Royal College of Physicians | NACAP

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

# COPD clinical audit 2017/18

People with COPD exacerbations discharged from acute hospitals in England and Wales between September 2017 and 2018

## Key findings for patients and carers

Published May 2019

# What is the NACAP?

The National Asthma and COPD (chronic obstructive pulmonary disease) programme (NACAP) for England, Scotland and Wales is a programme of clinical audits that spans the entire patient care pathway. It collects data showing which parts of asthma and COPD care are good and which could be better. NACAP aims to improve the quality of care, services and clinical outcomes for patients with asthma and COPD.

The NACAP team work closely with asthma and COPD patients, as well as healthcare professionals, and aspires to set out a vision for a service that puts patient needs first.

The NACAP is commissioned by the Healthcare Quality Improvement Partnership (HQIP) and run by the Royal College of Physicians (RCP).

In association with:

Commissioned by:

# What is the NACAP COPD clinical audit?

Since February 2017, this audit has been collecting information on the care provided in hospitals in England and Wales for people that have been admitted with a flare-up (exacerbation*) of their COPD.

This information includes:

- Personal (confidential) information, such as NHS/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. Linkage 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 discharge bundle etc.

The information collected as part of the audit is then compared to COPD guidelines and standards to understand how good the care provided is and where it can be improved.

The main use of the data is to improve care and services for people with COPD. More information about the audit and the use of patient data can be found in the COPD patient information leaflet which is available here: **www.rcplondon.ac.uk/nacap-copd-resources**.

# What does this report include?

This report provides a summary of the key results and recommendations from the 2017/18 COPD annual report, which collected data on people admitted to hospital for an exacerbation of their COPD between 14 September 2017 and 30 September 2018.

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

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

# Foreword

## by John Hurst, COPD audit clinical lead

Chronic obstructive pulmonary disease (COPD) is a common lung condition. In addition to daily symptoms such as breathlessness and cough, people living with COPD are prone to sudden deteriorations in their health called 'exacerbations'. These are usually caused by infection, and can sometimes be severe enough to need treatment in hospital. Exacerbations 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. Everyone wants to do the best they can, but the experience of patients is that care is not always perfect. This report tells us at a national level about the standard of care for people admitted to hospital with an exacerbation 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 here: **www.rcplondon.ac.uk/copd-2017–18**. There has been some form of national audit for COPD exacerbations for over 20 years and while care has improved over time it is clear that 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 an exacerbation at any time. This enabled hospitals to track their progress more effectively 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 first report to be written specifically for people affected by COPD. I firmly believe that by knowing what constitutes 'excellent care', patients with COPD can help hospitals to build on the improvements already made and make sure that care is excellent for every patient admitted with an exacerbation, 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. This is the first of these reports – we welcome feedback. Meanwhile, by working between patients and healthcare teams we can all strive to improve the outcomes and experience for people admitted to hospital with an exacerbation of COPD. Together, we can improve the quality of care for people with COPD.

# Key findings

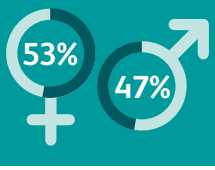
## General information

Chronic obstructive pulmonary disease (COPD) is the term given to damage in the smaller air tubes of the lung when they are exposed to harmful substances. In the UK this is usually but not always cigarette smoke (other types of smoke and pollution can be harmful too). Because long-term exposure to smoke or harmful substances is usually necessary to cause COPD, it is a condition that is more likely to occur with increasing age.

As well as collecting data on the care that patients receive when they are in hospital, the audit also captures some more general information about each patient, such as their age and gender. This allows us to understand things like which patient groups are more likely to be admitted to, or stay for a long time in, hospital.

**COPD admissions**

More females (53 %) were admitted for COPD than males (47 %)




**Patient's age**

Median age of admitted patients was 73 years


**Length of stay**

Median length of stay for patients was 4 days


A high proportion of COPD admissions came from the **most deprived areas** of England (34 %) and Wales (39 %).

## Glossary

***Median*** is a type of average. It is calculated by identifying the 'middle value' in a sorted list of numbers. This means half the values are above and half the values are below the median.

***Deprivation scores*** divide England and Wales into five parts, from the most deprived to the least deprived. This is calculated based on things like the average level of education achieved in the population, the kind of work that people living in the area do and the level of crime in the area.

## Provision of timely care

The COPD audit has shown that when specialist respiratory teams are involved in the care of someone with COPD the care is likely to be better.

Ideally, the specialist team should be involved as soon as possible after hospital admission.

# 85%

**85% of patients admitted** were seen (reviewed) by a member of the respiratory team (compared with 78 % in 2017) before they left hospital.

# 64%

**of these patients** were seen within 24 hours of being admitted.

**The median time** from patients being admitted to hospital to being seen by a member of the respiratory team was **15 hours** (16 hours in 2017).

**Patient priority**

**Timely access to / review by respiratory specialist**

### Glossary

***A respiratory team*** is composed of healthcare professionals who have special expertise in the care of people living with lung conditions such as COPD. It may include doctors, nurses, pharmacists, physiotherapists and other staff.

