Understanding Practice in Clinical Audit and Registries tool: UPCARE-tool

A protocol to describe the key features of clinical audits and registries

FAQ

Who should complete the tool?

This tool is designed to be completed by individuals and organisations planning and implementing clinical audits and registries. It has been specifically designed for national clinical audits and registries commissioned by the Healthcare Quality Improvement Programme (HQIP; Part of the National Health Service in England) as part of the National Clinical Audit and Patient Outcome Programme (NCAPOP) but can be adapted and used by audits and registries in other settings.

What is the tool for?

The tool is a protocol for audits and registries. It has been designed to provide a "one-stop" summary of the key information about how clinical audits and registries have been designed and carried out. It is expected that this will be published openly for anyone to view and help users of audit/registry data and audit/registry participants understand the methods, evaluate the quality and robustness of the data, and find information and data that is most relevant to them. For national clinical audits and registries commissioned by HQIP, the intention is that publishing this information openly will reduce the requirement for reporting ad hoc and contract monitoring data and information to HQIP and other national agencies.

What type of information is contained within UPCARE?

It is intended that the responses to the tool are factual and written concisely. Where possible, documents can be embedded, and hyperlinks provided if information is published elsewhere. This document is intended to be a complete account of the information for the audit or registry. Please be vigilant about keeping any links included in the document up to date so readers can access full information about the audit or registry.

This tool is not intended to be used to formally "score" the quality of the responses. The design of this tool has been inspired by reporting checklists used for clinical guidelines (e.g. AGREE[1]) and in reporting research studies (e.g. STROBE[2], SQUIRE[3]).

Who is the intended audience for the tool?

The information contained within the UPCARE tool will enable audit and registry stakeholders to access in one place and in a standard format key information about the audit/registry and evaluate the integrity and robustness of the audit.

Examples of audit/registry stakeholders include:

- Patients / Carers / Public / Patient representative organisations
- Clinicians / Allied health professionals / Healthcare providers / Multi-disciplinary teams / Primary, secondary and tertiary care providers
- National agencies
- Commissioners
- Healthcare regulators

[1] AGREE stands for the Appraisal of Guidelines for Research & Evaluation. See https://www.agreetrust.org/about-the-agree-enterprise/introduction-to-agree-ii/, last accessed 24 April 2018.

[2] STROBE stands for Strengthening the Reporting of Observational Studies in Epidemiology. See https://www.strobe-statement.org/index.php?id=strobe-home, last accessed 24 April 2018.

[3] SQUIRE stands for Standards for Quality Improvement Reporting Excellence. See http://www.squire-statement.org/, last accessed 24 April 2018.

FAQ (cont'd)

How should the responses be written?

Please try and write responses clearly as this will help to make the tool accessible and useful. Some tips and suggestions for writing clearly include:

- avoiding technical jargon where possible
- using short paragraphs and bullet points
- using the "active" voice rather than passive
- keeping sentences short

Where information is published openly elsewhere please provide links and references rather than duplicating information that is already available

When and how often should I complete the tool?

The tool is intended to provide accurate and up to date information about the audit/registry, and so can be updated whenever and however frequently it is relevant to do so. For national clinical audits and registries commissioned by HQIP it is intended that the tool is updated annually, although audits can update the tool more frequently if they wish to.

Each version of the tool should include a date of publication and version number.

Where should the completed UPCARE report be published?

The completed tool should be published online e.g. on the website for the audit or registry.

How was UPCARE designed?

HQIP commission, manage and develop the NCAPOP (National Clinical Audit and Patient Outcomes Programme) under contract from NHS England and devolved nations. The work was led by HQIP who set up a Methodological Advisory Group (MAG) consisting of methodological, statistical and quality improvement experts. Meeting were held on a six-monthly basis and the structure and content of the eight quality domains and their key items were agreed by the MAG. The tool was piloted by 5 programmes within the NCAPOP and re-edited in light of comments received. Other comments received by MAG members was also considered as part of the re-editing process. The final version of the UPCARE tool was signed off by the HQIP MAG and will be reviewed annually.

IPR and copyright

Contents

Domain 1: Organisational information

1.1. The name of the programme

National Asthma and Chronic Obstructive Pulmonary Disease (COPD) Audit Programme (NACAP)

1.2. The name of the organisation carrying out the programme

The Royal College of Physicians, London

1.3. Main website for the programme

www.rcplondon.ac.uk/nacap

1.4. Date of publication and version number of the tool on your website

26 October 2020 v1

Domain 2: Aims and objectives

2.1. Overall aim

The National Asthma and COPD Audit Programme (NACAP) for England and Wales aims to improve the quality of care, services and clinical outcomes for patients with asthma (adult and children and young people) and chronic obstructive pulmonary disease (COPD).

Asthma is the most common lung disease in the UK, with approximately 8 million people diagnosed and up to 5.4 million of these actively receive treatment. Asthma accounts for 60,000 hospital admissions, 200,000 bed days, approximately 6.4 million GP and nurse consultations and an estimated cost of £1.1 billion a year to the UK health service. Approximately 1,200 people die from asthma every year. The National Review of Asthma Deaths (NRAD), which collected and reviewed deaths from asthma for a year between 2012 and 2013, reported that care leading up to death was inadequate in 26% of cases where asthma was confirmed as the cause of death (n=195) and identified potentially avoidable factors in:

- the management or adherence to guidelines (46% of the 195)
- the patient, their families and their environment (65% of the 195), and
- routine care, supervision and monitoring from primary and secondary care (70% and 29% of the 195 respectively).

The NRAD report recommended that a national, ongoing audit of asthma be established to help clinicians, commissioners and patient groups to work together to improve asthma care.

COPD is highly prevalent; there are 1.2 million diagnosed cases of COPD in the UK and it is postulated that as many as 2 million people may be living with undiagnosed COPD. In 2012,

almost 30,000 people in the UK died from COPD (5.3% of all deaths). COPD is punctuated by exacerbations that may lead to hospital admission. Approximately 115,000 emergency admissions, and over 1 million hospital bed days per year are attributed to COPD. Audit data reveal 43% of admitted patients are readmitted within 90 days of discharge. There are an estimated 1.4 million annual COPD-related consultations in primary care. The disease accounts for approximately £810-£930 million in direct health care costs a year.

The overall aim of the National Asthma and COPD Audit Programme is therefore to deliver a patient-centred, quality improvement focused programme, which reduces variation in care, and improves outcomes for COPD and asthma patients.

2.2. Quality improvement objectives

NACAP launched in March 2018 with a quality improvement strategy which has the following overarching aim:

- to create a framework and set of resources which empowers and enables stakeholders to use audit data, collected as part of the National Asthma and COPD Audit Programme (NACAP), to facilitate improvements in the quality of COPD, asthma care and pulmonary rehabilitation.

