Royal College of Physicians | NACAP

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

Key findings for patients and carers from the COPD clinical audit 2018-2019

(people with COPD exacerbations discharged from acute hospitals in England, Scotland and Wales between October 2018 and September 2019)

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THE ASTHMA UK AND BRITISH LUNG FOUNDATION PARTNERSHIP

British Thoracic Society

Imperial College London

PCRS

RCGP Royal College of General Practitioners

RCPCH Royal College of Paediatrics and Child Health

Commissioned by:

HQIP Healthcare Quality Improvement Partnership

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What is the NACAP?

The National Asthma and COPD (chronic obstructive pulmonary disease) Audit Programme (NACAP) is a collection of projects, created with patients and designed to support improvements in the quality of care, services and outcomes for people with asthma and COPD. It includes collecting information from hospitals across England, Scotland and Wales to show which parts of asthma and COPD care are good and which parts could be better.

The NACAP team works:

- with patients and healthcare professionals, to put patient needs first.
- to create improvement goals that focus on what patients think is important.

More information is available in the patient panel feedback summary, available at the NACAP programme resources page (www.rcp.ac.uk/nacap-resources).

The NACAP is commissioned by the Healthcare Quality Improvement Partnership (HQIP) (www.hqip.org.uk/a-z-of-nca/national-asthma-and-copd-audit-programme-nacap) and run by the Royal College of Physicians (RCP) (www.rcp.ac.uk).

What is the NACAP COPD clinical audit?

Chronic obstructive pulmonary disease (COPD) is the term given to damage caused when the smaller air tubes of the lung become narrower. This can have different causes, including being exposed to harmful substances (e.g. smoke, pollution). In the UK this is usually, but not always, cigarette smoke. COPD is more likely to occur in older patients, because it is usually caused by long-term exposure to harmful substances.

Since February 2017, this audit has been collecting information on the care provided in hospitals in England and Wales for people who have been admitted with a flare-up (exacerbation[1]) of their COPD. Information was also collected from hospitals in Scotland between November 2018 and September 2020. After a change to methods of data collection, NACAP began a continuous secondary care audit on 1 March 2018.

The information NACAP collects includes:

- Personal (confidential) information such as NHS/Community Health Index (CHI) number, date of birth, ethnicity, gender and postcode. Confidential information is required so that information collected as part of the audit can be linked to other sources. This allows us to follow care if patients are treated at different times and in different places.
- Information about the treatment and care that patients get. For example, whether they:
  - are seen by a specialist,
  - were prescribed oxygen,
  - received a package of care called a 'discharge bundle'.

The main use of data collected as part of the audit is to improve care and services for people with COPD. Data is compared with COPD guidelines and standards to understand how good the care provided is and where it can be improved. Patients can choose to opt out of the audit – in this case their data is not included. More information about the audit and the use of patient data can be found in the COPD information leaflet for patients which is available here: NACAP programme resources page (www.rcp.ac.uk/nacap-copd-resources).

Glossary

A **discharge bundle** is a package of care given to you when you are being discharged from hospital. This is to ensure your future health is as good as possible and reduce the risk of needing to come back to hospital as an emergency.

[1] Exacerbation refers to a temporary increase in the severity of COPD symptoms, usually caused by an infection.

What does this report include?

This report provides a summary of the key results and recommendations for patients and carers based on the 2018/19 COPD annual report. The report collected data on people admitted to hospital for a flare-up of their COPD who were discharged between 1 October 2018 and 30 September 2019. The findings are based on data from 82,268 separate patient admissions.

We would like to thank the NACAP patient panel for working with us and for providing guidance and their expertise in writing this report.

Further information on the NACAP and our annual reports can be found on the NACAP website (www.rcp.ac.uk/nacap).

