ☐ Yes
☐ No
☐ Declined

3.7.3 What home hazard assessment was performed in the patient's own environment?

- ☐ Westmead
☐ Home fast
☐ Safety Assessment of function for rehabilitation (SAFER)
☐ Locally validated tool (provide supporting evidence of validation)
☐ Unvalidated tool or no tool

Home hazard interventions

3.7.4 Were appropriate home hazard interventions offered?

- ☐ Yes
☐ No
☐ Not relevant
☐ Declined

3.7.5 Was the patient recommended any form of telecare (such as a pendant alarm) to assist in the management of their falls risk?

- ☐ Yes
☐ No
☐ Not relevant
☐ Declined

3.8 SOCIAL CARE

3.8.1 Was the patient assessed for their need of social care support?
 (If **yes** answer 3.8.2. If **no, not relevant or declined** go to 3.9)

- ☐ Yes
☐ No
☐ Not relevant
☐ Declined

3.8.2 Was referral for Social services input offered?

- ☐ Yes
☐ No
☐ Not relevant/private care
☐ Declined

3.9 ORGANISATION OF CARE

- 3.9.1 Did the multi-factorial falls risk assessment involve a multidisciplinary falls clinic/service? ☐ Yes
(If **yes** then answer 3.9.2. If **no or not appropriate**, go to 3.9.3) ☐ No
☐ Not appropriate
- 3.9.2 Did the multi-factorial falls clinic/service include medical assessment supervised by a consultant or non-consultant career grade? O Yes O No
- 3.9.3 Did the multi-factorial falls risk assessment of this patient lead to an individualised intervention plan recorded in the clinical notes? ☐ Yes
(If **yes**, complete 3.9.4. If **no or not relevant** go to section 4) ☐ No
☐ Not relevant
- 3.9.4 Was the intervention plan shared with the patient in writing? O Yes O No
- 4.1. OSTEOPOROSIS SECONDARY PREVENTION**
- 4.1.1 Was a clinical assessment of osteoporosis/fracture risk performed in line with NICE TA 161 or good practice for men? (Including decision to commence treatment in women aged 75, women 65-74 years and men aged 65 and over with osteoporosis.) O Yes O No
- Previous DXA Scan**
- 4.1.2 Does the patient have documented evidence of a previous fragility fracture? O Yes O No
- 4.1.3 Has the patient had a DXA scan in the 2 years prior to the presenting fracture? O Yes O No
(If you have answered **Yes** go to 4.1.4. If you have answered **No** go to 4.1.5.)
- 4.1.4 Did the patient's DXA scan show evidence of osteoporosis? ☐ Yes
☐ No
☐ No scan results
- New DXA Scan**
- 4.1.5 Has the patient been referred for a DXA scan following the **presenting fracture**? Or was a clinical decision documented to commence treatment without DXA in female patient aged 75 and over? Or had a DXA been performed previously? ☐ Yes
(If you have answered **Yes** go to 4.1.6. If you have answered **No**, **Clinical decision** or **previous DXA** go to 4.2.) ☐ No
☐ Clinical decision
☐ Previous DXA
- 4.1.6 Was the DXA scan performed within 6 weeks of the index fracture? O Yes O No
- 4.1.7 Did the patient's DXA scan following the **presenting fracture** show evidence of osteoporosis? O Yes O No
- 4.2 OSTEOPOROSIS INTERVENTIONS**
- Prior prescription of Calcium, Vitamin D, Bisphosphonates or other osteoporosis medications**
- 4.2.1 Was the patient prescribed Calcium (1 g per day) prior to the fracture? O Yes O No
- 4.2.2 Was the patient prescribed Vitamin D3 (800 iU per day) prior to the fracture? O Yes O No
- 4.2.3 Was the patient prescribed a bisphosphonate or other appropriate medication prior to the fracture? (Other licensed and recommended medications are Strontium, Parathyroid hormone analogues, Raloxifene) O Yes O No
- Post-fracture prescription of Calcium, Vitamin D, Bisphosphonate or other osteoporosis medications**
- 4.2.4 At 12 weeks post fracture, was the patient prescribed Calcium (1 g per day or equivalent)? ☐ Yes
☐ No
☐ Contraindicated
- 4.2.5 At 12 weeks post fracture, was the patient prescribed Vitamin D (800 iU per day or equivalent)? ☐ Yes
☐ No

