National Respiratory Audit Programme (NRAP)
Pulmonary rehabilitation (PR) audit - clinical audit dataset
Version v4: (November 2023)

Contents
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Generic Data				
Item No.	Question	Text under question	🖹 Pop-up help note	Validation
	Patient data	Include patients: • Who attend an initial assessment for pulmonary rehabilitation • who are 18 years or over on the date of assessment For those assessed before 1 April 2024, patients should only be included if they have read the patient information sheet and **provided consent** (written or verbal) on the audit consent form or via the required verbal consent process.		
1.1	NHS number	The field will accept valid NHS Numbers which are ten digits long. Optionally, you can enter spaces or dashes or 3-3-4 format.	Permission has been granted to use the NHS number as a patient identifier for patients assessed from 1 April 2024. Patients assessed before 1 April 2024 should have given express consent for the NHS number to be used as a patient identifier. **Their data should not be entered into this audit unless the patient has read the patient information sheet and signed the patient consent form.** This will be used to determine: • case-mix • admission rate • mortality.	Look of answer option: ___-___-____ or ___ ___ ____

Generic Data				
Item No.	Question	Text under question	📄 Pop-up help note	Validation
			The NHS number is essential to create a Patient Record. It should only consist of digits. • It may be formatted as 000 000 0000 (spaces) or 000-000-0000 (dashes) • It should contain exactly 10 digits. • NHS Numbers start with a 4, 6 or 7 • A warning will be given if the number appears invalid. Use '[NONNHS]' for patients that reside in the UK, but do not have an NHS number.	
1.2	Date of birth	dd/mm/yyyy	Patients must be at least 18 years old. Date of birth may be entered numerically e.g. 01/03/1957 can be inputted as 1 3 57.	Date required. The web tool only allows patients that are: ○ aged 18 years and over ○ aged under 115 years old at the date of assessment. Cannot be a future date.
1.3	Gender	Please enter the patient's gender as it appeared in the notes/referral information.	The 'Other' should be used for patients who do not recognise themselves as either male, female, or transgender.	Radio buttons five options: • Male • Female • Transgender • Other • Not recorded/Preferred not to say

Generic Data				
Item No.	Question	Text under question	📄 Pop-up help note	Validation
			If the gender for the patient cannot be determined 'Not recorded/Preferred not to say' should be selected.	**Can select one option only.**
1.4	Home postcode	Please enter the full postcode. For patients with no fixed abode use '[NFA]'	Permission has been given to facilitate case-mix adjustment and understand local referral trends.	Allows '[NFA]' for patients with no fixed abode.
1.5	Ethnicity		Permission has been given to collect data on ethnicity to facilitate case-mix adjustments and understand variances in clinical outcomes for different groups.	Drop down list options: • White British • White Irish • Any other White background • White and Black Caribbean • White and Black African • White and Asian • Any other mixed background • Indian • Pakistani • Bangladeshi • Any other Asian background • Caribbean • African • Any other Black background • Chinese • Any other ethnic group

Generic Data				
Item No.	Question	Text under question	🗎 Pop-up help note	Validation
				• Not known • Not stated **Can select one option only**
1.6	Does this patient have a current mental illness or cognitive impairment recorded?		It is not expected that services ask patients about their current mental health. Please answer this question based on the information recorded in the patient notes. 'Other' should be used where the patients is considered to have a mental health illness or cognitive impairment but this does not appear in the options given.	Radio button options • None • Anxiety • Depression • Severe mental illness, • Dementia/mild cognitive impairment • Other • Not recorded **Select all that apply, or choose none / not recorded**
1.7	What is the patient's primary respiratory condition?	**Pre/post thoracic surgery** includes lung cancer/Lung Volume Recruitment/lung transplant. **Pulmonary hypertension** includes chronic thromboembolic pulmonary hypertension.	Range of conditions included in BTS Oct 2023 clinical statement.	Radio button options **Can select one option only** • COPD • asthma • bronchiectasis • interstitial lung disease • long COVID • pre/post thoracic surgery (including lung cancer/LVR/lung transplant) • pulmonary hypertension • chronic heart failure