You can find NACAP on Twitter by searching **@NACAPaudit**

Foreword by John Hurst, COPD audit clinical lead

Welcome to this second report written with and for patients. It looks at the care given to people admitted to hospital in the UK with flare-ups of COPD. COPD is a common lung condition. In addition to daily symptoms such as breathlessness and cough, people living with COPD can have sudden deteriorations in their health called 'exacerbations' or flare-ups. These are usually caused by infection and can sometimes be severe enough to need treatment in hospital. Flare-ups of COPD are one of the commonest reasons for emergency hospital admissions in the UK.

Audit is a way of measuring quality of care against national standards to help healthcare staff understand where their care is good and where it is not as good as it should be. This report tells us at a national level about the standard of care for people admitted to hospital with a flare-up of COPD. If you would like to see how your local hospital is performing, a publicly available benchmarking table that presents key elements of care for patients with COPD can be found with the 2018/19 COPD report on the NACAP website (www.rcp.ac.uk/copd-2018-19).

There has been national COPD audit for over 20 years and while care has improved over time, there are still areas needing improvement, and differences in care between different hospitals which cannot be explained. To better address this, in 2017 the COPD audit went through a big change in the format of data collection. Instead of just looking at all admissions over a few months every few years, the audit started to look at every patient admitted to hospital with a flare-up at any time. This enabled hospitals to track their progress better and as a result make changes more quickly. This has resulted in significant improvements in care.

As well as providing data in 'real time' (as it is generated) to hospitals, the audit team also produce annual reports to summarise performance and variation in COPD care. We want these reports to be read by people living with COPD too, and so this is the second report to be written specifically with and for people affected by COPD.

I firmly believe that by knowing what constitutes 'excellent care', patients with COPD can work with hospitals to ensure the quality of their individual care, and consequently improve the care of every patient admitted with a flare-up, wherever and whenever that is. To help with this, we have provided some recommendations and a section at the end to consider what the results mean to someone living with COPD. By working between patients and healthcare teams we can all strive to improve the outcomes and experience for people admitted to hospital with a flare-up of COPD. Together, we can continue to improve the quality of care for people with COPD.

Patient story
Pauline, age 72

I was 54 when I was diagnosed with chronic obstructive pulmonary disease (COPD). I knew a bit about it as I nursed somebody with COPD who was at the end stage, but I was ignorant about what it really was and the causes of it. At that time, I had been a smoker for 40 years (a packet a day), but thought, 'it isn't going to happen to me, is it?' I gave up smoking the day I was diagnosed with COPD. I should have done it a long time ago.

For about 8 to 10 years before my diagnosis, I noticed I was a bit more breathless going up hills, but I ignored it and pretended it wasn't happening. One morning, I started to feel severely breathless. I couldn't get enough air in. I was leaning out of the window in the middle of the night trying to get air. Then, one New Year's Eve I just couldn't breathe at all. Now I know these instances were significant flare-ups.

I went to see my GP who told me that I had COPD and prescribed steroids to help my breathing. This diagnosis made me anxious and I asked to be referred to a specialist to get a second opinion. Lung function tests at the hospital confirmed that I had COPD. Once the consultant told me I had COPD and how it would be treated, I became much more accepting of the diagnosis. You can't escape the reality of it.

In 2010, the practice nurse referred me to a pulmonary rehabilitation (PR) course. I really enjoyed going on the course when it started. It was really good. I've always been quite fit. I used to be a yoga teacher and still practice yoga and go to respiratory courses at my local gym. But it wasn't until I completed pulmonary rehabilitation treatment and learned more about diet, exercise, how to use medication, breathing exercises, relaxation and pacing etc., that my body confidence grew because I got fitter.

Over the years, I've learnt how to exercise and appreciate its importance. It's not only beneficial for people with lung disease or any long-term condition, it's also about staying healthy as you get older, and as you age. Having been a yoga teacher, I know that if we want to keep our bodies going and for them to serve us well, we need to exercise. To anyone who has COPD and is thinking '*Oh no, I don't want to exercise*,' I would say definitely go to a PR course and keep going afterwards. You'll gain loads, absolutely loads from a PR course. And find a local respiratory or appropriate fitness exercise class to stay active after you finish PR. It's very good and I enjoy it.