## Patient story

# Steve, age 70

I was diagnosed as having COPD by my GP while attending the surgery suffering from shortness of breath in 2008. I was placed on a nebuliser which helped ease my breathing. I was reviewed by a nurse practitioner in 2009 which reconfirmed my initial diagnosis by a chest X-ray, computed tomography (CT) scan and spirometry. Thereafter I met with a respiratory nurse at the hospital every 6 months to be reviewed.

The main effect of my condition on me has been the gradual increase of shortness in breath. At the point at which I was diagnosed this was quite severe, but since then I have managed my condition reasonably well.

Up until 3 years ago I was playing crown green bowls, but I now find that bending to pick the bowls up contributes to shortage of breath, especially in hot weather.

I have been hospitalised twice because of my COPD. The first was in March 2016 when I was struggling to breathe. I was taken by ambulance to hospital, and en route the paramedics administered oxygen and placed me on a nebuliser. Once I arrived in A&E I was examined and given antibiotics and steroids. I was later moved to a ward and hospitalised for a week where I was seen by a consultant daily. The treatment I received on the ward was exemplary; the care given by the nurses was superb. After my discharge I was sent home with antibiotics and steroids as well as a nebuliser. I was visited or contacted daily for 2 weeks by the early release nurses. After this hospitalisation the consultant took over my 6-monthly meetings. At my last meeting we both decided that as I was managing my condition well that there was no need to meet so often and I will now have annual appointments.

## Glossary

***A nebuliser*** is a machine that helps you to breathe in a medicine as a mist through a mask or a mouthpiece.

***Antibiotics*** are medicines that are used to treat or prevent some types of bacterial infection. They work by killing bacteria or preventing them from reproducing and spreading.

***Steroids*** (also called corticosteroids) are anti-inflammatory medicines used to treat a range of conditions.

***Spirometry*** is a simple test used to help diagnose and monitor COPD by measuring how much air can be taken into a person's lungs and how much air they can breathe out when they are trying their hardest.

***An X-ray (radiograph)*** is a non-invasive medical test that helps physicians diagnose and treat medical conditions.

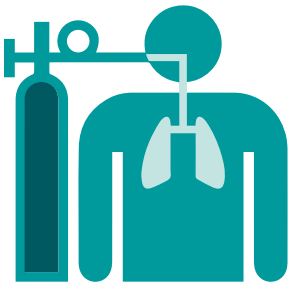
***A computed tomography (CT)*** scan combines a series of X-ray images taken from different angles around your body and uses computer processing to create cross-sectional images (slices) of the bones, blood vessels and soft tissues inside your body. CT scan images provide more detailed information than plain X-rays do.

## Oxygen

When people have an exacerbation of their COPD, the levels of oxygen circulating in their blood may become too low. When this happens, they 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.

Therefore to ensure people are given safe amounts of oxygen, doctors should write a prescription (similar to the ones they write for medications) which specifies a 'target range' to ensure that the right amount of oxygen is provided (not too much, not too little).


**72%** of patients that **required oxygen** were prescribed it (57% in 2017).



Of the patients prescribed oxygen **3% did not have a target range specified.**

### Glossary

***Target range*** differs for people with COPD. For most people the appropriate target saturation range is 94–98% (a blood oxygen saturation above 95% is considered normal), but for people who can be harmed by a higher range a lower target of 88–92% is usually best.

## Non-invasive ventilation

When people have exacerbations of their COPD they may be unable to breathe deeply enough to either inhale enough oxygen, or exhale enough of the waste gas, carbon dioxide. If the exacerbation is very severe, the level of the waste gas circulating in the blood may accumulate, and the patient may be offered a treatment called non-invasive ventilation (NIV).

NIV is a breathing machine attached to a tight-fitting nose or face mask that can help when there is a build-up of carbon dioxide in the blood. Too much carbon dioxide can cause a failure of your vital organs and so it is important to commence treatment as quickly as possible, ideally within 2 hours of arrival at hospital.

**Only 21%** of patients treated with NIV received treatment within 2 hours of arrival.


**10.3% of patient** admissions received treatment with NIV (11 % in 2017).

### Waiting time

The median (average) time from a patient's arrival to acute treatment with NIV was **5 hours** (meaning that half the people who needed NIV did not receive this for 5 hours or more).

### Glossary

***Non-invasive ventilation (NIV)*** involves wearing a nose or face mask connected to a breathing machine that pushes air into your lungs. NIV supports the patients breathing to give the breathing muscles a rest. This increases oxygen levels and helps patients to breathe out more carbon dioxide.

## Spirometry

Spirometry is a simple breathing test that is the only way to know for sure whether someone does or does not have COPD. COPD can only be diagnosed when the spirometry tests shows a pattern called 'airflow obstruction'. The test isn't usually done when people are admitted to hospital as an emergency as it can be difficult to do, and doesn't show the person at their 'best' lung function. However, it is important for the hospital team to be able to see the results of previous spirometry tests to confirm that someone admitted to hospital with a possible exacerbation of COPD really does have COPD.

