



Royal College  
of Physicians

Coleg Brenhinol  
y Meddygon (Cymru)



# Physicians on the front line

The medical  
workforce in  
Wales in 2016

Mission:  
Health

## Foreword

The Royal College of Physicians (RCP) president, Professor Jane Dacre, recently warned that today's NHS is 'underdoctored, underfunded and overstretched'.<sup>1</sup> These observations apply as much to Wales as to the rest of the UK. For the Welsh NHS to achieve its full potential to serve the people of Wales, it requires adequate resources and a committed, fully operational and integrated healthcare workforce, allied with good morale and professional satisfaction.

Wales suffers from recruitment and retention issues among the medical workforce, at both senior and junior levels. The issues underpinning these problems are varied and complex, and include geography, negative perceptions and a lack of inducements to encourage doctors to follow a career in Wales. The RCP in Wales believes that there are many initiatives that we could and should adopt to overcome these issues. I hope these ideas stimulate debate and discussion and result in action.

### Delivering change in Wales

In 2014, the RCP published *Rising to the challenge: Improving acute care, meeting patients' needs in Wales*, which interprets the Future Hospital vision for the Welsh health service.<sup>2</sup> Through our 'local conversation' visits to hospitals across Wales, we have gathered numerous case studies where fellows and members are driving forward the Future Hospital vision and improving patient care.

Ahead of the National Assembly for Wales election in 2016, the RCP also launched *Focus on the future: Our action plan for the next Welsh government*, in which we argued that the case for change is clear.<sup>3</sup> Those working in the NHS have a responsibility to lead this change, supported by the organisations that represent them and empowered by national policymakers. Organisations and professionals involved in health and social care – including doctors, nurses, politicians, hospitals and national bodies – must be prepared to make difficult decisions and implement radical change where this will improve patient care.

**Dr Alan Rees MD FRCP**

Outgoing RCP vice president for Wales

## At a glance

- > The health sector employs an estimated 129,000 workers. This equates to 8% of jobs in Wales.<sup>4</sup>
- > The NHS Wales workforce accounts for 62% of health boards' expenditure, or almost £3 billion a year.<sup>5</sup>
- > The medical workforce makes up 8.5% of the total NHS workforce in Wales.
- > The NHS in Wales spends around £350 million to support approximately 15,000 students and trainees undertaking health-related education programmes.<sup>6</sup>
- > A third of core medical training (CMT) places were unfilled in Wales in 2016.<sup>7</sup>
- > Only 30% of Welsh medical school undergraduates are Welsh domiciled. This compares with 85% in Northern Ireland, 80% in England and 55% in Scotland.<sup>8</sup>
- > Only 39.5% of trainee physicians in Wales would recommend medicine to a school leaver.<sup>9</sup>
- > In 2015, 39.8% of consultant physician appointments in Wales could not be made.<sup>9</sup>
- > Only 43.7% of consultant physicians contribute to the acute rota in Wales.<sup>9</sup>
- > Almost half of the consultant physicians in Wales say that there are times when they feel as though they are working under excessive pressure.<sup>9</sup>
- > Only 76.7% of trainee physicians in Wales say that they are satisfied with their career choice.<sup>9</sup>
- > The NHS Wales spend on agency medical staff has risen by 64% since 2014–15 and is projected to exceed £8 million by the end of 2016.<sup>10</sup>

## Time for action

The NHS in Wales is facing a number of urgent challenges. Hospitals are struggling to cope with the combination of an ageing population and increasing hospital admissions. Between 2005 and 2014, the population of Wales increased from around 2.97 million to 3.09 million, and it is projected to increase to over 3.3 million in 2036.<sup>11</sup> In 2014, one in five Welsh residents were over 65 years old and Wales has a higher proportion of people aged 85 or older than the rest of the UK.<sup>12</sup>

All too often, our most vulnerable patients – including those who are old, who are frail or who have dementia – are failed by a system that is ill-equipped and seemingly unwilling to meet their needs. Furthermore, levels of ill health increase with levels of area deprivation. In general, those in the most deprived areas report the worst health.<sup>13</sup> Wales has the highest rates of long-term limiting illness in the UK, and this accounts for a large proportion of unnecessary emergency admissions to hospital. Around half the adults in Wales are being treated for an illness or condition such as high blood pressure, heart disease, arthritis, respiratory illness, mental illness or diabetes, and a third report a limitation in their daily activities due to a health problem or disability.<sup>14</sup> One in five adults reports fair or poor general health and the percentage who report being treated for specified illnesses generally increases with age.<sup>13</sup>

The rural geography of much of Wales means that some medical services are spread very thinly. This is having a negative effect on the quality of training and on workforce recruitment in some specialties. In addition, patient expectations are increasing as financial constraints grow ever tighter and, while advances in technology can save lives, the cost of providing specialist acute care continues to rise.

Legislative changes to working hours mean that we need more junior doctors to cover hospital rotas. This has happened at the same time as a reduction in training time due to the Modernising Medical Careers programme, and a fall in international medical graduates coming to the UK. In 2011, almost half of the higher specialty trainee physicians told us that since the introduction of the European Working Time Directive, the quality of both training and patient care was worse or much worse.<sup>15</sup>

As the population grows older, and an increasing number of people develop complex chronic conditions, there is an increased need for consultants with qualifications in general internal medicine so that patients can be managed holistically. However, in Wales, only 43.7% of consultant physicians contribute to the acute rota while 52% participate in the general medical rota.<sup>9</sup> There is also a great deal of variation between RCP specialties. For example, almost all consultants working in stroke, respiratory or acute internal medicine in Wales participate in the acute take.

However, the figures for renal medicine (36.4%) and cardiology (36.8%) are much lower, and in some specialties, there are no consultants at all who participate in the acute take in Wales.<sup>9</sup> In the future, the acute admissions workload will need to be more evenly distributed between all specialties in order to allow more flexibility and prevent the unmanageable workload of acute medicine falling on the few.

At the same time, the composition of the workforce is also changing. More consultants are working flexibly or part time. To some extent, this is because there are now more women in the medical workforce – between 2007 and 2012, the number of female doctors under 30 years old increased by 18%, and in 2012, 61% of doctors under 30 years old were women.<sup>16</sup> The 2015 census of consultant physicians found that 33.3% of female consultants in Wales work part time, compared with 8.8% of male consultants. This trend in changing working patterns raises issues about the total number of doctors that will be required in the future if the proportion of those working part time continues to grow. If a consultant works part time, their relative contribution to the acute medical take can vary hugely. We will need to see an increase in training posts to allow for an increase in less-than-full-time working in the future.

It is worth noting that there are difficulties recruiting for many specialties in most parts of the UK, not just in Wales, and 72.7% of higher specialty trainees would still choose to train in Wales if they could turn back time.<sup>9</sup> However, there are trainee vacancies in every acute hospital rota in Wales, and last year, the NHS in Wales was unable to fill 39.8% of the consultant physician posts it advertised.<sup>17</sup> In a majority of cases, health boards were unable to appoint because there were simply no applicants.

### The complexity of the challenge

**The RCP report *Hospitals on the edge*<sup>7,18</sup> set out the magnitude and complexity of the challenges facing healthcare staff across the UK, and the impact that this can have on patient care. It described:**

- > **a health system ill-equipped to cope with an ageing population with increasingly complex clinical, care and support needs**
- > **hospitals struggling to cope with an increase in clinical demand**
- > **a systematic failure to deliver coordinated, patient-centred care, with patients forced to move between beds, teams and care settings with little communication or information sharing**
- > **health services, including hospitals, that struggle to deliver high-quality services across 7 days, particularly at weekends**
- > **a looming crisis in the medical workforce, with consultants and trainee doctors under increasing pressure. ■**

## Underfunded, underdoctored, overstretched **Key recommendations**

The NHS offers some of the highest-quality, most efficient and most accessible healthcare in the world, coming top of the Commonwealth Fund ranking of world health systems.<sup>19</sup> The UK has a long tradition of medical innovation,<sup>20</sup> and doctors working across the NHS continue to make ground-breaking medical discoveries that change the way we treat disease and care for patients. Our clinical guidelines are exported around the globe, and we attract international doctors with our world-renowned programmes of medical education and training.

