NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

HEALTH AND SOCIAL CARE DIRECTORATE

QUALITY STANDARD CONSULTATION

SUMMARY REPORT

1 Quality standard title

Pneumonia in adults

Date of Quality Standards Advisory Committee post-consultation meeting:
08 October 2015

2 Introduction

The draft quality standard for Pneumonia was made available on the NICE website for a 4-week public consultation period between 07 August and 07 September 2015. Registered stakeholders were notified by email and invited to submit consultation comments on the draft quality standard. General feedback on the quality standard and comments on individual quality statements were accepted.

Comments were received from 23 organisations, which included service providers, national organisations, professional bodies and others.

This report provides the Quality Standards Advisory Committee with a high-level summary of the consultation comments, prepared by the NICE quality standards team. It provides a basis for discussion by the Committee as part of the final meeting where the Committee will consider consultation comments. Where appropriate the quality standard will be refined with input from the Committee.

Consultation comments that may result in changes to the quality standard have been highlighted within this report. Comments suggesting changes that are outside of the process have not been included in this summary. The types of comments typically not included are those relating to source guidance recommendations and suggestions for non-accredited source guidance, requests to broaden statements out of scope, requests to include thresholds, targets, large volumes of supporting information, general comments on the role and purpose of quality standards and requests to change NICE templates. However, the Committee should read this summary alongside the full set of consultation comments, which are provided in appendices 1 and 2.

3 Questions for consultation

Stakeholders were invited to respond to the following general questions:

1. Does this draft quality standard accurately reflect the key areas for quality improvement?

2. If the systems and structures were available, do you think it would be possible to collect the data for the proposed quality measures?

3. For each quality statement what do you think could be done to support improvement and help overcome barriers?

Stakeholders were also invited to respond to the following statement specific questions:

4. For draft quality statement 3: To help make this statement more specific would it be appropriate to state a timeframe for when this assessment must take place? If yes, please can you state the timeframe, for example, within 24 hours? Please include details in your answer.

5. For draft quality statement 5: Please can you define low-severity community-acquired pneumonia.

6. For draft quality statement 5: Because this statement is about an offer of a 5-day single antibiotic course which is based on clinical judgement do you think this can be feasibly and accurately monitored? Please include details in your answer.

4 General comments

The following is a summary of general (non-statement-specific) comments on the quality standard.

- General support for this draft quality standard reflecting key quality improvement areas.
- Suggestion to add Domains 1-3 of the NHS Outcomes Framework.
- In the introduction, suggestion to define the clinical features of CAP for the primary care physician.
- Suggestion to amend healthcare professional definitions on a number of draft statements.
- Suggestion that all primary care antibiotic guidance related to lower respiratory tract infections should refer to draft quality statement 2 and 6. The addition of these references will be considered as part of PHE's next review.

Consultation comments on data collection

- The annual BTS CAP Audit is widely used in secondary care and would collect most of the data except Statement 6. Many trusts also collect similar data related to CQUIN targets and QOF data in primary care.
- Data could be extracted from current PAS on all statements with no new data input.
- As CRB65 recording relies on auditing documentation in clinical paper notes or electronic this may be a large scale challenge.
- Adapting existing computer systems to integrate assessment would be useful.
- QS1- Concern raised on measuring compliance in relation to the 4 hour diagnosis (including CXR) target. Local data collection for the structure measure will not be easy. Collection of additional data within four hours might detract from patient care. If used, four hours should be the timeframe to both review and report the x-

ray. Use of electronic records would enhance monitoring capability and reduce resource burden.

- QS2- CRB65 recording would need to be coded on primary care IT systems and linked to a pneumonia diagnosis. Concern raised on collecting CRB65 scores unless this occurs routinely in GP templates. Unless this system is used to change behaviour and update template screens there is limited ability to collect this information.
- QS3- Modified coding is needed to enable local data collection to happen. If not it will form part of regular audit.
- QS4 & QS5- Concern raised on measuring compliance in relation to antibiotic administration.
- QS6- Difficulties reported on data collection for the proposed measures. Current coding system does not allow easy recording and information capture.

