



National Asthma and COPD Audit Programme (NACAP)

Pulmonary rehabilitation: Good Practice Repository

Version 1: March 2019

Introduction

The National Asthma and COPD Audit Programme (NACAP) have collated a series of case studies which highlight good practice in both audit data collection and entry, and in provision of quality pulmonary rehabilitation (PR) for people with COPD. This document aims to provide teams with learning to implement locally, and with ideas on how local practice could be improved.

Do you have any questions?

If you have any questions about any of the content, or would like more detail about any of the case studies, please contact the NACAP team on 020 3075 1526 or via email (pulmrehab@rcplondon.ac.uk).

For further information on NACAP, please visit www.rcplondon.ac.uk/nacap.

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[Cambridgeshire Pulmonary Rehabilitation Programme: \(Provide CIC\)](#)

- Cambridgeshire Pulmonary Rehabilitation Programme found that taking part in the 2017 audit was beneficial for the team in establishing if spirometry is missing from a patient's notes. **If spirometry is missing from the patients notes, patients are asked to perform a spirometry test within their first or second PR session**, unless there is a reason why this cannot be performed (for example, a recent chest infection or recent eye surgery).
- The team compiled a list of patients that consented to take part in the audit, making it easier to find out which patients were included once they completed their course. Patients that completed or were discharged from the course were ticked off the list.
- The **audit has also helped the team establish whether a patient is either underweight or overweight** because of the built-in BMI calculator question on the web tool.
- When colleagues leading the audit were on leave or away on training, **other team members were able to take the audit forward without any struggle**, and **the web tool has been an easy system to use for everyone.**



“If the team had any issues using the audit web tool, they found the helpdesk supportive in addressing issues quickly”

[Bedford Hospital Pulmonary Rehabilitation \(Bedford Hospital NHS Trust\)](#)

The Bedford Hospital PR team recruited patients for the 2017 audit from their rolling programme (Bedford) as well as one of their cohort programmes that was running at the time of the audit (Central Bedfordshire):

- Two members of the team took responsibility to input the initial data. Once patients had been discharged from the course, the team updated the records on the web tool.
- Whilst waiting (and after attending a course) **patients could attend the once-a-week Respiratory Exercise group in their most local venue**. This data was not easily captured on the audit, and therefore could make timescales seem long for some patients. However, the groups were attended, and the team felt it was very beneficial for the patients.
- Since completion of the last audit the team have worked hard to:
 - **Maintain referral rates, and have received more self-referrals** by word of mouth from previous attendees on the course.
 - Update standard operating procedures, as well as **modify their database to more accurately record information** such as the date a course was offered and when the patient chose to start.



“Patients can choose whether they attend the rolling PR programme starting immediately or wait for a cohort PR programme.”

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[Glenfield and Leicester Hospitals PR Service \(University Hospitals of Leicester NHS Trust\)](#)

- **The PR Service at Glenfield and Leicester Hospital have increased patient completions rates and raised the profile of wait times within the team.** All team members are included in the drive to reduce this and it is discussed in their clinical team meeting every 2 weeks and within their senior team meeting every 2 months.
- **All patients who are assessed complete 2 x ISWT at their pre assessment.** All patients also are assessed for baseline muscle strength.
- The team have separated out waiting times from receipt of referral to assessment time and assessment time to class start time and these are regularly updated and displayed the team's clinical office. If there are any undersubscribed classes, patients waiting are telephoned and asked if they would like to bring forward their start date to ensure all spaces are filled.
- A Breathlessness Rehab model (combining heart failure and COPD) has been used to keep a cohort open whilst team members at the service are on long term leave. This prevents the wait time for classes from rising significantly whilst team members are on leave.
- **Paperwork used by the team includes a section for 2 x Incremental shuttle walking tests (ISWT) prompting staff to ensure that this has been carried out with patients.** Their paperwork is audited regularly (every 1-2 months) to measure compliance to this and results are distributed to members of the team.
- **A yearly competency staff training day has been introduced** and staff are measured against the services standard operating procedure which includes 2 x ISWT. In addition, a decision was also made that if there is not sufficient time to complete the 2 x ISWT and the endurance shuffle walk test (ESWT) at the assessment, then the ESWT will be booked on another day or before their class start time.
- **Muscle strength assessment is monitored in the same way as other outcome measures** on patient assessment paperwork and included in the competency day. It is also included on the class register/handover to ensure all patients are measured at assessment and again at discharge.
- Inclusion/ exclusion criteria are available on the equipment and missing data is documented if the patient cannot perform the measure in order to reduce missing values.
- **Patients are routinely contacted by telephone or sent a letter** requesting that they give the department a call if they do not attend a session to discuss any difficulties.