Key findings

General information

The audit collects data on the care that patients receive when they are admitted to hospital with COPD. General information about each patient, such as their age and gender, is also recorded. This information allows us to understand which patient groups are more likely to be admitted to, or stay for a long time in, hospital.

Key points

- The average age of patients who were admitted was 71 years.
- More women (54%) than men (46%) were admitted to hospital with COPD.
- On average, people stayed in hospital for four days.
- In total, 82,268 patients were admitted for acute exacerbation (flare-up) of COPD between the first October and 30th September 2019.
- A high proportion of COPD admissions (over half of all admissions in England, Scotland and Wales) came from the most deprived areas.

Glossary

Deprived areas means places which are seen as disadvantaged in specific ways e.g. a lower average wage, less access to education and healthcare. This is worked out using a deprivation score that divides England, Scotland and Wales into five parts, from the most deprived (one and two) to the least deprived (five).

Respiratory review

When you are admitted to hospital with COPD, you should be seen by a clinician who has specialist knowledge in respiratory medicine.

Key Points

- 87% of patients admitted were seen by a member of the respiratory team. 66% of these patients were seen within 24 hours.
- The average time from being admitted to hospital to being seen by a member of the respiratory team review was 15 hours.

Patients who received respiratory team review within 24 hours were more likely to receive:

- **better stop smoking support:** 53% compared with 39% who received a review after 24 hours.
- **discharge bundles**: 87% compared with 50% who received a review after 24 hours.
- **oxygen prescription**: (64% compared with 54% of patients who received a review after 24 hours).

Glossary

A **respiratory team** includes healthcare professionals who have special expertise in the care of people living with COPD. It may include clinicians, pharmacists, physiotherapists and other staff.

A **discharge bundle** is a package of care that you should receive when you are leaving hospital following a flare-up of COPD. This is to make sure your health is as good as possible and that you get the care you need once you leave, and to reduce the risk of you needing to come back to hospital as an emergency. A discharge bundle could include:

- an inhaler technique check,
- an assessment of medication,
- a self-management plan,
- an emergency drug pack,
- referral for pulmonary rehabilitation (PR) treatment,
- request for follow up treatment.

Oxygen prescription is to help with low levels of oxygen in your blood. Oxygen is usually prescribed by a doctor, at a level (flow rate) which is specific to you.

Stop smoking support means the help hospitals can offer patients to quit smoking. This can include prescribed medicine or behavioural intervention (working with a specialist to change habits around smoking).

Oxygen

When you have a flare-up of COPD, the level of oxygen in your blood may become too low. When this happens, you should be offered extra oxygen (oxygen therapy) to correct this. However, for some people with COPD, too much oxygen can be as dangerous as too little. To make sure you are given safe amounts of oxygen, clinicians should write a prescription for a 'target range' of oxygen. This ensures that you are given the right amount of oxygen (not too much, not too little).

Key points

- 61% of patients were prescribed oxygen.
- Of the patients prescribed oxygen, 2% (two percent) did not have a target range specified.

Glossary

Target range will be different for different people with COPD. A blood oxygen saturation (the amount of oxygen in your blood) above 95% is seen as normal. For most people, the right target saturation is between 94% and 98%. For people who can be harmed by a higher target range, a lower target of 88–92% is usually best.

Non-invasive ventilation (NIV)

When you have a flare-up of COPD you may be unable to breathe deeply, and have trouble breathing in enough oxygen or breathing out enough of the waste gas carbon dioxide. If the flare-up is very bad, the level of carbon dioxide in your blood might become too high. If this happens, you may be offered a treatment called non-invasive ventilation (NIV). Too much carbon dioxide can cause your vital organs to fail, so it is important to start this treatment as quickly as possible. If possible, this should be within 2 (two) hours of arrival at hospital.