Consultation comments on question 3

- Communication of the standards will aid implementation. Prioritisation by managers and its link to sepsis is also important. Use of compliance targets may help some measures.
- Support to develop lead nurses or GPs to cascade information to colleagues. Needs must be CCG led to ensure funding available. Also asthma and COPD patients need to be aware of symptom changes.
- Support for a national electronic resource for recording key interventions and times would reduce burden of manual audit.
- QS1- Radiology must be consistently available all day every day.
- QS2 & 3- A template on care pathway, for example, is required to prompt clinicians to record the information.
- QS4- Provide a template ‘Patient Group Direction’ for local use to empower nursing staff to administer first dose. This has been implemented in many hospitals in response to the Surviving Sepsis Campaign.
- QS5- Ensure British National Formulary (BNF) is updated to reflect this recommendation and subsequently incorporated into PHE guidelines for primary care.

- QS6- Develop a patient information leaflet available for clinicians to download or order printed copies. Concern raised on how this can be monitored in primary care with lack of audit or routine data extraction.

5 Summary of consultation feedback by draft statement

5.1 Draft statement 1

Adults with suspected community-acquired pneumonia presenting at hospital are diagnosed, including having a chest X-ray, within 4 hours of presentation.

Consultation comments

Stakeholders made the following comments in relation to draft statement 1:

- Support for inclusion of time to diagnosis. Four hours is a reasonable time period from admission to establish a diagnosis. However it is not clear how the statement will apply to patients with diagnostic uncertainty.
- Support for 4 hours as a reasonable target but within 3 hours would be aspirational.
- Suggestion that time to start of antibiotics would be easier to collect and more relevant than time to chest x-ray.
- Although the statement does acknowledge unlikely 100% compliance it however should differentiate between failure to comply due to lack of process and lack of compliance with a time target because of diagnostic uncertainty and the need for further investigations.
- In clinical practice the initial x-ray may be normal so radiographic diagnosis may take longer than 4 hours. Other conditions which may result in a radiographic false positive diagnosis also.
- Suggestion for increased rapid access to a chest x-ray.

5.2 Draft statement 2

Adults diagnosed with community-acquired pneumonia in primary care have a severity assessment that includes a mortality risk CRB65 score.

Consultation comments

Stakeholders made the following comments in relation to draft statement 2:

- General support for CRB65 score as a helpful, prognostic value which is for risk stratification in primary care and communication with secondary or ambulatory care.
- Concern raised on using scoring systems as being too limited and simplistic to assess the quality of primary care pneumonia management. Scoring systems can help guide but should never override skilled assessment.
- Concern raised on practically measuring ‘mini-mental state’ in the seriously ill patient. This measurement may detract from more life-saving assessments undertaken. Suggestion to omit this measurement and retain ‘new onset confusion’ which is simple and practical to use.
- Concern raised if scoring errors occur which may not be acted on by senior help. Audit reported as difficult with variable timings. Transfer to hospital or Intensive Care Unit would be accurately timed for the more severe cases.
- Concern raised on CRB65 scoring particularly for older people as this tool was developed on an average aged 65 year group. Suggestion to state that this is appropriate for older ages. A large number of the older aged will be suffering ongoing confusion outside of acute infection which will make assessment difficult and may invalidate the tool.
- Concern raised that in primary care it may be difficult to identify if GPs have used CRB65 and also whether they have informed patients the potential duration of symptoms.

5.3 Draft statement 3

Adults diagnosed with community-acquired pneumonia presenting at hospital have a severity assessment that includes a mortality risk CURB65 score.

Consultation comments

Stakeholders made the following comments in relation to draft statement 3:

- Support for CURB65 score as a validated mortality prediction CAP tool. However the NEWS scoring system was reported as a preferable alternative.
- Concern raised that CURB65 score does not calculate on blood pressure, symptoms and age.
- This severity assessment could be included in the clerking patient proforma.

Consultation question 4

Stakeholders made the following comments in relation to consultation question 4:

- General support for 4 hour timeframe as the CURB65 score timeframe should align with antibiotic therapy as the choice of antibiotic treatment may be determined by the score.
- Concern raised for a 24 hour timeframe. To aid monitoring the CURB65 score needs to be undertaken promptly within 4-6 hours.
- The CURB65 score provides a prognosis guide and so should ideally be performed on hospital presentation.
- Support for stating a timeframe. Suggestion of 14 hours which is in line with targets for Post Take Ward Rounds with a consultant review. Many trusts have CQUINS related to this and also care bundle use to standardise care.
- The CURB65 score must take place within 24 hours.

5.4 Draft statement 4

Adults with community-acquired pneumonia who are admitted to hospital are offered antibiotic therapy within 4 hours of admission.