That's a lot to be proud of. However, it's no excuse for complacency. The RCP has long argued that we need to rethink the way we deliver healthcare: breaking down barriers between hospitals and the community, and working in partnership with patients to deliver joined-up care.<sup>21</sup> To achieve this, we need a health service that is funded to meet the demands placed on it by our growing population.

The NHS budget has not kept pace with rising demand for services. Nor do we train enough doctors. The number of medical students has fallen and there is a shortage of doctors training to be medical specialists. More than a third of higher specialty trainees in Wales regularly or occasionally act down to cover rota gaps.<sup>9</sup> This workforce crisis has had a knock-on effect on consultant posts, with Welsh health boards failing to fill two in five of the posts that they advertise.<sup>9</sup>

NHS staff increasingly feel like collateral damage in the battle between rising demand and squeezed budgets – and when NHS staff wellbeing suffers, patient safety and experience suffer too. Overall, 95% of UK RCP trainee doctors report that poor staff morale is having a negative impact on patient safety in their hospital.<sup>22</sup>

The Welsh NHS needs a new long-term vision – no more quick fixes or temporary solutions. We need urgent action to address the immediate impact of an underfunded, underdoctored and overstretched NHS. The RCP believes patients deserve an NHS that is funded and staffed to meet their needs, now and in the future.

The RCP has identified the following key priorities:

### Show vision and national leadership

- > Develop an ambitious long-term vision for the NHS in Wales.
- > Increase investment in new models of integrated health and social care.
- > Develop a national medical workforce and training strategy.
- > Show national leadership on the balance between service and training.
- > Work with physicians to redesign acute and specialist medical services.
- > Ensure that hospitals work within formal, structured alliances to deliver integrated care.
- > Establish the role of chief of medicine, supported by a chief registrar.
- > Publicly support and promote the patient-centred Future Hospital model of care.
- > Increase health spending and invest in clinically led innovation and prevention.

### Invest in the medical workforce

- > Take a strategic approach to workforce planning.
- > Ensure that the acute admissions workload is more evenly distributed between all specialties.
- > Train a greater proportion of doctors in the skills of general medicine.
- > Support physicians working in non-training jobs to develop their careers.
- > Invest in data collection to provide a robust evidence base for medical recruitment planning.
- > Make staff health and wellbeing a national priority.

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## Support the clinical leaders of the future

- > Promote Wales as an excellent place to live and work as a doctor.
- > Focus on addressing recruitment and training challenges.
- > Increase the number of undergraduate and postgraduate training posts in Wales.
- > Develop training pathways specialising in rural and remote healthcare in Wales.
- > Increase the number of medical school places offered to Welsh domiciled students.
- > Improve the support available to junior doctors in rural areas.
- > Invest in clinical leadership and training programmes.
- > Appoint chief registrars in every health board to give trainees a voice.

## Develop a new way of working

- > Encourage health boards to implement the RCP Future Hospital workforce model.
- > Deliver more specialist medical care in the community.
- > Invest in new innovative ways of working across the entire health and social care sector.
- > Lead the way by developing new integrated workforce models in rural communities.
- > Develop the role of community physician.
- > Address nurse shortages and develop other clinical roles in the NHS workforce.
- > Further embed telemedicine into everyday practice.

## The need for national leadership

Patients deserve access to high-quality care from a well-qualified workforce. Equally, doctors and other health professionals deserve to work in well-supported environments, with staffing levels that promote safe, high-quality effective care and enable them to progress their careers.

A perfect storm is fast approaching: to combat the growing medical recruitment crisis, increasing locum and agency costs and an over-reliance on trainee doctors, the NHS in Wales must be given the power and resources to develop radical solutions and take collective action, supported by strong government commitment and national leadership.

### A vision for the future

A clear, refreshed strategic vision for NHS Wales should be developed. Successive reviews in the past few years have repeated this same call to action (including the Health Professional Education Investment Review<sup>23</sup> and the Jenkins review of the NHS workforce in Wales<sup>24</sup>) and yet it is still not clear how the Welsh government intends to work with patients and clinicians to do this.

The Welsh government must now lead the development of a long-term plan for the future of the Welsh health service. Ministers must show national leadership to create stability and support the long-term transformation of the health service. This will require better communication and real investment, especially in clinical delivery plans. All spending decisions should be underpinned by a long-term objective to increase investment in new models of integrated health and social care. Above all, we need a clear vision of how the service will look in the future in order to plan effective medical training.

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**A sustainable workforce is the biggest challenge facing NHS Wales in the coming years ... There are well-publicised concerns about staff shortages in some areas, and whether the right numbers and roles of medical and healthcare staff are being recruited and retained to provide care in the future.<sup>25</sup>**

## Planning the medical workforce

More specifically, there is currently no real national strategic approach to medical workforce planning in Wales. Over the years, this has contributed to recruitment and retention challenges in the medical workforce, especially among trainee doctors. As a matter of urgency, the Welsh government must work with the NHS and medical education bodies to develop a clinically led national medical workforce and training strategy which ensures that staff are deployed and trained effectively, now and in the future. Wales has a real opportunity to develop an innovative model, and we urge that clinical leadership be placed at the very centre of that process.

The Welsh government, health boards and medical education providers must acknowledge the delicate balance between service needs and training issues and develop innovative workforce models. Every hospital in Wales depends on its trainees and there are huge implications when a unit loses its training status. Physicians working in rural and remote hospitals should be supported by colleagues working in other hospitals, not only with service provision, but also with teaching time. Hospitals across Wales should work as a collection of formal, structured alliances operating hub-and-spoke or integrated care networks. Politicians must show national leadership and support innovative solutions to keep these units sustainable.

## Patient-centred service change

Reconfiguration must be patient centred, clinically led and evidence based. It must not be solely about cutting costs. Hospital services must be redesigned using a whole-system approach and secondary care clinicians should be at the very centre of this service planning. Hospitals and health boards should establish the role of chief of medicine, supported by a chief registrar, providing a direct clinical link between management, physicians and trainees.

Ministers should publicly support and promote the patient-centred Future Hospital model as a template for clinically led service redesign. The Welsh government should talk to local health and social care services about how they are embedding Future Hospital principles. Health planners should support clinicians by removing barriers to delivering the future hospital. The RCP will continue to work directly with health boards and clinicians by sharing good practice from Future Hospital partners across the UK.

All of this will need a drastic change in mindset. The RCP has long called for more clinical leadership and engagement, and more joined-up thinking between service planning and training needs. Now it is time to rethink how the future NHS workforce will train, develop their skills and practise medicine.

## On the front line: What do consultant physicians do?

A consultant physician is a senior doctor who practises in one of the medical specialties. Once specialty training has been completed, doctors are able to apply for consultant posts. The typical consultant physician's time may be split between working with inpatient teams, in outpatient clinics, undertaking procedural lists and seeing newly admitted patients.