- 4.2.6 At 12 weeks post fracture, was the patient prescribed a bisphosphonate?
If you have answered **Yes** go to 5.1. If you have answered **No** go to 4.2.7.
- 4.2.7 At 12 weeks post fracture, was the patient prescribed other appropriate therapy for osteoporosis (strontium, parathyroid hormone (PTH), or raloxifene or denosumab)?
- ☐ Contraindicated
☐ Yes
☐ No
☐ Contraindicated
☐ Yes
☐ No
☐ Contraindicated

5 INFORMATION PROVISION

- 5.1 Is it documented within the medical, nursing or therapy notes that oral falls prevention information has been given to the patient or their carer? O Yes O No
- 5.2 Is it documented within the medical, nursing or therapy notes that written falls prevention information has been given to the patient or their carer?
(If **Yes**, go to 5.3, If **No** go to 5.4) O Yes O No
- 5.3 Has the written falls information been provided in the patients own (or preferred) language? O Yes O No
- 5.4 Is it documented within the medical, nursing or therapy notes that oral information with regard to bone health has been given to the patient or their carer? O Yes O No
- 5.5 Is it documented within the medical, nursing or therapy notes that written bone health information has been given to the patient or their carer?
(If **Yes**, go to 5.6, If **No** go to end) O Yes O No
- 5.6 Has the written information on bone health been provided in the patients own (or preferred) language? O Yes O No

Appendix 9

Participants and non-participants

Participants

Islands

Combined healthcare organisation

Guernsey Health and Social Services

States of Jersey Health and Social Services

NHS East Midlands

Acute

Chesterfield Royal Hospital NHS Foundation Trust

Northern Lincolnshire and Goole Hospitals NHS Foundation Trust (Scunthorpe General Hospital)

Derby Hospitals NHS Foundation Trust

Nottingham University Hospitals NHS Trust

Kettering General Hospital NHS Foundation Trust

Sherwood Forest Hospitals Trust

Northampton General Hospital NHS Trust

United Lincolnshire Hospitals NHS Trust

Northern Lincolnshire and Goole Hospitals NHS Foundation Trust (Diana, Princess of Wales Hospital)

