







**National Respiratory Audit Programme (NRAP)**  
**Adult asthma secondary care audit - clinical audit dataset**  
Version v4.2: April 2024


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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"> <li>• who are 16 years and over on the date of arrival</li> <li>• who have been <b>admitted*</b> to hospital adult services</li> <li>• who have a primary diagnosis of asthma attack</li> <li>• where an initial, or unclear, diagnosis is revised to asthma attack.</li> </ul> <p>*Where admission is an episode in which a patient with an asthma attack is admitted and stayed in hospital for 4 hours or more. This includes: Emergency Medicine Centres, Acute Medical Units, Clinical Decision Units, short stay wards or similar, but excludes patients treated transiently before discharge from the Emergency Department (ED).</p> <p>Exclude patients:</p> <ul style="list-style-type: none"> <li>• in whom an initial diagnosis of an acute asthma attack is revised to an alternative at a later stage</li> </ul>	<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 position of the first episode of care:</p> <ul style="list-style-type: none"> <li>J45.0 - Predominantly allergic asthma</li> <li>J45.9 - Asthma, unspecified</li> <li>J46.X - Status asthmaticus (<i>Includes.: Acute severe asthma</i>)</li> </ul>	


Arrival information				
Item No.	Question	Text under question	 Pop-up help note	Validation
		<ul style="list-style-type: none"> <li>who are between 16 and 18 but seen on a paediatric ward.</li> </ul>		
1.1	Date and time of arrival at your hospital	<p>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> <p>Date and time of arrival to hospital must still be completed if the 'Patient transferred from another hospital' is selected.</p>	<p>The point of arrival is often the ED, or AMU, though patients occasionally come from home/elsewhere into other wards. These cases must also be included. For patients arriving by ambulance the time of arrival at hospital should be used, not the time of handover to the ED team.</p> <p>The arrival time will be used as the start-point when determining the time to acute treatment (steroids, β2 agonists etc). Time is best determined from the ambulance transfer sheet, the A&amp;E/ED record or AMU/ward arrival record.</p>	
1.1a	Date of arrival	dd/mm/yyyy		<p><b>Look of answer option:</b>  </p> <p>Latest date = Today</p>
1.1b	Time of arrival	24hr clock 00:00		<p><b>Look of answer option:</b>  </p> <p>Cannot be a time in the future.</p>

Arrival information				
Item No.	Question	Text under question	 Pop-up help note	Validation
1.2	Which <b>department</b> did the patient receive their first review and treatment in?	Please record the area of the hospital in which the patient underwent their first review and treatment.		<p><b>Radio buttons <u>five</u> options:</b></p> <ul style="list-style-type: none"> <li>• Emergency department</li> <li>• Acute medical unit (AMU)</li> <li>• Direct respiratory admission</li> <li>• Direct admission to other department</li> <li>• Admission from hospital outpatients</li> </ul> <p><b><i>Can select <u>one</u> option only.</i></b></p>


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 numbers which are ten digits long.</p> <p>Optionally, you can enter spaces or dashes or 3-3-4 format.</p>	<p>Permission has been granted to use the NHS number as a patient identifier. This will be used to determine:</p> <ul style="list-style-type: none"> <li>• case-mix,</li> <li>• length of stay,</li> <li>• readmission rate,</li> <li>• mortality.</li> </ul> <p>The NHS number is essential to create a Patient Record. It should only consist of digits.</p> <ul style="list-style-type: none"> <li>• It may be formatted as 000 000 0000 (spaces) or 000-000-0000 (dashes)</li> <li>• It should contain exactly 10 digits.</li> <li>• NHS Numbers start with a 4, 6 or 7</li> <li>• A warning will be given if the number appears invalid.</li> </ul> <p>Use '[NONNHS]' for patients that reside in the UK, but do not have an NHS number.</p>	<p><b>Look of answer option:</b></p> <p>___-___-___ or _____</p> <p>Must be a 10-digit number.</p>
2.2	Date of birth	<p>dd/mm/yyyy</p> <p><b>Do not include</b> asthma patients under the age of 16 or patients between the ages of 16-18 (on date of arrival) treated on a paediatric unit/ward.</p>	<p>Date of birth may be entered numerically e.g. 01/03/1957 can be inputted as 1 3 57.</p>	<p><b>Look of answer option:</b></p> <p>_/_/___</p> <p>The web-tool does not accept any patients:</p> <ul style="list-style-type: none"> <li>• below 16 years of age</li> <li>• or above 115 years of age at time of arrival (116 and older).</li> </ul>