- > **Responsibilities to inpatients.** A consultant physician will have ultimate responsibility for any inpatients assigned to their care. They lead the inpatient team, and help to resolve ongoing issues regarding diagnosis, treatment and discharge decisions.
- > **Outpatient clinics.** Patients referred, typically from primary care, are seen by consultant physicians for specialist advice. These clinics could be for general advice or around a specific condition or complaint.
- > **Procedural lists.** Many specialties have procedural lists that consultant physicians are expected to undertake, such as colonoscopy (gastroenterology) or bronchoscopy (respiratory).
- > **The acute take.** Many consultants will have responsibility for all patients admitted to a hospital over a set time period. These patients will be seen and the physician will ensure a diagnosis and appropriate management plan are agreed.

The role differs greatly between specialties due to the nature of the work. For example, some consultant physicians have no assigned inpatients to their care and spend the majority of their time in outpatient clinics. They are often available for advice and consultation.

The work of the consultant goes beyond direct patient care. Consultant physicians are also expected to be involved in the teaching and training of students and junior doctors and to supervise the clinical and educational development of trainee physicians. They must also ensure that their own learning is contemporary by undertaking professional development and continuing to learn new skills and procedures. They may contribute to the understanding of their specialty through research.

It is usual for consultant physicians to take on leadership responsibilities, such as coordinating a rota for the team or developing policies for the department. They may also undertake a more formal role with the health board, such as clinical director; with the RCP, such as college tutor; or with the deanery, such as training programme director. ■

**Dr Richard Gilpin and Dr Charlotte Williams**  
Trainee physicians, NHS Wales

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**Medical staff recruitment problems are threatening the existence of many hospitals and general practices in Wales. We need to train more doctors and nurses in Wales with the aim of retaining them to work in Wales. The tension between service and training needs to be addressed by developing a national workforce strategy.**

**Consultant physician in Wales**

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We need to move away from a workforce model in which we invest in either primary or secondary care, and towards more integrated team working – the hospital without walls – where specialists hold more of their clinics in the community, and GPs spend part of their time working with colleagues at the front door of the hospital. It's also important to remember that 80% of health professionals who will be delivering care in 10 years are already working in the NHS today.<sup>5</sup> We need to build on the skillset of our current workforce to deliver new models of care in the future.

## **Investing in a new way of working**

The level of funding for the health service is a political choice. Based on estimates by the Nuffield Trust that there could be an unprecedented funding gap of £2.5 billion by 2025/26 in Wales,<sup>12</sup> the Welsh government will need to increase health spending. However, it is vital that this money does not go towards propping up the old, broken system. Ministers must promote innovative models of integration and introduce shared budgets that establish shared outcomes across the local health and care sector. Spending money on the existing system will not change anything in the long term; health boards must invest in prevention and treatment of chronic conditions and allow clinicians to innovate.

The Welsh government must promote informed public debate on local health service redesign, nationally and locally. Politicians in all parties have a real responsibility to support clinically led, evidence-based change that will deliver better care for patients. Health boards and the Welsh government must ensure that change is genuinely led by patients and clinicians, and not presented as a 'done deal' at a late stage in the planning process.

## **Investing in the medical workforce**

Workforce planning must be a key priority. General medicine must be valued and urgent action taken to ensure that more physicians contribute to the acute take.

The Welsh government must work with colleagues in the NHS, postgraduate and undergraduate medical schools, and the royal colleges to assess how the current medical workforce needs to adapt to deliver the future model of care required by patients. The medical workforce will need to adapt to deliver continuity of care and the integration of hospital and community care in a sustainable fashion. The shape and skillset of the workforce required must be defined at a national and local level.

## **Taking a strategic approach**

The UK has fewer doctors per head than almost every other major EU country.<sup>1</sup> Together with a shortage of nurses,<sup>26</sup> this has left our hospitals chronically understaffed, which increases pressure on hard-working NHS staff, puts patients at risk and threatens the future of the NHS. We need immediate action to relieve the current pressure on the NHS workforce, and a brave, coordinated plan to ensure that the NHS is staffed and sustainable in the long term.

The Welsh NHS needs to start planning now to ensure a strong medical workforce for the future. Over the coming years, we will need more general physicians, especially as we work towards delivering more specialist care in the community.

It is vital that we join up workforce planning with service reconfiguration. Education and training strategies should be aligned with 2017–18 NHS Wales integrated medium-term plans.<sup>25</sup> We need to take a national look at the future of our health service: it is likely that post-reconfiguration in Wales, we will have a smaller number of major acute hospitals providing specialist care, with other smaller sites providing ongoing secondary care, as well as an increased provision of community care.

## **Spreading the load**

RCP consultants and trainees manage the bulk of adult emergency medical admissions into our hospitals in Wales and almost all out-of-hours cover for adult wards. Many combine general medicine with another specialty such as cardiology, stroke or respiratory medicine. Physicians care for a wide variety of patients who may be suffering from any of a number of common disorders, may have multiple conditions or complex needs, or may represent a diagnostic puzzle; it is the physician's responsibility to coordinate these patients' continuing care.

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## The sector also continues to raise concerns about the sustainability of the medical workforce in acute (hospital) services. Local health boards report that some specialties are difficult to recruit ... The shortage of adequately-trained medical staff has led to some services being considered unsafe.<sup>28</sup>

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However, more and more consultants are choosing to opt out of the acute medical take. In 2012, the majority of unselected acute and general medical patient care in Wales was carried out by physicians practising in only six of the thirty RCP specialties.<sup>27</sup> Furthermore, the latest census shows that 58.5% of higher specialty trainees in Wales would not choose to train in general medicine if they could turn back time.<sup>9</sup>

General internal medicine is increasingly perceived to be a high-stress specialty with an extremely high workload. In Wales, 48.5% of consultant physicians say that there are times when

they feel as though they are working under excessive pressure, with 35.4% saying that this happens often. Most concerning, 92.3% of consultant physicians tell us that they sometimes, often or always find themselves doing jobs that would previously have been done by a junior doctor.<sup>9</sup>

In 2016, the NHS in Wales was unable to fill 39.8% of the consultant physician posts it advertised.<sup>17</sup> This failure to appoint is even higher for in-demand roles focused on caring for acutely ill and older people.<sup>29</sup> Despite the continuing increase in demand for experts in geriatric medicine, the number of training places for this specialty fell in 2015.<sup>29</sup>

The acute admissions workload should be more evenly distributed between all specialties. General internal medicine should be recognised as one of the most important and most challenging specialties in acute care, and urgent action must be taken to transform it into a high status job. A larger number of physicians working in general internal medicine would allow more flexibility and prevent the unmanageable workload of acute medicine falling on the few. This would also provide the best patient care for the growing number of patients with multiple long-term conditions, and is key to the success of the proposed shift from hospital care to community care.

## Reorganising the unscheduled care workforce

**In recent years, Morriston Hospital in Swansea has been experiencing major challenges in delivering unscheduled care services. Doctors were faced with a 100% bed occupancy rate in medicine, a high proportion of medically fit patients occupying acute medical beds and system blockages leading to delayed transfer of care. The medical team decided to address these problems by reorganising their medical workforce and acute medical service using Future Hospital workforce principles.**

The hospital has now restructured its working patterns to ensure greater involvement at the hospital front door during the week and at weekends, with immediate access to all medical specialties, including frail and older peoples' services, and the establishment of an ambulatory care service. This has resulted in improved patient flow, a consultant-delivered inpatient service, and the daily weekday review of patients by a senior doctor, working towards a 7-day service.

Consultants at Morriston have signed up to the following principles: all patients will have a named consultant, doctors will assume clinical leadership for safety, clinical outcome and patient experience, every patient will have a detailed clinical management plan based on continuity of care. Physicians will have an increasing role in general and unscheduled care. A consultant physician will be present in the hospital 12 hours a day, 7 days a week, with a second consultant present at weekends.

To achieve all this, specialty-based ward teams were established.