University Hospitals of Leicester NHS Trust

Combined healthcare organisation

NHS Bassetlaw

Lincolnshire Community Health Services

NHS Nottingham City

NHS Derby City - Provider Services and Operations

Community service providers

NHS Northamptonshire Provider Service

Derbyshire Community Healthcare Services

Mental health trust

Derbyshire Mental Health Services NHS Trust

Northamptonshire Healthcare NHS Trust

Leicestershire Partnership NHS Trust

Nottinghamshire Healthcare NHS Trust

Lincolnshire Partnership NHS Foundation Trust

Primary care commissioners

Derbyshire County Primary Care Trust

NHS Lincolnshire

NHS Derby City

NHS Nottinghamshire County

NHS East of England

Acute

Basildon and Thurrock University Hospitals NHS Foundation Trust

Norfolk and Norwich University Hospital NHS Trust

Bedford Hospital NHS Trust

Peterborough & Stamford Hospitals NHS Foundation Trust

Cambridge University Hospitals NHS Foundation Trust

Southend University Hospital NHS Foundation Trust

Colchester Hospital University NHS Foundation Trust

The Ipswich Hospital NHS Trust

East and North Hertfordshire NHS Trust

The Princess Alexandra Hospital NHS Trust

Hinchingbrooke Health Care NHS Trust

The Queen Elizabeth Hospital King's Lynn

James Paget University Hospitals NHS Foundation Trust

West Hertfordshire Hospitals NHS Trust

Luton and Dunstable Hospital NHS Foundation Trust

West Suffolk Hospitals NHS Trust

Mid Essex Hospital Services NHS Trust

Combined healthcare organisation

NHS Hertfordshire and Hertfordshire Community Health Services

NHS Suffolk

Community service providers

Bedfordshire Community Health Services	West Essex Community Health Services
Cambridgeshire Community Services	Mental health trust
Central Essex Community Services	Bedfordshire and Luton Partnership Trust
NHS Great Yarmouth and Waveney - Community Services	Cambridgeshire and Peterborough NHS Foundation Trust
NHS North East Essex Provider Services	Hertfordshire Partnership NHS Foundation Trust
NHS South East Essex Community Healthcare	Norfolk and Waveney Mental Health NHS Foundation Trust
NHS South West Essex Community Services	North Essex Partnership NHS Foundation Trust
Norfolk Community Health Care	South Essex Partnership NHS Foundation Trust
Peterborough Community Services	

Primary care commissioners

NHS Bedfordshire	NHS Peterborough
NHS Cambridgeshire	NHS South West Essex
NHS Great Yarmouth and Waveney	NHS West Essex
NHS Mid Essex	South East Essex PCT
NHS Norfolk	
NHS North East Essex	

Specialist hospital

Papworth Hospital NHS Foundation Trust

NHS London**Acute**

Barking, Havering and Redbridge University Hospitals NHS Trust	Mayday Healthcare NHS Trust
Barnet and Chase Farm Hospitals NHS Trust	Newham University Hospital NHS Trust
Barts and the London NHS Trust	North Middlesex University Hospital NHS Trust
Chelsea and Westminster Hosp NHS Foundation Trust	Royal Free Hampstead NHS Trust
Ealing Hospital NHS Trust	South London Healthcare NHS Trust (Bromley Hospital)
Epsom and St Helier University Hospitals NHS Trust (Epsom Hospital)	South London Healthcare NHS Trust (Queen Elizabeth Hospital Woolwich)
Epsom and St Helier University Hospitals NHS Trust (St Helier Hospital)	St George's Healthcare NHS Trust
Guy's and St Thomas' NHS Foundation Trust	The North West London Hospitals NHS Trust (Central Middlesex Hospital)
Hillingdon Hospital NHS Trust	The North West London Hospitals NHS Trust (Northwick Park Hospital)
Homerton University Hospital NHS Foundation Trust	University College London Hospitals NHS Foundation Trust
Imperial College Healthcare NHS Trust	West Middlesex University Hospital NHS Trust
King's College Hospital NHS Foundation Trust	Whipps Cross University Hospital NHS Trust
Kingston Hospital NHS Trust	Whittington Hospital NHS Trust

Combined healthcare organisation

Lewisham Healthcare NHS Trust	NHS Sutton and Merton
NHS City and Hackney	NHS Wandsworth
NHS Harrow, NHS Ealing and Ealing Hospital	Oxleas NHS Foundation Trust
NHS Newham	

Community service providers

Barking and Dagenham Community Health Services	NHS Brent Provider Service
Barnet Community Services	NHS Camden Provider Services