To achieve the overarching aim a five-pronged approach, consisting of a combination of national and local enablers, is being adopted:

1. High quality data collection and reporting -
   - Providing clinically relevant data to participants
   - Providing timely data to participants in a format that is relevant to user's needs
   - Providing appropriate regional and national data
   - Engaging with national promoters of audit involvement

2. QI support to teams –
   - To support local teams (across primary and secondary care, and pulmonary rehabilitation) to deliver effective methodologically sound, and successful QI projects.

3. Use of high-level change levers –
   - To influence national bodies to support the health and care system to deliver better care to asthma and COPD patients.

4. Patient and public engagement –
   - To ensure that the views of patients and the public are integrated into the design and delivery of the audit and that they receive information and updates in a way that suits their needs and requirements.

5. Supporting other organisations engaged in QI to use NACAP data for improvement
   - To influence quality incentives such as the current Best Practice Tariff, and CQUIN and Academic Health Science Network (AHSN) patient safety improvement programmes (e.g. discharge bundles) and other emerging policy areas (e.g. Urgent and Emergency Care priorities) to utilise NACAP data as part of their QI activity.

Domain 3: Governance and programme delivery

3.1. Organogram

NACAP's governance structure is depicted in the below attachment.

2.3.1_RCP_NACAP_ Governance structure

3.2. Organisations involved in delivering the programme

Organisations contracted to carry out elements of the programme.

British Lung Foundation (BLF) (now combined in partnership with Asthma UK)
https://www.blf.org.uk/ (https://auk-blf.org.uk/)
The BLF are contracted to deliver on the following high-level deliverables:

- Inputting and providing feedback on patient improvement goals surveys, which are designed to make sure the programme captures the improvements most important to patients
- Running adult focus groups to further explore those elements of care which are most important to patients (i.e. based on the surveys outlined above)
- Recruiting adults to, and running, the patient panel (in collaboration with the Royal College of Paediatrics and Child Health)
- Recruiting adult patients to other NACAP governance groups and providing support to them, as required

Crown Informatics Limited
https://www.crowninformatics.org.uk/
Crown is responsible for the creation and maintenance of the NACAP web-tool, which hosts all secondary care audits (COPD, adult asthma and children and young people's asthma), as well as the pulmonary rehabilitation audit. Crown is accountable for the functionality, reliability and data integrity of the web tool. Working closely with the audit team they ensure that the web tool is easy to use by local teams.

Imperial College London
http://www.imperial.ac.uk
Imperial College London are contracted to analyse data for all NACAP audits. They also support the NACAP Research Committee.

The Royal College of Paediatrics and Child Health (RCPCH)
https://www.rcpch.ac.uk/
The RCPCH are contracted to deliver the following:

- Inputting and providing feedback on patient improvement goals surveys, which are designed to make sure the programme captures the improvements most important to patients

- Running children and young people's focus groups to further explore those elements of care which are most important to patients (i.e. based on the surveys outlined above)
- Recruiting children and young people to, and running, the patient panel (in collaboration with the BLF)
- Recruiting children and young people patients to other NACAP governance groups and providing support to them, as required

Informatica Systems Ltd
http://www.informatica-systems.co.uk
Informatica Systems Ltd are contracted to extract data annually for the Welsh Primary Care audit.

Organisations which have a formal role in governing or steering the programme include (i.e. on the Board):

Association of Respiratory Nurse Specialists (ARNS)
https://arns.co.uk/
The Association of Respiratory Nurse Specialists (ARNS) is a nursing forum to champion the specialty respiratory nursing community, promote excellence in practice, and influence respiratory health policy. ARNS also works to influence the direction of respiratory nursing care.

Asthma UK (now combined in partnership with the British Lung Foundation)
https://www.asthma.org.uk/ (https://auk-blf.org.uk/)
The UK's leading Asthma Charity. Asthma UK delivers advice and support to over a million people affected by asthma each year. They fund world class research and support collaboration to drive even more investment into the un-met need of asthma. The charity continually works to pursue improvement into the NHS for people affected by asthma who deserve the very best treatment and care.

British Thoracic Society (BTS)
https://www.brit-thoracic.org.uk/
The BTS exists to improve standards of care for people who have respiratory diseases and to support and develop those who provide that care.

The British Lung Foundation (BLF), Imperial College London and Royal College of Paediatrics and Child Health also have a formal role in governing and steering the programme – they all attend Board meetings and advisory group meetings where applicable.

Please see section 5 of this document for further information on how other stakeholder organisations are approached and engaged by the programme.

Healthcare Quality Improvement Partnership (HQIP)
https://www.hqip.org.uk/
The Healthcare Quality Improvement Partnership aims to promote quality in healthcare, and in particular to increase the impact that clinical audit has on healthcare quality improvement. HQIP is responsible for several national healthcare quality improvement programmes, including managing and commissioning the National Clinical Audit and Patient Outcomes Programme (NCAPOP) on behalf of NHS England, the Welsh Government and in some cases other devolved authorities.

The Primary Care Respiratory Society (PCRS-UK)
https://www.pcrs-uk.org/

UK-wide professional society supporting healthcare professionals to deliver high value patient-centred respiratory care.

The Royal College of General Practitioners (RCGP)
http://www.rcgp.org.uk/
The professional membership body for GPs in the UK with the purpose to encourage, foster and maintain the highest possible standards in general medical practice.

3.3. Governance arrangements

Board

The board exists to provide direction, strategic oversight and performance management of NACAP. The board will meet at least twice a year for the duration of the programme.
The terms of reference for the board are below.

Terms of reference approved 2020.pdf

Advisory group meetings

The purpose of all advisory groups (COPD + asthma) is:

- To work productively with the audit programme team to collaboratively deliver the overarching aims of NACAP.
- To provide expert direction and input to ensure the work is feasible and acceptable to clinicians providing COPD services in England, Scotland, and Wales.

The advisory groups report to the NACAP board. The terms of reference for both advisory groups are below:

Terms of reference NACAP COPD advisor

Terms of reference NACAP asthma advisc

Patient panel

The patient panel reports into the board. The patient panel makes sure the views, experiences and ideas of people affected by asthma and COPD, who use the NHS, can help to shape the audit. It also has a key role in planning how NACAP share information about the audit with the public.
The terms of reference for the patient panel is below:

NACAP patient panel ToR adults_v1

3.4. Declarations and Conflicts of interest

Please see policy below:

NACAP Declaration of Interests_v1.6.pdf

Domain 4: Information security, governance and ethics

4.1. The legal basis of the data collection

1. **Legal basis for all audit workstreams under General Data Protection Regulation (GDPR)**
   - Article 6 (1) (e) processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller. This is justified through commissioning arrangements which link back to NHS England, Welsh Government and other national bodies with statutory responsibilities to improve quality of health care services.
   - Article 9 (2) (i) processing is necessary for reasons of public interest in the area of public health, such as protecting against serious cross-border threats to health or ensuring high standards of quality and safety of health care and of medicinal products or medical devices, on the basis of Union or Member State law which provides for suitable and specific measures to safeguard the rights and freedoms of the data subject, in particular professional secrecy. This is justified as all projects aim to drive improvements in the quality and safety of care and to improve outcomes for patients.

