



Pulmonary Rehabilitation Services

University Hospitals Birmingham NHS

Foundation Trust

Visit Date: 25th July 2019

Report Date: November 2019



8831



Contents

Introduction.....	3
Review Visit Findings	4
Birmingham Heartlands and Solihull Acute Hospital and Community Pulmonary Rehabilitation Services	4
Commissioning	9
APPENDIX 1 Membership of Visiting Team	10
APPENDIX 2 Compliance with the Quality Standards.....	11

Introduction

This report presents the findings of the review of pulmonary rehabilitation services provided by University Hospitals Birmingham NHS Foundation Trust at Birmingham Heartlands Hospital and Solihull Hospital. The purpose of the visit was to review compliance with the national pulmonary rehabilitation standards from the British Thoracic Society:

- British Thoracic Society Standards for Pulmonary Rehabilitation in Adults, MAY 2014 ISSN 2040-2023 BRITISH THORACIC SOCIETY REPORTS VOL. 6 NO. 2 2014.

The aim of the standards and the review programme is to help providers and commissioners of services to improve clinical outcomes and service users' and carers' experiences by improving the quality of services. The report also gives external assurance of the care which can be used as part of organisations' Quality Accounts. For commissioners, the report gives assurance of the quality of services commissioned and identifies areas where developments may be needed.

The report reflects the situation at the time of the visit. Any immediate risks identified will include the Trust and QRS response to any actions taken to mitigate against the risk. Appendix 1 lists the visiting team that reviewed the pulmonary rehabilitation services provided by University Hospitals Birmingham NHS Foundation Trust. Appendix 2 contains the details of compliance with each of the standards and the percentage of standards met.

This report describes services provided or commissioned by the following organisations:

- University Hospitals Birmingham NHS Foundation Trust
- NHS Birmingham and Solihull Clinical Commissioning Group

Most of the issues identified by quality reviews can be resolved by providers' and commissioners' own governance arrangements. Many can be tackled by the use of appropriate service improvement approaches; some require commissioner input. Individual organisations are responsible for taking action and monitoring this through their usual governance mechanisms. The lead commissioner for the service concerned is responsible for ensuring action plans are in place and monitoring their implementation liaising, as appropriate, with other commissioners, including commissioners of primary care. The lead commissioner in relation to this report is NHS Birmingham and Solihull Clinical Commissioning Group.

About the Quality Review Service

QRS is a collaborative venture between NHS organisations to help improve the quality of health services by developing evidence-based Quality Standards, carrying out developmental and supportive quality reviews - often through peer review visits, producing comparative information on the quality of services and providing development and learning for all involved.

Expected outcomes are better quality, safety and clinical outcomes, better patient and carer experience, organisations with better information about the quality of clinical services, and organisations with more confidence and competence in reviewing the quality of clinical services. More detail about the work of QRS is available at

www.qualityreview servicewm.nhs.uk

Acknowledgments

Quality Review Service would like to thank the staff and service users and carers of Birmingham and Solihull health economy for their hard work in preparing for the review and for their kindness and helpfulness during the course of the visit. Thanks are also due to the visiting team and their employing organisations for the time and expertise they contributed to this review.

Return to [Index](#)

Review Visit Findings

Birmingham Heartlands and Solihull Acute Hospital and Community Pulmonary Rehabilitation Services

Background

Quality Review Service (QRS) was asked by NHS Birmingham and Solihull Clinical Commissioning Group to undertake a review of the pulmonary rehabilitation services provided across Birmingham and Solihull. The purpose of the review was to understand the quality of pulmonary rehabilitation services provided across Birmingham. It was agreed that the British Thoracic Society (BTS) Standards for Pulmonary Rehabilitation in Adults 2014 would be used for the review. Each provider completed a self-assessment prior to the review and was asked to provide evidence for each of the BTS standards for reviewers to consider on the day of the visit. QRS undertook a review of Pulmonary rehabilitation services provided by Birmingham Community Healthcare Trust and South Doc Services Ltd in the autumn of 2018.