Central London Community Healthcare (Hammersmith and Fulham)	NHS Haringey Community Health Services
Central London Community Healthcare (Kensington and Chelsea)	NHS Islington - Provider Services
Central London Community Healthcare (Westminster)	NHS Kingston Provider Services
Croydon Community Health Services	Outer North East London Community Service (Redbridge)
Ealing and Harrow Community Services	Outer North East London Community Services (Havering)
Greenwich Community Health Services	Outer North East London Community Services (Waltham Forest)
Hillingdon Community Health	Southwark Provider Services
Hounslow and Richmond Community Healthcare	Tower Hamlets Community Health Services
Lambeth Community Health	
Mental health trust	
Barnet, Enfield and Haringey Mental Health NHST	North East London NHS Foundation Trust
Camden and Islington NHS Foundation Trust	South London and Maudsley NHS Foundation Trust
Central and North West London NHS Foundation Trust	South West London and St Georges Mental Health NHS Trust
East London NHS Foundation Trust	West London Mental Health NHS Trust
Primary care commissioners	
Hounslow Primary Care Trust	NHS Kensington and Chelsea
NHS Barking and Dagenham	NHS Kingston
NHS Barnet	NHS Lambeth
NHS Brent	NHS Lewisham
NHS Camden	NHS Redbridge
NHS Croydon	NHS Waltham Forest
NHS Greenwich	NHS Westminster
NHS Havering	Southwark PCT
NHS Islington	
NHS North East	
Acute	
City Hospitals Sunderland NHS Foundation Trust	Northumbria Healthcare NHS Foundation Trust
County Durham and Darlington NHS Foundation Trust (Darlington Memorial Hospital)	South Tees Hospitals NHS Trust
County Durham and Darlington NHS Foundation Trust (University Hospital of North Durham)	South Tyneside NHS Foundation Trust
Gateshead Health NHS Foundation Trust	The Newcastle Upon Tyne Hospitals NHS Foundation Trust
North Tees and Hartlepool NHS Foundation Trust	
Combined healthcare organisation	
Gateshead Primary Care Trust	South Tyneside PCT
NHS County Durham	Sunderland Teaching Primary Care Trust
NHS Darlington	
Community service providers	
Hartlepool Community Services	Newcastle Community Provider Services
Middlesbrough, Redcar and Cleveland PCTs and Community Services	North Tees Community Services
Mental health trust	
Northumberland, Tyne and Wear NHS Trust	Tees, Esk and Wear Valleys NHS Foundation Trust

Primary care commissioners

NHS Hartlepool	NHS Redcar and Cleveland
NHS Middlesbrough	NHS Stockton-on-Tees
NHS Newcastle Primary Care Trust	Northumberland Care Trust

NHS North West**Acute**

Aintree University Hospitals NHS Foundation Trust	Stockport NHS Foundation Trust
Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust	Tameside Hospital NHS Foundation Trust
Central Manchester University Hospitals NHS Foundation Trust	The Pennine Acute Hospitals NHS Trust (Fairfield General Hospital)
Countess of Chester Hospital	The Pennine Acute Hospitals NHS Trust (North Manchester General Hospital)
East Cheshire NHS Trust	The Pennine Acute Hospitals NHS Trust (Rochdale Infirmary)
East Lancashire Hospitals NHS Trust	The Pennine Acute Hospitals NHS Trust (Royal Oldham Hospital)
Hull and East Yorkshire Hospitals NHS Trust	The Royal Liverpool and Broadgreen University Hospitals
Lancashire Teaching Hospital NHS Foundation Trust	Trafford Healthcare NHS Trust
Mid Cheshire Hospitals NHS Foundation Trust	University Hospital of South Manchester NHS Foundation Trust
North Cumbria Acute Hospitals NHS Trust (Cumberland Infirmary)	University Hospitals of Morecambe Bay NHS Trust (Furness General Hospital)
North Cumbria Acute Hospitals NHS Trust (West Cumberland Hospital)	University Hospitals of Morecambe Bay NHS Trust (Royal Lancaster Infirmary)
Royal Bolton Hospital NHS Foundation Trust	Warrington and Halton Hospitals NHS Foundation Trust
Salford Royal Hospitals NHS Foundation Trust	Wirral University Teaching Hospital NHS Foundation Trust
Southport and Ormskirk Hospital NHS Trust	Wrightington, Wigan and Leigh NHS Foundation Trust
St Helens and Knowsley Hospitals NHS Trust	

Combined healthcare organisation

NHS Ashton, Leigh and Wigan	NHS North Lancashire
NHS Central Lancashire	NHS Stockport
NHS East Lancashire	NHS Western Cheshire Community Care and Western Cheshire PCT
NHS Knowsley	