All the specialties were group job planned and asked to deliver these standards with a particular focus on unscheduled care and inpatient work. This meant that they had to divide the work between themselves and most have rotas with one or two consultants doing predominantly inpatient work for 1 month at a time. The redesign needed significant investment and the health board agreed to the appointment of a number of extra physicians to deliver general medicine with a focus on frail and older patients.

The team at Morriston can list a number of successes so far. There are now consultant ward rounds 5 days a week and the specific standards listed above have largely been achieved. Geriatric medicine provides an in-reach service to the acute medical admissions unit (AMAU). There are also daily retrieval visits to the AMAU by stroke, gastroenterology and respiratory specialists. There are two consultants on call at weekends, a reduction in length of stay, and medical outliers on surgical wards are down to single figures.

Access to the stroke unit has improved. However, medical recruitment is the greatest single challenge we face. We have failed to fill four consultant posts this year. Of 26 core medical training posts, 13 were unfilled in August 2016. Future progress is uncertain unless medical recruitment in Wales can be improved. ■

### Dr David Price

Clinical director of medicine, Morriston Hospital  
Abertawe Bro Morgannwg University Health Board

## Underdoctored: What can we do in the short term?

- **NHS Wales should adopt a more joined-up, nationally coordinated approach to recruitment.**
- **Health boards should invest in physician associate roles which can free up trainee time for education.**
- **Health boards should reinvest unspent trainee money in new roles, eg clinical fellowships.**
- **Community placements for medical students and trainees should be further developed.**
- **Graduate entry into medical school should be encouraged, especially for Welsh domiciled students.**
- **Both undergraduate and postgraduate medical training should focus on long-term conditions.**
- **Accreditation and structured support for teaching hospitals should be considered.**
- **Using technology in a more innovative way, especially in rural areas, should be encouraged.**
- **Rural medicine, especially in mid-Wales, should be developed as an advanced medical specialty.**
- **Develop Certificate of Eligibility for Specialist Registration (CESR) conversion courses with structured mentoring and support for staff and associate specialist doctors.**

Consultants should be required by their employers to complete continuing professional development (CPD) in internal medicine as well as their specialty and the majority of medical trainees should train dually in internal medicine and their specialty, supported by consultant supervision and feedback.<sup>30</sup> Physicians working in non-training middle-grade jobs should also be supported to develop their careers and enhance their professional skills. Health boards must take swift action to prioritise the acute take and ward cover in consultant job plans, although this will need careful planning to ensure that it does not come at the expense of specialty commitments. Health boards must also recognise the risk to the service of losing those consultants who are nearing retirement, and act to retain these senior physicians and their knowledge and experience for as long as possible, especially in more remote hospitals.

## Building the evidence base

The Welsh government, NHS Wales, the Wales Deanery, the royal colleges and universities should work together to invest in data collection which would provide a robust evidence base for medical recruitment strategies and campaigns. We need to better understand the drivers for recruitment and retention. Not enough research has been done so far, and too many decisions are based solely on anecdotal evidence about why we cannot recruit doctors to work in the Welsh NHS.

## A healthy NHS workforce

The Welsh government should invest in the health and wellbeing of its NHS workforce by implementing National Institute for Health and Care Excellence (NICE) public health guidance for employers on obesity, smoking cessation, physical activity, mental wellbeing and the management of long-term sickness. Staff engagement and wellbeing are associated with improved patient care and better patient experience. The Welsh government should consider staff health and wellbeing as part of its medical workforce and training strategy, invest in mentoring and coaching schemes, and promote national sharing of good practice on staff health and wellbeing. Health boards should also take a greater interest in consultant and trainee welfare. Trainees who move between different health board employers on a regular basis report frequent problems as a result, including unreasonable rotas, little notice of shift allocation, inflexible working patterns, payroll errors and missed salary payments, and difficulty getting access to passwords and login details during the changeover between hospitals. These experiences mount up over the years, and can have a considerable negative effect on workforce morale. Having one single employer – NHS Wales – instead of separate health board and trust employers could help to ensure that all junior doctors are treated and valued as long-term NHS employees during the length of their training rotations.

## A new workforce model

**The Royal Glamorgan Hospital in Llantrisant is a district general hospital with around 61,400 emergency department attendances every year. Around 30% are admitted. The board serves a population with extremely high rates of deprivation and faces major recruitment challenges. Only 15% of the medical intake was being managed on an ambulatory basis, and medical patients were often managed on non-medical wards.**

**We decided to create a single medical division, combining medical and emergency care. We defined the skills and competencies needed for each stage of the patient experience, and then designed the workforce around these competencies. We ensured that paramedics were able to refer directly to medicine, increased the number of staff on the rota, and developed the internal medicine team. We also reorganised the nurse teams and developed the role of medical team assistant. The new workforce model has made it easier to recruit, increased ambulatory care to 25% of cases and improved patient satisfaction. It has decreased the time from 999 arrival to consultant physician review, and there are fewer medical patients in non-medical beds. ■**

### Dr Ruth Alcolado

Clinical lead for medical remodelling  
Cwm Taf University Health Board

## Supporting the clinical leaders of the future

Good care in the future depends on good training now. Medical education and training must be prioritised when designing health services. Patients deserve to be cared for by expert doctors.

Trainee and medical undergraduate numbers must be increased. Junior doctors and medical students must be supported and encouraged to stay in Wales by being offered innovative new training pathways, an improved workload, and more opportunities to take part in clinical leadership and quality improvement programmes.

### Underdoctored and overstretched

The UK does not train enough doctors to meet demand. There are fewer medical students now than in 2010,<sup>31</sup> despite an increasing number of patients. The number of qualified doctors training to be medical specialists has also fallen,<sup>29</sup> and in recent years there have been difficulties in filling significant numbers of specialty training posts.<sup>32</sup> The shortage of medical registrars increases the pressure on existing doctors-in-training, discourages CMTs from moving into these roles and compromises patient care.

Wales currently struggles to recruit enough trainees to fill hospital rotas; 33% of core medical trainee places were unfilled in 2016.<sup>7</sup> This problem must be tackled head on; the Welsh government and NHS Wales must take action to promote Wales as an excellent place to live and work as a doctor.

The 2015–16 census found that 16.7% of higher specialty trainees have considered leaving the medical profession entirely in the past year, and only 31.7% think that they are finding an appropriate balance between training in general medicine and in their main specialty.<sup>9</sup> Even worse, 11.6% of higher specialty trainees told us that they rarely enjoy their job, and 62.8% said their job sometimes, often or always gets them down.<sup>9</sup>

**Recruitment problems are threatening the existence of many hospitals and general practices in Wales. We need to train more doctors and nurses in Wales with the aim of retaining them to work here.**

*Consultant physician in Wales*

**The trainee recruitment crisis feels like an oncoming train at the moment ... it is difficult to get hospital management, who are responsible for our day-to-day working, to acknowledge this.**

*Trainee physician in Wales*

### Not so 'junior': The journey from medical student to consultant

- > **5 years at medical school.** After medical students complete their undergraduate medical degree, they enter postgraduate medical training.
- > **2 years of foundation training.** This is the first stage of postgraduate training. Referred to as junior doctors, doctors-in-training or trainees, they work on rotations across the NHS, including in hospitals and GP practices.
- > **2 years of core medical training (CMT).** Trainees have made the choice to become a physician (rather than a GP, surgeon or other type of doctor). They do four to six rotations in different medical specialties. Some medical trainees take a different route and enter the acute care common stem (ACCS), which combines 3 years of acute medicine, critical care, anaesthetics and emergency medicine.
- > **4 years of specialty training (ST).** Trainees have now decided what type of hospital specialist they want to be, choosing from around 30 medical specialties including cardiology and geriatric medicine. They take on increasingly senior roles, including as the medical registrar. At the end of specialty training, doctors can apply for a consultant post. It is worth remembering that many trainees spend valuable additional years doing academic research, participating in leadership programmes, or gaining experience in other countries. This increases the overall length of training time. ■

### What could we offer junior doctors in Wales?

- > structured mentoring and support programmes
- > more clinical leadership and quality improvement opportunities
- > more innovation and academic research opportunities
- > taught MSc and MD degree opportunities
- > more flexible working patterns and training pathways
- > one-off grants to ease the financial burden of professional exams. ■

## On the front line: What do trainee physicians do?

Doctors-in-training, often known as trainees or junior doctors, deliver patient care in a range of settings as well as meeting annual objectives to progress their training. These terms cover doctors who have a range of skills and experience from those who have graduated from medical school in the past year to those who have been practising medicine for over a decade and are preparing to complete their training and become consultants.