All audit programmes are responsible for ensuring they are GDPR compliant. The NACAP team has completed, and regularly updates, an Information Governance (IG) checklist and Data Protection Impact Assessment (DPIA) to ensure its continued GDPR compliance. These documents are submitted to, and reviewed by, the Healthcare Quality Improvement Partnership (HQIP) as and when required under the programme contract. Further information on GDPR can be found at: https://ico.org.uk/for-organisations/guide-to-the-general-data-protection-regulation-gdpr/.

2. **Legal basis for individual audits under Common Law Duty of Confidentiality.**

COPD and adult asthma (secondary care workstreams)

England and Wales

Legal basis – Section 251

These audits have been granted joint Section 251 approval by the NHS Health Research Authority (CAG reference: CAG 8-06(b)/2013), meaning that we are approved to collect patient-identifiable data without individual patient consent. NACAP seeks section 251 approval to collect patient identifiable information without consent for the following reasons:

1. Acuity of the patient cohort - patients who may be captured in these audits (patients presenting to hospital with an exacerbation of COPD or asthma attack) are likely to be distressed, vulnerable and acutely unwell on admission. They potentially remain this way throughout a considerable portion of their inpatient stay.
2. Number of emergency admissions for COPD and asthma (a total of approximately 175,000 a year for both) – these occur consistently throughout the year and collecting and demonstrating that consent has been collected in a cohort of this size is unfeasible, particularly given that the patient pathway is not as clear or established as for other acute illnesses (i.e. patients may present to A&E, MAU, and may be admitted onto respiratory wards, acute medicine wards, etc.).

Caldicott Guardian approval across all hospitals in England and Wales has been given for COPD and asthma.

Please see the fair processing section below for information on patient ability to opt-out from being including in the programme.

Pulmonary rehabilitation

England and Wales

Legal basis = Consent

The audit works under a consent model, whereby all patients must give their explicit consent (consent form must be signed and dated) for their information to be included in the audit. Caldicott Guardian approval will also be sought for services in England and Wales.

All audit materials, including permission forms are publicly available via the NACAP webpages.

Children and young people's asthma

England and Wales

Legal basis = Section 251

This audit has been granted Section 251 approval by the NHS Health Research Authority (CAG reference: 19/CAG/0001), meaning that we are approved to collect patient-identifiable data without individual patient consent. This is done for the reasons outlined for COPD and adult asthma, in addition to the fact that this groups of patients will be considered much more distressed and vulnerable at admission.

Primary care (Wales only)

Legal basis = No patient identifiable information collected and Data Quality System approval for collecting healthcare data.

Data collected for the primary care workstream is anonymised at source, meaning that no patient identifiable information leaves the participating GP practice. This workstream therefore only requires Data Quality System (DQS) approval to ensure that data is transferred securely and within the rules required to ensure that no patient identifiers are used.

Fair processing activities (bi-nation)

To ensure that patients and carers are informed of the audit workstreams, NACAP produces a variety of workstream specific audit information, including fair processing and privacy policies, patient information sheets and posters.

These documents clearly outline the legal basis for each audit workstream, and how patient data is used and why. They provide information on the path that the data takes, including where it is transferred to other organisations and why, and how it is kept safe at each point in that pathway.

Giving patients the ability to 'Say no thank you'

All NACAP audit information also provides patients with the opportunity and details they required to opt-out of their data being included in the audits if they so wish. These sections are consistently called 'Saying no thank you'.

In order to uphold fair processing requirements and provide patients with the option to opt-out healthcare professionals are asked by the audit team to display posters in all necessary clinical areas and provide the patient information sheet as and when a patient asks for further information.

All audit guidance is additionally made publicly via workstream specific pages of the NACAP webpages:

COPD: www.rcplondon.ac.uk/nacap-copd-resources
Adult asthma: www.rcplondon.ac.uk/nacap-adult-asthma-resources
CYP asthma: www.rcplondon.ac.uk/nacap-cyp-asthma-resources
Pulmonary rehabilitation: www.rcplondon.ac.uk/nacap-pr-resources
Primary care: www.rcplondon.ac.uk/nacap-pc-resources

4.2. Information governance and information security

Please find below the Data Security Protection Toolkit (DSPT)score and any other relevant information security information/score for the Royal College of Physicians.

DSPT
Royal College of Physicians 8J008-CSD
Status: 19/20 standards met

ICO DPA Register
https://ico.org.uk/ESDWebPages/Entry/Z7085833
Expiry date: 16/9/2021

Domain 5: Stakeholder engagement

5.1. Approaches to involving stakeholders

The National Asthma and COPD Audit Programme (NACAP) is a large programme and, therefore, has many stakeholders. A detailed stakeholder mapping exercise was carried out in March 2018, during which 107 stakeholders were identified.

Following a review of these identified stakeholders, it was decided how each stakeholder would be approached, communicated and engaged with going forward. This could be one or a combination of the following:

- Kick off meeting (one off meeting at the beginning of the programme)
- On-going, regular face to face meetings – monthly, quarterly, 6 monthly or annually as needed
- Governance group invitations and updates
- Tailored updates (emails/letters)
- Generic updates (email/letters/newsletters/external communications mechanisms)
- Webpages/Web-tool
- Helpdesk
- Social media

Details on how key stakeholder groups were approached and continue to be engaged can be found below.

Sub-contractors

Includes:

- British Lung Foundation – delivery of the patient involvement work
- Crown Informatics Ltd – delivery of the audit web-tool
- Imperial College London – delivery of all audit data analysis
- Royal College of Paediatrics and Child Health – delivery of the patient involvement work
- Informatics Systems Ltd- delivery of the Welsh Primary Care Audit

Involved by:

- the delivery of programme work as specified above
- attending programme governance meetings (where appropriate)
- monthly meetings with the audit team
- receiving regular, tailored updates on audit progress and news
- providing on-going communication with their relevant networks about NACAP and its work to ensure information is cascaded down to all necessary stakeholders

Patients and carers

Includes:

- COPD and asthma patients and/or carers of people with these conditions
- adults and children

Involved by:

- working with the national patient charities outlined above to deliver the patient involvement work
- attending and participating in programme governance meetings
- attending and participating in patient panel meetings annually, and monthly virtual meetings
- attending and participating in focus groups to help make decisions on key patient priorities
- receiving regular updates about NACAP and its work via national patient charities
- providing a clear patient voice for NACAP and its work. Including, but not limited to input into:
  - datasets,
  - patient information,
  - communication strategies,
  - patient reports and other nationally available outputs.