Community service providers

Bury Community Services	NHS Halton and St Helens- provider services
Cheshire East Community Health	NHS Liverpool - Community Health
Heywood, Middleton and Rochdale Community Healthcare	NHS Warrington - Community Services Unit
Mancunian Community Health (South)	Oldham Community Health Services
NHS Blackburn and Darwen - Provider Services Unit	Salford Community Health Services
NHS Blackpool - Community Health Services	

Mental health trust

5 Boroughs Partnership NHS Trust	Lancashire Care NHS Foundation Trust
Calderstones NHS Trust	Manchester Mental Health and Social Care Trust
Cheshire and Wirral Partnership NHS Foundation Trust	Mersey Care NHS Trust
Cumbria Partnership NHS Foundation Trust	Pennine Care NHS Foundation Trust
Greater Manchester West Mental Health NHS Foundation Trust	

Primary care commissioners

Central and Eastern Cheshire Primary Care Trust	NHS Manchester
Liverpool Primary Care Trust	NHS Oldham
NHS Blackburn and Darwen	NHS Sefton

NHS Blackpool
NHS Heywood, Middleton and Rochdale

Specialist hospital

The Walton Centre NHS Trust

NHS Tameside and Glossop
Salford Primary Care Trust

NHS South Central

Acute

Basingstoke and North Hampshire NHS Foundation Trust
Buckinghamshire Hospitals NHS Trust
Heatherwood and Wexham Park Hospitals NHS Foundation Trust
Milton Keynes NHS Foundation Trust
Oxford Radcliffe Hospitals NHS Trust

Portsmouth Hospitals NHS Trust
Royal Berkshire NHS Foundation Trust
Southampton University Hospitals NHS Trust
Winchester and Eastleigh Healthcare NHS Trust

Combined healthcare organisation

Isle of Wight NHS Primary Care Trust

Portsmouth City Primary Care Trust

Community service providers

Berkshire East Community Health Services (Bracknell Forest)
Berkshire East Community Health Services (Slough)
Berkshire East Community Health Services (Windsor, Ascot and Maidenhead)
Hampshire Community Health Care - North East
Hampshire Community Health Care - South East Area
Hampshire Community Health Care - West

Milton Keynes Community Health Services
NHS Berkshire West - Community Health
Oxfordshire Primary Care Trust - Community Health Services
Solent Healthcare (Southampton)
South Downs NHS Trust

Mental health trust

Berkshire Healthcare NHS Foundation Trust
Hampshire Partnerships NHS Foundation Trust

Oxfordshire and Buckinghamshire Mental Health NHS Foundation Trust
Ridgeway Partnership NHS Trust

Primary care commissioners

NHS Berkshire East
NHS Berkshire West
NHS Buckinghamshire

NHS Hampshire
NHS Milton Keynes
Oxfordshire PCT

NHS South East Coast

Acute

Ashford and St Peter's Hospital NHS Trust
Brighton and Sussex University Hospitals NHS Trust
Dartford and Gravesham NHS Trust
East Kent Hospitals University NHS Foundation Trust
East Sussex Hospitals NHS Trust (Conquest Hospital)
East Sussex Hospitals NHS Trust (Eastbourne District General Hospital)
Frimley Park Hospital NHS Foundation Trust

Maidstone and Tunbridge Wells NHS Trust (Kent and Sussex Hospital)
Maidstone and Tunbridge Wells NHS Trust (Maidstone Hospital)
Medway NHS Foundation Trust
Royal Surrey County Hospital NHS Trust
Surrey and Sussex Healthcare NHS Trust
Western Sussex Hospitals Trust (St Richard's Hospital)
Western Sussex Hospitals Trust (Worthing Hospital)

Combined healthcare organisation

NHS East Sussex Downs and Weald

NHS Hastings and Rother

Community service providers

Eastern and Coastal Kent Community Services
Medway Community Healthcare
Surrey Community Health - East