Patient				
Item No.	Question	Text under question	 Pop-up help note	Validation
		<b>Only include</b> patients of 16 years of age or above who have been treated on an adult ward.		<b>Cannot be a future date.</b>
2.3	Gender	Please enter the patient's gender as it appears in the notes/referral information.	<p>The 'Other' should be used for patients who do not recognise themselves as either male, female, or transgender.</p> <p>If the gender for the patient cannot be determined 'Not recorded/Preferred not to say' should be selected.</p>	<p><b>Radio buttons <u>five</u> options:</b></p> <ul style="list-style-type: none"> <li>• Male</li> <li>• Female</li> <li>• Transgender</li> <li>• Other</li> <li>• Not recorded/Preferred not to say</li> </ul> <p><b><i>Can select <u>one</u> option only.</i></b></p>
2.4	Home postcode	Please enter the full postcode. For patients with no fixed abode use '[NFA]'. 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>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><b>Drop down list <u>eighteen</u> options:</b></p> <ul style="list-style-type: none"> <li>• White British</li> <li>• White Irish</li> <li>• Any other White background</li> <li>• White and Black Caribbean</li> <li>• White and Black African</li> <li>• White and Asian</li> <li>• Any other mixed background</li> <li>• Indian</li> <li>• Pakistani</li> </ul>

Patient				
Item No.	Question	Text under question	 Pop-up help note	Validation
				<ul style="list-style-type: none"> <li>• Bangladeshi</li> <li>• Any other Asian background</li> <li>• Caribbean</li> <li>• African</li> <li>• Any other Black background</li> <li>• Chinese</li> <li>• Any other ethnic group</li> <li>• Not known</li> <li>• Not recorded</li> </ul> <p><b><i>Can select <u>one</u> option only</i></b></p>
2.6	Does this patient have a current mental illness or cognitive impairment recorded?		<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><b>Radio button <u>seven</u> options</b></p> <ul style="list-style-type: none"> <li>• No</li> <li>• Anxiety</li> <li>• Depression</li> <li>• Severe mental illness</li> <li>• Dementia / mild cognitive impairment</li> <li>• Other</li> <li>• Not recorded</li> </ul> <p><b><i>Select <u>all</u> that apply</i></b></p> <p><b>Greys out all other options if 'no' is selected</b></p>

Patient																													
Item No.	Question	Text under question	 Pop-up help note	Validation																									
<b>Smoking status</b>																													
2.7	<p>Does the patient currently smoke, or have they a history of smoking any of the following substances?</p> <p>Tobacco (including cigarettes (manufactured or rolled), pipe or cigars), shisha, cannabis or other illicit substances?</p>	<p>Please select never, ex or current based on the smoking status recorded in the patient notes.</p> <p>Patients that vape but do not smoke traditional tobacco are not classified as smokers.</p> <p>If the patient stopped smoking at least 4 weeks prior to the admission, please enter 'Ex-smoker'.</p> <p>If the patient has stopped within 4 weeks, mark as a 'Current smoker'.</p>	<p><i>This question aligns to:</i></p> <ul style="list-style-type: none"> <li>NICE 2022 (Tobacco - treating dependence) QS207. <a href="https://www.nice.org.uk/guidance/qs207">https://www.nice.org.uk/guidance/qs207</a></li> <li>BTS/SIGN 2016 (Management of asthma) guidelines 6.2.3 and 7.2.6</li> <li>NRAD 2014 (Why asthma still kills), recommendation 2 of patient factors and perception of risk.</li> </ul>	<p><b>See below</b></p> <table border="1"> <thead> <tr> <th></th> <th>Never</th> <th>Ex</th> <th>Current</th> <th>Not recorded</th> </tr> </thead> <tbody> <tr> <td>2.7a) Tobacco (including cigarettes (manufactured or rolled), pipe or cigars)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2.7b) Shisha</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2.7c) Cannabis</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2.7d) Other illicit substance</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>notes. <b>Using radio buttons – select all that apply</b></p>		Never	Ex	Current	Not recorded	2.7a) Tobacco (including cigarettes (manufactured or rolled), pipe or cigars)					2.7b) Shisha					2.7c) Cannabis					2.7d) Other illicit substance				
	Never	Ex	Current	Not recorded																									
2.7a) Tobacco (including cigarettes (manufactured or rolled), pipe or cigars)																													
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2.7c) Cannabis																													
2.7d) Other illicit substance																													
2.8	Was the patient reviewed by a tobacco	Please select yes, no, declined or not known based on the information in the patients notes.		<p><b>Radio button 4 options</b></p> <ul style="list-style-type: none"> <li>No</li> <li>Yes</li> </ul>																									