“We were 69% in 2017 audit for 2x ISWT. Our most recent department audit was 80% compliant”

*The team recognised, from the 2017 audit results that there were other well performing PR departments, namely **Harefield Hospital and Rotherham Breathing Space**, and visited them to share practice. This enabled them to reflect on their programme. **Yearly competency day***

*“To maximise completion rates we offer patients an **alternative delivery method if they are reporting barriers or difficulties with their current delivery model eg hospital classes, web based classed and self-management guidance**”*

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- **The patient pathway has also been mapped out allowing areas where patient dropout rates are highest to be identified.** Once noted, a questionnaire with a paid for is sent to patients asking for their reasons for dropping out.

[North Tees and Hartlepool Foundation Trust Pulmonary Rehabilitation Service](#)

- The North Tees and Hartlepool NHS Foundation Trust Pulmonary Rehabilitation service provides **rehabilitation across Primary and Secondary care in Stockton-On-Tees, Hartlepool, Seaham and Durham.** The 2015 National audit demonstrated the service receives 1154 referrals per year with a demographic of significantly raised smokers and deprivation index.



- In 2016 the **service was transformed to SystemOne electronic records.** This enabled daily triaging of referrals, monitoring waiting list, prioritising referrals, staff capacity and electronic communication with GP surgeries. The transition involved setting up electronic systems, phased clinician training and familiarisation.
- **The 2017 audit involved training of the clinical team** in consent and recruitment with support from the Audit Department and System Support Department in electronic data capture, collection and input.
- **In collaboration with Teesside University,** the Trust is leading a research study on **Psychological Flexibility in Pulmonary Rehabilitation** engagement in acute exacerbation of COPD patients admitted to hospital. This research is funded by the North East Council for Allied Health Professional grant and Trust Research and Development department. It has approval from the Health Research Authority and commenced recruitment in September 2017. The study results indicate a significant link between disability and poor acceptance of pulmonary rehabilitation in COPD patients post hospital admission.
- The research study was funded by the North Tees and Hartlepool Research and Development department and the North East Council for Allied Health Professional grant with access to excellent an academic team.
- The combined collaboration and support has enabled the project to be completed in 2019.

“Poor Pulmonary Rehabilitation engagement is recognised as a problem nationally”

“The use of SystemOne electronic records has been critical in managing a high volume of referrals and provides accurate information”

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[Breathing Space \(The Rotherham NHS Foundation Trust\)](#)

Following the 2015 audit, **BreathingSpace** have implemented the following changes and quality improvement initiatives:

- **A second incremental shuttle walk test (ISWT) is now completed routinely.** This has involved the modification of some paperwork, and the implementation of a rehab support worker follow-on clinic.
- There has been a community roadshow, to increase awareness and therefore referral rates from areas where there is potential for local community provision.
- **A new therapist-to-therapist referral process has been put in place** to promote integration between the hospital and community settings. **This has allowed therapists to directly refer into PR.**
- **Home exercise booklets have been created**, and issued to all of those not actively partaking in maintenance at BreathingSpace.
- Links have been put in place with Active4Health partners in community post maintenance (a Sport England initiative).
- **Current Standard Operating Procedures have been updated and expanded** to include all recommended themes
- BreathingSpace have also presented at their trust clinical effectiveness group about the audit outcome and their plans.



A new leaflet has been created to raise awareness, improve referral rates and promote completion called 'What is Pulmonary Rehab?'