



National Respiratory Audit Programme (NRAP)
COPD secondary care audit - clinical audit dataset
Version v4.0: April 2023

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Arrival information

Item No.	Question	Text under question	 Pop-up help note	Validation																		
	Inclusion and exclusion criteria	<p>Include patients:</p> <ul style="list-style-type: none"> • who are 35 years and over on the date of admission, • who have been admitted* to hospital adult services, • who have a primary diagnosis of COPD exacerbation, • where an initial, or unclear, diagnosis is revised to an acute exacerbation of chronic obstructive pulmonary disease (AECOPD). <p>Exclude patients:</p> <ul style="list-style-type: none"> • In whom an initial diagnosis of an AECOPD is revised to an alternative at a later stage. • Who have had a stay in hospital of less than 4 hours (who would be classed as a non-admission). • With COPD who are being managed for pneumonia, not AECOPD. <p>*Where admission is an episode in which a patient with an AECOPD is admitted to a ward and stayed in hospital for 4 hours or more (this includes Emergency Medicine Centres, Medical Admission Units, Clinical Decision Units, short stay wards or similar, but excludes patients treated transiently before discharge from the Emergency Department (ED)).</p>	<p>We suggest that cases should be identified prospectively.</p> <p>Any gaps should then be checked retrospectively by checking all cases which have been coded with the following ICD-10 codes in the primary or secondary position (as per the table below) of the first episode of care:</p> <p>Patients with the following ICD-10 codes and positions in the first episode of care are eligible for inclusion in the audit:</p> <p>Inclusion criteria codes and positions:</p> <table border="1"> <thead> <tr> <th>1st position</th> <th>2nd position</th> </tr> </thead> <tbody> <tr> <td>J44.0 – COPD with acute lower respiratory infection</td> <td>Any code</td> </tr> <tr> <td>J44.1 – COPD with acute exacerbation</td> <td>Any code</td> </tr> <tr> <td>J44.8 – other specified COPD</td> <td>Any code</td> </tr> <tr> <td>J44.9 – COPD unspecified</td> <td>Any code</td> </tr> <tr> <td>J43.9 - emphysema</td> <td>Any code</td> </tr> <tr> <td>J22 – unspecified acute lower respiratory infection</td> <td>J44.0 or J44.1 or J44.8 or J44.9 or J43.9</td> </tr> <tr> <td>R06.0 – dyspnoea (shortness of breath)</td> <td>J44.0 or J44.1 or J44.8 or J44.9 or J43.9</td> </tr> <tr> <td>J96.0 – acute respiratory failure</td> <td>J44.0 or J44.1 or J44.8 or J44.9 or J43.9</td> </tr> </tbody> </table>	1st position	2nd position	J44.0 – COPD with acute lower respiratory infection	Any code	J44.1 – COPD with acute exacerbation	Any code	J44.8 – other specified COPD	Any code	J44.9 – COPD unspecified	Any code	J43.9 - emphysema	Any code	J22 – unspecified acute lower respiratory infection	J44.0 or J44.1 or J44.8 or J44.9 or J43.9	R06.0 – dyspnoea (shortness of breath)	J44.0 or J44.1 or J44.8 or J44.9 or J43.9	J96.0 – acute respiratory failure	J44.0 or J44.1 or J44.8 or J44.9 or J43.9	
1st position	2nd position																					
J44.0 – COPD with acute lower respiratory infection	Any code																					
J44.1 – COPD with acute exacerbation	Any code																					
J44.8 – other specified COPD	Any code																					
J44.9 – COPD unspecified	Any code																					
J43.9 - emphysema	Any code																					
J22 – unspecified acute lower respiratory infection	J44.0 or J44.1 or J44.8 or J44.9 or J43.9																					
R06.0 – dyspnoea (shortness of breath)	J44.0 or J44.1 or J44.8 or J44.9 or J43.9																					
J96.0 – acute respiratory failure	J44.0 or J44.1 or J44.8 or J44.9 or J43.9																					

Arrival information					
Item No.	Question	Text under question	 Pop-up help note		Validation
			J96.1 – chronic respiratory failure J96.9 – respiratory failure J10.1 – influenza due to other identified influenza virus with other respiratory manifestations	J44.0 or J44.1 or J44.8 or J44.9 or J43.9 J44.0 or J44.1 or J44.8 or J44.9 or J43.9 J44.0 or J44.1 or J44.8 or J44.9 or J43.9	
1.1	Date and time of arrival at your hospital	Please record the date and time the patient arrived at your hospital. It is important to record the arrival time because this is the first point of contact with the organisation.	<p>The point of arrival is often the ED or MAU, though patients occasionally come from home/elsewhere into other wards. These cases must also be included.</p> <p>The arrival time will be used as the start-point when determining the time to acute treatment with NIV for those who receive it. Time is best determined from the ambulance transfer sheet, the A&E/ED record or MAU/ward arrival record.</p>		
1.1a	Date of arrival	dd/mm/yyyy			Look of answer option: __/__/____ Earliest date allowed 01/01/18, Latest date = Today
1.1b	Time of arrival	24hr clock 00:00			Look of answer option: __:____ Cannot be a time in the future.