Patient				
Item No.	Question	Text under question	 Pop-up help note	Validation
	dependence specialist during their inpatient admission?			<ul style="list-style-type: none"> <li>• Declined</li> <li>• Not known</li> </ul> <p><b>Can select <u>one</u> option only</b></p>
2.8a	Was the patient offered nicotine replacement therapy during their inpatient admission?	Please select yes, no, declined or not known based on the information in the patients notes.		<p><b>Radio button 4 options</b></p> <p><b>Offered</b></p> <ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> <li>• Declined</li> <li>• Not known</li> </ul> <p><b>Can select <u>one</u> option only</b></p>
2.8b	Was the patient prescribed nicotine replacement therapy during their inpatient admission?	Please select yes, no, declined or not known based on the information in the patients notes.		<p><b>Radio button 4 options</b></p> <p><b>Prescribed</b></p> <ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> <li>• Declined</li> <li>• Not known</li> </ul> <p><b>Can select <u>one</u> option only</b></p>
2.9	Does the patient currently use a vape or electronic cigarette?	Patients that vape but do not smoke tobacco are not smokers		<p><b>Radio buttons <u>four</u> options:</b></p> <ul style="list-style-type: none"> <li>• Current</li> <li>• Ex</li> <li>• Never</li> <li>• Not recorded</li> </ul> <p><b>Can select <u>one</u> option only</b></p>


Acute observations				
Item No.	Question	Text under question	Pop-up help note	Validation
<b>Heart and respiratory rates</b>				
3.1	What was the first recorded heart rate for the patient following arrival at hospital?	Record as a whole number only, within the range of 0-200 BPM.	<i>This question aligns to</i> <ul style="list-style-type: none"> <li>BTS/SIGN 2019 (Management of asthma) guideline 9.2.3</li> <li>NICE 2013 QS25 (Asthma) [QS7]</li> </ul>	<b>Look of answer option:</b> __ __ BPM  Whole number. Must be a maximum of 3 digit number between 0-200 only.
3.2	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.	<i>This question aligns to</i> <ul style="list-style-type: none"> <li>BTS/SIGN 2019 (Management of asthma) guideline 9.2.3</li> <li>NICE 2013 QS25 (Asthma) [QS7]</li> </ul>	<b>Look of answer option:</b> __ BPM  Whole number. Must be a maximum of 2 digit number between 0-60 only.
<b>Oxygen saturation</b>				
3.3	What was the first recorded oxygen saturation (SpO <sub>2</sub> ) measurement for the patient following arrival at hospital?	Record as a whole number, within a range of 60 – 100%.	<i>This question aligns to:</i> <ul style="list-style-type: none"> <li>BTS/SIGN 2019 (Management of asthma) guideline 9.2.3</li> <li>NICE 2013 QS25 (Asthma) [QS7]</li> </ul>	<b>Look of answer option:</b> __ __ % <input type="checkbox"/> Not recorded  <i>Can enter numeric value <b>OR</b> select radio button option only</i>
3.3a	Was this measurement taken whilst the patient was on supplementary oxygen?			<b>Radio buttons <u>three</u> options:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No - room air <input type="checkbox"/> Not recorded