This review covered the pulmonary rehabilitation services provided on the Birmingham Heartlands (BHH) and Solihull hospital (SH) sites. The pulmonary rehabilitation services that were delivered in the community were not visited as part of this review and unfortunately on the day of the review, the session based in the gym on the Birmingham Heartlands Hospital site was cancelled due high temperature in the gym resulting from the extreme weather condition that day. Reviewers, however, did have the opportunity view facilities, discuss with staff from the Trust about the organisation and delivery of pulmonary rehabilitation provided on the BHH site and across the community; met with a patient, and following consent from the patients who would have attended the session, viewed some care records. Some of the review team did visit the Solihull hospital pulmonary rehabilitation session, viewed facilities and met with patients and staff.

General Comments and Achievements

These were experienced teams with strong leadership evident throughout. The pulmonary rehabilitation multidisciplinary team (MDT) as a whole were extremely proud of what they had achieved, and it was clear to the reviewers that the MDT was highly committed, innovative and enthusiastic in their vision to provide a high quality service.

All the patients who met with the review team were enjoying the programme and were appreciative of the support and kindness shown to them by the staff.

Pulmonary rehabilitation programmes (PR) were delivered across eight venues, with sessions running twice a week over an eight week period. The acute hospital team for Birmingham Heartlands, Good Hope and Solihull hospitals (HGS) delivered PR sessions on each hospital site as well as at two community venues in the north of Birmingham (Kingstanding and Sheldon). Saturday sessions were also delivered weekly, rotating between the three hospital sites. The Solihull Community Respiratory Team provided PR programmes at three community venues (Chelmsley Wood, St George and St Teresa's, Dorridge and the Shirley Institute).

All sessions were delivered by a multi-disciplinary team consisting of specialist respiratory nurses, physiotherapist, dietitians, occupational therapists and therapy support workers. A speech and language therapist also attended the education sessions run at Solihull hospital, and the service was looking at including speech and language representation at other programmes across the region. Cross cover by staff was in place so that sessions were not cancelled.

Referrals were accepted from respiratory consultants, respiratory specialist nurses, GPs, practice nurses community matrons and allied health professionals. Since the commencement of a virtual chronic obstructive pulmonary disease (COPD) clinic the number of PR referrals from GPs' had significantly increased. Pulmonary rehabilitation maintenance classes and free gym membership were also accessible at two fitness centres for residents living in the Birmingham City council area and subsidised membership to attend maintenance classes run in Solihull.

Waiting times for patients to access PR programmes at BHH exceeded 12 weeks (see main report).

Reviewers considered that the facilities at Solihull hospital and equipment at both hospital gyms were very good.

Good Practice

1. The team had implemented a number of initiatives to help motivate and engage patients to the health benefits of attending a PR programme:
 - a. 'Myth busters' project aiming to reduce fears and anxieties of patients with chronic respiratory disease to improve attendance and outcomes in pulmonary rehabilitation was excellent. The project had included asking patients about their worries and anxieties around attending PR programmes. Following patient feedback, posters were displayed in the gym areas covering 'frequently asked questions'. A 'pre-rehabilitation' video had been developed with patients to explain the benefits of PR and what to expect from a PR programme.
 - b. Staff would direct patients to access the 'pre rehabilitation' video and patient information on the intranet as part of the patient's initial assessment and details were also included in the letters to patients.
 - c. Individual exercise challenges advice had been produced to help with motivating patients covering rowing, stepping and walking. For example the 'steps' challenge included the number of steps that patients would need to aim to achieve to be able to visit some famous historic sites
 - d. Patient diaries included clear and supportive advice about how patients could increase their level of aerobic exercise.
 - e. Some staff had attended training on motivational interviewing as a technique to use to support patients to maximise their health outcomes from taking part in a PR exercise programme.
2. Reviewers were impressed with the role of the volunteers who were available to support patients. The 'buddy' system was highly appreciated by patients and had been established for some time. Volunteers would stay with a particular PR group and then continue to support the patients when they attended a maintenance class. Volunteers had also helped with the development of patient information and PR videos.
3. Patient information was very comprehensive. Particularly impressive was the information for patients about local groups and other options to consider when they had completed their PR course.
4. Access to patient transport was very good which enabled patients to attend the sessions who would otherwise not be able to benefit from pulmonary rehabilitation.
5. Reviewers were impressed with the good leadership evident at all levels. Joint shared leadership between the lead consultants from the HGS and service at the Queen Elizabeth Hospital Birmingham was well established. There was also good support from the lead consultant, lead managers and team leaders at HGS and the Solihull Community PR team.
6. The competence framework developed for all grades of PR staff was very clear and well designed.
7. The process for MDT review and learning was very good with staff from the PR teams invited to attend the weekly COPD MDT meetings. Topics for the weekly education sessions varied, but included regular monthly session focusing on PR outcomes, data and PR service development.
8. The physiotherapy team at Solihull met regularly with local leisure centre staff (delivering the PR maintenance exercise programme) to answer any queries staff may have and give any feedback received about the maintenance programme from patients.
9. The data base that was in the process of being developed at the time of the visit included a wide range of data fields. Reviewers considered that once the database was in operation it would enable robust data capture for timely monitoring of performance for all the eight acute hospital and community delivered PR programmes.
10. The standard operating procedure (SOP) for the hospital and community delivered PR services was well written and comprehensive. Reviewers were impressed with the information for staff on the processes for patient discharge, re- entry to programmes and on completion of PR programmes, especially as there remains uncertainty about the national definition of 'completion'.