Key national stakeholder organisations

Includes:

- Association of Respiratory Nurse Specialists
- Asthma UK
- British Lung Foundation
- British Thoracic Society
- Healthcare Quality Improvement Partnership
- Imperial College London
- Patient representatives (from patient panel)
- Primary Care Respiratory Society
- Royal College of General Practitioners
- Royal College of Paediatrics and Child Health

- Scottish Intercollegiate Guidelines Network, Healthcare Improvement Scotland

Involved by:

- providing strategic support and guidance on the overarching NACAP programme and its direction
- attending programme Board meetings
- having regular (monthly, quarterly, 6 monthly as appropriate) meetings with the audit team
- receiving regular, tailored updates on audit progress and news
- providing on-going communication with their relevant networks about NACAP and its work to ensure information is cascaded down to all necessary stakeholders

Asthma and COPD clinical experts

Includes:

- Primary care practitioners/experts
- Secondary care clinicians (consultants, nurses etc)
- Pulmonary rehabilitation leads
- Country representatives (England and Wales)
- Patient representatives

Involved by:

- providing audit workstream support and guidance. Including but not limited to:
  - design of the audit workstreams
  - selecting quality metrics
  - setting priorities
  - reviewing and ratifying clinical datasets and reporting outputs
  - disseminating feedback and communications
- attending programme (asthma and COPD) advisory group meetings
- receiving regular, tailored updates on audit progress and news
- providing on-going communication with their relevant networks about NACAP and its work to ensure information is cascaded down to all necessary stakeholders

Other stakeholders

Includes:

- clinicians and healthcare professionals (primary, secondary and community care)
- audit participants
- researchers
- patients and carers
- general public
- national organisations (other royal colleges, Getting it Right First Time (GIRFT),, Academic Health Science Networks etc)
- Quality improvement organisations

Involved by:

- setting priorities, aligning datasets and developing performance incentives
- public consultation of datasets
- collecting data
- disseminating results, feedback and communications
- communication via social media (twitter campaigns)
- providing details of QI projects and case studies

Domain 6: Methods

6.1. Data flow diagrams

Adult Asthma found at: www.rcplondon.ac.uk/nacap-adult-asthma-resources

COPD secondary care audit found at: www.rcplondon.ac.uk/nacap-copd-resources

Children and young people's asthma secondary care found at: www.rcplondon.ac.uk/nacap-cyp-asthma-resources

Pulmonary rehabilitation audit found at: www.rcplondon.ac.uk/nacap-pr-resources

Asthma (adult and children and young people) and COPD primary care found at: www.rcplondon.ac.uk/nacap-pc-resources

6.2. The population sampled for data collection

Adult Asthma Secondary care (active – launched in November 2018)

Includes patients:

- who are 16 years and over on the date of arrival
- who have been admitted* to hospital adult services,
- who have a primary diagnosis of asthma attack,
- where an initial, or unclear, diagnosis is revised to asthma attack.
- coded with the following ICD-10 codes in the primary position of the first episode of care:
    - J45.0 - Predominantly allergic asthma
    - J45.1 - Nonallergic asthma
    - J45.8 - Mixed asthma
    - J45.9 - Asthma, unspecified
    - J46.0 - Status asthmaticus (*Includes:* Acute severe asthma)

Excludes patients:

- In whom an initial diagnosis of an acute asthma attack is revised to an alternative at a later stage,
- who are between 16 and 18 but seen on a paediatric ward.

*Where Admission is an episode in which a patient with an asthma attack is admitted to a ward and stayed in hospital for 4 hours or more (this includes Emergency Medicine Centres, Medical Admission Units, Clinical Decision Units, short stay wards or similar, but excludes patients treated transiently before discharge from the Emergency Department (ED)).

COPD secondary care audit (active – launched in February 2017)

Includes patients:

- who are 35 years and over on the date of admission,
- who have been admitted* to hospital adult services,
- who have a primary diagnosis of COPD exacerbation,
- where an initial, or unclear, diagnosis is revised to an acute exacerbation of chronic obstructive pulmonary disease (AECOPD).
- coded with the following ICD-10 codes in the primary position of the first episode of care:
    - J44.0 - Chronic obstructive pulmonary disease with acute lower respiratory infection.
      Excl.: with influenza (J09-J11)

- J44.1 - Chronic obstructive pulmonary disease with acute exacerbation, unspecified.
- J44.8 - Other specified chronic obstructive pulmonary disease
  Chronic bronchitis:
  - asthmatic (obstructive) NOS
  - emphysematous NOS
  - obstructive NOS.
- J44.9 – Chronic obstructive pulmonary disease, unspecified
  Chronic obstructive:
  - airway disease NOS
  - lung disease NOS

Excludes patients:

- In whom an initial diagnosis of an AECOPD is revised to an alternative at a later stage.
- Who have had stay in hospital of less than 4 hours (who would be classed as a non-admission).

* Where Admission is an episode in which a patient with an AECOPD is admitted to a ward and stayed in hospital for 4 hours or more (this includes Emergency Medicine Centres, Medical Admission Units, Clinical Decision Units, short stay wards or similar, but excludes patients treated transiently before discharge from the Emergency Department (ED)).

<u>Children and young people's asthma secondary care (active - launched in June 2019)</u>
Includes patients:

- who are between 1 and 18 years old on the date of arrival;
- who have been admitted* to hospital paediatric services with a primary diagnosis of an asthma attack – include patients where this was initially unclear, but later identified as an asthma attack;
- with an existing diagnosis of asthma or a diagnosis of asthma that was made during this admission.
- coded with the following ICD-10 codes in the primary position of the first episode of care:
  - J45.0 – Predominantly allergic asthma
  - J45.1 - Nonallergic asthma
  - J45.8 – Mixed asthma
  - J45.9 - Asthma, unspecified
  - J46.0 – Status asthmaticus (Includes: Acute severe asthma)

*Where admission is an episode in which a patient with an asthma attack is admitted and stayed in hospital for 4 hours or more (this includes Medical Admission Units (MAU), Clinical Decision Units/Children's Observation Units, short stay wards or similar, but excludes patients treated transiently before discharge from the Emergency Department (ED)).