Consultation comments

Stakeholders made the following comments in relation to draft statement 4:

- Support stating a maximum target time to receive antibiotics.
- Suggestion that 3 hours may be more likely to raise standards and this is also in the sepsis pathway publications. NHS England reported to be monitoring within 1 hour for septicaemia
- Suggestion to add a caveat for severe pneumonia patients with a decreased timeframe.
- Suggest to state appropriate therapy in the statement as per the rationale-'Adults with community-acquired pneumonia… offered **the appropriate** antibiotic therapy **for their level of severity** within 4 hours of admission'. This will help to support good antimicrobial stewardship and delivery of the UK AMR strategy.
- Concern raised on the measurement of 'offering' treatment and its timing. This requires more careful consideration as a patient may be offered antibiotic within 4 hours of admission but may decline or alternatively may accept but the treatment is not started within 4 hours. Suggestion to state '…are offered antibiotic therapy **and first dose administered within** 4 hours of admission'.

5.5 Draft statement 5

Adults with low-severity community-acquired pneumonia are offered a 5-day course of a single antibiotic.

Consultation comments

Stakeholders made the following comments in relation to draft statement 5:

- Suggestion to state ‘offered and prescribed’ in the statement with a rationale of exceptions documented in the medical notes.
- Support for the statement but there may be patient factors that indicate an alternative approach which needs to be mentioned.
- Concern raised on the term ‘low-severity’ and the 5 day duration. Suggestion to state 3, 5 or 7 days or any number within range. Course durations were reported as decreasing and in light of current antimicrobial stewardship a query was raised on 5 days. Evidence reported that low-severity CAP can be treated with 3 days treatment. Suggestion to revise the timing to 3 days or ‘duration not more than 5 days’.
- Suggestion to state a review after the 5 day course to determine general progress and if a longer antibiotic course is needed.
- Concern raised on whether the statement measure is implementable.

Consultation question 5

Stakeholders made the following comments in relation to consultation question 5:

- General support for low-severity CAP as CRB65 score 0 or 1 but may require a wider definition to include oxygen saturations and lack of significant co-morbidities (to be defined by the standards group). Consistency with 2009 BTS definitions.
- Low-severity pneumonia should be defined on severity score and clinical judgement.
- Low severity could be defined as National Early Warning Score (NEWS) less than 4 or when FiO2 less than 50% and Respiratory Rate less than 20.

- Low severity in the community may be defined as CRB score 0 or 1 but in other settings only a score of 0 is considered low severity. This is important as it may affect hospital referral rates.
- Defined as patients who after clinical assessment have lower respiratory tract infection signs & symptoms, focal chest sounds on auscultation and a CURB-65 (or CRB-65) score of 0 or 1.
- Low-severity CAP should be measured in functional ability ie carrying out activities of daily living with minimal increase in current level of support.

Consultation question 6

- Prevention of antibiotic overuse is key to this statement rather than measuring clinical judgement. Treating low-severity pneumonia with dual therapy or longer courses increases resistance.
- If CURB score=0 the provision of a 5-day course of a single antibiotic can be judged. Normally a clinical assessment is needed to determine if any further antibiotic required so it is clinical judgement. The decision of antibiotic duration would often not be made at the outset except for the most severe infections. Audit would be pharmacy or microbiology led.
- Support as being feasible and could be monitored by existing audits and data e.g. PACT data in primary care. This quality statement would positively enable local prescribing guidance committee's to review and integrate into local guidelines. The BTS National Audit covers prescribing according to local guidelines also.
- If clinical handovers are of high quality and the patient and or carers are aware and educated about deterioration signs this would be feasible. They should also be provided with information to retain.
- Concern raised that this statement may be difficult to monitor as the assessment is made at the discretion of individual clinicians.

5.6 Draft statement 6

Adults with community-acquired pneumonia are told about how long it may take to recover from their symptoms after they start treatment.

Consultation comments

Stakeholders made the following comments in relation to draft statement 6:

- Support for this statement informing patients of their potential recovery.
- Patients should be informed when to seek advice should their condition deteriorate.
- Reported as an important but difficult statement to record except by audit or the delivery of written material as part of a care bundle.
- Patient information provision is difficult to measure. Use of a standard information sheet with verbal advice may be included in a checklist.
- The C(U)RB65 scoring systems can assess this however clinical decision can be more subjective. Unless documentation of clinical judgement is improved, it will be difficult to determine the denominator.
- The role of community pharmacists was emphasised through their accessibility and responsibility to provide medication advice.
- Concern raised on the measurability of this statement. Also query raised on the outcome of re-consultation rates due to the lack of a proven association between information delivery and re-consultation. Patient Satisfaction was suggested as an alternative outcome.
- Suggestion that a standardised leaflet on this would help support this statement.
- Support for this approach as being important however it was also felt to be somewhat vague. Suggestion for NICE consider developing of a structured information sheet that can be available on all systems, and for patients themselves to refer to.