11. The process for triaging patients appropriately was robust with a clear focus on patient safety. Patients at risk of their health being compromised by undertaking the programme (due to other medical conditions) were not automatically excluded from the programme until a risk assessment was completed. If following discussion with the patient and MDT it was considered that they would benefit from attending a programme, they were allocated to a hospital rather than community-based programme, where support in an emergency would be available.

Immediate Risks: None identified during the course of the visit

Concerns

1. **Waiting times and pathway**

Reviewers were concerned about the pathway for a number of reasons:-

- a. The waiting time for patients to commence a PR programme HGS was 17 weeks rather than the national target of 12 weeks.
- b. Patients were accepted for PR following an acute exacerbation of COPD (AECOPD) but could not always be offered pulmonary rehabilitation within one month of leaving hospital. The team were aware of the long waiting times and could refer some patients to the Birmingham Community Healthcare NHS Foundation Trust PR service. Ninety four percent of patients were seen following discharge by the respiratory specialist nurse.
- c. Reviewers considered there were inherent delays within the existing pathway as patients for PR were referred to the general outpatient physiotherapy service. Once referred patients would wait for triage to occur with a further delay before a 1:1 assessment could take place. The referral form also included a number of other respiratory physiotherapy options, for example 'chest clearance' and therefore those patients with specific PR needs would not always be easily identifiable. Waiting times may not be accurate as some patients would be triaged for PR or referred later as part of their initial assessment and it was not clear to the reviewers that the time from referral to treatment would be adjusted for these patients.
- d. Separating the referral process for pulmonary rehabilitation from the general outpatient physiotherapy referral process may improve the pathway in terms of waiting times for patients as well as promoting the PR service across the health economy. Reviewers considered that the Trust outpatient physiotherapy service would still be able to refer for PR following an initial clinical assessment.

Further Consideration

1. A clear strategy for service development was not yet in place. None of the teams had capacity to expand to meet the increasing demand for PR and to help reduce admissions to hospital. Additional funding for staffing and the cost of hiring rooms to deliver additional programmes in the community were contributing factors. Reviewers were told that the community services provided by the Solihull community service had expanded the number of programmes available without additional resources. Development of PR programme to run 'out of working hours' with additional resources for staffing, may be worth considering as a cost effective way forward as there would be better access to existing Trust facilities reducing the need to hire facilities in the community. Delegation of some management activities within the Trust, for example governance and database management may also help with increasing the level of clinical time available.
2. From discussions with patients, and the documentation in the care records seen at the time of the visit, reviewers were not assured that the system for increasing the physical component of exercise for the patients was consistently implemented. Some records showed no documented increase in the Borg breathlessness and perceived exertion scale, which indicated that some patients may not be supported sufficiently to improve their performance. It was

also not clear that patients were given a copy of their 'ongoing plan' on completion of the programme, as it appeared to be more of a checklist for staff to complete.

3. Reviewers commented that there was not easy access to accurate and available data to support service analysis and development. The service was utilising four different data systems. Access to data is required by the BTS standards for pulmonary rehabilitation services for ongoing assessment and review of the service provided, though from discussions with staff and review of care records, appropriate review and monitoring was in place.