They are responsible for assessing and admitting the majority of unwell patients who attend hospital via emergency or A&E departments and outside of normal working hours, as well as looking after inpatients on the ward. A typical day includes identifying all patients for which their team is responsible and ensuring they are all seen and reviewed on a ward round; booking and reviewing tests and diagnostics; communicating with patients, relatives and other medical teams; and making arrangements for patients to be discharged. They may also see patients referred from the community in an outpatient clinic to decide ongoing treatment and support and undertake routine procedure lists.

They are usually the first to attend an unwell or deteriorating patient and have no option to opt out of weekend, overnight or shift work. Posts are rotated every 4 to 6 months, with longer posts of up to 1 year offered to more senior trainees. These ensure that trainees are exposed to range of learning environments and skills, and can be in multiple different hospitals or areas.

They are also responsible for their own professional development. They have to undertake a set number of supervised procedures to ensure competence. Doctors-in-training must complete professional examinations, which for trainee physicians includes the three-part MRCP and specialty examinations with written and practical elements. They also must ensure their learning is up to date through reading journals and attending courses and conferences. ■

**Dr Richard Gilpin and Dr Charlotte Williams**  
Trainee physicians, NHS Wales

**My personal view is that bespoke training, flexibility and mentorship alongside widespread opportunities to develop medical education, leadership or research skills from an early stage are the key to fantastic training.**

Trainee physician in Wales

**Table 1** Number of unfilled core medical trainee (CMT) posts in Wales, August 2016<sup>7</sup>

| Site                          | Posts (total) | Vacancies |
|-------------------------------|---------------|-----------|
| Ysbyty Wrexham                | 14            | 5         |
| Ysbyty Glan Clwyd             | 18            | 11        |
| Ysbyty Gwynedd                | 16            | 6         |
| Bronglais Hospital            | 4             | 4         |
| Withybush Hospital            | 10            | 8         |
| Glangwili Hospital            | 7             | 3         |
| Prince Philip Hospital        | 5             | 3         |
| Morrison Hospital             | 29            | 13        |
| Singleton Hospital            | 10            | 1         |
| Princess of Wales Hospital    | 9             | 5         |
| Royal Glamorgan Hospital      | 10            | 3         |
| Prince Charles Hospital       | 13            | 2         |
| Velindre                      | 4             | 0         |
| Holme Towers                  | 2             | 0         |
| Nevill Hall Hospital          | 11            | 1         |
| Royal Gwent Hospital          | 24            | 6         |
| University Hospital Wales     | 26            | 3         |
| University Hospital Llandough | 6             | 0         |
| <b>Total</b>                  | <b>218</b>    | <b>74</b> |

## Plugging the gaps

Trainee rota gaps are reported by 42.9% of respondents in the 2015–16 census of consultants in Wales as ‘frequently causing significant problems in patient safety’ and by a further 45.8% as ‘often [causing problems] but there is usually a work-around solution so patient safety is not usually compromised’. Only 11.3% of respondents told us that rota gaps infrequently or never cause a problem<sup>9</sup> (see Table 1).

More than a third of higher specialty trainees told us that they regularly or occasionally act down to cover gaps in the core medical trainee rota.<sup>9</sup> Almost two-thirds of these specialty trainees told us that they feel as though they are sometimes, often or always working under excessive pressure, with 63.2% telling us that this was down to insufficient trainee numbers.<sup>9</sup>

The number of medical undergraduate and CMT posts in Wales should be increased. Rota changes should allow trainees to work within the same teams for a block of time, to improve continuity of care and enhance training and learning on the job. CMT roles should be timetabled to ensure clinic time and dedicated teaching time. Hospitals with poor trainee feedback should produce plans outlining how they will change immediately or they should risk losing those trainees.

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**Many trainees are in financial difficulty and this contributes to the appeal of working for an agency, working abroad or changing careers ... I worry often about whether I can afford to complete mandatory aspects of my training – as do many others.**

### Trainee physician in Wales

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The NHS in Wales may want to consider offering financial support with mandatory fees as part of a package to recruit and retain trainee doctors. The Emergency Medicine Trainee Association has found that the unavoidable cost of training is £15,286.<sup>33</sup> This places a huge burden on trainees, with different amounts of study leave provision in different areas. Mandatory professional examinations are not covered by the Wales Deanery or health boards, and can be added to union and professional body membership fees, training fees, General Medical Council (GMC) and medical indemnity costs, few of which are avoidable. Easing this financial stress could go a long way to help recruitment and retention.

### Developing a homegrown workforce

Increasing training numbers is clearly a long-term solution, as is the creation of a medical school in north Wales and the continued development of the postgraduate school in Swansea. However, the situation is critical. Overall, 39.8% of consultant appointments in Wales could not be made in 2015.<sup>9</sup> In more than half of the cases, this was because there were no applicants at all. There are simply not enough doctors out there.

It is crucial that Wales makes a more concerted effort to attract its own students to medical school in Cardiff and Swansea. These students may be more likely to stay in Wales for their postgraduate training, and if they do leave, they are more likely to return home afterwards. Only 30% of students in Welsh medical schools are Welsh domiciled. This compares with 55% in Scotland, 80% in England and 85% in Northern Ireland.<sup>8</sup> This is against a worrying drop in Welsh domiciled students applying to study medicine in the first place; according to UCAS, this number has fallen by 15% in the last 5 years, a steeper decline in Wales than across the rest of the UK.<sup>34</sup> Medical schools must offer more undergraduate places to Welsh domiciled students in order to grow and retain a homegrown workforce, and they should invest in outreach programmes that encourage applications from rural, remote and Welsh speaking communities.

The rota gaps in many smaller, rural hospitals in Wales can result in isolated working for junior doctors. They also mean that there is not enough face-to-face consultant teaching time for some trainees. Training pathways specialising in rural and remote healthcare should be developed in Wales and advertised across the UK to encourage the best trainees to apply.

To recognise how healthcare will change in the coming years, these rural training jobs should be built around the integrated patient journey, and made more attractive through new opportunities to gain postgraduate qualifications or formal experience in service improvement or leadership roles. If Wales can innovate to meet its own specific training problems, this could attract trainees from across the UK who might be interested in developing new skills.

### A national approach to innovation

Once again, it is time for a national medical workforce and training strategy. Without a strategic approach, workforce planning in Wales has become patchy and uncoordinated. The NHS in Wales needs a vision for the future, and this vision must inform national workforce planning – the number of training posts, from medical school onwards, must be planned across the system. The announcement of investment in primary care is welcome, but must not lead to shortages in specialist medical care. This can only be addressed if there is a coherent plan to increase the overall number of training places across medicine, from medical school onwards.

The Welsh government and NHS Wales must focus on addressing recruitment and training challenges, particularly in north and west Wales. Specialty and subspecialty numbers must now be planned nationally with direct clinical input, and there must be a renewed attempt to address training rotation concerns: medical registrars report that moving between north and south Wales is very unpopular, especially when families are involved.