6 Suggestions for additional statements

The following is a summary of stakeholder suggestions for additional statements.

- Antimicrobial therapy choices
- C-reactive protein test
- Measuring oxygen saturations using pulse oximetry
- Care bundles
- Use of dual antibiotics and high severity pneumonia
- MRSA and Clostridium difficile
- Microbiological testing
- Communication between the referring GP and the receiving hospital

Appendix 1: Quality standard consultation comments table – registered stakeholders

ID	Stakeholder	Statement number	Comments[1]
General			
1	Intensive Care Society	General	This Quality Standards document reads well and should help improve the care of patients.
2	NHS England	General	NHS England welcomes these Quality Standards which address an important area where treatment and diagnosis is known to be sub optimal
3	NHS England	General	Whilst the stated aim of the quality standard is to impact on mortality, hospital stay and health status during recovery there is no reference to Domains 1-3 in the table concerning the NHS Outcomes Framework
4	NHS England	General	Yes, the draft does accurately reflect the key measureable areas for quality improvement with the possible exception of Statement 6
5	Rotherham Doncaster & South Humber NHS Trust	General	Agreed with the proposed scope of this guidance.
6	British Thoracic Society	General	General aspects of coding. Regrettably there is a fundamental problem in how we capture the data for pneumonia. This issue has been raised over the last 2-3 years with HSCIC and changes have been rejected. The NICE system is to classify pneumonia as community or hospital acquired CAP and HAP. Regrettably the HSCIC has an archaic system of collecting data, breaking it down on whether someone has lobar or broncho pneumonia. Regrettably coding audits have shown that people rarely collect information accurately as this is not clearly documented in the notes. Medical practitioners use the words of HAP and CAP whilst coders are forced to collect information along the terms of lobar and broncho pneumonia. A change of coding practice at HSCIC is required to allow appropriate data collection along the lines of NICE, and clinical practice of HAP and CAP.
7	Department of Health	General	Thank you for the opportunity to comment on the draft for the above quality standard. I wish to confirm that the Department of Health has no substantive comments to make, regarding this consultation.
8	Healthcare Infection	General	The introductory paragraph states that this QS relates to community acquired pneumonia and hospital acquired

[1]PLEASE NOTE: Comments received in the course of consultations carried out by NICE are published in the interests of openness and transparency, and to promote understanding of how quality standards are developed. The comments are published as a record of the submissions that NICE has received, and are not endorsed by NICE, its staff or its advisory committees.

ID	Stakeholder	Statement number	Comments[1]
	Society (HIS)		pneumonia, but the 6 quality statements only relate to community acquired pneumonia
9	Healthcare Infection Society (HIS)	General	It is stated in the introduction that the QS will contribute to improvements in hospital related infections such as MRSA and Clostridium difficile, but none of the statements provide any information as to how this might be achieved.
10	Healthcare Infection Society (HIS)	General	HIS welcomes the emphasis in the introduction on the care pathway and person-centred integrated approach, but believes it would be helpful to expand on this in the quality statements. For example, no advice is given on communication between the referring GP and the receiving hospital.
11	Public Health England	General	It is stated in the introduction that the Quality Standard will contribute to improvements in hospital related infections such as MRSA and Clostridium difficile. However, none of the statements currently provide information as to how this might be achieved.
12	Public Health England	General	PHE welcomes the emphasis in the introduction on the care pathway and person-centred integrated approach, but believes it would be helpful to expand on this in the quality statements. For example, no advice is given on communication between the referring GP and the receiving hospital.
13	Public Health England	General	Yes. However, we believe it would be important to specify that in the situations where microbiological tests are undertaken and a bacteria is isolated on culture, antibiotic sensitivities should follow. There needs to be a robust care pathway in place to ensure these sensitivities are matched to the antibiotic initially prescribed to the patient. If the patient has been discharged, clear communications should be in place to ensure the relevant healthcare professional (GP) is aware and treatment is adapted accordingly if required. This will help to prevent readmissions/preventable morbidity & mortality. Looking at HES data less than 2% of hospital CAP have any microbiological testing – the figure is likely to be less in primary care therefore most prescribing is empiric and “blind” – is this acceptable given concerns about antimicrobial resistance?
14	British Infection Association	General	A concern around this is how compliance would be measured with respect to the 4 hour targets for diagnosis (including CXR) and for administration of antibiotics. Some hospitals are moving to an EPR and electronic prescribing and we wonder whether that will allow the information to be extracted, particularly as the A&E system may be separate at least to start with. Certainly in the meantime it would require a manual review of notes. When this is done for a CQUIN around sepsis it takes 2 people 2 days a month to do it. The idea of another manual exercise could be very daunting.