Patient				
Item No.	Question	Text under question	 Pop-up help note	Validation
Patient information				
2.1	NHS number	<p>The field will accept valid NHS number which are ten digits long.</p> <p>Optionally, you can use spaces or dashes or 3-3-4 format.</p> <p>Please use 'OVERSEAS' for patients that reside permanently outside the UK.</p>	<p>Permission has been granted to use the NHS number as a patient identifier.</p> <p>This will be used to determine:</p> <ul style="list-style-type: none"> • case-mix, • length of stay, • readmission rate, • mortality, • and the timing of key care processes. <p>The NHS number is essential to create a Patient Record. It should only consist of digits.</p> <ul style="list-style-type: none"> • 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. <p>Use '[NONNHS]' for patients that reside in the UK, but do not have an NHS number.</p>	<p>Look of answer option: ____ - ____ - ____ or ____ _</p> <p>Must be a 10 digit number. Allows 'OVERSEAS'.</p>
2.2	Date of birth	dd/mm/yyyy	<p>Date of birth may be entered numerically e.g. 01/03/1957 can be inputted as 1 3 57.</p>	<p>Look of answer option: __/__/__ or ____</p> <p>The web-tool only allows patients that are:</p> <ul style="list-style-type: none"> ○ aged 35 years and over ○ aged under 115 years old. <p>Cannot be a future date.</p>
2.3	Gender	Please enter the patient's gender as it	<p>The 'Other' should be used for patients who do not recognise themselves as either male, female, or transgender.</p>	<p>Radio buttons <u>five</u> options:</p> <ul style="list-style-type: none"> • Male

Patient				
Item No.	Question	Text under question	 Pop-up help note	Validation
		appears in the notes/referral information.	If the gender for the patient cannot be determined 'Not recorded/Preferred not to say' should be selected.	<ul style="list-style-type: none"> Female Transgender Other Not recorded/Preferred not to say Can select <u>one</u> option only.
2.4	Home postcode	Please enter the full postcode. For patients with no fixed abode use '[NFA]' and for patients visiting from abroad please use 'OVERSEAS'. Square brackets must be used where specified.	Permission has been given to facilitate case-mix adjustment and understand local referral trends.	<p>Allows '[NFA]' for patients with no fixed abode.</p> <p>If OVERSEAS entered at question 2.1, home postcode is greyed out.</p> <p>Square brackets must be used where specified.</p>
2.5	Ethnicity	Please enter the patient's ethnicity as it appears in the notes.	It is not expected that services ask patients about their ethnicity. Please answer this question based on the information recorded in the patient notes.	<p>Drop down list <u>eighteen</u> options:</p> <ul style="list-style-type: none"> 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

Patient				
Item No.	Question	Text under question	 Pop-up help note	Validation
				<ul style="list-style-type: none"> • Caribbean • African • Any other Black background • Chinese • Any other ethnic group • Not known • Not recorded <p>Can select <u>one</u> option only</p>
2.6	Does this patient have a current mental illness or cognitive impairment recorded?	Select all answers or 'No/None' or 'Not recorded'. Please answer this question based on the information recorded in the patient notes.	<p>It is not expected that services ask patients about their mental health status. Please answer this question based on the information recorded in the patient notes.</p> <p>'Other' should be used where the patient is considered to have a mental health illness or cognitive impairment but this does not appear in the options given.</p>	<p>Radio button <u>six</u> options</p> <ul style="list-style-type: none"> • No/None • Anxiety • Depression • Severe mental illness • Dementia / mild cognitive impairment • Other <p>Select <u>all</u> that apply</p>
Smoking status				
2.7	Does the patient currently smoke, or have they a history of smoking any of the following substances?	Please select never, ex or current based on the smoking status recorded in the patient notes.	<p><i>This question aligns to:</i></p> <ul style="list-style-type: none"> • <i>NICE 2011 QS 5, NICE 2013 (Smoking: Supporting People to Stop) QS43. https://www.nice.org.uk/guidance/qs43</i> • <i>BTS/SIGN 2016 (Management of asthma) guidelines 6.2.3 and 7.2.6</i> • <i>NRAD 2014 (Why asthma still kills), recommendation 2 of patient factors and perception of risk.</i> 	