Surrey Community Health - North West
Surrey Community Health - South West
West Kent Community Services

Mental health trust

Kent and Medway NHS and Social Care Partnership Trust

Surrey and Borders Partnership NHS Foundation Trust

Primary care commissioners

Brighton and Hove Primary Care Trust

NHS West Kent

NHS Eastern and Coastal Kent

West Sussex Primary Care Trust

NHS Medway

NHS South West

Acute

Dorset County Hospital NHS Foundation Trust

Royal Devon and Exeter NHS Foundation Trust

Gloucestershire Hospitals NHS Foundation Trust
(Cheltenham General Hospital)

Royal United Hospital Bath NHS Trust

Gloucestershire Hospitals NHS Foundation Trust
(Gloucestershire Royal Hospital)

Salisbury NHS Foundation Trust

Great Western Hospitals NHS Foundation Trust

South Devon Healthcare NHS Foundation Trust

North Bristol NHS Trust

Taunton and Somerset NHS Foundation Trust

Northern Devon Healthcare NHS Trust

The Royal Bournemouth and Christchurch Hospitals NHS
Foundation Trust

Plymouth Hospitals NHS Trust

University Hospitals Bristol NHS Foundation Trust

Poole Hospital NHS Foundation Trust

Weston Area Health Trust

Royal Cornwall Hospitals NHS Trust

Yeovil District Hospital NHS Foundation Trust

Combined healthcare organisation

NHS Bath and North East Somerset

NHS Somerset

NHS Bournemouth and Poole

North Somerset Primary Care Trust

NHS Bristol

South Gloucestershire Primary Care Trust

NHS Plymouth

Swindon Primary Care Trust

Community service providers

Dorset Community Health Services

NHS Gloucestershire - Gloucestershire Care Services

NHS Cornwall and Isles of Scilly - Community Services

NHS Wiltshire - Community Health Services

NHS Devon Provider Services

Torbay Care Trust - Provider Services

Mental health trust

2gether NHS Foundation Trust

Dorset Healthcare NHS Foundation Trust

Avon and Wiltshire MH Partnership NHS Trust

Somerset Partnership NHS Foundation Trust

Cornwall Partnership NHS Trust

Primary care commissioners

NHS Cornwall and Isles of Scilly

NHS Gloucestershire

NHS Devon

NHS Wiltshire

NHS Dorset

NHS West Midlands

Acute

Burton Hospitals NHS Trust

The Royal Wolverhampton Hospitals NHS Trust

George Eliot Hospital NHS Trust

The Shrewsbury and Telford Hospital NHS Trust
(The Princess Royal Hospital)

Heart of England NHS Foundation Trust (Good Hope Hospital)

The Shrewsbury and Telford Hospital NHS Trust
(The Royal Shrewsbury Hospital)

Heart of England NHS Foundation Trust (Heartlands Hospital)

University Hospital Birmingham NHS Foundation Trust

Hereford Hospitals NHS Trust

University Hospital of North Staffordshire NHS Trust

Mid Staffordshire NHS Foundation Trust

University Hospitals Coventry and Warwickshire NHS
Trust

Sandwell and West Birmingham Hospitals NHS Trust
(City Hospital)
Sandwell and West Birmingham Hospitals NHS Trust
(Sandwell Hospital)
South Warwickshire General Hospitals NHS Trust

The Dudley Group of Hospitals NHS Foundation Trust

Combined healthcare organisation

Heart of Birmingham Teaching Primary Care Trust
NHS Warwickshire
Sandwell Primary Care Trust and Sandwell Community
Healthcare Services

Community service providers

Coventry Community Health Services
Dudley Community Services
Herefordshire PCT - Provider Services
NHS North Staffordshire - Community Health
NHS Stoke on Trent Community Healthcare Services

Mental health trust

Birmingham and Solihull Mental Health NHS Foundation Trust
Coventry and Warwickshire Partnership NHS Trust