				Should grey out if Q3.3 = 'Not recorded'.  <b>Can select <u>one</u> option only</b>
<b>Peak flow</b>				
3.4	Was a peak flow measurement taken at any point during the patient's admission?	<i>Please record the first patient peak flow measurement after arrival.</i>	<i>Please answer 'No' if no peak flow value is recorded in the notes. Please answer 'No - Patient unable to do PEF' if the patient is either too unwell or unable to perform the measurement for other reasons</i>	<b>Radio buttons <u>four</u> options:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No – patient unable to do PEF <input type="checkbox"/> No – not done <input type="checkbox"/> Not recorded  <b>Can select <u>one</u> option only</b>
3.4a	If yes (to Q3.4), what was the first recorded peak flow measurement?	Record as a whole number within a range of 60-800.  The pre-bronchodilator value should be recorded in L/min.	<i>These questions aligns to:</i> <ul style="list-style-type: none"> <li>• <i>BTS/SIGN 2019 (Management of asthma) guideline 9.2.3 and guideline 9.2.6</i></li> <li>• <i>NICE 2013 QS25 (Asthma) [QS7]</i></li> </ul> Where the PEF value is below 60 L/min, please enter '60'.  Where the PEF value is above 800 L/min, please enter '800'.	<b>Look of answer option:</b> _____L/min  Should grey out if 'No – patient unable to do PEF', 'No – not done' or 'Not recorded' selected for Q3.4.
3.4b	If yes (to Q3.4), what was the date of the first recorded peak flow measurement?	dd/mm/yyyy		<b>Look of answer option:</b> _/_/____ Earliest date accepted = date and time of arrival to hospital. <b>OR</b> <input type="checkbox"/> Not recorded

				Should grey out if 'No – patient unable to do PEF', 'No – not done' or 'Not recorded' selected for Q3.4
3.4c	If yes (to Q3.4), what was the time of the first recorded peak flow measurement?	24hr clock 00 : 00		<p><b>Look of answer option:</b>        __:__        Earliest time accepted = date and time of arrival to hospital.  <b>OR</b>  <input checked="" type="checkbox"/> Not recorded</p> <p>Should grey out if 'No – patient unable to do PEF', 'No – not done' or 'Not recorded' selected for Q3.4.</p>
3.5	What was the patient's previous best PEF?	<p>Record as a whole number.</p> <p>If 'Not recorded', enter predicted. Range for both should be 60-800.</p> <p>Previous best according to Personalised Asthma Action Plan (PAAP), patient notes or the patient themselves is to be given to accompany PEF on arrival. If previous best is not available, predicted should be entered.</p>	<p>Where the previous best PEF is below 60 L/min, please enter '60'.</p> <p>Where the previous best PEF is above 800 L/min, please enter '800'.</p>	<p><b>Look of answer option:</b>        _____L/min  <b>OR</b>  <input type="checkbox"/> Not recorded</p> <p>Can enter numeric value <u>OR</u> select 'not recorded' option only</p>
3.5a	If previous best PEF = 'Not recorded' please give predicted PEF:	Record as a whole number within a range of 60-800.	<p>Where the predicted PEF is below 60 L/min, please enter '60'.</p> <p>Where the predicted PEF is above 800 L/min, please enter '800'.</p>	<p><b>Look of answer option:</b>        _____L/min  <b>OR</b>  <input type="checkbox"/> Not recorded        Can enter numeric value <u>OR</u> select radio option only</p>