ID	Stakeholder	Statement number	Comments[1]
			CCGs are excellent at turning NICE guidance into contractual requirements. Has the NICE committee given any thought to the work required for data collection to evidence compliance?
Introduction			
15	The Royal College of General Practitioners	Intro	A fundamental problem with this quality standard is that it does not adequately define what clinical features define community acquired pneumonia for the primary care physician. At present the definition is "symptoms and signs of an acute lower respiratory tract infection and can be confirmed by x-Ray". The original guideline states that not all patients with CAP need an x-ray and that the diagnosis should be made on signs and symptoms alone. What are the signs and symptoms of "acute lower respiratory tract infection" that make the diagnosis CAP rather than a self-limiting infection?. This must be defined otherwise the current definition used in standard suggests that an x-ray must be performed to make the distinction. I suggest a definition using criteria such as "systemically unwell", new onset of focal signs, presence of hypoxia.
16	Primary Care Respiratory Society UK	Intro	A fundamental problem with this quality standard is that it does not adequately define what clinical features define community acquired pneumonia for the primary care physician, At present the definition is " symptoms and signs of an acute lower respiratory tract infection and can be confirmed by X Ray ". The original guideline states that not all patients with CAP need an XRay and that the diagnosis should be made on signs and symptoms alone. What are the signs and symptoms of a "acute lower respiratory tract infection" that make the diagnosis CAP rather than a self-limiting infection? This must be defined otherwise the current definition used in standard suggests that an x-ray must be performed to make the distinction. We suggest a definition using criteria such as " systemically unwell", new onset of focal signs, presence of hypoxia.
17	Public Health England	Intro	The introductory paragraph states that this Quality Standard relates to community acquired pneumonia and hospital acquired pneumonia, however we note that the 6 quality statements currently only relate to community acquired pneumonia.
18	Faculty of Intensive Care Medicine	Intro	The FICM is very supportive of quality standards for the management of severe pneumonia both in hospital and in the pre-hospital environment. We will only comment on the proposed standards that refer to inpatient care.
Statement 1			
19	Faculty of Intensive Care Medicine	1	We agree that a monitored standard that includes time to diagnosis is important and a 4 hour period seems a reasonable time period from admission to establish a diagnosis. There will always be some patients where there remains diagnostic uncertainty and it is not clear how the standard will apply to this group. For example those where pulmonary embolus is an alternative diagnosis. The document does acknowledge the fact that 100%

ID	Stakeholder	Statement number	Comments[1]
			compliance is unlikely but should differentiate between failure to comply because of lack of process and lack of compliance with a time target because of diagnostic uncertainty and the need for further investigations.
20	The Royal College of Radiologists (RCR)	1	In terms of the Imaging investigations for the diagnosis of pneumonia, a chest radiograph within 4 hours of the suspected diagnosis in patients presenting to hospital is a reasonable quality standard. The BSTI and RCR would support this standard. However, in clinical practice, the initial radiograph may also be normal, in which case the radiographic diagnosis may take longer than 4 hours. There are also other conditions which may mimic pneumonia radiographically (eg. mucinous adenocarcinoma) which may result in a radiographic false positive diagnosis.
21	NHS England	1	Agreed
22	British Thoracic Society	1	The quality standard does accurately reflect the key areas for quality improvement
23	British Thoracic Society	1	Quality measures: structure. Local data collection will not be easy.
24	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	1	4 hours is a reasonable target but 3 hours would be aspirational.
25	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	1	Time to start of antibiotic would be easier to collect and more relevant than time to x-ray
Statement 2			
26	The Royal College of General Practitioners	2	Whilst I accept that CRB65 has a prognostic value the measurement of the mini mental state is not practical in the seriously ill patient and it's attempted measurement may detract from more life saving assessments being given. If it does not reduce the validity of the measurement it is better to omit measurement of the mini-mental state and leave in "new onset confusion," which is simple and practical to use. One big omission in this standard is the lack of requirement to measure oxygen saturations using pulse oximetry. This is a vital measurement in assessing the severity of the acute episode and can be used to guide life saving treatment in primary and secondary care.
27	NHS England	2	Agreed
28	British Thoracic Society	2	It will be virtually impossible to collect CRB scores unless this occurs routinely in GP templates. Unless this system is