Patient																																
Item No.	Question	Text under question	Pop-up help note	Validation																												
	Tobacco (including cigarettes (manufactured or rolled), pipe or cigars), shisha, cannabis or other illicit substances?		<p>Pop-up help note: Please select never, ex or current based on the smoking status recorded in the patient notes.</p> <p>Using radio buttons – select <u>all</u> that apply</p>	<table border="1"> <tr> <td></td> <td>Never</td> <td>Ex</td> <td>Current</td> <td>Not recorded</td> </tr> <tr> <td>Tobacco (including cigarettes (manufactured or rolled), pipe or cigars)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Shisha</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Cannabis</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other illicit substance</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		Never	Ex	Current	Not recorded	Tobacco (including cigarettes (manufactured or rolled), pipe or cigars)					Shisha					Cannabis					Other illicit substance							
	Never	Ex	Current	Not recorded																												
Tobacco (including cigarettes (manufactured or rolled), pipe or cigars)																																
Shisha																																
Cannabis																																
Other illicit substance																																
2.8	What is the patient's current vaping status?			<p>Radio button <u>four</u> options</p> <ul style="list-style-type: none"> • Never • Ex • Current • Not recorded <p>Can select <u>one</u> option only</p>																												

NEWS2				
Item no.	Question	Text under question	 Pop-up help note	
	National Early Warning Score (NEWS) 2	This is to be reintroduced into the dataset be able to measure COPD severity and ensure accurate case fix adjustment for all necessary reporting.	The NEWS2 is based on the aggregate scoring of six simple, and routinely collected, physiological parameters. Find out more here.	
3.1	What was the patient's first recorded NEWS 2 score for this admission?	Please enter the recorded score or choose 'Not recorded' or 'Calculate score' and record the first observations in the NEWS2 calculator below, every question must be answered in order for the score to be calculated. This should be the first recorded observations on arrival to hospital.		Drop down list <u>twenty-three</u> options <ul style="list-style-type: none"> • Score not available • Calculate score • 0 • 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • 10 • 11

NEWS2

Item no.	Question	Text under question	 Pop-up help note													
				<ul style="list-style-type: none"> • 12 • 13 • 14 • 15 • 16 • 17 • 18 • 19 • 20 <p>Can select <u>one</u> option only</p>												
3.1a	What was the first recorded respiratory rate for the patient following arrival at hospital?	Record as a whole number, within the range of 0-60 BPM.	Enter a percentage as a whole number in the range 0 to 60 breaths per minute. Respiratory score: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Respiration Rate</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td><= 8</td> <td>3</td> </tr> <tr> <td>9 - 11</td> <td>2</td> </tr> <tr> <td>12 - 20</td> <td>0</td> </tr> <tr> <td>21 - 24</td> <td>2</td> </tr> <tr> <td>>= 25</td> <td>3</td> </tr> </tbody> </table>	Respiration Rate	Score	<= 8	3	9 - 11	2	12 - 20	0	21 - 24	2	>= 25	3	<p>Look of answer option: __ BPM</p> <p>Whole number. Must be a maximum of 2 digit number between 0-60 only.</p>
Respiration Rate	Score															
<= 8	3															
9 - 11	2															
12 - 20	0															
21 - 24	2															
>= 25	3															
3.1b	SpO ₂ Oxygen Scale	SpO ₂ Scale 2 is for patients with a prescribed oxygen	SpO ₂ Scale 2 is for patients with a prescribed oxygen saturation requirement of 88–92%. This should only be used in patients confirmed to have	Greyed out if 3.1 has numeric value entered or if 'Score not available' checked.												

NEWS2

Item no.	Question	Text under question	 Pop-up help note	
		saturation requirement of 88–92%. Refer to help note for details.	hypercapnic respiratory failure on blood gas analysis on either a prior, or their current, hospital admission. The decision to use Scale 2 should be made by a competent clinical decision maker and should be recorded in the patient’s clinical notes. In all other circumstances, SpO2 scale 1 should be used.	Please note 3.1a-3.1g must all be completed in order to generate a score. Radio button <u>two</u> options <ul style="list-style-type: none"> • Scale 1 • Scale 2 (hypercapnic respiratory failure) Can select <u>one</u> option only Greyed out if 3.1 has numeric value entered or if ‘Score not available’ checked. Please note 3.1a-3.1h must all be completed in order to generate a score.
3.1c	SpO ₂ Oxygen saturation	Record as a whole number percentage, within the range of 50%-100%.	Enter a percentage as a whole number in the range 50% to 100%. Oxygen saturation depends on both the 'scale' and supplemental air/oxygen given:	Greyed out if 3.1 has numeric value entered or if ‘Score not available’ checked. Please note 3.1a-3.1h must all be completed in order to generate a score. Look of answer option: _ _ _ %