Additional information on admission				
3.6	Did the patient experience any of the following below during admission?	<ul style="list-style-type: none"> <li>• Partial arterial pressure of oxygen (PaO<sub>2</sub>) &lt; 8 kPa</li> <li>• 'Normal' partial arterial pressure of carbon dioxide (PaCO<sub>2</sub>) (4.6–6.0 kPa)</li> <li>• Raised PaCO<sub>2</sub> and/or the need for mechanical ventilation with raised inflation pressures</li> <li>• Inability to complete sentences in one breath.</li> <li>• Silent chest</li> <li>• Cyanosis</li> <li>• Poor respiratory effort</li> <li>• Hypotension</li> <li>• Exhaustion</li> <li>• Altered conscious level</li> <li>• None</li> </ul>	<p>This question aligns to the following guidance:</p> <ul style="list-style-type: none"> <li>• <a href="https://bnf.nice.org.uk/treatment-summaries/asthma-acute/">https://bnf.nice.org.uk/treatment-summaries/asthma-acute/</a></li> <li>• <i>NICE/BTS/SIGN joint Guideline for the Diagnosis, Monitoring and Management of Chronic Asthma</i> - <a href="https://www.brit-thoracic.org.uk/quality-improvement/guidelines/asthma/">https://www.brit-thoracic.org.uk/quality-improvement/guidelines/asthma/</a></li> </ul>	<p><b>Select all that apply</b></p> <p><b>Radio buttons seven options:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Partial arterial pressure of oxygen (PaO<sub>2</sub>) &lt; 8 kPa</li> <li><input type="checkbox"/> 'Normal' partial arterial pressure of carbon dioxide (PaCO<sub>2</sub>) (4.6–6.0 kPa)</li> <li><input type="checkbox"/> Raised PaCO<sub>2</sub> and/or the need for mechanical ventilation with raised inflation pressures</li> <li><input type="checkbox"/> Breathlessness (inability to complete sentences in one breath)</li> <li><input type="checkbox"/> Silent chest</li> <li><input type="checkbox"/> Cyanosis</li> <li><input type="checkbox"/> Poor respiratory effort</li> <li><input type="checkbox"/> Hypotension</li> <li><input type="checkbox"/> Exhaustion</li> <li><input type="checkbox"/> Altered conscious level</li> <li><input type="checkbox"/> None</li> </ul>


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, AMU, 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.	Where admission is an episode in which a patient with an asthma attack is admitted and stayed in hospital for 4 hours or more.  This includes: Emergency Medicine Centres, Acute Medical Units, Clinical Decision Units, short stay wards or similar, but excludes patients treated transiently before discharge from the Emergency Department (ED).	
4.1a	Date of admission to hospital	dd/mm/yyyy		<b>Look of answer option:</b> _/_/___
4.1b	Time of admission to hospital	24hr clock 00 : 00		<b>Look of answer option:</b> _:__


Acute treatment				
Item No.	Question	Text under question	 Pop-up help note	Validation
<b>Respiratory specialist review</b>				
5.1	Was the patient reviewed by a respiratory specialist during their admission?	Respiratory specialist team members may be defined locally to include respiratory health professionals deemed competent at seeing and managing patients with acute asthma attacks.  These staff members might include: respiratory consultant, respiratory trainee of ST3 or above, respiratory specialist nurse or asthma nurse.	<i>This question aligns to:</i> <ul style="list-style-type: none"> <li>• NICE 2013 QS25 (Asthma) [QS9]</li> <li>• NRAD 2014 (Why asthma still kills), recommendation 2 of medical and professional care</li> </ul>	<b>Radio buttons <u>two</u> options:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No  <b>Can select <u>one</u> option only</b>
5.1a	Date of first review by a member of the respiratory team	dd/mm/yyyy		<b>Look of answer option:</b> __/__/____  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		<b>Look of answer option:</b> __:____  Must be the same as or after date and time of arrival but on or prior to discharge/death