Key points

- 10% of patients received treatment with NIV.
- Of those who received NIV, 24% received it within two hours of arrival at hospital.
- 15% of patients received NIV later than 24 hours.
- Patients who received treatment with NIV between two and 24 hours after they arrived at hospital were more likely to have a longer length of stay in hospital.

Glossary

Non-invasive ventilation (NIV*)* is a treatment to support your breathing, by supplying extra air through your nose or mouth**.** It involves wearing a mask connected to a breathing machine that pushes air into your lungs. This gives your breathing muscles a rest, increases oxygen levels and helps you to breathe out more carbon dioxide.

Spirometry

Spirometry is a simple breathing test that identifies for sure whether you do or do not have COPD. COPD can only be diagnosed when the spirometry tests shows a pattern called 'airflow obstruction'. The spirometry test should be done when the person is feeling the best they can, to make sure it is accurate.

When you are admitted to hospital with a flare-up of COPD, it is important for the hospital team to see the results of spirometry tests you have had done in the past. They need this to confirm that you really do have COPD so they can decide on the best treatment for you.

Key points

- 46% of patients had a spirometry result.
- 14% of patients had no evidence of airflow obstruction. This means they were being treated for a COPD flare-up when a test result shows they do not have COPD.

Glossary

Spirometry is a simple test used to help diagnose and keep track of COPD. The test measures how much air can be taken into your lungs and how much air you can breathe out when you are trying your hardest.

Evidence of airflow obstruction means that less air is leaving your lungs than expected, compared with the total amount of air you are breathing out.

Smoking

The most effective way to stop COPD getting worse is to stop smoking. It is very important that hospital staff ask if you smoke and offer you support to quit. This could be with stop smoking drugs and/or with the help of a specialist counsellor.

Key points

- 34% of patients who were asked on admission were current smokers. 1% (one percent) of patients were vaping.
- 47% of patients who were current smokers were referred to a specialist counsellor and/or had a medicine prescribed to help them stop smoking during the admission.

Glossary

Stop smoking drug is a drug which has been prescribed to a patient who struggles to give up smoking. The most common drug for this is varenicline (Champix), which can reduce nicotine cravings and block the effects of smoking that people enjoy or rely on.

Acute observations

When you are admitted to hospital, basic measurements including heart rate, breathing rate and blood pressure are taken. These are used to calculate a score called the revised National Early Warning Score (NEWS2). NEWS2 indicates how severely unwell you are and can indicate the risk of your health or condition getting worse.

Key points

> **74%** of patients had a NEWS2 score recorded

Glossary

The **National Early Warning Score (version two) (NEWS2)** was developed by the Royal College of Physicians to improve the detection and response to clinical deterioration (health or condition getting worse) in adult patients. It is a key element of patient safety and improving patient outcomes.

Multiple conditions

If you have COPD you may well have other conditions too. These are often called comorbidities. It is important to be aware of comorbidities, so they can be considered during your admission. Comorbidities are also linked to a higher risk of being readmitted to hospital in future. A number of conditions are associated with COPD. Two of the most common of these are cardiovascular disease and mental health conditions.

Key points

- 38% of patients had a history of cardiovascular disease and 16% had history of a mental health condition.
- New treatments were made in 21% of patients with cardiovascular disease.
- New treatments were made in 14% of patients with a mental health condition.

Glossary

Cardiovascular disease is a term used for conditions that affect the heart or blood vessels such as a heart attack or stroke.

Mental health condition is a medical term used for health conditions that may affect emotions, thinking or behaviour (or a combination of all) and can affect you in your daily life. These conditions include anxiety and depression.

Discharge processes

When you are well enough to go home, hospital teams should arrange any follow-up care you need. They will also do their best to make sure your future health is as good as possible and reduce your chance of needing to come back to hospital as an emergency. This is usually done with a package of care called a 'discharge bundle'.