Cross-border rotations should be established with hospitals in England, and health boards should communicate more effectively with their trainees: doctors beginning rotations should know their schedule much earlier than they do at present. Wales needs to take the lead and innovate on issues such as broad-based training, specialty medicine in the community and rural training pathways.

### More trainees are needed

The key barrier to recruiting junior and middle-grade trainees is the heavy workload of those working in medical specialties. Due to an ageing population and an increase in patients who are living with long-term, chronic conditions, the future NHS will need more doctors qualified in general medicine – yet there are not currently enough trainees to cover the existing workload.

One RCP survey of medical trainees in the UK found that the workload of the middle-grade medical registrar was perceived to be greater than that of their contemporaries in other specialties: 59% of junior doctors said that they thought medical registrars have a heavy workload and 37% thought that their workload was ‘unmanageable’, while 69% of medical trainees thought that the work–life balance of registrars was poor.<sup>18</sup> In comparison, only 2% of surgical trainees – and no GP trainees at all – said they thought their registrars’ workload was unmanageable.

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These perceptions actively discourage junior doctors from going into medical specialties: application rates into training schemes involving general medicine are declining.<sup>18</sup> Regular gaps have begun to appear in medical training programmes – gaps which must be filled by expensive locum staff.

When asked if financial incentives, improved use of technology, or reduction in workload would make junior doctors more likely to become medical registrars, it is the reduction of workload that is cited by almost all as the most important factor.<sup>35</sup> This is another reason why medical trainee numbers should not be reduced; increasingly unmanageable rotas will make recruitment problems even worse.

Although we are training more doctors than ever, because many are choosing to work flexibly or part time and others are leaving the profession, there is a net loss overall. There are too few CMT posts in the UK to fill the specialty higher training posts available, a shortfall which is exacerbated by a significant number of core medical trainees leaving general medicine for specialties such as general practice or clinical oncology. Trainees in Wales should be followed through the system and asked why they are leaving and what would persuade them to return.

## The clinical leaders of tomorrow

More support should be offered for academic research and education training pathways, including the provision of requisite postgraduate courses. There should be research opportunities available to all trainees. Wales should continue to invest in clinical leadership and training programmes such as the Welsh Clinical Leadership Training Fellowship scheme.

The RCP works with the Wales Deanery to appoint college tutors at every hospital in Wales. These consultant physicians support the education and development of trainee physicians. However, a more recent development is the appointment of associate college tutors, a leadership role which is undertaken by at least one core medical trainee at every hospital in Wales. Associate college tutors are encouraged to develop skills to improve patient care and medical training and represent their colleagues at directorate level. This is a strong example of how the Wales Deanery and the RCP are supporting trainees early in their careers to begin preparation for more senior leadership roles.

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**There is too much pressure on front line staff so people leave. This is currently made worse by increasing demand – population growth, people getting older. The other major problem is fewer staff, due to vacant posts which we cannot fill. It is not exactly lack of funding – more that we lack people coming out of training that we could employ.**

**Consultant physician in Wales**

## Preparing medical students to work on the NHS front line

During 2010, Cardiff University School of Medicine commenced a major curriculum review. This followed data from the National Student Survey and UK Foundation Programme which showed that Cardiff students were reporting lower levels of preparedness for practice and familiarity with practical procedures. In response, Cardiff University launched the Harmonisation Programme, designed to enhance the transition between undergraduate and postgraduate education to prepare graduates for practice in the modern NHS. Medical students are embedded within clinical teams around Wales and take responsibility for patient care in a supervised and safe learning environment. This pioneering project allows around 350 undergraduate students a year to experience the real world of a junior doctor.

The team worked closely with Swansea University Medical School and the Wales Deanery to develop a timetable of clinical placements. By matching medical students with postgraduate doctors for the 8-week junior student assistantship, we are able to provide a supervised clinical placement that centres on the direct care of patients in acute settings. Final year students take responsibility for patient care within a supervised environment. Students rotate between the hospital and the community to ensure a balanced view of primary/secondary care.

Medical students shadow their postgraduate colleagues for 2 months, and those with a job offer in Wales get to spend their final placement – called their senior student assistantship – in the hospital where they will be working as junior doctors after graduation. This allows students to get to know colleagues in their future workplace, familiarise themselves with systems and protocols, and prepare them for the front line of a busy NHS hospital. Around half the Welsh medical students stay in Wales for their first job, and we believe that the system is having a powerful effect on their self-confidence. This final placement allows them to directly manage patients under the supervision of hospital teams, and 93% of students rated the teaching on placement as good or very good and 91% thought that the clinical supervision was good or very good.

The programme has delivered what it set out to achieve with 80% of Cardiff University graduates saying they felt prepared for their first post in a hospital. The next challenge is to demonstrate how this work will improve the care, experience and safety of patients. The new structure ensures that students are ready for their career in medicine, and demonstrates the commitment of the Welsh NHS to training the next generation of doctors. ■

**Dr Stephen Riley**  
Director of the C21 Programme  
Cardiff University School of Medicine

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## Giving trainees a voice

In August 2016, two health boards in Wales each appointed a chief registrar, a trainee doctor who acts in a liaison role between medical trainees and senior clinical managers. This leadership development post has a key role to play in supporting trainees, medical education programmes and quality improvement initiatives. Both these posts are part of the RCP Future Hospital chief registrar pilot programme. This initiative must be rolled out across all health boards in Wales to encourage senior trainees to develop leadership and education skills.

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### The chief registrar: A trainee leadership role

**As the first ever chief registrar in Wales, I had the opportunity to be involved with decision making at a directorate level, regularly offering opinion and feedback from trainees. I was able to advocate for junior doctors and I attended meetings on their behalf to negotiate changes to the on-call rota. This was very successful and we managed to come to a compromise that all parties were happy with.**

**I also negotiated the payment offered to medical doctors who take on additional locum shifts to ensure there is fair recompense for both additional hours and where shifts are changed at short notice, which has been met with praise from within the junior doctor body. There have been situations where trainees have felt undermined by managers and worried about the performance of their peers, and in the role of chief registrar, I was able to advise them and take their concerns forward in confidence.**

**Junior doctors are in a unique position. They see examples of good and bad practice in different hospitals during their rotations. Through the chief registrar, junior doctors were able to suggest changes based on other working practices, including quality improvement and service reform. In my time as chief registrar, we improved handover and discharge processes and developed written protocols on patient flow. I believe that the experience has been incredibly positive not only for me, but also for other junior doctors and the wider service. ■**

**Dr Robin Clwyd Martin**  
Former chief registrar  
Cardiff and Vale University Health Board

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## A new way of working

Hospitals should deliver expert care far beyond the walls of the building – the hospital is part of, not separate from, the community. Patients must have access to the expert care that they need, when they need it.

The current challenges facing the Welsh NHS mean that we will need to find ways to reduce hospital admissions and improve patient care in the community. Many physicians already work between hospital and community clinics, but electronic information and communication systems are crucial. To ensure a safe service, we need to make sure that community facilities are fit for purpose, and that the workforce has the necessary skills. There needs to be political recognition that service reconfiguration will not save money in the short term; indeed, the transition process will require substantial investment.

Health boards should implement the Future Hospital workforce model, with more specialist medical care delivered in the community.<sup>21</sup> Integrated working and shared outcomes with health and social care partners should be the norm; physicians and medical teams should spend part of their time working in the community in order to deliver more specialist care in, or close to, the patient's home.

Collaboration between different parts of the NHS workforce will help services to become sustainable for the future. The role of the hospital should be as a hub of clinical expertise and technology for the local population, particularly for diagnostics and treatment. The focus should be on developing ways of working that enable patients to leave hospital safely as soon as their clinical needs allow.