ID	Stakeholder	Statement number	Comments[1]
			used as a drive to change behaviour and update template screens there is limited ability to collect this information.
29	Primary Care Respiratory Society UK	2	Whilst we accept that CRB65 has a prognostic value the measurement of the mini mental state is not practical in the seriously ill patient and its attempted measurement may detract from more life saving assessments being given. If it does not reduce the validity of the measurement it is better to omit measurement of the mini-mental state and leave in "new onset confusion". Which is simple and practical to use.
30	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	2	The CRB score is helpful but when mistakes happen the score tends not to be acted upon with regard to seeking senior help. Audit would be difficult as timings often not well recorded. Transfer to hospital or ICU would be timed accurately for the more severe cases.
31	Association of Respiratory Nurse Specialists	2	Using a CRB-65 score will be useful for risk stratification in primary care and when communicating with secondary/ ambulatory care regarding patients. Adapting existing computer systems to integrate assessment would be useful. Again Healthcare professional definition should include nurse practitioners.
32	British Medical Association	2	We believe that this standard is far too narrow to be used to assess the quality of primary care management. Good primary care for these patients will include having appropriate and timely access and seeing a professional who has enough time to properly assess the patient, the quality of the history taking and physical examination, and the knowledge and experience to assess the severity of the patient's symptoms in the light of his/her previous history and general health, together with the clinical acumen to recognise and act on the 'sixth sense' of unusual presentations. It is far too simplistic to ignore all these factors and judge care on the use of an otherwise scoring system, which can help guide but never override skilled assessment. In summary, good care can be provided without use of this tool, and bad care can be provided with it, so it is unsuitable as a measure of quality.
33	Royal College of Nursing	2	We have major concerns on the use of CRB65, particularly for older people. This tool was developed with a group whose average age was 65. If this tool is to be used we need to confirm that it is appropriate for older ages. The first question in CRB65 relates to the patients level of confusion. If we accept 1:3 people over 85 have dementia (and older people are those most likely to die from pneumonia) a large number will be suffering ongoing confusion outside of acute infection. This will mean that assessment becomes difficult and may invalidate the tool.
34	Public Health England	2	We suggest that in primary care, it may be difficult to determine if GPs have used CRB65 and to determine if they have told patients how long their symptoms are likely to last.

ID	Stakeholder	Statement number	Comments[1]
Statement 3			
35	NHS England	3	Agreed
36	British Thoracic Society	3	The CURB score gives a guide as to the prognosis of the patient and so should ideally be performed on presentation to hospital and if a timescale was to be defined 4 hours would seem reasonable. Page 14: Coding will need to be modified to allow local data collection to happen unless is forms part of regular audit. Page 15 "what the statement means for patients…." Whilst you make a comment that you are going to use CURB65 score, clearly urea, i.e. a blood sample is necessary and you cannot calculate a CURB65 score on the basis of someone's blood pressure, symptoms and age.
37	Royal College of Pathologists	3	Including the severity assessment using the CURB 65 score can be included in the clerking proforma of the patient
38	Association of Respiratory Nurse Specialists	3	Care bundles are being used in secondary care to increase compliance to best practice and this includes calculating a CURB-65 score. CQUINS are helping also to embed this practice. As per previous we recommend the word doctor should be replaced with clinician.
Statement 4			
39	Faculty of Intensive Care Medicine	4	We strongly support a target for maximum time to receiving antibiotics.
40	Intensive Care Society	4	For patients who are severely unwell with pneumonia, a recommendation of it being acceptable to give antibiotics up to 4 hours after hospital admission may be appropriate for less sick patients but is too long for those sick with severe pneumonia +/- sepsis. The Surviving Sepsis Campaign recommends 3 hours whereas the Sepsis 6 tool aims for within 1 hour. I think this needs to be reconsidered and that a caveat should be added for sicker patients.
41	NHS England	4	The target for the completion of the CURB65 score should be the same as the antibiotic target (i.e 4hrs) because the choice of antibiotic treatment may be determined by the score.
42	Healthcare Infection Society (HIS)	4	Patients presenting with moderate to high severity community acquired pneumonia should have sputum and blood cultures taken to guide antibiotic review decision taken 48 hours after admission. This is an important element of antibiotic stewardship to ensure broad spectrum antibiotics are only prescribed when warranted.
43	DH Advisory Committee on Antimicrobial Resistance and	4	3 h may be more likely to raise standards; 3 h is also in the sepsis pathway publications. NHS England will be monitoring as low as 1 h for septicaemia