NEWS2

Item no.	Question	Text under question	 Pop-up help note																																					
			<table border="1"> <thead> <tr> <th colspan="2">Scale 1 Score:</th> <th colspan="2">Scale 2 Score:</th> <th colspan="2">Scale 2 Score on oxygen:</th> </tr> <tr> <th>Oxygen saturation</th> <th>Score</th> <th>Respiration Rate</th> <th>Score</th> <th>Respiration Rate</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td><= 91</td> <td>3</td> <td><= 83</td> <td>3</td> <td>< 93</td> <td>0</td> </tr> <tr> <td>92 - 93</td> <td>2</td> <td>84 - 85</td> <td>2</td> <td>93 - 94</td> <td>1</td> </tr> <tr> <td>94 - 95</td> <td>1</td> <td>86 - 87</td> <td>1</td> <td>95 - 96</td> <td>2</td> </tr> <tr> <td>>= 96</td> <td>0</td> <td>88 - 92 or >= 93 on air</td> <td>0</td> <td>>= 97</td> <td>3</td> </tr> </tbody> </table>	Scale 1 Score:		Scale 2 Score:		Scale 2 Score on oxygen:		Oxygen saturation	Score	Respiration Rate	Score	Respiration Rate	Score	<= 91	3	<= 83	3	< 93	0	92 - 93	2	84 - 85	2	93 - 94	1	94 - 95	1	86 - 87	1	95 - 96	2	>= 96	0	88 - 92 or >= 93 on air	0	>= 97	3	
Scale 1 Score:		Scale 2 Score:		Scale 2 Score on oxygen:																																				
Oxygen saturation	Score	Respiration Rate	Score	Respiration Rate	Score																																			
<= 91	3	<= 83	3	< 93	0																																			
92 - 93	2	84 - 85	2	93 - 94	1																																			
94 - 95	1	86 - 87	1	95 - 96	2																																			
>= 96	0	88 - 92 or >= 93 on air	0	>= 97	3																																			
3.1d	Any Supplemental Oxygen		<p>Please indicate if supplementary air or oxygen has been given to the patient.</p> <p>Choose 'None' if this was not given as part of the NEWS scoring assessment.</p> <table border="1"> <thead> <tr> <th>Supplementary air or oxygen</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>None or Air</td> <td>0</td> </tr> <tr> <td>Oxygen</td> <td>3</td> </tr> </tbody> </table>	Supplementary air or oxygen	Score	None or Air	0	Oxygen	3	<p>Greyed out if 3.1 has numeric value entered or if 'Score not available' checked.</p> <p>Please note 3.1a-3.1h must all be completed in order to generate a score.</p> <p>Radio buttons <u>two</u> options:</p> <ul style="list-style-type: none"> • Air • Oxygen <p>Can select <u>one</u> option only</p>																														
Supplementary air or oxygen	Score																																							
None or Air	0																																							
Oxygen	3																																							
3.1e	Systolic Blood Pressure	mmHg	<p>Enter the systolic blood pressure as a whole number in the range 50 to 250 mmHg.</p> <p>Respiratory score:</p>	<p>Greyed out if 3.1 has numeric value entered or if 'Score not available' checked.</p> <p>Please note 3.1a-3.1h must all be completed in order to generate a score.</p> <p>Look of answer option:</p>																																				