Generic Data				
Item No.	**Question**	**Text under question**	📄 **Pop-up help note**	**Validation**
				• other chronic respiratory disease
1.7a	Does the patient have any of the following other respiratory conditions?	COPD, asthma, bronchiectasis, interstitial lung disease, long COVID, pre/post thoracic surgery (including lung cancer/LVR/lung transplant), pulmonary hypertension, chronic heart failure, other chronic respiratory disease	pre/post thoracic surgery- lung cancer/Lung Volume Recruitment/lung transplant. Pulmonary hypertension- chronic thromboembolic pulmonary hypertension.	Radio button options • No /none • COPD • asthma • bronchiectasis • interstitial lung disease • long COVID • pre/post thoracic surgery (including lung cancer/LVR/lung transplant) • pulmonary hypertension • chronic heart failure • other chronic respiratory disease • not recorded **Select all that apply or choose 'none' or 'not recorded'** **Cannot select same condition as Q.1.7**

Programme referral				
Item No.	Question	Text under question	📄 Pop-up help note	Validation
2.1	Date of receipt of referral	dd/mm/yyyy If this is not known, please leave the date box blank and select 'Not known'.	For this question, please enter the date the referral letter was received by your programme, **not** the date of the letter. *This maps to the British Thoracic Society's 'Quality Standards for Pulmonary Rehabilitation in Adults' quality statements 1b and 3b (all subsequent references to these quality standards will solely list the relevant quality statement).*	**Look of answer options:** _ _ / _ _ / _ _ _ _ ☐ Not known **Can enter date value OR select 'Not known' only.** Date options: • Enable entry of: Date **OR** 'Not known' • Date should not be in the future Date should not be before 01/01/18
2.2	Where was the patient referred from?		'Primary care– includes referrals for patients treated at - home - or in a community location 'Secondary Care —— includes referrals for all patients from secondary care. 'Secondary Care – post admission for AECOPD' - includes referrals for patients treated in hospital. Grey out unless COPD selected *This maps to BTS quality statement 3.*	Radio buttons four options: • Primary Care • Secondary Care • Post AECOPD • Self referral **Can select one option only.**

Programme referral				
Item No.	**Question**	**Text under question**	📄 **Pop-up help note**	**Validation**
2.3	Date of initial Pulmonary Rehabilitation (PR) assessment appointment	dd/mm/yyyy Please enter the first date the patient was assessed with the view of enrolling them onto a PR programme. Does not include telephone contact to book assessment. Does not include date offered, if patient DNAs or rearranges assessment.	*This maps to BTS quality statements 1b and 3b.*	Date required. Date options: • Cannot be before date in 2.1, if date is entered. • Cannot be in the future. Cannot be before 01/03/19

Key clinical information at time of assessment				
Item No.	**Question**	**Text under question**	📄 **Pop-up help note**	**Validation**
What were the most recent available values for the following:				
3.1	FEV1% predicted	Please enter a percentage between 10% and 125%.	Can be values provided by the referrer. *This maps to BTS quality statement 8.*	**To appear only if COPD selected.** **Look of answer options:** _ _ _% ☐ Not recorded **Can enter numeric value OR select 'Not recorded' only.** Numeric option must be a: • percentage • maximum of 3 digits • whole numbers only (values with 1 decimal place or more will be rounded up or down) • number between 10 and 125.

Key clinical information at time of assessment				
Item No.	Question	Text under question	📄 Pop-up help note	Validation
3.2	FEV1/FVC ratio	Please enter a value between 0.20 and 0.95.	Can be values provided by the referrer. *This maps to BTS quality statement 8.*	**To appear only if COPD selected.** **Look of answer option:** _._ _ ☐ Not recorded **Can enter numeric value OR select 'Not recorded' only.** Numeric option must be a: maximum of 1-digit number to 2 decimal places, between 0.20 and 0.95 (values more than 2 decimal place will be rounded up or down)
3.3	What was the patient reported MRC (Medical Research Council) score at assessment	Give the score as reported by the patient at assessment or select 'Not recorded'.	Grade 1 – Not troubled by breathlessness except on strenuous exercise. Grade 2 – Short of breath when hurrying or walking up a slight hill. Grade 3 – Walks slower than contemporaries on level ground because of breathlessness or has to stop for breath when walking at own pace. Grade 4 – Stops for breath after walking about 100 metres [109 yards] or after a few minutes on level ground. Grade 5 – Too breathless to leave the house or breathless when dressing or undressing.	Radio buttons six options: • Grade 1 • Grade 2 • Grade 3 • Grade 4 • Grade 5 • Not recorded **Can select one option only.**

Key clinical information at time of assessment				
Item No.	Question	Text under question	📄 Pop-up help note	Validation
			This maps to BTS quality statements 1a and 2.	