For example reporting did not enable any real-time data to be recorded or extracted for the following aspects:-

- a. the team did not have ongoing access to the numbers of patients referred specifically for PR.
- b. data showed that only 1% of patients with lung cancer were referred for pre and post-surgical PR, which reviewers considered was low for the referral catchment for the Trust.
- c. the data available could not be utilised to differentiate between the different PR sites.

A data base was in the process of being developed which would allow more robust data capture, but there were no plans for the system to be linked to the hospital patient administration system (PAS) which would require patient data to be constantly re-entered.

4. There was limited written and electronic information available for patients in languages other than Urdu and Bengali. Interpreters could be arranged to support patients attending pulmonary rehabilitation sessions.
5. At BHH there was limited space for patients to speak to staff privately as the office area was shared with other staff.
6. Staff who met with the reviewers commented that the Trust governance process for the recruitment of volunteers was lengthy, which had resulted in some volunteers deciding not to continue with their application. The Trust may want to review the volunteer recruitment process, as patient and staff feedback was extremely positive about the valuable contribution volunteers make in improving the experience and support available for patients.
7. Facilities were suitable in the BHH gym; however, air conditioning was not available which meant that classes could not always run during hot weather. Staff who met with the reviewers commented that new facilities at BHH had been commissioned and once operational, this issue would be resolved. In the meantime fans were used to help reduce the temperature in the gym.
8. Some PR referrals to the Trust were received via the 'choose and book' system and 'logged' for consultants to review. Reviewers were told that not all consultants would review referrals and redirect to the therapy teams. Patients were therefore seen in a consultant led clinics, which reviewers considered created delays for the patient accessing PR as well as being an inappropriate use of consultant clinical time.
9. An equipment replacement programme was not in place, and staff who spoke to the reviewers commented that charitable funds were often used to replace key equipment. The PR service could bid for capital funds to replace large items of equipment, but bids were not always successful. Reviewers considered that the development of a plan to ensure that equipment is appropriately managed in the future would be necessary given the importance of pulmonary rehabilitation on patient health outcomes and in avoiding hospital admissions.
10. The Trust governance arrangements for the review of the standard operating procedures (SOP) were not clear and would benefit from review; and although the SOPs were very comprehensive, some aspects of the service were not reflected in the version seen by the reviewers. Reviewers considered that ensuring that the SOPs were appropriately governed and reflected practice would provide robust guidance for staff, as well as useful evidence for Trust executives and commissioners about the extent of the services provided.

Reviewers suggestions to the teams as to how the SOPs could be improved were as follows:-

- a. expanding the section on accessibility to PR.
- b. adding details about equipment checks and Portable Appliance Testing (PAT).

- c. including how often risk assessments were undertaken.
 - d. documenting the process for assessing staff competence and links to the staff appraisal system.
 - e. reviewing the section covering long term oxygen therapy (LTOT) to reflect the latest recommendations in terms of patient stability requirement prior to a LTOT assessment.
 - f. in the absence of documented competences for volunteers, adding a guide/checklist would be helpful.
11. Reviewers considered that the teams plan for more staff to be trained in motivational interviewing ¹and possible staff training in the principles of cognitive behavioural therapy was an innovative approach and would improve the quality of care available to patients.

Return to [Index](#)

¹ *Motivational interviewing uses a guiding style to encourage patients to become partners with their care team, setting goals and finding solutions that best meet their individual needs and circumstances.*

Commissioning

The review team met with a representative from the local commissioning group. At the time of the visit the commissioning specification for pulmonary rehabilitation services across Birmingham and Solihull Health economies was in the process of being reviewed as part of the national NHS Long Term Plan to develop pulmonary rehabilitation services, and the development of community hubs and primary care networks.

Concern

1. Pulmonary rehabilitation capacity

Reviewers were concerned about the provision of pulmonary rehabilitation for the following reasons:-

There was insufficient capacity to deliver pulmonary rehabilitation within the nationally agreed timeframes including patients with AECOPD who were discharged from hospital. Although reviewers were told that there were plans between the Queen Elizabeth Hospital team (UHB) and BCHC to develop a joint pulmonary rehabilitation service, it was not clear from discussions (due to the geographical catchment for the new service) that it would impact on the patient waiting times to access PR programmes provided by the HGS and Solihull community services.