Acute treatment				
Item No.	Question	Text under question	 Pop-up help note	Validation
<b>Oxygen, systemic steroids and <math>\beta</math>2 agonists</b>				
5.2	Was oxygen prescribed to a target range?		<p><i>This question aligns to:</i></p> <ul style="list-style-type: none"> <li><i>BTS/SIGN 2019 (Management of asthma) guideline 9.3.1</i></li> <li><i>BTS 2017 (Guideline for oxygen use in healthcare and emergency settings)</i></li> </ul>	<p><b>Radio buttons <u>three</u> options:</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes - but date/time not recorded</p> <p><input type="checkbox"/> No</p> <p><b>Can select <u>one</u> option only</b></p>
5.2a	Date of oxygen prescription:	Dd/mm/yyyy		<p>__/__/____</p> <p>Enabled if 5.2 is Yes</p>
5.2b	Time of oxygen prescription:	24 hour clock 00:00		<p>__:__</p> <p>Enabled if 5.2 is Yes</p>
5.3	Was oxygen administered to the patient at any point during their admission?		<p><i>This question aligns to:</i></p> <ul style="list-style-type: none"> <li><i>BTS/SIGN 2019 (Management of asthma) guideline 9.3.1</i></li> <li><i>BTS 2017 (Guideline for oxygen use in healthcare and emergency settings)</i></li> </ul>	<p><b>Radio buttons <u>two</u> options:</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><b>Can select <u>one</u> option only</b></p>
5.4	Was the patient administered systemic steroids (including oral or IV) following arrival at hospital?	Please record the date and time of the first administration of systemic steroids i.e. any corticosteroid administered orally or intravenously upon arrival at hospital for this attack.	<p><i>This question aligns to:</i></p> <ul style="list-style-type: none"> <li><i>BTS/SIGN 2019 (Management of asthma) guideline 2.7.1 and 9.3.3</i></li> <li><i>NICE 2013 QS25 (Asthma) [QS8]</i></li> </ul> <p>If patient is on regular maintenance steroids and the dose was increased, please select the “Yes” option. If no change was made to maintenance steroids then please select the “Not administered” option.</p> <p>If there is no steroid prescription please select the ‘Not administered’ option.</p>	<p><b>Look of answer option:</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Not administered</p> <p><b>Can select <u>one</u> option only</b></p>




Acute treatment				
Item No.	Question	Text under question	 Pop-up help note	Validation
5.4a	Date steroids first administered:			<p><b>Look of answer option:</b></p> <p>__/__/__</p> <p><b>Date and time options:</b></p> <ul style="list-style-type: none"> <li>• Earliest time accepted = arrival time</li> <li>• Date and time should not be in the future</li> </ul> <p><i>Date and time should grey out if 'Not administered' selected.</i></p>
5.4b	Time steroids first administered:			<p><b>Look of answer option:</b></p> <p>__:__</p> <p><i>Date and time should grey out if 'Not administered' selected.</i></p>
5.5	Was the patient administered systemic steroids in the 24 hours prior to their arrival at hospital for this asthma attack?	Please select 'Yes' if the patient received systemic steroids in the 24 hours prior to hospital arrival for this asthma attack. This may have been in the community (by a GP or nurse), in the ambulance, or via self-administration.		<p><b>Radio buttons <u>two</u> options:</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><i>Can select <u>one</u> option only</i></p>


Acute treatment				
Item No.	Question	Text under question	 Pop-up help note	Validation
		<p>This excludes steroids administered as part of regular maintenance dose of oral steroids, unless the dose was increased to manage this asthma attack.</p> <p>Please answer 'No' if no record of systemic steroids in the 24 hours prior to arrival is available in the notes.</p>		
5.6	Was the patient administered $\beta 2$ agonists prior to their arrival at hospital for this asthma attack?	<p>Please select 'Yes' if the patient was administered additional <math>\beta 2</math> agonists for this asthma attack in the 1 hour prior to their arrival at hospital e.g. in the ambulance, primary care or self-administered.</p> <p>Please answer 'No' if no record of <math>\beta 2</math> agonists in the hour prior to arrival is available in the notes.</p>	<p><i>This question applies to B2 agonists administered via nebuliser or 10 puffs or more via spacer.</i></p> <p><i>This information may be available in ambulance sheets or triage notes from patient's admission</i></p>	<p><b>Radio buttons two options:</b></p> <p><input type="checkbox"/> Yes – up to 1 hour prior to arrival</p> <p><input type="checkbox"/> No</p> <p><b>Can select <u>one</u> option only</b></p>
5.7	Was the patient administered $\beta 2$ agonists (including nebulised and MDI with spacers) following arrival at hospital?	<p>Please record the date and time of the first administration of <math>\beta 2</math> agonists upon arrival at hospital for this attack.</p>	<p><i>This question aligns to:</i></p> <ul style="list-style-type: none"> <li><i>BTS/SIGN 2019 [Guideline 2.6.1, 9.3.2]</i></li> </ul>	<p><b>Look of answer option:</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Not administered</p> <p><b><i>Date and time should grey out if 'Not administered' selected.</i></b></p>