NEWS2

Item no.	Question	Text under question	Pop-up help note															
			<table border="1"> <thead> <tr> <th>Systolic blood pressure</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td><= 90</td> <td>3</td> </tr> <tr> <td>91 - 100</td> <td>2</td> </tr> <tr> <td>101 - 110</td> <td>1</td> </tr> <tr> <td>111 - 219</td> <td>0</td> </tr> <tr> <td>>= 220</td> <td>3</td> </tr> </tbody> </table>	Systolic blood pressure	Score	<= 90	3	91 - 100	2	101 - 110	1	111 - 219	0	>= 220	3	___mmHg		
Systolic blood pressure	Score																	
<= 90	3																	
91 - 100	2																	
101 - 110	1																	
111 - 219	0																	
>= 220	3																	
3.1f	Pulse	Beats/min Heart rate is an acceptable alternative if no pulse rate is available. If you have both please record the higher of the two readings.	<p>Enter the pulse rate as a whole number in the range 0 to 180 beats per minute.</p> <table border="1"> <thead> <tr> <th>Pulse rate</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td><= 40</td> <td>3</td> </tr> <tr> <td>41 - 50</td> <td>1</td> </tr> <tr> <td>51 - 90</td> <td>0</td> </tr> <tr> <td>91 - 110</td> <td>1</td> </tr> <tr> <td>111 - 130</td> <td>2</td> </tr> <tr> <td>>= 131</td> <td>3</td> </tr> </tbody> </table>	Pulse rate	Score	<= 40	3	41 - 50	1	51 - 90	0	91 - 110	1	111 - 130	2	>= 131	3	<p>Greyed out if 3.1 has numeric value entered or if 'Score not available' checked.</p> <p>Please note 3.1a-3.1h must all be completed in order to generate a score.</p> <p>Look of answer option: ___BPM</p> <p>Whole number. Must be a maximum of 3 digit number between 0-200 only.</p>
Pulse rate	Score																	
<= 40	3																	
41 - 50	1																	
51 - 90	0																	
91 - 110	1																	
111 - 130	2																	
>= 131	3																	
3.1g	Consciousness	Alert, Voice, Pain, Unresponsive (AVPU) Score	Choose if the patients consciousness elements:	<p>Greyed out if 3.1 has numeric value entered or if 'Score not available' checked.</p> <p>Please note 3.1a-3.1h must all be completed in order to generate a score.</p>														

NEWS2

Item no.	Question	Text under question	Pop-up help note													
			<table border="1"> <thead> <tr> <th>Consciousness</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>Alert</td> <td>0</td> </tr> <tr> <td>Voice Pain Unresponsive</td> <td>3</td> </tr> </tbody> </table> <p><i>Note: Any or all non-alert conditions count as a single score of 3.</i></p>	Consciousness	Score	Alert	0	Voice Pain Unresponsive	3	<p>Radio button <u>five</u> options, select all that apply:</p> <ul style="list-style-type: none"> • Alert • Voice • Pain • Unresponsive • Confusion <p>Can select <u>one</u> option only</p>						
Consciousness	Score															
Alert	0															
Voice Pain Unresponsive	3															
3.1h	Temperature	Celsius	<p>Enter the patients temperature as a number rounded to one decimal place in the range 33.0 to 45.0 degrees Celsius.</p> <table border="1"> <thead> <tr> <th>Temperature</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td><= 35.0</td> <td>3</td> </tr> <tr> <td>35.1 - 36.0</td> <td>1</td> </tr> <tr> <td>36.1 - 38.0</td> <td>0</td> </tr> <tr> <td>38.1 - 39.0</td> <td>1</td> </tr> <tr> <td>>= 39.1</td> <td>2</td> </tr> </tbody> </table>	Temperature	Score	<= 35.0	3	35.1 - 36.0	1	36.1 - 38.0	0	38.1 - 39.0	1	>= 39.1	2	<p>Greyed out if 3.1 has numeric value entered or if 'Score not available' checked.</p> <p>Please note 3.1a-3.1h must all be completed in order to generate a score.</p> <p>Look of answer option: ---(°C)</p>
Temperature	Score															
<= 35.0	3															
35.1 - 36.0	1															
36.1 - 38.0	0															
38.1 - 39.0	1															
>= 39.1	2															
3.2	NEWS2 overall total		<p>This number is derived from the answers given to each element of the 'NEWS2' scoring system:</p>	<p>Greyed out if 3.1 has numeric value entered or if 'Score not available' checked.</p> <p>Please note 3.1a-3.1h must all be completed in order to generate a score.</p> <p>Updated after saving</p>												