ID	Stakeholder	Statement number	Comments[1]
	Healthcare Associated Infection (ARHAI)		
44	Public Health England	4	We suggest the following additions to Quality statement 4: "Adults with community-acquired pneumonia who are admitted to hospital are offered the appropriate antibiotic therapy for their level of severity within 4 hours of admission." Although we acknowledge that appropriate therapy is included as part of the rationale, we suggest it is important that this explicitly forms part of the quality statement. This will help to support good antimicrobial stewardship and delivery of the UK AMR strategy.
45	Royal College of Pathologists	4	Further development of the use of rapid diagnostics in reaching a diagnosis and providing a rationale for offering antibiotic therapy within 4 hours of admission
46	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	4	Standards 4&5: Measuring whether a patient is "offered" a treatment and the time they are offered treatment is more challenging than measuring whether they are actually prescribed the recommended treatment and when the first dose is administered. This requires more careful consideration. A patient may be offered antibiotic within 4 hours of admission but may decline or alternatively may accept but the treatment is not started within 4 hours. How will this complexity be captured? It may be more appropriate for the standard to say: "…are offered antibiotic therapy and first dose administered within 4 hours of admission." Similarly, for Standard 5: "…are offered and prescribed a 5-day course of a single antibiotic." A rationale for exceptions to these standards should be documented in the medical notes.
47	Association of Respiratory Nurse Specialists	4	Again care bundles can help with compliance and antibiotic prescription should be after timely assessment and diagnostics such as CXR, the audit report mentioned above by BTS raises some issues with targets. As per previous we recommend the word doctor should be replaced with clinician.
Statement 5			
48	Oxford University NHS Hospitals (OUH)	5	I have a concern about this statement. Firstly about the term "low severity" but also about the duration of 5 days. This is presumably just a suggested duration. Maybe 3 days or 5 or 7 days are needed or any number in between. In general course durations are becoming shorter and ensuring that 5 days are given seems odd in the current climate of antimicrobial stewardship. There is quite good evidence that low severity CAP can be treated with 3 days treatment. I think this needs revision, it seems like a step in the wrong direction to me and would prefer to see 3 days or "duration not more than 5 days".
49	The Royal College of	5	The draft statement questions what constitutes "low severity" CAP. In simple terms this could be CAP that does not

ID	Stakeholder	Statement number	Comments[1]
	General Practitioners		require admission to hospital (CRB 65 score 0 or 1) but this probably requires a wider definition to include: oxygen saturations, lack of significant co-morbidities (to be defined by the standards group). It is also inadequate to state that a patient should be given a 5 day course of single antibiotics. It is also vital to state that the patient should be reviewed after the 5 day course to determine general progress but also to determine if a longer course of antibiotics is needed (per the CAP NICE Guideline).
50	NHS England	5	Low severity CAP is presumably defined by CRB65 of 0/1 Difficult to know how this can be monitored in primary care in the absence of audit or routine data extraction
51	British Thoracic Society	5	Low severity pneumonia should be defined based on the severity scores and clinical judgement. A further statement related to the use of dual antibiotics and high severity pneumonia could be added
52	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	5	Consider clarifying Quality Standard to say: "…are offered and prescribed a 5-day course of a single antibiotic."
53	Scottish Antimicrobial Prescribing Group	5	Quality statement 5 will be difficult to measure as currently reporting functions of primary care systems do not provide diagnosis. So although the number of 5 day courses of antibiotics used for pneumonia can be measured this cannot be linked to diagnosis and the antibiotics could be used for other conditions.
54	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	5	Standards 4&5: Measuring whether a patient is "offered" a treatment and the time they are offered treatment is more challenging than measuring whether they are actually prescribed the recommended treatment and when the first dose is administered. This requires more careful consideration. A patient may be offered antibiotic within 4 hours of admission but may decline or alternatively may accept but the treatment is not started within 4 hours. How will this complexity be captured? It may be more appropriate for the standard to say: "…are offered antibiotic therapy and first dose administered within 4 hours of admission." Similarly, for Standard 5: "…are offered and prescribed a 5-day course of a single antibiotic." A rationale for exceptions to these standards should be documented in the medical notes.
55	Association of Respiratory Nurse Specialists	5	Using point of care CRP could support the use of a 5 day single antibiotic course or delayed prescription/ no prescription as recommended in NICE clinical guideline 191. Again Healthcare professional definition should include nurse practitioners as well as GP's.