Acute treatment				
Item No.	Question	Text under question	 Pop-up help note	Validation
		If there is no beta-agonist prescription please select the 'Not administered' option.		
5.7a	Date of $\beta$ 2 agonists			<b>Look of answer option:</b> __/__/__  <b>Date and time option:</b> <ul style="list-style-type: none"> <li>• Earliest time accepted = arrival time</li> <li>• Date and time should not be in the future</li> </ul>
5.7b	Time of $\beta$ 2 agonists			<b>Look of answer option:</b> __:__


Review and discharge				
Item No.	Question	Text under question	 Pop-up help note	Validation
<b>Discharge/death</b>				
6.1	Was the patient alive at discharge from your hospital?			<b>Radio buttons <u>two</u> options:</b> <ul style="list-style-type: none"> <li>• Alive</li> <li>• Died as inpatient</li> </ul> <b>Can select <u>one</u> option only</b> If 'died as inpatient' selected, questions from 6.3, 6.4, 7.1 and 7.2 should grey out.
6.2	Date and time of discharge /death	Please enter date and time of discharge/death.	The date of discharge is usually found at the end of the admission record, or on the discharge summary.  If the patient was discharged to another hospital, early discharge scheme, hospital at home or community asthma scheme, please give the date of discharge from your hospital and not the scheme. If the patient self-discharged, use date of self-discharge.	
6.2a	Date of discharge/ death	dd/mm/yyyy		<b>Look of answer option:</b> __/__/____ Must be the same as or after date and time of arrival.
6.2b	Time of discharge/ death	24hr clock 00:00		<b>Look of answer option:</b> __:___  Must be the same as or after date and time of arrival.

Review and discharge				
Item No.	Question	Text under question	 Pop-up help note	Validation
<b>Discharge care</b>				
6.3	Was a discharge bundle completed for this admission?	<p>To answer 'Yes' to this question there must be objective evidence of a care bundle record in the notes. This may include a bundle sheet or sticker in the notes or a check box in an electronic patient record.</p> <p>If 'No' or 'Self-discharge' are selected, please still complete what elements of good practice were completed for this patient in Q 6.4.</p>	<p>A discharge bundle is a structured way of improving discharge processes and care leading to improved patient outcomes. It is based on evidence based clinical interventions or actions.</p> <p>BTS care bundle for asthma. <i>This question aligns to</i></p> <ul style="list-style-type: none"> <li>• <i>BTS/SIGN 2019 (Management of asthma) guideline 5.2.2, 5.3.2, 9.6.2, and 9.6.3</i></li> <li>• <i>BTS – Asthma 4: a new asthma attack care bundle <a href="https://www.brit-thoracic.org.uk/quality-improvement/clinical-resources/asthma/bts-asthma-care-bundles/">https://www.brit-thoracic.org.uk/quality-improvement/clinical-resources/asthma/bts-asthma-care-bundles/</a></i></li> </ul>	<p><b>Radio buttons <u>four</u> options:</b></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Self-discharge</li> <li>• Patient transferred to another hospital</li> </ul> <p><b>Can select <u>one</u> option only</b></p> <p>If 'patient transferred to another hospital' is selected, all subsequent dataset questions should grey out.</p>
6.4	Which of the following specific elements of good practice care were undertaken as part of the patient's discharge?	<p>If any of the good practice care elements have not been completed and/or are not applicable, please do not select them.</p> <p>If no elements have been completed, please select 'None'.</p> <p>If 'No' or 'Self-discharge' are selected (Q 6.3) please select which elements of good practice</p>	<p><b>Follow up requests</b></p> <p>Communication directly with a named individual responsible for asthma care within the practice, by means of email or electronic discharge summary will count 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><b>Radio button options (<i>select all that apply</i>):</b></p> <p><b><u>BTS – Asthma 4</u></b></p> <ul style="list-style-type: none"> <li>• <b>Inhaler technique</b> Inhaler technique checked and optimised</li> <li>• <b>Maintenance medication</b> Maintenance medication reviewed.</li> <li>• <b>Adherence</b> Adherence discussed.</li> <li>• <b>PAAP</b> PAAP issued/reviewed.</li> </ul>