Excludes patients:

- under the age of 1 (due to the complex nature of diagnosing asthma in this age group);
- with wheeze responsive to bronchodilators who did not attend with an existing asthma diagnosis/ have a diagnosis of asthma made during admission;
- in whom an initial diagnosis of an asthma attack was revised to an alternative diagnosis at a later stage of the admission; who are between 16 and 18, but managed on an adult ward.

<u>Pulmonary rehabilitation (active – launched in March 2019)</u>

Includes all patients with a primary diagnosis of COPD who:

- attend an initial assessment for PR
- are 35 years or over on the date of assessment
- give written/verbal consent for their data to be used in the audit

Excludes patients:

- who have not been referred with a primary diagnosis of COPD,
- who have not given written consent for their data to be included in the audit.

Primary care asthma (adult and children and young people) and COPD (active - launched in June 2019)

Includes patients:

- Registered with a practice in Wales on the first day of the extraction period.
- Deemed to have COPD or asthma based on the presence of a validated Read/SNOMED code. The full list of Read codes used for the primary care audit can be found here: www.rcplondon.ac.uk/nacap-pc-resources
- Aged 18 or over on the first day of the extraction period if they are recorded as having COPD.
- Aged 1 (to distinguish between wheezy infants that are not asthmatics and those where an official diagnosis has been made) or over if they are recorded as having asthma on the first day of the extraction period.

Excludes patients:

- That are deceased
- That have an instance of 'informed dissent for national audit' except where there is a more recent instance of "Informed consent for national audit".
- That have an instance of "Dissent from secondary use of GP patient identifiable data" – except where there is a more recent instance of "Dissent withdrawn for secondary use of general practitioner patient identifiable data".
  The codes for each of the above entries are shown below:
  5 byte v2
  - 9M1 Informed dissent for national audit
  - 9M0 Informed consent for national audit
  - 9Nu0 Dissent from secondary use of GP patient identifiable data
  - 9Nu1 Dissent withdrawn for secondary use of general practitioner patient identifiable data
  - 9Nu4 Dissent from disclosure of personal confidential data by Health and Social Care Information Centre
  - 9Nu5 Dissent withdrawn from disclosure of personal confidential data by HSCIC

Under GDPR, patients have the right to object to secondary uses of their personal information. If a patient wishes to object, an appropriate Read/SNOMED code should be entered for that patient. A patient's existing opt-out preferences will continue to be honoured.

6.3. Geographical coverage of data collection

Note:

The Scottish Government, on behalf of NHS Scotland and other stakeholders, has been working with HQIP since November 2018 to try and identify a mutually agreeable legal basis that will

support Scotland's continued participation in the NCAPOP (which is a programme of a number of audits including NACAP), specifically around the financial payment for that participation.

Unfortunately, this has not been identified, resulting in withdrawal by the Scottish Government from paying to participate in the national clinical audits. This means that Scottish hospitals and pulmonary rehabilitation services in Scotland will no longer participate in the NACAP. References to Scotland in this section reflect their engagement in cohorts which remain live as at the date of this revision. All other references to Scottish participation in the NACAP have been removed from the relevant sections in this document further to Scottish withdrawal from the NCAPOP.

Adult Asthma Secondary care (active - launched in November 2018)
All hospitals in England, Wales and Scotland that admit patients with an asthma attack (N=219). 88% (n=192) of eligible hospitals are currently registered.

COPD secondary care audit (active – launched in February 2017)
All hospitals in England, Wales and Scotland that admit patients with exacerbations of COPD (N=219). 87% (n=190) of eligible hospitals are currently registered.

Children and young people's asthma secondary care (active - launched in June 2019)
All hospitals in England, Wales and Scotland that admit and treat on a paediatric unit/ward patients with an acute asthma attack (N=185). 88% (n=162) of eligible hospitals are currently registered.

Pulmonary rehabilitation audit (active - launched in March 2019)
All pulmonary rehabilitation services in England, Wales and Scotland (N=230). 95% (n=218) of eligible services are currently registered. (Based on most recently published report).

Primary care asthma (adult and children and young people) and COPD (active - launched in June 2019)
All GP practices in Wales are eligible to participate (N=410); 47% (n=191) opted in based on the 2017/18 report.

6.4. Dataset for data collection

Adult Asthma Secondary care (active – launched in November 2018)
The core dataset for data collection can be found here: www.rcplondon.ac.uk/nacap-adult-asthma-resources

COPD secondary care audit (active – launched in February 2017)
The core dataset for data collection can be found here: www.rcplondon.ac.uk/nacap-copd-resources

Children and young people's asthma secondary care (active - launched in June 2019)
The core dataset for data collection can be found here: www.rcplondon.ac.uk/nacap-cyp-asthma-resources

Pulmonary rehabilitation (active – launched in March 2019)
The core dataset for data collection can be found here: www.rcplondon.ac.uk/nacap-pr-resources

Asthma (adult and children and young people) and COPD primary care

The data collection queries can be found here: www.rcplondon.ac.uk/nacap-pc-resources

6.5. Methods of data collection and sources of data

Secondary care audits (adult asthma, children and young people's asthma, COPD) and pulmonary rehabilitation

Hospitals and services will be required to enter data via the audit programme's bespoke web-tool created by Crown Informatics Ltd (available at www.nacap.org.uk).

Once a year, Crown Informatics will extract patient-level data from the web-tool for the purpose of producing an annual national report. Reporting cohorts are determined by the date of the patient's discharge from the hospital or service. For example, a secondary care COPD report might contain the cohort discharged from hospital between 1 January 2017 and 31 December 2017 in England, Wales and Scotland. Hospitals and services have 6 weeks to enter the data prior to it being extracted by Crown. This is communicated to them on the log-in page of the web-tool, but also via email. This delay ensures that the hospitals/services have had the time to a) retrieve notes, if necessary and b) manually enter the data into the system.

Once extracted, Crown will anonymise these data using the following methods:

- NHS number will be replaced by study ID
- Postcode will be reduced to the first 4 digits (also known as 'Lower Super Output Area (LSOA)', needed for derivation of deprivation indices)
- Date of birth will be transformed to month and year of birth
- Secondary care only: date of inpatient death will be transformed to month and year of death/survival at 30 and 90 days.

Once the data have been anonymised, Crown will transfer patient-level (anonymised) data for the full report cohort (England and Wales) to Imperial College London (ICL) for data cleaning and analysis. Following the cleaning and analysis of data, aggregated (i.e. analysed and non-identifiable) data will be transferred from Imperial College London to the RCP to provide commentary for, and then publish, audit programme outputs (e.g. national reports, site level reports) all of which will allow hospitals/services to gain an understanding of the extent to which the care they deliver is similar to that delivered by their peers).