NEWS2																																																																															
Item no.	Question	Text under question	 Pop-up help note																																																																												
			<table border="1"> <thead> <tr> <th>Physiological parameter</th> <th>3</th> <th>2</th> <th>1</th> <th>Score 0</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>Respiration rate (per minute)</td> <td>≤8</td> <td></td> <td>9–11</td> <td>12–20</td> <td></td> <td>21–24</td> <td>≥25</td> </tr> <tr> <td>SpO₂ Scale 1 (%)</td> <td>≤91</td> <td>92–93</td> <td>94–95</td> <td>≥96</td> <td></td> <td></td> <td></td> </tr> <tr> <td>SpO₂ Scale 2 (%)</td> <td>≤83</td> <td>84–85</td> <td>86–87</td> <td>88–92 ≥93 on air</td> <td>93–94 on oxygen</td> <td>95–96 on oxygen</td> <td>≥97 on oxygen</td> </tr> <tr> <td>Air or oxygen?</td> <td></td> <td>Oxygen</td> <td></td> <td>Air</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Systolic blood pressure (mmHg)</td> <td>≤90</td> <td>91–100</td> <td>101–110</td> <td>111–219</td> <td></td> <td></td> <td>≥220</td> </tr> <tr> <td>Pulse (per minute)</td> <td>≤40</td> <td></td> <td>41–50</td> <td>51–90</td> <td>91–110</td> <td>111–130</td> <td>≥131</td> </tr> <tr> <td>Consciousness</td> <td></td> <td></td> <td></td> <td>Alert</td> <td></td> <td></td> <td>CVPU</td> </tr> <tr> <td>Temperature (°C)</td> <td>≤35.0</td> <td></td> <td>35.1–36.0</td> <td>36.1–38.0</td> <td>38.1–39.0</td> <td>≥39.1</td> <td></td> </tr> </tbody> </table>	Physiological parameter	3	2	1	Score 0	1	2	3	Respiration rate (per minute)	≤8		9–11	12–20		21–24	≥25	SpO ₂ Scale 1 (%)	≤91	92–93	94–95	≥96				SpO ₂ Scale 2 (%)	≤83	84–85	86–87	88–92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen	Air or oxygen?		Oxygen		Air				Systolic blood pressure (mmHg)	≤90	91–100	101–110	111–219			≥220	Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131	Consciousness				Alert			CVPU	Temperature (°C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39.0	≥39.1					
Physiological parameter	3	2	1	Score 0	1	2	3																																																																								
Respiration rate (per minute)	≤8		9–11	12–20		21–24	≥25																																																																								
SpO ₂ Scale 1 (%)	≤91	92–93	94–95	≥96																																																																											
SpO ₂ Scale 2 (%)	≤83	84–85	86–87	88–92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen																																																																								
Air or oxygen?		Oxygen		Air																																																																											
Systolic blood pressure (mmHg)	≤90	91–100	101–110	111–219			≥220																																																																								
Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131																																																																								
Consciousness				Alert			CVPU																																																																								
Temperature (°C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39.0	≥39.1																																																																									

Admission				
Item No.	Question	Text under question	 Pop-up help note	Validation
4	Admission	We measure both arrival and admission times as there is usually a delay between the two for those patients who need to stay in hospital.		
4.1	Date and time of admission	Please record the date and time as noted on the initial admission clerking record, in the ED, MAU or other admission ward. You may use the nursing record or time of initial observations if you are unable to find a time on the medical clerking sheet.		Must be the same as or within 72 hours of the date and time of arrival.

Admission				
Item No.	Question	Text under question	 Pop-up help note	Validation
		Patients must be admitted within 72 hours of arriving.		
4.1a	Date of admission to unit	dd/mm/yyyy		Look of answer option: _/_/____ Must be the same as or within 72 hours of the date and time of arrival.
4.1b	Time of admission to unit	24hr clock 00 : 00		Look of answer option: __:__ Must be the same as or within 72 hours of the date and time of arrival.

Review				
Item No.	Question	Text under question	 Pop-up help note	Validation
5	Respiratory specialist review		<i>This question aligns with NICE QS10, statement 10, 2011. It measures whether a respiratory specialist has reviewed the patient within 24 hours of admission. This is also a Best Practice Tariff item.</i>	
5.1	Was the patient reviewed by a member of the respiratory team during their admission?		Respiratory team members may be defined locally to include respiratory health professionals deemed competent at seeing and managing patients with acute exacerbation of COPD. These staff members might include: respiratory consultant, respiratory trainee of ST3 or above, respiratory specialist nurse or physiotherapist, COPD nurse.	Radio buttons <u>two</u> options: <ul style="list-style-type: none"> • Yes • No Can select <u>one</u> option only
5.1a	Date of first review by a member of the respiratory team	dd/mm/yyyy		Greyed out if previous question was 'no'. Look of answer option: _/_/____ Must be the same as or after date and time of arrival but on or prior to discharge/death.
5.1b	Time of first review by a member of the respiratory team	24hr clock 00 : 00		Greyed out if previous question was 'no'. Look of answer option: __:__

Review				
Item No.	Question	Text under question	 Pop-up help note	Validation
				Must be the same as or after date and time of arrival but on or prior to discharge/death.