Reviewers were told of delays in implementing the plans for reorganisation that was creating uncertainty for services across the health economy and impacting their ability to provide a safe and quality pulmonary rehabilitation service.

Further Consideration

1. The provision of PR services was part of a 'block contract' which restricted the ability of the teams to develop services any further and expand to meet demand. Staff who met with the reviewers commented that the HGS and Solihull services had already increased the number of community PR programmes delivered with no extra resources being allocated.
2. Reviewers considered that it would be important for the CCG to include benchmarking against the regional COPD/PR data as part of their quality monitoring of PR services across the health economy.

Return to [Index](#)

APPENDIX 1 Membership of Visiting Team

Visiting Team		
Dr Martin Allen	Consultant Physician - Respiratory Medicine	University Hospitals of North Midlands NHS Trust
Bob Colclough	Patient Representative	
Kelly Redden-Rowley	Clinical Operational Lead, Service Manager for Community Respiratory and Heart Failure Team	Sandwell & West Birmingham Hospitals NHS Trust
Lisa Hickman	Senior Physiotherapist	Royal Wolverhampton NHS Trust
Joan Manzie	Consultant Respiratory Nurse & Respiratory Clinical Lead	Midlands Partnership NHS Foundation Trust
Sarah Richardson	Specialist Community Respiratory Physiotherapist	Midlands Partnership NHS Foundation Trust

QRS Team		
Sarah Broomhead	Assistant Director	Quality Review Service

Return to [Index](#)

APPENDIX 2 Compliance with the Quality Standards

Analyses of percentage compliance with the Quality Standards should be viewed with caution as they give the same weight to each of the Quality Standards. Also, the number of Quality Standards applicable to each service varies depending on the nature of the service provided. Percentage compliance also takes no account of 'working towards' a particular Quality Standard. Reviewers often comment that it is better to have a 'No, but', where there is real commitment to achieving a particular standard, than a 'Yes, but' where a 'box has been ticked' but the commitment to implementation is lacking. With these caveats, table 1 summarises the percentage compliance for each of the services reviewed.

Table 1 - Percentage of Quality Standards met

Details of compliance with individual BTS Standards can be found below. Further detail about the British Thoracic Society Standards for Pulmonary Rehabilitation in Adults can be found in the full document www.brit-thoracic.org.uk

Service	Number of Applicable QS	Number of QS Met	% met
University Hospitals Birmingham NHS Foundation Trust	10	7	70

Return to [Index](#)

Pulmonary Rehabilitation Services - University Hospitals Birmingham NHS Foundation Trust

Quality statement 1:

Referral for pulmonary rehabilitation:

- a. **People with COPD and self-reported exercise limitation (MRC dyspnoea 3-5) are offered pulmonary rehabilitation.**
- b. **If accepted, people referred for pulmonary rehabilitation are enrolled to commence within 3 months of receipt of referral**

Quality Measure	Met? Y/N	Comment
<p>Structure:</p> <ul style="list-style-type: none"> Evidence of local pulmonary rehabilitation referral pathways for both primary and secondary care providers. Evidence that written information about availability and content of local pulmonary rehabilitation programmes is disseminated to primary and secondary care providers. Provision of clear eligibility criteria to primary and secondary care providers. Evidence that patient reported exercise limitation (MRC dyspnoea scale) is recorded annually. Evidence that pulmonary rehabilitation programmes accept referral of patients who have previously undertaken pulmonary rehabilitation. <p>Process:</p> <ul style="list-style-type: none"> Proportion of eligible patients offered pulmonary rehabilitation. Proportion of accepted patients enrolled within 3 months of receipt of referral. <p>Numerator 1</p> <ul style="list-style-type: none"> Number of eligible patients offered pulmonary rehabilitation. <p>Denominator 1</p> <ul style="list-style-type: none"> Number of eligible patients. <p>Numerator 2</p> <ul style="list-style-type: none"> Number of accepted patients commencing within 3 months of receipt of referral. <p>Denominator 2</p> <ul style="list-style-type: none"> Number of patients referred for pulmonary rehabilitation who are accepted for treatment. <p>Numerator 3</p> <ul style="list-style-type: none"> Number of pulmonary rehabilitation programmes that accept referrals of patients who have previously attended pulmonary rehabilitation. <p>Denominator 3</p> <ul style="list-style-type: none"> Number of pulmonary rehabilitation programmes. 	Y	<p>All PR programmes accepted referrals of patients who had previously attend a pulmonary rehabilitation (PR) programme</p> <p>People with COPD and self-reported exercise limitation (MRC dyspnoea 3-5) were offered PR. Referrals were received from GPs, Community and Trust teams.</p> <p>Annual recording of MRC dyspnoea scale would usually be the responsibility of the primary care practitioner as most patients were discharged following completion of the PR programme.</p> <p>Data were available to show the number of accepted patients commencing within 3 months of receipt of referral, however, seem main report about waiting times to access hospital based PR programmes</p>