Assessment tests and questionnaires				
Item No.	Question	Text under question	📄 Pop-up help note	Validation
What exercise tests were recorded at initial assessment?				
4.1	Which walking test did you record during initial assessment?	Pick one walking test OR select 'No walking test conducted' OR 'No walking test conducted - assessment done remotely'.	*This maps to BTS quality statements 8 and 9.* *'No walking test conducted - assessment done remotely'* should be selected for those patients whose walking test could not be completed due to the PR programme being conducted remotely.	Radio buttons four options: • Incremental shuttle walk test (ISWT) • Six-minute walk test (6MWT) • No walking test conducted • No walking test conducted - assessment done remotely **Can select one option only.**
4.1a	What was the value in metres?	Record as a whole number between 0 and 1020.	Record the highest number of metres performed during test.	Greyed out if 'No walking test conducted' OR 'no walking test conducted - assessment done remotely' selected for 4.1. If test selected, numeric value required.

Assessment tests and questionnaires

Item No.	Question	Text under question	📄 Pop-up help note	Validation
				Numeric option must be: • a whole number only between 0 and 1020
4.1b	Was a practice walking test performed at the time of the initial assessment?		*This maps to BTS quality statements 8 and 9.*	Greyed out if 'No walking test conducted' OR 'no walking test conducted - assessment done remotely' selected for 4.1. If test selected at 4.1, radio buttons two options: • Yes • No **Can select one option only.**
4.2	Did you also record the Endurance shuttle walk test (ESWT)?	Only answer if ESWT was performed.	*This maps to BTS quality statements 8 and 9.*	Radio buttons two options: • Yes • No **Can select one option only.**
4.2a	If 'Yes', what was the value in seconds?	Record as a whole number between 0 and 1200.		Greyed out if 'No' selected for 4.2. If 'Yes' selected, numeric value required. Numeric option must be: • a whole numbers only between 0 and 1200
Please indicate any health status questionnaires completed at initial assessment and provide values if recorded. Selection of disease specific health questionnaire to be decided by clinical team if appropriate for patient.				
<mark>4.3</mark>	- CRQ (Chronic respiratory questionnaire)	Please answer 'No' if no questionnaire conducted. Otherwise, enter a value between 1 and 7 for each score	The CRQ includes four areas: dyspnoea, fatigue, emotional function, and mastery. In each area, scores are obtained by adding the scores for the items that	Radio buttons Options: • Yes • No

Assessment tests and questionnaires				
Item No.	**Question**	**Text under question**	**📄 Pop-up help note**	**Validation**
			make up the area and dividing this by the number of items (the value can never therefore be greater than 7). *This maps to BTS quality statements 8 and 9.*	If 'Yes' selected, enter a value between 1 and 7 for each of the following scores: a. Dyspnoea score b. Fatigue score c. Emotion score d. Mastery score **Must enter a value for all options.**
4.4	- CAT (COPD assessment test)	Please answer 'No' if no CAT conducted.	*This maps to BTS quality statements 8 and 9.*	Radio buttons Options: • Yes • No CAT conducted If 'Yes' selected, enter a value between 0-40
4.5	- EQ5D (EuroQol- 5 Dimension)	Please answer 'No' if EQ5D questionnaire not completed. Otherwise, please complete the EQ5D elements. The EQ5D 'thermometer value': please enter a value between 0 and 100, where 100 means the best health and 0 means the worst possible health imaginable.	*This maps to BTS quality statements 8 and 9.*	Radio buttons Options: • Yes • No EQ5D questionnaire conducted If 'Yes' selected, please complete these EQ5D elements. a. Mobility b. Self-care c. Usual activities d. Pain/ discomfort e. Anxiety/ depression

Assessment tests and questionnaires				
Item No.	Question	Text under question	🖹 Pop-up help note	Validation
				f. Thermometer value

Key information relating to the programme				
Item No.	Question	Text under question	🖹 Pop-up help note	Validation
5.1	Post assessment, was the patient enrolled onto a PR programme?	If a patient was not enrolled onto a PR programme, then you will not need to answer any further questions.	If the patient was not enrolled onto PR after assessment on clinical grounds (e.g. co-morbidities, psycho-social problems, hospitalisation, death etc.) please record 'No - Clinically unsuitable'. If the patient declined an offer of PR (e.g. for personal, social, transport reasons) please record 'No - Patient choice'. *This maps to BTS quality statements 1b and 3b.*	Radio buttons three options: • Yes • No – Clinically unsuitable • No – Patient choice **Can select one option only.**
5.1a	If 'Yes', enter start date	dd/mm/yyyy	If the patient was enrolled onto a PR programme, please enter the start date of the course.	If 'Yes' selected for 5.1, date required. Date options: • Cannot be before date entered in 2.1, if date is entered