**60%** of patient admissions **did not have a spirometry result recorded**.

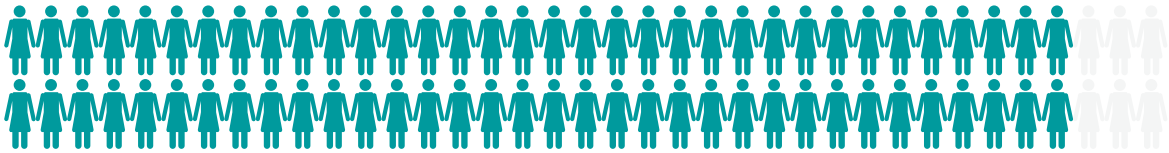
**12%** of patient admissions that had a spirometry result recorded **had no evidence** of airflow obstruction even though they were being managed for an exacerbation of COPD. This suggests these patients may not have actually had COPD.

### Glossary

***Spirometry*** is a simple test used to help diagnose and monitor COPD by measuring how much air can be taken into a person's lungs and how much air they can breathe out when they are trying their hardest.

## Smoking

The most effective treatment to prevent further deterioration of COPD is to stop smoking. It is very important that hospital staff ask if people smoke and offer support to quit for people who continue to smoke. This could be with medicines, and/or with the help of a smoking cessation counsellor.



**94%** of patient admissions **had a smoking status recorded** (90.9% in 2017).

**32%** of the patients audited **were smokers** (31% in 2017).

**67%** of patients that were smokers were **offered smoking cessation medicines and services** (61% in 2017).

**41%** of patients that were smokers **declined help** with smoking cessation (36% in 2017).

### Glossary

***Smoking cessation*** is the process of helping a person to quit tobacco smoking.

## Discharge processes

When someone with a COPD exacerbation has recovered enough to return home, hospital teams should try and do everything they can to make sure the chance of being readmitted to hospital is minimised, and that appropriate follow up has been arranged. This is usually done as a package of care called a 'discharge bundle'. A typical discharge bundle will usually involve checking that a person can use their inhalers properly, making sure they have help to quit smoking if they continue to smoke, that there is follow up arranged (eg with a GP or community service) and that a referral to the education and exercise programme called pulmonary rehabilitation has been considered.

**67%** of patient admissions **received a discharge bundle** compared with 53% in 2017.

**16%** of admissions had **'no follow-up arrangements apparent'** selected as a response in the dataset (19% in 2017).

### Glossary

***Discharge bundle*** is a package of care given when a person with COPD is being discharged from hospital to maximise their future health and reduce the risk of needing to come back to hospital as an emergency.

# Recommendations

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

- Use the British Lung Foundation (BLF) COPD Patient Passport (**https://passport.blf.org.uk**) to understand whether you are receiving the care that you are entitled to and find out what to do if not. Take the patient passport to hospital with you if you are admitted.
- Understand that important measures of care quality include being seen by a member of the COPD specialist team within 24 hours of admission, receiving a 'discharge bundle' prior to discharge (which typically includes advice and help to quit smoking), ensuring correct use of inhalers, referral to pulmonary rehabilitation and arranging appropriate follow up. Feel empowered to ask about these.
- It can be difficult for hospital teams to see and access results of breathing tests (spirometry) which you may have had at your GP surgery or in a different clinic. When you have breathing tests done ask for a copy of the results and keep these available should you be admitted to hospital.

## What we are recommending for hospital teams*

- Ensure all patients that arrive at hospital with an acute exacerbation of COPD that require NIV receive it within 2 hours of arrival.
- Ensure that all patients that arrive at hospital with an acute exacerbation of COPD have a spirometry result available.
- Ensure that all patients that arrive at hospital with an acute exacerbation of COPD that are current smokers are identified, offered, and if they accept, prescribed smoking cessation medicines and services.

* 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.rcplondon.ac.uk/copd-2017–18.**

# What do these results and recommendations mean for me?

These results summarise the state of care for COPD exacerbations in the UK for the period 14 September 2017 to 30 September 2018. We have also provided 2017 results (1 February to 13 September 2017) for comparison where appropriate.

There is important information in this report. We know that the average length of stay in hospital is 4 days. While 85% of people were seen by a respiratory specialist during the admission it took an average of 15 hours for this to happen, and 15% of people did not benefit from specialist expertise at all. This is why one of our recommendations for people living with COPD is to know what excellent care looks like, and to expect to see a specialist (ideally within the first 24 hours), and to request to see a member of the COPD team if it doesn't happen.

Similarly, you should expect to receive a 'discharge bundle' prior to going 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, that you can use your inhalers correctly, and that you have follow up and pulmonary rehabilitation arranged as appropriate.

One of the most challenging areas for hospital teams is being able to access breathing test (spirometry) results that confirm COPD and indicate how severe it is. It can be very helpful for people living with COPD to keep copies of such important information, perhaps using the BLF Patient Passport.

Our key points:

- expect to see a specialist
- expect to receive a discharge bundle
- help hospital teams by keeping copies of key information, such as breathing test results.

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> help hospital teams by keeping copies of **key information**, such as breathing test results.

## Further information

For further information on the NACAP and to see our annual reports please visit **www.rcplondon.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 **NACAP@rcplondon.ac.uk**

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