In addition, once a year Crown Informatics will securely transfer identifiable data (NHS number, date of birth and postcode) to NHS Digital and Patient Episode Database for Wales (PEDW) in order to link to their datasets. This will allow understanding of the longer-term outcomes for the audit cohorts, namely admissions/readmission and mortality rates.

NHS Digital/PEDW will return linked data (with identifiers removed, but the unique audit identifier retained) to Crown Informatics. Crown will combine the validated identifiers, NHS Digital/PEDW data and the audit data. This will then be anonymised and patient level data will be securely transferred to Imperial College London, in its role as the organisation responsible for analysis of the data. Following the cleaning and analysis of data, aggregated (i.e. analysed and non-identifiable) data will also be transferred from Imperial College London to the RCP to provide commentary for, and then publish, outcome-related audit programme outputs (e.g. national reports, health board reports).

Primary care asthma (adult and children and young people) and COPD

Specific queries (areas of asthma and COPD care which the programme wishes to look into) have been identified and mapped to Read codes. Using these Read codes, the required data from the practice clinical system is extracted via Audit+. No information that could identify individual patients will leave the practice or be used in reports or other publications Final data flows are still being determined - no data will be extracted until they are finalised and all are in agreement that they are safe, secure and fulfil all information governance and GDPR requirements.

The national asthma and COPD primary care audit is operating with a General Practice opt-in model and no data will be taken from general practice unless they consent for it to be released. In addition to this Read codes which indicate that a patient has opted-out of their data being used for purposes outside of their direct care have been identified to ensure that information for these patients is not extracted.

6.6. Time period of data collection

Adult Asthma Secondary care

The clinical audit started prospective data collection on 1 November 2018 and is running continuously. The combined adult asthma and COPD snapshot organisational audit launched on 1 April 2019 and ran until 30 June 2019.

COPD secondary care audit

The clinical audit started prospective data collection on 1 February 2017 and is running continuously. The combined adult asthma and COPD snapshot organisational audit launched on 1 April 2019 and ran until 30 June 2019.

Children and young people's asthma secondary care

The clinical audit started prospective data collection on 3 June 2019 and is running continuously. The snapshot organisational audit ran between 2 December 2019 and28 February 2020.

Pulmonary rehabilitation audit

The clinical audit started prospective data collection on 1 March 2019 and is running continuously. The first snapshot organisational audit ran between 5 July and 30 September 2019. A small organisational audit for case ascertainment will run between December 202 and February 2021.

Primary care asthma (adult and children and young people) and COPD

The COPD primary care audit launched in January 2014 under the National COPD Audit Programme. One extraction of data (asthma and COPD) has taken place in July 2019 and another is planned for October 2020 under the auspices of NACAP.

6.7. Time lag between data collection and feedback

Secondary care asthma (adult and children and young people) and COPD audit/pulmonary rehabilitation audit

Reporting times will vary depending upon external dependencies, but the audits will aim to report data in the shortest time possible. Annual (national and patient friendly) reports are provided in accordance with HQIP's Standard Reporting Procedure (SRP). Six-monthly commissioner reports are provided one-to-two months post extraction of data. Best Practice Tariff reports are available the day after data has been extracted. Outcomes aim to be reported no later than 6 months post reporting of clinical data, which is contingent on delivery of data by NHS Digital and PEDW, both

of which may lag by at least 3 months. All hospital level data analysed for the national reports (small numbers supressed) are published on data.gov.uk.

All audit participants also have access to near real time (updated every hour) feedback, via run-charts, on service quality and compliance with key national standards. The charts display hospital level data benchmarked to the national average and are only available to be viewed by registered users of the web-tool.

Primary care asthma (adult and children and young people) and COPD
Annual (national and patient friendly) reports are provided in accordance with HQIP's Standard Reporting Procedure (SRP). Local Health Board (LHB) reports are published at the same time as the annual reports. Each practice which takes part in the audit has access to practice-level reporting via the NHS Wales Informatics Service (NWIS) Primary Care Information Portal.

6.8. Quality measures included in feedback

Adult Asthma Secondary care
Process measures:

- Respiratory specialist review – real time run charts (updated every hour)
- Peak flow - real time charts (updated every hour)
- Care bundle – real time run charts (updated every hour)
- Systemic steroids – real time run charts (updated every hour)
- Smoking - real time charts (updated every hour)

Outcome measures:

- Mortality - annually via report
- Length of stay - annually via report
- Readmissions - real time charts will be launched in due course and annually via report

COPD secondary care audit
Process measures:

- Spirometry - real time charts (updated every hour)
- Oxygen prescription - real time charts (updated every hour)
- Smoking cessation - real time charts (updated every hour)
- Non-invasive ventilation - real time charts (updated every hour)
- Respiratory specialist review - real time charts (updated every hour)
- Discharge bundle - real time charts (updated every hour)
- Attainment against best practice tariff (BPT) - real time charts (updated every hour)

Outcome measures:

- Mortality - annually via report
- Length of stay - annually via report
- Readmissions - real time charts (updated every hour) and annually via report

Children and young people asthma secondary care
Process measures:

- Inhaler technique checked (real time run charts will be launched in due course)
- Discharge bundle (real time run charts will be launched in due course)
- Inhaled steroids (real time run charts will be launched in due course)

- Inhaled steroids at discharge (real time run charts will be launched in due course)
- Systemic steroids (real time run charts will be launched in due course)

Outcome measures:

- Mortality - annually via report
- Length of stay - annually via report
- Readmissions real time charts will be launched in due course and annually via report

Pulmonary rehabilitation audit

Process measures:

- Waiting times for AECOPD patients between: receipt of referral and assessment for PR, assessment for PR and start of PR, receipt of referral and start of PR - real time charts (updated every hour)
- Discharge exercise plans to include; the percentage having a discharge assessment performed and the percentage of patients receiving an individualised written discharge exercise plan - real time charts (updated every hour)
- MCID heath questionnaires to include percentage of patients; completing the CRQ at initial and discharge assessment, meeting MCID (minimal clinically important difference) on the CRQ dyspnoea domain, completing the CAT at initial and discharge assessment, meeting MCID on the CAT - real time charts (updated every hour)
- MCID walking tests to include percentage of patients; completing the ISWT (incremental shuttle walk test) at initial and discharge assessment, meeting MCID on the ISWT, completing the 6MWT (6 minute walking test) at initial and discharge assessment, meeting MCID on the 6MWT - real time charts (updated every hour)
- Waiting times for non AECOPD patients between: receipt of referral and assessment for PR, assessment for PR and start of PR, receipt of referral and start of PR - real time charts (updated every hour)Practice walks - real time charts (updated every hour)
- Practice walks percentage of patients completing a; walking test at initial assessment, practice walk test at initial assessment - real time charts (updated every hour)