Oxygen				
Item No.	Question	Text under question	 Pop-up help note	Validation
6	Oxygen		This question assesses the adequacy of oxygen therapy. <i>It aligns with NICE QS10, statement 3 and statement 6, 2016 and the BTS Emergency oxygen guideline.</i>	
6.1	Was oxygen prescribed for the patient at any point during their admission?		Patients likely to require oxygen at any point during their admission should have it formally prescribed. This is to ensure that all patients admitted with an acute exacerbation of COPD have a prescription of oxygen available to them at all times during their in-patient stay and includes patients who do not use the prescription. NRAP advocates a prescription being written for ALL patients hospitalized with COPD exacerbation.	Radio buttons <u>two</u> options: <ul style="list-style-type: none"> No Yes Can select <u>one</u> option only
6.1a	If yes, was oxygen prescribed to a stipulated target range?			This question is greyed out if 'No' selected for 6.1 Radio buttons <u>four</u> options: <ul style="list-style-type: none"> 88-92%

Oxygen				
Item No.	Question	Text under question	 Pop-up help note	Validation
				<ul style="list-style-type: none"> • 94-98% • Target range not stipulated • Other target range stipulated – Allows free text (100 characters limit) Can select <u>one</u> option only
6.1b	If 'Other' - please specify:			Look of answer option: Allows free text (100 characters limit)
6.2	Was oxygen administered to the patient at any point during this admission?			Radio buttons <u>two</u> options: <ul style="list-style-type: none"> • Yes • No Can select <u>one</u> option only

NIV				
Item No.	Question	Text under question	 Pop-up help note	Validation
7	NIV		This question allows us to determine the number of patients who receive NIV acutely during their exacerbation and how rapidly they are treated. <i>This aligns with NICE QS10, statement 7, 2016, BTS NIV quality standard and the NCEPOD NIV report.</i>	
7.1	Did the patient receive a diagnosis of acidotic hypercapnic ventilatory failure according to their blood gases at any point during admission?	Acidotic hypercapnic ventilatory failure is defined as an arterial partial pressure of carbon dioxide (PaCO ₂) of >6.5 kPa (>50 mmHg) with blood pH <7.35		Radio buttons <u>two</u> options: <ul style="list-style-type: none"> • No • Yes Can select <u>one</u> option only
7.2	Did the patient receive a continued diagnosis of acidotic hypercapnic ventilatory failure according to their blood gases after receiving 1 hour	Acidotic hypercapnic ventilatory failure defined as an arterial partial pressure of carbon dioxide (PaCO ₂) of >6.5 kPa (>50 mmHg) with blood pH <7.35.	NIV is indicated if a patient diagnosed with acidotic hypercapnic ventilatory failure according to their blood gases has not improved after receiving 1 hour of optimal medical treatment.	Greyed out unless previous question was 'yes'. Radio buttons <u>two</u> options: <ul style="list-style-type: none"> • No • Yes Can select <u>one</u> option only

NIV				
Item No.	Question	Text under question	 Pop-up help note	Validation
	of optimal medical treatment?			
7.2a	Date of this blood gas measurement.	dd/mm/yyyy		Look of answer option: _/_/___
7.2b	Time of this blood gas measurement.	24hr clock 00 : 00		Look of answer option: _:__
7.3	Did the patient receive acute treatment with NIV?			Radio buttons <u>two</u> options: <ul style="list-style-type: none"> • No • Yes Can select <u>one</u> option only
7.3a	On what date did NIV first commence	dd/mm/yyyy		Look of answer option: _/_/___ <input type="checkbox"/> Not recorded Can enter numeric value <u>OR</u> select 'Not recorded' NIV values allowed only on or post arrival and on or prior to discharge/death.
7.3b	At what time did NIV first commence	24hr clock 00 : 00		Look of answer option: _:__ <input type="checkbox"/> Not recorded Can enter numeric value <u>OR</u> select 'Not recorded'

NIV				
Item No.	Question	Text under question	Pop-up help note	Validation
				NIV values allowed only on or post arrival.
7.4	Where was NIV commenced?			Radio buttons <u>two</u> options: <ul style="list-style-type: none"> • Emergency department • Medical admissions unit • Respiratory support unit • ICU • High dependency unit • Respiratory ward • General ward • Other Can select <u>one</u> option only

Spirometry				
Item No.	Question	Text under question	Pop-up help note	Validation
8	Spirometric evidence of COPD		This question allows us to determine whether the patient actually has airflow obstruction. <i>The question aligns with NICE QS10, statement 1, 2016.</i>	
8.1	What was the patient's most recently recorded FEV1 % predicted?	Please enter a percentage between 15 and 125.		Look of answer option: ___% <input type="checkbox"/> Not recorded Can enter numeric value <u>OR</u> select 'Not recorded' Numeric option must be a: <ul style="list-style-type: none"> • percentage