A typical discharge bundle could include:

- checking that you can use your inhalers properly,
- making sure you have help to quit smoking if you continue to smoke,
- arranging follow-up care (e.g. with a GP or community service),
- in some cases, referring you to a pulmonary rehabilitation (PR) programme. NACAP has developed an easy guide on what you can expect when you are referred for PR. This is available online on the NACAP website PR page (www.rcp.ac.uk/nacap-pr.)

Key points

- 74% of patients received a discharge bundle.
- 70% of patients had their inhaler technique checked.
- 9% (nine percent) of patients had care discussed at a meeting between the hospital team and a local community team. This is one way that can help to join up care.
- 56% of patients were assessed to decide if they should be referred for PR.

Glossary

Pulmonary rehabilitation (PR) is a programme of exercise and support, designed to help if you have lung disease or breathlessness. It aims to help you learn to breathe and function at your highest level possible.

Recommendations

Recommendations for people living with COPD, and their families and carers

There have been a lot of changes for patients, families, and carers over the past year. However, it is still important to consider these recommendations.

> Use the Asthma UK and British Lung Foundation Partnership (AUK-BLF) COPD patient passport (https://passport.blf.org.uk). This explains the care you should be receiving, and what to do if you are not receiving the right care. It is helpful to take the patient passport to hospital with you if you are admitted.

> Understand that good quality care includes:
  — being seen by a member of the COPD specialist team within 24 hours of admission
  — receiving a 'discharge bundle' before you leave hospital (this may include help to quit smoking, advice on correct use of inhalers, referral to pulmonary rehabilitation and any follow-up care you need).

  Feel empowered to ask for these if they are not offered to you.

> When you have breathing tests (spirometry) done, ask for a copy of the results and keep these safe to take with you if you are admitted to hospital. Hospital teams need to see your results to decide on your treatment, but results can be hard to access if you had the test somewhere else e.g. your GP surgery.

What we are recommending as priorities for hospital teams[2]

> Ensure all patients who arrive at hospital with a flare-up of COPD and require non-invasive ventilation (NIV) (treatment to support breathing using a mask) receive it within two hours of arrival.

> Ensure that all patients who arrive at hospital with a flare-up of COPD have results from previous breathing test (spirometry) which confirm they have COPD.

> Ensure that all patients who arrive at hospital with a flare-up of COPD and are current smokers are offered support to stop smoking. Ensure support is provided to patients who accept it.

[2] We also make recommendations for healthcare commissioners and primary care teams. These can be found in the main national report which can be downloaded from **www.rcp.ac.uk/copd-2018-19**.

What do these results and recommendations mean for me?

These results summarise the state of care for COPD flare-ups in the UK between first October 2018 and 30th September 2019.

It's important for you to be aware of the key messages in this report. The **average length of stay** in hospital was **four days**. **87% of people were seen by a respiratory specialist** during their stay, but **it took an average of 15 hours** for this to happen. This is why we recommend that people living with COPD know that **excellent care includes seeing a specialist ideally within the first 24 hours**. If this does not happen you should request to see a member of the respiratory team, if this is possible.

You should also **expect to receive a discharge bundle** before you go home. You should ask for one if this is not offered to you. This will ensure you have the right help to quit smoking if you need it and can use your inhalers correctly. It will also include arrangements for follow-up care and PR if you need these.

It is very difficult for hospital teams to access results from past breathing tests (spirometry). They need these to confirm that you have COPD and know how severe it is. Our third recommendation is to **keep copies of this important information and take these to hospital with you**. You could use the AUK-BLF Patient Passport to do this.

In summary, if you are admitted to hospital with a flare-up of COPD, you should:

- expect to see a specialist,
- expect to receive a discharge bundle,
- help hospital teams by keeping copies of key information where possible. For example, request copies of breathing test results and share these with your hospital team during your admission.

More information

More information on the NACAP and our annual reports are available on the NACAP webpage: www.rcp.ac.uk/nacap.

You can follow us on Twitter: https://twitter.com/NACAPaudit

If you have any other specific queries about the work of the NACAP, please email us at copd@rcp.ac.uk.

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