Review and discharge				
Item No.	Question	Text under question	Pop-up help note	Validation
		care were completed for this patient.	<p><b><i>In order to achieve KPI4 (key elements of good practice at discharge) all BTS – Asthma 4 bundle elements will need to be delivered.</i></b></p> <p>If the patient is already being seen in a secondary care clinic within 4 weeks (ie has an existing appointment in place), please select the ‘specialist review requested within 4 weeks’ option.</p> <p><i>This question aligns to:</i></p> <ul style="list-style-type: none"> <li>• <i>BTS/SIGN 2019 (Management of asthma) guideline 5.2.2, 5.3.2, 9.6.2, and 9.6.3</i></li> <li>• <i>NICE 2018 QS25 (Asthma) [QS2, QS3, QS4]</i></li> <li>• <i>BTS – Asthma 4: a new asthma attack care bundle <a href="https://www.brit-thoracic.org.uk/quality-improvement/clinical-resources/asthma/bts-asthma-care-bundles/">https://www.brit-thoracic.org.uk/quality-improvement/clinical-resources/asthma/bts-asthma-care-bundles/</a></i></li> </ul> <p><b>PAAP = Personalised Asthma Action Plan</b></p>	<ul style="list-style-type: none"> <li>• <b>Asthma triggers</b> Triggers discussed.</li> <li>• <b>Tobacco dependency</b> Tobacco dependency addressed. (Validation: this option is only enabled for current tobacco smokers - question 2.7a='Current').</li> <li>• <b>Specialist review</b> Specialist review requested within 4 weeks.</li> </ul> <p><b><u>Additional discharge guidance</u></b></p> <ul style="list-style-type: none"> <li>• <b>Community follow up</b> Community follow up requested within 2 working days.</li> <li>• <b>None</b></li> </ul>

Steroids and referral for hospital review				
Item No.	Question	Text under question	 Pop-up help note	Validation
<b>Inhaled steroids</b>				
7.1	Was the patient in receipt of inhaled steroids at discharge?		<p>Answer 'Yes' to this question if the patient was prescribed inhaled steroids either alone or in combination with long-acting beta-agonist. Only use 'Not prescribed for medical reasons' if it is documented in the notes why inhaled steroids are not required.</p> <p><i>This question aligns to:</i></p> <ul style="list-style-type: none"> <li>BTS/SIGN 2019 (Management of asthma) Annex 5</li> </ul>	<p><b>Radio buttons <u>three</u> options:</b></p> <ul style="list-style-type: none"> <li>Yes</li> <li>No</li> <li>Not prescribed for medical reasons</li> </ul> <p><b>Can select <u>one</u> option only</b></p>
<b>Oral steroids and hospital assessment</b>				
7.2	Was the patient prescribed at least 5 days of oral steroids for treatment of their asthma attack?	E.g. prednisolone or equivalent.	<p>Select 'Yes' if the patient:</p> <ul style="list-style-type: none"> <li>has completed at least 5 days of oral steroids during their admission,</li> <li>has been discharged with oral steroids to complete the minimum 5 days treatment period</li> <li>Is on long term steroids and has also had an appropriate increase in steroid dose to manage this attack of at least the minimum 5 days period recommended in the guidelines.</li> </ul>	<p><b>Radio buttons <u>two</u> options:</b></p> <ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul> <p><b>Can select <u>one</u> option only</b></p>

## Steroids and referral for hospital review

Item No.	Question	Text under question	 Pop-up help note	Validation
			Please select 'No' if prescription of oral steroids at discharge is not recorded in the patient's notes.  <i>This question aligns to:            BTS/SIGN 2019 (Management of asthma) Annex 5</i>	
7.3	Has the patient been prescribed more than 2 courses of oral (rescue/emergency) steroids in the last 12 months?	E.g. prednisolone or equivalent.  This should be the 12 months prior to the date of admission.  Rescue refers to courses of steroids at higher doses than their usual regime Please also select 'Yes' if the patient is on long-term maintenance steroids.	<i>This question aligns to:            NRAD 2014 (Why asthma still kills)            recommendation 2 of organisation of NHS services</i>	<b>Radio buttons <u>three</u> options:</b> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Not recorded</li> </ul> <p><b><i>Can select <u>one</u> option only</i></b></p>