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**In the face of rising demand for healthcare coupled with a shortage of staff in certain specialties across the UK, we have tended to simply call for more people to be trained in traditional roles and professions. However ... continued growth of the overall workforce based on existing models of service provision is not sustainable.<sup>5</sup>**

## Working in partnership to improve care for older people

At the Royal Gwent Hospital in Newport, a recent project has developed new integrated working between the health board, the local authority and the third sector. Many older people who are admitted to hospital needing emergency or urgent medical care may have significant social, rather than medical, issues contributing to their situation. This can be prevented by improving the 'community resilience' of older people – that is, the ability of older people to stay safe and independent in their own homes.

The project aims to keep older people safe and independent in their own homes and reduce hospital admissions. Trained care facilitators discuss with older people what simple interventions can help improve their resilience, and produce a Stay Well Plan. The older people are identified using risk stratification – a computer algorithm that identifies how likely it is that someone is going to present to hospital over the next year. Those at high risk are offered the Stay Well Plan. The interventions outlined in the Plan could include interventions such as mobility aids and benefit checks. The care facilitator also discusses carer support and crisis resilience, so a written record is kept for the older person, their family and healthcare professionals.

This is an excellent example of how the future workforce should change to deliver holistic care as part of an integrated team, with clinicians working closely with local authorities and the third sector. Future models of care should have a greater reliance on proactive risk-based identification of patients rather than referral-based systems. The future workforce should make use of statistical algorithms to identify people who would benefit from an intervention rather than wait for deterioration in their health to trigger a referral. Finally, services will be co-produced with patients. People who use a service must be equal partners in the design of that service. In this project, the format and design of the Stay Well Plan was developed using the insight, expertise and experience of the older people and their families.

The project has so far made contact with over 800 older people, and aims to contact 4,000 in total over the next 2 years. ■

**Dr Richard Gilpin and Dr Charlotte Williams**  
Trainee physicians, NHS Wales

## Underfunded and overstretched

New ways of working will need to be developed. This will require investment. A whole system approach across primary, community, secondary and social care is now required to deal with the impact of unscheduled care. The NHS is underfunded, underdoctored and overstretched. In our hospitals, we are seeing the impact of cuts to social care, with vulnerable people too often bounced around a fragmented system. We need to move away from services that are planned in silos and look at one small part of a patient's treatment, to joined-up planning across health and care. We need to give front-line clinicians and their partners in social care the time and space to innovate, and the freedom and support to step beyond their organisation's walls.

Wales should lead the way by developing new integrated workforce models in rural communities. Medical education and training should equip doctors with the expertise to manage older patients with complex needs, including frailty and dementia, and to lead and coordinate the 'whole care' of patients in hospital and the community. Many physicians already work between hospital and community clinics; the NHS in Wales should build on these pockets of good practice and take a planned approach to establish specialty care in the community. The Commission on Generalism has noted that 'generalism has a more extreme role to play in remote and sparsely populated communities [of the UK]'.<sup>16</sup>

## Time to lead the way

The role of the community physician should be developed. Wales should actively promote itself as a place to develop highly specialist skills in rural and community-based medicine. Furthermore, geography is important to trainees, and we know that most trainees would like to gain a consultant post where they have undertaken specialist training. This could boost applications to consultant posts in Wales in future years. The work of the Mid Wales Healthcare Collaborative offers huge potential in this area and the RCP will continue to engage proactively with its work. Wales has a real opportunity to lead the way on innovative community health service design.

**The current workforce is designed to deliver services to historic models and patterns of care. The way we deliver care has evolved, and so must the workforce.<sup>6</sup>**

## Supporting other clinical roles

Excellent patient care depends on cohesive, organised and well-resourced team working and the NHS should develop and embed other clinical roles into the future hospital workforce in Wales. Staff and associate specialist grade doctors in Welsh hospitals should be encouraged, and supported in their career progression.

Appropriate staffing levels across the team are essential and enable hospitals to deliver more effective, efficient and patient-centred care. Nursing shortages should be addressed, and innovative models of staffing involving allied health professionals such as occupational therapists and physiotherapists should be promoted. The roles of advanced nurse practitioner and physician associate should be developed as core members of the clinical team. Working alongside doctors, physician associates can provide crucial support, especially in secondary care, such as taking patient histories or ordering and interpreting diagnostic tests.

However, any increase in staffing numbers for these posts should not be at the expense of consultant expansion, and there can be no reduction in the medical education budget in Wales. Simply making up the numbers by recruiting non-training grades or other healthcare professionals to cover rota gaps is a short-term

solution to a much bigger, multi-faceted problem. If the financial divide between medical and non-medical education is removed, there is a significant risk that funding for higher cost subjects will be redirected into training and education for other healthcare professions. While medical training may be expensive, it is a long-term investment in patient safety and high-quality care.

## Using technology to improve the patient experience

Health boards should embrace innovation in order to improve communication with patients and between healthcare professionals and to improve quality of care and the patient experience. People increasingly expect to interact with health services using personal technology such as smartphones and tablets; where appropriate, patients and clinicians should be able to use telehealth and telemedicine, particularly in remote and rural areas.

Telemedicine needs to be further embedded into everyday practice. Clinicians must continue to challenge resistance to change. The RCP Future Hospital development site in north Wales – CARE delivered with Telemedicine to support Rural Elderly and

## Delivering specialist diabetes care in the community

**Managing a chronic disease such as type 2 diabetes requires the input of a multidisciplinary team across primary and secondary care. Historical models of care for diabetes have separated primary and secondary care elements and have led to the fragmentation of care, duplication of workload and long waits for senior specialist advice.**

**In Cardiff, which has a total of just over 23,000 people registered with diabetes, we have moved towards a more seamless diabetes service. We started with a small pilot study and began implementing the full model of care in 2010. Each of the 69 GP practices in the health board is allocated a diabetes consultant who visits the practice twice a year for case notes review, dissemination of best practice guidelines and face-to-face dialogue with GPs and their practice nurse.**

**There are eight full-time equivalent diabetes consultants and two academic diabetes consultants. Each consultant mentors 6–8 practices depending on the list size. In addition, GPs can request advice from their supporting consultant via an electronic system (similar to email but with robust audit) with a 5 day maximum response time for medication and management queries. Requests for advice are automatically routed to the appropriate consultant. This ensures that GPs have access to timely senior advice and develop a rapport with their consultant**

**without the patient having to wait to be seen in an outpatient clinic. Secondary care outpatient referrals are triaged electronically to the appropriate consultant via the Welsh Clinical Communications Gateway (WCCG). The consultant can approve and book the referral into a clinic or request additional information. The latter opens a dialogue that may resolve the query. In addition, we have developed local type 2 diabetes prescribing guidelines which guide treatment choice and highlight cost differences between classes of treatment. The guidelines are intended to support primary care prescribing and draw attention to more cost-effective prescribing where possible.**

**Over the first 2 years of implementation, new referrals to secondary care clinics fell by 35%. As a consequence, the waiting time for outpatient appointments fell from just under 6 months to between 4 and 6 weeks depending on the clinic. An audit of primary care found greater confidence overall in managing diabetes but especially in initiating non-insulin injectables, combining therapies and dose titration of oral and injected treatments. Practice staff find the electronic access to senior consultant advice within a working week particularly helpful. Advice offered for an individual patient will frequently be applied to other similar clinical scenarios leading to a ripple training effect. More recently, we have demonstrated improved glycated haemoglobin (HbA1c) results in patients who have been discussed either during visits or electronically, and hope**

Frail patients (CARTREF) – is a telemedicine project that aims to improve access to care for frail older patients in rural Wales. The project allows patients to have follow-up hospital appointments by video clinics and means that patients and relatives can see specialists without travelling. The team can demonstrate patient satisfaction rates of 80%. This is just one of many examples of innovative clinical telemedicine and the future hospital workforce in Wales; best practice must be shared more consistently and rolled out in a structured way.