Dudley and Walsall Mental Health Partnership Trust

Primary care commissioners

NHS Birmingham East and North
NHS Coventry
NHS Dudley
NHS Herefordshire
NHS South Birmingham
NHS Stoke on Trent

Walsall Hospitals NHS Trust

Worcestershire Acute Hospitals NHS Trust
(The Alexandra Hospital)
Worcestershire Acute Hospitals NHS Trust
(Worcestershire Royal Hospital)

Solihull NHS Care Trust
Telford and Wrekin Primary Care Trust
Wolverhampton City Primary Care Trust

NHS Walsall - Community Heath
NHS Worcestershire - Provider Services
Shropshire PCT - Community Services
South Birmingham Community Health
South Staffordshire Primary Care Trust - Provider

Sandwell Mental Health NHS and Social Care Trust
South Staffordshire and Shropshire Healthcare NHS
Foundation Trust
Worcestershire Mental Health Partnership NHS Trust

NHS Walsall
NHS Worcestershire
North Staffordshire Joint Commissioning Unit
Shropshire County Primary Care Trust
South Staffordshire Joint Commissioning Unit

NHS Yorkshire and the Humber

Acute

Airedale NHS Trust
Barnsley Hospital NHS Foundation Trust
Bradford Teaching Hospitals NHS Foundation Trust
Calderdale and Huddersfield NHS Foundation Trust
Doncaster and Bassetlaw Hospitals NHS Foundation Trust
Harrogate and District NHS Foundation Trust

Scarborough & North East Yorkshire Healthcare NHS Trust
Sheffield Teaching Hospitals Health NHS Foundation Trust
The Leeds Teaching Hospitals NHS Trust
The Mid Yorkshire Hospitals NHS Trust
The Rotherham NHS Foundation Trust
York Hospitals NHS Foundation Trust

Combined healthcare organisation

NHS Hull
North East Lincolnshire Care Trust Plus

North Yorkshire and York Primary Care Trust

Community service providers

Bradford and Airedale Community Health Services
Doncaster Primary Care Trust Provider Service
Leeds Community Healthcare
NHS Barnsley Care Services Direct
NHS Calderdale - Provider Services

NHS East Riding of Yorkshire - Community Services
NHS North Lincolnshire - Community Services
NHS Rotherham - Community Health Services
NHS Sheffield - Provider Services

Mental health trust

Bradford District Care Trust	Rotherham Doncaster and South Humber Mental Health NHS Foundation Trust
Humber NHS Foundation Trust	Sheffield Health and Social Care
Leeds Partnerships NHS Foundation Trust	South West Yorkshire Mental Health NHS Trust

Primary care commissioners

Doncaster PCT	NHS Leeds Primary Care Trust
NHS Barnsley	NHS North Lincolnshire
NHS Bradford and Airedale	NHS Rotherham
NHS Calderdale	NHS Sheffield
NHS East Riding of Yorkshire	NHS Wakefield District
NHS Kirklees	

Northern Ireland

Acute

South Eastern Health and Social Care Trust

Combined healthcare organisation

Belfast Health and Social Care Trust	Southern Health and Social Care Trust (Daisy Hill Hospital)
Northern Health and Social Care Trust	Western Health and Social Care Trust
Southern Health and Social Care Trust (Craigavon Area Hospital)	

Wales

Combined healthcare organisation

Abertawe Bro Morgannwg University NHS Trust (Neath Port Talbot Hospital)	Cardiff and Vale University Health Board
Abertawe Bro Morgannwg University NHS Trust (Princess of Wales Hospital)	Cwm Taf NHS Trust (Prince Charles Hospital)
Abertawe Bro Morgannwg University NHS Trust (Singleton/Morrison Hospital)	Cwm Taf NHS Trust (Royal Glamorgan Hospital)
Aneurin Bevan Health Board (Nevill Hall Hospital)	Hywel Dda Local Health Board (Bronglais General Hospital)
Aneurin Bevan Health Board (St Woolos Hospital)	Hywel Dda Local Health Board (Prince Philip Hospital)
Betsi Cadwaladr University Local Health Board (Glan Clwyd Hospital)	Hywel Dda Local Health Board (West Wales General Hospital)
Betsi Cadwaladr University Local Health Board (Wrexham Medical Institute)	Hywel Dda Local Health Board (Withybush General Hospital)
Betsi Cadwaladr University Local Health Board (Ysbyty Gwynedd and Llandudno General Hospital)	Powys Teaching Health Board