Key information relating to the programme				
Item No.	**Question**	**Text under question**	📄 **Pop-up help note**	**Validation**
				• Cannot be before date entered in 2.3 • Cannot be in the future
5.2	Was the patient enrolled on a **centre-based or home-based** PR programme?	Tick all that apply.	A centre-based PR programme is a PR programme which is actively supervised in a venue provided by the service, by an appropriate healthcare professional. Home-based includes any PR programme that is delivered in the patient's home. This includes any home-based PR delivered: • In person • Video-conferencing • Phone calls (including the manual programme s such as SPACE) • Other digital communication (structured email contact, app-based programmes etc)	Radio button, two options: • Centre-based • Home-based **Can select all that apply.**
5.2a	If home-based, what was the method of delivery?	Tick all that apply.	If an appropriate healthcare professional liaised with the patient via structured email contact, then please select 'Other digital communication'. If the patient was given an app-based programme to follow at home, and no further structured contact was received, please select 'Other digital communication'.	Grey out if 'Centre-based' is selected at 5.2. 'Check box' type if 'Home-based' selected for 5.2, four options: • In person • Video-conferencing • Phone calls • Other digital communication **Can select all that apply.**

Key information relating to the programme				
Item No.	Question	Text under question	📄 Pop-up help note	Validation
			If the patient undertook a manual PR programme e.g. SPACE, select 'Phone calls'.	
5.3	Total number of supervised PR sessions **scheduled**	Please enter the total number of supervised sessions (centre or home-based) that were planned for this patient at initial assessment, as a whole number.	A supervised PR session is a PR session which is actively supervised by the service, by an appropriate healthcare professional. The supervision must be structured and relate directly to the exercise completed by the patient as part of their prescribed PR programme. *This maps to BTS quality statement 4.* *The evidence base is that programmes should last for a minimum of 6 weeks, not including assessments, supervised, and delivered twice weekly.	Numeric value required. • Whole numbers only Must be between 1 – 50
5.4	Total number of supervised PR sessions **received**		If the patient did not receive any supervised sessions in either category, please enter 0 (zero). If the patient dropped out before beginning PR or during the programme, then please record 0 or the relevant number of sessions and record the drop-out reason in section 6.	**Look of answer options:** a) Group sessions = _ _ b) 1:1 sessions = _ _ Numeric options: • Must be whole numbers only • Options must be between 0 – 50

Key information relating to the programme				
Item No.	Question	Text under question	🗎 Pop-up help note	Validation
			Do not include initial or discharge assessment. *This maps to BTS quality statement 4.*	

Key information at discharge				
Item No.	Question	Text under question	🗎 Pop-up help note	Validation
6.1	Was a discharge assessment performed?	If you answer 'No' to this question, you will be able to save the record as complete and will not need to complete the rest of the dataset. If the patient dropped out part way through the programme select the drop-out reason. If the patient completed the PR programme but did not attend the discharge assessment, select 'No - DNA'.	*This maps to BTS quality statement 4.*	Radio buttons four options: • Yes • No – drop-out – health reasons • No – drop-out – patient choice • No - DNA **Can select one option only.**
6.1a	If 'Yes', what was the date of the discharge assessment?	dd/mm/yyyy		If 'Yes' selected for 6.1, date required. Date options: • Cannot be before date in 5.1a Cannot be in the future

Key information at discharge				
Item No.	Question	Text under question	📄 Pop-up help note	Validation
6.1b	If 'Yes', was an individualised written discharge exercise plan provided for the patient?		*This maps to BTS quality statement 7.*	Radio buttons two options: • Yes • No **Can select one option only.**

Discharge tests				
Item No.	Question	Text under question	📄 Pop-up help note	Validation
7.1	What was the patient reported MRC score at discharge?	Give the score as reported by the patient at assessment or select 'Not recorded'.	**Grade 1** – Not troubled by breathlessness except on strenuous exercise. **Grade 2** – Short of breath when hurrying or walking up a slight hill. **Grade 3** – Walks slower than contemporaries on level ground because of breathlessness, or has to stop for breath when walking at own pace.	Radio buttons six options: • Grade 1 • Grade 2 • Grade 3 • Grade 4 • Grade 5 • Not recorded **Can select one option only.**