Quality statement 2:

Pulmonary rehabilitation programmes accept and enrol patients with functional limitation due to other chronic respiratory diseases (for example bronchiectasis, ILD and asthma) or COPD MRC dyspnoea 2 if referred.

Quality Measure	Met? Y/N	Comment
<p>Structure:</p> <ul style="list-style-type: none">Evidence that pulmonary rehabilitation is available locally and offered to people who are functionally limited by chronic respiratory diseases other than COPD (and people with COPD MRC dyspnoea 2) if referred by their primary or secondary healthcare teams. <p>Process:</p> <ul style="list-style-type: none">Proportion of pulmonary rehabilitation programmes that accept referrals for people with chronic respiratory diseases other than COPD (and people with COPD MRC dyspnoea 2). <p>Numerator</p> <ul style="list-style-type: none">Number of pulmonary rehabilitation programmes accepting referrals for patients with chronic respiratory diseases other than COPD (and people with COPD MRC dyspnoea 2). <p>Denominator</p> <ul style="list-style-type: none">Number of pulmonary rehabilitation programmes nationally	Y	

Quality statement 3:

Referral for pulmonary rehabilitation after hospitalisation for acute exacerbations of COPD:

- a. People admitted to hospital with acute exacerbations of COPD (AECOPD) are referred for pulmonary rehabilitation at discharge.
- b. People referred for pulmonary rehabilitation following admission with AECOPD are enrolled within one month of leaving hospital.

Quality Measure	Met? Y/N	Comment
<p>Structure:</p> <ul style="list-style-type: none"> Evidence of local pathways for offering and referring people who have been hospitalised with AECOPD to outpatient pulmonary rehabilitation. Evidence that pulmonary rehabilitation programmes can enrol people referred following hospitalisation for AECOPD within one month of leaving hospital. <p>Process:</p> <ul style="list-style-type: none"> Proportion of eligible people discharged with AECOPD who are offered pulmonary rehabilitation. Number of people who accept referral who are enrolled within one month of discharge from hospital. <p>Numerator 1</p> <ul style="list-style-type: none"> Number of people admitted with AECOPD who are offered pulmonary rehabilitation on discharge. <p>Denominator 1</p> <ul style="list-style-type: none"> Number of people with a primary discharge diagnosis of AECOPD. <p>Numerator 2</p> <ul style="list-style-type: none"> Number of people admitted with AECOPD who accept a referral for pulmonary rehabilitation post-discharge who are enrolled within one month of leaving hospital. <p>Denominator 2</p> <ul style="list-style-type: none"> Number of people who accept referral for pulmonary rehabilitation after discharge from hospital. 	N	<p>Patients were accepted following an acute exacerbation of COPD (AECOPD), but could not always be offered pulmonary rehabilitation within one month of leaving hospital.</p> <p>Although data were collected for some aspects of the QS, data were not available in a format that showed the number of people admitted with AECOPD who were offered pulmonary rehabilitation on discharge and the number of patients who were enrolled within one month of leaving hospital .</p>

Quality statement 4:

Pulmonary rehabilitation programmes are of at least 6 weeks duration and include a minimum of twice-weekly supervised sessions.