Spirometry				
Item No.	Question	Text under question	 Pop-up help note	Validation
				<ul style="list-style-type: none"> maximum of 3 digits to 1 decimal place (values more than 1 decimal place will round up or down) number between 15 and 125.
8.1a	Date of last recorded FEV1 % predicted	Please enter the date of the last recorded FEV1 % predicted. dd/mm/yyyy		This question is greyed out if 'Not recorded' is selected for 8.1 Look of answer option: _/_/____ <input type="checkbox"/> Not recorded Can enter numeric value <u>OR</u> select 'Not recorded' Spirometry values must be on or after patient's 35 th birthday.
8.2	What was the patient's most recently recorded FEV1/FVC ratio?	Please enter a value between 0.20 and 0.95.	FEV1/FVC ratio can be calculated by dividing the FEV1 by the FVC. If you only have the ratio recorded as a percentage, please divide this figure by 100 to convert it to a decimal.	Look of answer option: _.:____ <input type="checkbox"/> Not recorded Can enter numeric value <u>OR</u> select 'Not recorded' Numeric option must be a: <ul style="list-style-type: none"> maximum of 1 digit to 2 decimal places, between 0.20 and 0.95 (values more than 2 decimal place will round up or down)

Spirometry				
Item No.	Question	Text under question	 Pop-up help note	Validation
8.2a	Date of last recorded FEV1/FVC ratio	Please enter the date of the last recorded FEV1/FVC ratio. dd/mm/yyyy		This question is greyed out if 'Not recorded' is selected for 8.2 Look of answer option: _/_/____ <input type="checkbox"/> Not recorded Can enter numeric value <u>OR</u> select 'Not recorded' Spirometry values must be on or after patient's 35 th birthday.

Discharge				
Item No.	Question	Text under question	 Pop-up help note	Validation
9	Discharge			
9.1	Was the patient alive at discharge from your hospital?			Radio buttons <u>two</u> options: <ul style="list-style-type: none"> • Alive • Died as inpatient Can select <u>one</u> option only
9.2	Date of discharge/death	Please enter the date of discharge/death. dd/mm/yyyy	The date of discharge is to be found usually at the end of the admission record, or on the discharge summary.	Look of answer option: _/_/____

Discharge				
Item No.	Question	Text under question	 Pop-up help note	Validation
			If the patient is discharged onto another hospital, an early discharge scheme, hospital at home or community COPD scheme, please give the date of discharge from your hospital and not the scheme. If the patient self-discharged, use date of self-discharge.	Must be the same as or after date of arrival.
9.3	Was a discharge bundle completed for this admission?		<p><i>This question aligns with NICE QS10, statement 8, 2016 and the BTS Intermediate Care guidance. This is also a Best Practice Tariff item.</i></p> <p>A structured way of improving discharge processes and care leading to improved patient outcomes. Based on evidence based clinical interventions or actions.</p>	<p>This question is greyed out if 'Died as inpatient' is selected for 10.1</p> <p>Radio buttons <u>three</u> options:</p> <ul style="list-style-type: none"> • Yes • No • Self-discharge <p>Can select <u>one</u> option only</p>
9.4	Which of the following specific elements of good practice were undertaken as part of the patient's discharge (they may be a component of the discharge bundle)?	If any of the good practice care elements have not been completed and/or are not applicable please do not select them. If no elements have been completed please select 'None'.	<p>Follow up requests</p> <p>Communication directly with a named individual responsible for COPD care within the practice, by means of fax or email counts as a request for follow-up.</p> <p>If the patient has been asked and/or been provided with the necessary information they need to make/request the follow up appointment(s) themselves within the recommended timeframe please select that the component was completed.</p>	<p>This question is greyed out if 'Died as inpatient' is selected for 10.1</p> <p>Checkboxes <u>twelve</u> options select all that apply:</p> <ul style="list-style-type: none"> • Inhaler technique Inhaler technique checked. • Medication assessment Medication issued/classes reviewed. • Self-management plan

Discharge

Item No.	Question	Text under question	 Pop-up help note	Validation
				<p>Self-management plan provided or referred to community team for plan.</p> <ul style="list-style-type: none"> • Emergency drug pack Emergency drug pack provided or referred to community team for pack. • Emergency drug pack not provided Emergency drug pack not provided as assessed as unsuitable • Oxygen alert Oxygen alert card provided • Smoking cessation Referred to behavioral change intervention and/or stop smoking drug prescribed (Validation: This is greyed out if Q2.7 returns 'No' or 'Not recorded' AND Q2.7a does not return a 'Current' choice for the options provided AND Q2.7b does not return 'Current vaper'). • Pulmonary rehabilitation Assessed for suitability for pulmonary rehabilitation. • Follow up requests At home within 72 hours by person or by phone.

Discharge				
Item No.	Question	Text under question	 Pop-up help note	Validation
				<ul style="list-style-type: none"> • Multidisciplinary team meeting (MDT) Patient discussed at an MDT with a community and/or primary care team. • BLF patient passport BLF passport offered to the patient. • None