Discharge tests				
Item No.	Question	Text under question	🖹 Pop-up help note	Validation
			Grade 4 – Stops for breath after walking about 100 metres [109 yards] or after a few minutes on level ground. **Grade 5** – Too breathless to leave the house or breathless when dressing or undressing. *This maps to BTS quality statements 1a and 2.*	
7.2	Which walking test did you record during the discharge assessment?	You can only answer this question if an initial walking test (4.1) and discharge assessment was performed, and you can only choose the same test as recorded in 4.1.	*This maps to BTS quality statements 8 and 9.* *'No walking test conducted - assessment done remotely'* should be selected for those patients whose walking test could not be completed due to the PR programme being conducted remotely.	Greyed out if 'No walking test conducted' OR 'no walking test conducted - assessment done remotely' is selected at 4.1. Radio buttons four options: • Incremental shuttle walk test (ISWT) • Six-minute walk test (6MWT) • No walking test conducted • No walking test conducted - assessment done remotely **Can select one option only.** Can only choose same test as recorded in 4.1 OR 'No walking test conducted' OR 'no walking test conducted - assessment done remotely'
7.2a	What was the value in metres?	Record as a whole number between 0 and 1020.		Greyed out if 'No walking test conducted' OR 'no walking test conducted - assessment done remotely' selected for 7.2. If 'ISWT' or '6MWT' selected, numeric value required.

Discharge tests				
Item No.	Question	Text under question	🖹 Pop-up help note	Validation
				Numeric option must be: • a whole number only between 0 and 1020
7.3	Did you also record the ESWT at discharge?	Can only record as yes if yes recorded in 4.2.	*This maps to BTS quality statements 8 and 9.*	Radio buttons two options: • Yes • No **Can select one option only.** Can only record as yes if yes recorded in 4.2.
7.3a	If 'Yes', what was the value in seconds?	Record as a whole number between 0 and 1200.		Greyed out if 'No' selected for 7.3. If 'Yes' selected for 7.3, numeric value required. Numeric option must be: • a whole numbers only between 0 and 1200
Please indicate any health status questionnaires completed at discharge and provide values if recorded. Selection of disease specific health questionnaire to be decided by clinical team if appropriate for patient.				
7.4	- CRQ (Chronic respiratory questionnaire)	Please answer 'No' if no questionnaire conducted. Otherwise, enter a value between 1 and 7 for each of the following scores: **Note** This section can only be completed if an intial CRQ questionnaire was completed (q4.3).	Scoring guidelines: In each domain, add the scores for those questions and divide by the number of questions in that domain. *This maps to BTS quality statements 8 and 9.*	Greyed out if 'No questionnaire conducted' is selected at 4.3. Radio buttons: • Yes • No questionnaire conducted If 'Yes' selected, numeric values required: a. Dyspnoea score

Discharge tests				
Item No.	Question	Text under question	📄 Pop-up help note	Validation
				b. Fatigue score c. Emotion score d. Mastery score **Must enter a value for all options.**
7.5	- CAT (COPD assessment test)	Please answer 'No' if no questionnaire conducted. **Note** This section can only be completed if an initial CAT score was completed (q4.4).	*This maps to BTS quality statements 8 and 9.*	Greyed out if 'No CAT conducted' is selected at 4.4. Radio buttons: • Yes • No CAT conducted If 'Yes' selected, numeric values required: Enter single score between 0-40
7.6	- EQ5D (EuroQol- 5 Dimension)	Please answer 'No' if questionnaire not completed. Otherwise, please complete these EQ5D elements. **Note** This section can only be completed if an intial EQ5D questionnaire was completed (q4.5). EQ5D 'thermometer value: Please enter a value between 0 and 100, where 100 means the best health and 0 means the worst possible health imaginable.	*This maps to BTS quality statements 8 and 9.*	Greyed out if 'No EQ5D conducted' is selected at 4.5. Radio buttons: • Yes • No EQ5D conducted If 'Yes' selected, please complete these EQ5D elements. a. Mobility b. Self-care c. Usual activities d. Pain/ discomfort e. Anxiety/ depression

Discharge tests				
Item No.	Question	Text under question	📄 Pop-up help note	Validation
				f. Thermometer value