Quality Measure	Met? Y/N	Comment
<p>Structure:</p> <ul style="list-style-type: none">Evidence that pulmonary rehabilitation programmes are of at least 6 weeks duration and include at least twice weekly supervised sessions. This does not include assessment sessions, which require additional sessions. <p>Process:</p> <ul style="list-style-type: none">Evidence that pulmonary rehabilitation programmes comprise a minimum of 6 weeks intervention and a minimum of twice weekly supervised sessions. <p>Numerator</p> <ul style="list-style-type: none">Number of pulmonary rehabilitation programmes offering a programme of at least 6 weeks duration and at least twice weekly supervised sessions (excluding the additional assessments). <p>Denominator</p> <ul style="list-style-type: none">Number of pulmonary rehabilitation programmes nationally.	Y	Pulmonary rehabilitation programmes consisting of two sessions per week for eight weeks were run at all sites.

Quality statement 5:

Pulmonary rehabilitation programmes include supervised, individually tailored and prescribed, progressive exercise training including both aerobic and resistance training.

Quality Measure	Met? Y/N	Comment
<p>Structure:</p> <ul style="list-style-type: none"> • Evidence that all patients undertaking pulmonary rehabilitation receive an exercise programme which is individually prescribed and progressive. • Evidence that patients enrolled in pulmonary rehabilitation undertake both aerobic and resistance training. • Evidence that professionals providing pulmonary rehabilitation are adequately trained/ experienced in prescribing and supervising exercise training. <p>Process:</p> <ul style="list-style-type: none"> • Proportion of pulmonary rehabilitation programmes that provide assessment of physical performance and prescription of exercise intensity at enrolment. • Proportion of pulmonary rehabilitation programmes that ensure progression of exercise goals at intervals during programme according to individual progress and needs. • Proportion of pulmonary rehabilitation programmes that provide both aerobic and resistance training. • Proportion of patients attending pulmonary rehabilitation who receive an individually prescribed and progressive exercise programme. • Proportion of patients attending pulmonary rehabilitation who receive both aerobic and resistance training. • Proportion of patients attending pulmonary rehabilitation with an individualised aerobic and resistance training prescription in place. <p>Numerator 1</p> <ul style="list-style-type: none"> • Number of people receiving an individually prescribed and progressive aerobic exercise programme. <p>Denominator 1</p> <ul style="list-style-type: none"> • Number of people enrolled onto pulmonary rehabilitation. <p>Numerator 2</p> <ul style="list-style-type: none"> • Number of people receiving an individually prescribed and progressive resistance exercise programme. <p>Denominator 2</p> <ul style="list-style-type: none"> • Number of people enrolled onto pulmonary rehabilitation. 	<p>N</p>	<p>From discussions with patients and the documentation in some of the care records seen at BHH at the time of the visit, reviewers were not assured that the system for increasing the physical component for the patients was consistently implemented. Some records showed no documented increase in the Borg breathlessness and perceived exertion scale, which indicated that patients may not be supported sufficiently to improve their performance.</p> <p>Prescription of both aerobic and resistance training from the appropriate tests, and both forms of exercise were evident in the class observed at Solihull Hospital.</p> <p>The care record template did include monitoring for all aspects of the QS and patients were given an exercise diary.</p>

Quality statement 6:

Pulmonary rehabilitation programmes include a defined, structured education programme.

Quality Measure	Met? Y/N	Comment
<p>Structure:</p> <ul style="list-style-type: none"> Evidence of local pulmonary rehabilitation programme arrangements to ensure that all patients who are referred to pulmonary rehabilitation have access to a comprehensive programme of education in line with content set out in the BTS Pulmonary Rehabilitation Guideline. <p>Process:</p> <ul style="list-style-type: none"> Proportion of pulmonary rehabilitation programmes that provide participants with a structured education programme. <p>Numerator</p> <ul style="list-style-type: none"> Number of pulmonary rehabilitation programmes providing a structured education programme in line with the BTS Pulmonary Rehabilitation Guideline. <p>Denominator</p> <ul style="list-style-type: none"> The number of pulmonary rehabilitation programmes nationally. 	Y	<p>A structured education programme was delivered as part of all pulmonary rehabilitation sessions; however reviewers were made aware that there may be differences with the programme content delivered at one of the Solihull community sites.</p> <p>Good support was also available from volunteers.</p> <p>A member of the Trust dietetic team attended all the education sessions run by the acute hospital pulmonary rehabilitation team.</p>

Quality statement 7:

People completing pulmonary rehabilitation are provided with an individualised structured, written plan for ongoing exercise maintenance.