**I see physician associates as part of the solution for the shortages in medical manpower – of course not to replace doctors but certainly to help with some of the tasks that take up most of our day.**

**Consultant physician in Wales**

that this will lead to a fall in HbA1c across primary care due to greater confidence and ability to manage diabetes. We have also started to see new prescriptions for analogue insulin plateau and start to fall, while human insulin prescriptions are starting to rise with the potential for cost savings. This is an area we'd like to develop over the next 2 years.

So far, these changes have been made in a cost-neutral environment by asking primary and secondary care colleagues to work together in a different way. The model continues to evolve and we are recruiting community diabetes specialist nurses to support practices.

We hope to fund these posts through more cost-effective use of human insulin where appropriate and reviewing the stop criteria for medications that are no longer effective. We also believe that this model could be helpful in supporting primary care to manage other chronic diseases. Its success depends on developing close, sustainable links with primary care. I am grateful to my colleagues in primary and secondary care for the hard work that has gone into establishing and sustaining this innovative model of care. ■

#### **Dr Lindsay George**

Clinical lead for diabetes, University Hospital Llandough Cardiff and Vale University Health Board

## **The multidisciplinary team at the National Poisons Information Service**

The National Poisons Information Service (NPIS) in Cardiff is a multidisciplinary team consisting of 11 poisons information scientists who provide telephone advice to the NHS, supported by four consultant clinical pharmacologists and toxicologists and two specialist clinical pharmacology registrars.

In the UK, over 140,000 people are admitted to hospitals with exposure to suspected poisons each year and over 3,000 die from the effects of poisoning. NPIS provides advice on the management of these people throughout the UK, as well as to Ireland at night. In some cases, reassurance can be given and unnecessary admission avoided. In others, advice on poisons management can be life-saving. NPIS (Cardiff) regularly obtains among the highest service user satisfaction scores of the four UK NPIS centres. Staff also contribute to the TOXBASE database, which contains over 17,000 product entries. This is the first-line toxicology online advice service to the NHS and last year there were 608,868 TOXBASE user sessions and 1.69 million separate page views of TOXBASE entries. By consolidating expert resources it has been possible to deliver a high-quality, cost-effective service, which saves the NHS more money than it costs. NPIS (Cardiff) also leads on the UK Poisons Information Database, a unique database that has enabled identification of trends in poisoning and advice to improve public health on everything from liquid detergent sachets to novel psychiatric substances.

The Welsh Poisons Unit is made up of NPIS and the Gwenwyn poisons treatment ward at University Hospital Llandough. While NPIS (Cardiff) provides advice nationally, Gwenwyn ward delivers high-quality care to poisoned patients locally in Cardiff. It is a purpose-built six-bed unit staffed by nurses, including two ward-based psychiatric nurses, supported by a team of clinical pharmacologists and toxicologists, enabling a truly holistic approach. This dedicated unit has enabled the more efficient management of patients and was associated with a fall in average length of stay from 34 to 18 hours, so despite increased demand, no extra beds were necessary. By liaising closely with the Welsh Ambulance Service, over 80% of the 1,200 to 1,800 patients requiring admission are admitted directly, avoiding over 1,000 unnecessary attendances at the emergency department and providing safe, high-quality care.

The development of an integrated clerking pack has streamlined admissions while improving record keeping. This multidisciplinary approach was recognised by a chairman and chief executive award in 2012. The team continues to develop, and plans to introduce a new shorter treatment for paracetamol poisoning. ■

#### **Dr John Thompson**

Director and consultant clinical pharmacologist National Poisons Information Service (Cardiff)

## How can the RCP help?

### Influencing change in Wales

This RCP report on the medical workforce in Wales follows the publication of *Focus on the future*, our action plan for the new Welsh government,<sup>3</sup> and *Rising to the challenge*, which sets out our vision for acute care and the Future Hospital model in Wales.<sup>2</sup> Through our policy development, our work with patients, and our local conversation visits to hospitals, we are working to achieve real change across hospitals and the wider health and social care sector in Wales.

### The census of consultant physicians and medical registrars in the UK

On behalf of the Federation of the Royal Colleges of Physicians, the RCP conducts an annual census which is sent to all UK consultant physicians and medical registrars in the general medical specialties. In the census we request information about job plans, workloads and responsibilities. We consider this to be the highest quality data available in the UK concerning the medical workforce.

### Underfunded, underdoctored, overstretched

Being a doctor is intense, rewarding and challenging. A cared-for workforce delivers better outcomes for patients. The RCP has committed to valuing and supporting NHS doctors. We will:

- > work with our member doctors to find new solutions to workforce pressures
- > push for action from across government and the NHS
- > showcase the very best of medicine.

## About us

The RCP aims to improve patient care and reduce illness, in the UK and across the globe. We are patient centred and clinically led.

Our 33,000 members worldwide, including 1,200 in Wales, work in hospitals and the community across 30 different medical specialties, diagnosing and treating millions of patients with a huge range of medical conditions.

Involving patients and carers at every step, the RCP works to ensure that physicians are educated and trained to provide high-quality care. We audit and accredit clinical services, and provide resources for our members to assess their own services. We work with other health organisations to enhance the quality of medical care, and promote research and innovation. We also promote evidence-based policies to government to encourage healthy lifestyles and reduce illness from preventable causes. Working in partnership with our faculties, specialist societies and other medical royal colleges on issues ranging from clinical education and training to health policy, we present a powerful and unified voice to improve health and healthcare.

### Get involved

On the RCP website, you can read about existing examples of innovative practice and listen to doctors talking about how they achieved change in their hospital. You can also inform the RCP's work in Wales by sending us your comments, ideas and examples of good practice.

To help shape the future of medical care in Wales, visit our website:

[www.rcplondon.ac.uk/wales](http://www.rcplondon.ac.uk/wales)

To tell us what you think – or to request more information – email us at:

[wales@rcplondon.ac.uk](mailto:wales@rcplondon.ac.uk)

Tweet your support:

[@RCPWales](https://twitter.com/RCPWales)

[#MedicineisBrilliant](https://twitter.com/hashtag/MedicineisBrilliant)

[#MeddygaethynWych](https://twitter.com/hashtag/MeddygaethynWych)

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# Physicians on the front line

## The medical workforce in Wales in 2016

The RCP president, Professor Jane Dacre, recently warned that today's NHS is 'underdoctored, underfunded and overstretched'.<sup>1</sup> These observations apply as much to Wales as to the rest of the UK. For the Welsh NHS to achieve its full potential to serve the people of Wales, it requires adequate resources and a committed, fully operational and integrated healthcare workforce, allied with good morale and professional satisfaction.

Wales suffers from recruitment and retention issues among the medical workforce, at both senior and junior levels. The issues underpinning these problems are varied and complex, and include geography, negative perceptions and a lack of inducements to encourage doctors to follow a career in Wales. The RCP in Wales believes that there are many initiatives that we could and should adopt to overcome these issues.

Royal College of Physicians (Wales)  
Baltic House  
Mount Stuart Square  
Cardiff CF10 5FH

Tel +44 (0)29 2049 8712  
Email [wales@rcplondon.ac.uk](mailto:wales@rcplondon.ac.uk)

[www.rcplondon.ac.uk/wales](http://www.rcplondon.ac.uk/wales)



**Royal College  
of Physicians**

Coleg Brenhinol  
y Meddygon (Cymru)

@RCPWales 