Care homes

Appletree Grange Care Home

Ashby House Care Home

Ashfields Care Home

Atfield House Care Home

Barnfield

Beeston View Care Home

Bethune Court

Borage House

Bradshaw Manor Care Home

Brookfield

Canmore Lodge Care Home

Castle Park

Castle Rise Care Home

Chalfont Lodge Care Centre

Challoner House Care Centre

Chater Lodge Care Home

Chester Court Care Home

Corinna Lodge Care Home

Drummond Grange Care Home

Edgbaston Beaumont Care Community

Elderwood

Falcon Place

Field House

Friston House Care Centre

Gryphon Place

Hafan Y Coed Care Home

Henford House Care Home

Heyberry House

Highfield Care Home

Hilderstone Hall

Holmpark

Hundens Park Care Home

Iddenshall Hall Care Home

Kenwyn Care Home

Keswick

Kirklands

Lakeside Care Home

Landemere Residential Home

Laurel Bank Care Home

Limegrove

Lindum House Care Home

Llys Y Tywysog Care Home

Longueville Court Care Home

Manor Care Home

Marriott House and Lodge Care Home

Milford House

Milldeane Nursing Home

Mo Dhachaidh Care Home

Monarch Court

Moreton Hill Care Centre

Mount House

Mount Vale

Newington Court Care Home

Newton House

Normanby House

Oakwood House

Ottley House Care Home

Prestbury Beaumont Care Community

Prior Bank

Richmond - Nantwich

Rivermead Care Home

Sandholme Fold

Seaview House Care Home

Silver Court

Simon Marks Court

South Chowdene Care Home

Southgate Beaumont Care Community

St Edith's Court

St Thomas' Care Home

Tandridge Heights Memorial Care Home

The Dales Care Home

Threshfield Court Care Centre

Tyspane Care Home

Warren Care Home

Washington Grange Care Home

West Oak Care Home

Wood Grange Care Home

Woodhorn Park Care Home

Woodland Manor

Participated but not in national figures**Primary care commissioners**

NHS Warrington

Non-participants**Combined healthcare organisation**

Isle of Man

Community service providers

Leicester City Community Health Service	NHS Nottinghamshire County - provider
Luton Community Services	NHS Sefton - Provider Services
NHS Birmingham East and North Community Services	NHS Tameside and Glossop - Provider
NHS Bolton - Provider Services	NHS Wakefield District Community Services
NHS Enfield Provider Services	Northumberland Care Trust- Provider Services
NHS Kirklees - Community Healthcare Services	Trafford Provider Services
NHS Leicestershire County and Rutland - Community Health Services	West Sussex Health
NHS North Tyneside Community Health	

Mental health trusts

Devon Partnership Trust	Suffolk Mental health Partnership Trust
North Yorkshire and York Community Mental Health Trust	Sussex Partnership NHS Foundation Trust

Primary care commissioners

Bexley Care Trust	NHS Leicester City
Herefordshire Primary Care Trust	NHS Leicestershire County and Rutland
Hillingdon Primary Care Trust	NHS Northamptonshire
Luton Teaching Primary Care Trust	NHS Richmond
NHS Bolton	NHS Southampton City
NHS Bromley	NHS Surrey
NHS Bury	NHS Tower Hamlets
NHS Cumbria	NHS Wirral
NHS Enfield	North Tyneside Primary Care Trust
NHS Halton and St Helens	Torbay Care Trust
NHS Haringey	Trafford Primary Care Trust