Primary care asthma (adult and children and young people) and COPD

Process measures:

- Getting the diagnosis right:
- Post bronchodilator
- Spirometry
- Peak flow
- FeNo
- Chest X-Ray
- Assessing severity and future risk
- MRC score
- FEV1
- Smoking and exposure to second hand smoke
- Number of exacerbations of COPD and asthma attacks
- >2 courses of oral steroids
- Oxygen saturation levels
- Providing high value care
- Personalised asthma action plans
- RCP 3 questions

- Inhaler technique
- Influenza immunisation
- Smoking cessation
- Referral to pulmonary rehabilitation
- Drug therapies
- Shorting-acting beta agonists
- Inhaled corticosteroids

6.9. Evidence base for quality measures

Adult Asthma Secondary care

Clinical guidance

- BTS/SIGN British guideline on the management of asthma (https://www.brit-thoracic.org.uk/document-library/guidelines/asthma/btssign-guideline-for-the-management-of-asthma-2019/)

Clinical standards

- NICE quality standard QS25 (https://www.nice.org.uk/guidance/qs25)

Professional society recommendations

- The Royal College of Emergency Medicine. Moderate & Acute Severe Asthma clinical audit 2016/17, national report. (http://www.rcem.ac.uk/docs/QI%20+%20Clinical%20Audit/RCEM%20Moderate%20and%20Acute%20Severe%20Asthma%20National%20Audit%20Report..pdf)
- Why asthma still kills, The National Review of Asthma Deaths (NRAD) (https://www.rcplondon.ac.uk/projects/outputs/why-asthma-still-kills)

COPD secondary care audit

Clinical guidance

- NICE clinical guideline NG115 (www.nice.org.uk/guidance/NG115)

Clinical standards

- NICE quality standard QS10 (www.nice.org.uk/Guidance/QS10)
- NICE quality standard QS43 (https://www.nice.org.uk/guidance/QS43)
- BTS Quality Standards for acute NIV in adults (https://www.brit-thoracic.org.uk/document-library/quality-standards/niv/bts-quality-standards-for-acute-niv-in-adults/)

Policy documents

- National Confidential Enquiry into Patient Outcome and Death, Acute Non-Invasive Ventilation: Inspiring Change (https://www.ncepod.org.uk/2017niv.html)

Pulmonary rehabilitation audit

Clinical guidance

- NICE clinical guideline CG101 (https://www.nice.org.uk/guidance/cg101)

Clinical standards

- NICE quality standard QS10 (www.nice.org.uk/Guidance/QS10)

- BTS quality standards for pulmonary rehabilitation in adults (2014) (https://www.brit-thoracic.org.uk/document-library/quality-standards/pulmonary-rehabilitation/bts-quality-standards-for-pulmonary-rehabilitation-in-adults/)

Primary care asthma (adult and children and young people) and COPD

Clinical guidance

- BTS/SIGN British guideline on the management of asthma (https://www.brit-thoracic.org.uk/document-library/guidelines/asthma/btssign-guideline-for-the-management-of-asthma-2019/)

Clinical standards

- NICE quality standard QS10 (www.nice.org.uk/Guidance/QS10)
- NICE quality standard QS25 (https://www.nice.org.uk/guidance/qs25)
- NICE quality standard QS43 (https://www.nice.org.uk/guidance/QS43)

Professional society recommendations

- The Royal College of Emergency Medicine. Moderate & Acute Severe Asthma clinical audit 2016/17, national report. (http://www.rcem.ac.uk/docs/QI%20+%20Clinical%20Audit/RCEM%20Moderate%20and%20Acute%20Severe%20Asthma%20National%20Audit%20Report..pdf)
- Why asthma still kills, The National Review of Asthma Deaths (NRAD) (https://www.rcplondon.ac.uk/projects/outputs/why-asthma-still-kills)

6.10. Case ascertainment

COPD secondary care audit

Case ascertainment rates are calculated based on the number of records entered to the audit compared to data obtained from the Hospital Episode Statistics (HES) Admitted Patient Care (APC) dataset, for England and the NHS Wales Informatics Service (NWIS) Patient Episode Database for Wales (PEDW).

Case ascertainment data is publicly available here:
https://www.rcplondon.ac.uk/projects/outputs/national-asthma-and-copd-audit-programme-nacap-copd-secondary-care-case

1 April to 30 September 2018 median case ascertainment in England was 54% and Wales 54%.
1 October 2018 to 31 March 2019 median case ascertainment in England was 57% and Wales 47%.
1 April to 30 September 2019 median case ascertainment in England was 60% and Scotland 16% and Wales 43%.

All other NACAP audits are very recently launched, so no other case ascertainment data is available.

6.11. Data analysis

Annual reports for the secondary care and pulmonary rehabilitation (PR) audits display aggregate results for all providers. In addition, the results report patient throughput, average age, and provide an indication of the cohort's socioeconomic status, enabling like-for-like comparisons between similar providers.

Providers can see their own results compared to that of their Sustainability and Transformation Partnership (STP)/local health board, and the national average, allowing them to have a comprehensive understanding of the quality of their care and outcomes.

For primary care, practices can see their own results, compared to the results for their cluster, local health board and all-Wales.

Historical comparators are provided for all reports where available, so that providers can track their improvements over years.

In addition, reporting via the web-tool (for all continuous audits) allows providers to see their results in near real-time, benchmarked against the national average. Run charts also depict the 'aspirational standard' which, in the first instance, will be the upper quartile, so providers can compare themselves to the top 25% of providers for each metric. An equivalent display will be available via the primary care Audit+ module, which is being developed in collaboration with the team at the NHS Wales Informatics Service (NWIS).

Statistical techniques

- Descriptive statistics are included to define the main features of the audit data in quantitative terms. Data distributions, mean, medians (and ranges) are calculated. Results are then presented in ways that enable interpretation that is quick and easy, for example, tables, bar charts, histograms, line graphs or pie charts.
- Inferential statistics are used to examine the relationships between variables within the audit data (e.g. mortality in people of different socioeconomic statuses). Examples may include (this will differ depending on the variables being analysed) regression analyses (most likely to be logistic regression) and correlation analyses. Significance is tested using chi-squared tests and t-tests.
- Local results, where appropriate, maybe shown in funnel plots, with delineation of the limits of control. The chances of falling outside these limits of control is small (5% for the inner limit and 0.2% for the outer limits), so when local results do fall outside, it demonstrates they are inconsistent with the national result in relation to their sample size. This indicates probable systematic organisational differences, rather than randomness of scatter.