Quality Measure	Met? Y/N	Comment
<p>Structure:</p> <ul style="list-style-type: none">• Evidence of local arrangements to ensure that all people completing pulmonary rehabilitation are provided with an individualised written plan for ongoing exercise after leaving the programme.• The exercise plan should be co-produced by rehabilitation staff together with individuals completing the programme. <p>Process:</p> <ul style="list-style-type: none">• Proportion of people completing pulmonary rehabilitation who have an individualised written exercise plan. <p>Numerator</p> <ul style="list-style-type: none">• The number of people completing pulmonary rehabilitation who have an individualised written exercise plan. <p>Denominator</p> <ul style="list-style-type: none">• The total number of people completing pulmonary rehabilitation	Y	

Quality statement 8:

People attending pulmonary rehabilitation have the outcome of treatment assessed using as a minimum, measures of exercise capacity, dyspnoea and health status.

Quality Measure	Met? Y/N	Comment
<p>Structure:</p> <ul style="list-style-type: none"> Evidence of validated measurement of exercise capacity, dyspnoea and health status at the start and end of a pulmonary rehabilitation programme. <p>Process:</p> <ul style="list-style-type: none"> Proportion of people who perform an assessment of exercise capacity, dyspnoea and health status at the start and after completion of a pulmonary rehabilitation programme. <p>Numerator 1</p> <ul style="list-style-type: none"> Number of people completing assessments of health status, dyspnoea and exercise capacity at outset /initial assessment. <p>Denominator 1</p> <ul style="list-style-type: none"> Number of people attending initial assessment for pulmonary rehabilitation. <p>Numerator 2</p> <ul style="list-style-type: none"> Number of people completing assessments of health status, dyspnoea and exercise capacity after completion of pulmonary rehabilitation. <p>Denominator 2</p> <ul style="list-style-type: none"> Number of people completing pulmonary rehabilitation. 	Y	

Quality statement 9:

Pulmonary rehabilitation programmes conduct an annual audit of individual outcomes and process.

Quality Measure	Met? Y/N	Comment
<p>Structure:</p> <ul style="list-style-type: none"> • Evidence of an annual audit of individual outcomes for each pulmonary rehabilitation programme. • Evidence of annual survey/assessment of patient experience. • Evidence of an annual audit of rates of commencement, adherence and completion. <p>Process:</p> <ul style="list-style-type: none"> • Proportion of people completing pulmonary rehabilitation who achieve satisfactory clinical outcomes for health status and exercise performance. Data to be measured against accepted Minimally Clinically Important Differences (MCIDs) or national audit figures. • Proportion of people enrolled to pulmonary rehabilitation that adhere to and complete the programme and final assessment. Data to be measured against national audit figures. <p>Numerator 1</p> <ul style="list-style-type: none"> • Number of pulmonary rehabilitation programmes who complete an annual audit of outcome measurements. <p>Denominator 1</p> <ul style="list-style-type: none"> • Number of pulmonary rehabilitation programmes nationally. <p>Numerator 2</p> <ul style="list-style-type: none"> • Number of people completing pulmonary rehabilitation who achieve the minimum clinically important improvement in the chosen outcome measures. <p>Denominator 2</p> <ul style="list-style-type: none"> • Number of people enrolled to pulmonary rehabilitation. 	<p>N</p>	<p>An audit was not completed annually and systems for collection of data were not yet aligned to what was occurring in practice.</p> <p>Patient safety mechanisms were well documented, and a comprehensive feedback process was in place with clear changes made as a result of feedback.</p>

Quality statement 10:

Pulmonary rehabilitation programmes produce an agreed standard operating procedure.

Quality Measure	Met? Y/N	Comment
<p>Structure:</p> <ul style="list-style-type: none">Evidence of a documented SOP setting out a delivery framework detailing policies for accessibility, safety, effectiveness and capacity which has been agreed across commissioners, providers and patients. <p>Process:</p> <ul style="list-style-type: none">The proportion of programmes producing a documented SOP as described above. <p>Numerator</p> <ul style="list-style-type: none">Number of programmes with a documented SOP. <p>Denominator</p> <ul style="list-style-type: none">Number of pulmonary rehabilitation programmes nationally. .	Y	Comprehensive standard operating procedures were in place for both the acute and community delivered programmes. See also main report about governance of the standard operating procedures.

Return to [Index](#)