Case-mix adjustment

The NACAP Board reviews which measures require case-mix adjustment for valid comparisons to be made between providers.

Where case-mix adjustment is appropriate, it is performed using logistic regression. The model used has been rigorously tested regarding its power of discrimination and its calibration.

Outlier methodology

HQIP guidance on outlier in national clinical audit will be applied to the NACAP audits as far as possible (subject to the quality of the data, adjustment required for over-dispersion, etc.).

The outlier measures selection and finalisation policy outlines the process by which NACAP will determine the outlier measures it will use for each of its component audits. The policy can be viewed on the NACAP resources page here: https://www.rcplondon.ac.uk/projects/outputs/national-asthma-and-copd-audit-programme-nacap-resources

6.12. Data linkage

Secondary care asthma (adult and children and young people) and COPD

Data collected in the secondary care audits is linked to the following English/Welsh datasets:

- Office for National Statistics (ONS) data for assessment of 30-and 90-day mortality post admission to hospital for COPD or asthma exacerbation. This linkage takes place annually.
- Hospital Episode Statistics (HES) admitted patient care datasets:
    - On a yearly basis for case ascertainment purposes (i.e. involving extraction of all patients coded as having a primary diagnosis of COPD or asthma), although results are broken down and reported on by quarter.
    - On a yearly basis for assessment of 30- and 90-day readmission rates for both COPD and asthma.
- HES accident and emergency (A&E) dataset:
    - Once during the contract period for the adult asthma cohort to ascertain the frequency with which the cohort present at A&E. This will provide a broader understanding of the patient interaction with secondary care.

Pulmonary rehabilitation audit

Data collected in the pulmonary rehabilitation audit is linked to the following English Welsh datasets:

- Office for National Statistics (ONS) data for assessment of 90- and 180-day admission to hospital for COPD exacerbations and assessment of 180-day mortality post admission. This linkage takes place once in the current audit contract.

Primary care asthma (adult and children and young people) and COPD

No linkages are conducted for the primary care audit.

6.13. Validation and data quality

COPD, adult asthma, Children and young people's asthma and PR

The audits are currently running continuously. The audit datasets will be reviewed and streamlined annually. This will involve consultation (including with patients/carers), review of poorly completed/highly burdensome items, and reappraisal of the evidence.

Comprehensive validation rules are built into the web-tool to ensure that incorrect, conflicting and/or illogical data cannot be saved. Pop-up warnings appear for values that are plausible, but rare. There should be no missing data, as all questions are 'mandatory' and records cannot be locked until all data items are completed. If sites attempt to lock an incomplete record, a pop-up appears, directing them to the incomplete fields.

Primary care

For the primary care audit, robust rules will be applied to data cleaning to ensure that erroneous values are removed prior to analysis.

Domain 7: Outputs

7.1. The intended users or audience for the outputs

- Clinical commissioning groups or Local Health Boards in England and Wales
- Sustainability and Transformation Partnerships (STPs)
- Specialist commissioners
- NHS managers, chief executives and hospital boards
- Clinical teams
- General public
- Patients
- Carers
- Regulatory bodies
- Clinical audit personnel
- Researchers and academics
- Care Quality Commission
- Improvement bodies such as Academic Health Science Networks

7.2. Editorial independence

All recommendations and findings produced by the programme are independent and are not overly influenced by any stakeholders. To ensure that editorial independence occurs the programme adopts the following mitigations:

- There is an independent and skilled analysis team;
- Reports are written using a team approach, involving clinicians, management staff, RCP editors, methodologists and statisticians;
- Reports undergo numerous internal reviews, including via the senior lead and programme manager,
- All reports are sent to patient panel, advisory groups and board for comment and ratification.

7.3 The modalities of feedback and outputs

- Summary written reports (including patient friendly)
- Comprehensive written data reports which include results for all data items
- Online feedback (real time run charts)
- Dashboards
- QI Slides which provide examples QI projects, PDSA cycles and case studies
- Data visualisations
- Infographics
- Meetings and workshops
- Professional conferences
- Press releases

- Best practice repository
- Data.gov
- The Care Quality Commission

7.4 Recommendations

NACAP produces audit reports which contain recommendations and quality improvement priorities. Reports can be accessed from the different workstream web pages listed below:

National Asthma and COPD Audit Programme (NACAP): Primary care workstream - www.rcplondon.ac.uk/nacap-primary-care
National Asthma and COPD Audit Programme (NACAP): Secondary care workstream – Adult asthma - www.rcplondon.ac.uk/nacap-adult-asthma
National Asthma and COPD Audit Programme (NACAP): Secondary care workstream – COPD - www.rcplondon.ac.uk/nacap-copd
National Asthma and COPD Audit Programme (NACAP): Pulmonary rehabilitation workstream - www.rcplondon.ac.uk/nacap-pr
National Asthma and COPD Audit Programme (NACAP): Secondary care workstream – Children and Young Peoples Asthma: www.rcplondon.ac.uk/nacap-cyp-asthma

7.5 Comparators and benchmarking

NACAP provides comparative performance data for hospitals. Each hospital has performance measured against:

- Other hospitals in the region
- All hospitals in England and Wales
- Previous performance data for the hospital showing changes over time (run charts)

Reports can be accessed from the different workstream web pages listed below:
National Asthma and COPD Audit Programme (NACAP): Primary care workstream - www.rcplondon.ac.uk/nacap-primary-care
National Asthma and COPD Audit Programme (NACAP): Secondary care workstream – Adult asthma - www.rcplondon.ac.uk/nacap-adult-asthma
National Asthma and COPD Audit Programme (NACAP): Secondary care workstream – COPD - www.rcplondon.ac.uk/nacap-copd
National Asthma and COPD Audit Programme (NACAP): Pulmonary rehabilitation workstream - www.rcplondon.ac.uk/nacap-pr
National Asthma and COPD Audit Programme (NACAP): Secondary care workstream – Children and Young Peoples Asthma: www.rcplondon.ac.uk/nacap-cyp-asthma

7.6 Motivating and planning quality improvement

The NACAP team employ a combination of the following methods to motivate and plan quality improvement support:

- Provision of links to relevant QI resources:
  - Respiratory futures for both PR and secondary care
  - BTS toolkits
  - PCRS-UK resources

    - RCGP QI ready
    - RCP AI
    - RCP education/policy
- Creation of bespoke NACAP QI resources, with a view to hosting them on a web-based platform
- Development and delivery of workshops and training which will include the use of NACAP data to:
    - Support relevant regional groups to deliver QI work
    - Provide bespoke QI training to participating teams
- Pulmonary rehabilitation teams are invited to participate in the RCP's accreditation scheme for pulmonary rehabilitation services which aims to support services with achieving and sustaining improvement.