ID	Stakeholder	Statement number	Comments[1]
56	Royal Pharmaceutical Society	5	Pharmacists play in an important role in ensuring that appropriate antibiotic prescribing occurs and support patients with adherence to antibiotic therapies. The Royal Pharmaceutical Society (RPS) are committed to supporting Antimicrobial Stewardship .The recommendations in the RPS "New Medicines, Better Medicines, Better Use Of Medicines" guide for stimulating new antimicrobial development and improving antimicrobial stewardship are: · Educate the public and patients on the use of antimicrobials and their place in therapy · Encourage further development of antimicrobial stewardship by healthcare professionals to maintain the effectiveness of current and any future antimicrobials · Support the discovery and development of new antimicrobials or treatment methods, by developing new financial incentives
Statement 6			
57	Faculty of Intensive Care Medicine	6	We strongly support an approach that informs patients of their likely recovery pathway.
58	NHS England	6	Important but difficult, if not impossible to, record except by audit or the delivery of written material as part of a care bundle
59	Scottish Antimicrobial Prescribing Group	6	The provision of information to patients is difficult to measure. The use of a standard information sheet supplemented by verbal advice may help as this could be part of a checklist.
60	British Thoracic Society	6	This can be measured with severity assessed by the C(U)RB65 score however there may be more variance in clinical practice from the standard because the clinical decision is more subjective. In practice, the clinical judgement of severity is often poorly recorded, and there is no consistent 'language' for this. Unless documentation of clinical judgement is improved, It will be difficult to determine the denominator. Whilst this concept is really very good and very important it is somewhat "vague". NICE may like to consider developing of a structured information sheet that can be available on all systems, and for patients themselves to look at. These could be printed out by general practitioners when they deal with community acquired pneumonia and in hospital settings were patients could receive such information explaining the course of their illness. Of course the evidence base that this reassurance changes behaviour with regards to duplicate antibiotics unfortunately is not available I believe.

ID	Stakeholder	Statement number	Comments[1]
61	Healthcare Infection Society (HIS)	6	Adults with community acquired pneumonia in addition to being told how long it will take to recover from their pneumonia, should also be advised when to seek advice should their condition deteriorate
62	Royal Pharmaceutical Society	6	Community pharmacists, through their accessibility and as experts in medicines are ideally placed to provide advice on how to take medicines, adverse effects, possible interactions and cautions, to raise patients' and carers' awareness and increase their understanding of their condition and therapy.
63	Public Health England	6	Adults with community acquired pneumonia in addition to being told how long it will take to recover from their pneumonia, should also be advised when to seek advice should their condition deteriorate.
64	British Thoracic Society	6	Data could be collected for all the quality standards. Statement 6 would be more difficult to measure. In addition, the outcome for Statement 6 is given as "re-consultation rates". However, the relevant NICE Guideline recommendation was not based on any trial or study that linked delivery of information of recovery to patients with re-consultation. Given the lack of a proven association between information delivery and re-consultation, this does not seem a useful outcome to measure. Perhaps a more relevant outcome is Patient Satisfaction; there will difficulties with measuring this routinely as well. It is difficult to collect some of the data for the proposed measures as stated below. Current coding activities do not allow you to record and capture the information that is required easily.
65	Association of Respiratory Nurse Specialists	6	A standardised leaflet would help support this standard. It is important that nurses and other allied health professionals are included in this and not defined as GP's and hospital doctors. The use of ambulatory care for admission avoidance or early discharge is very useful.
Questions			
66	Scottish Antimicrobial Prescribing Group	Question 1	The statements reflect the key areas for quality improvement. The measures suggested for hospital practice have been promoted in Scotland for several years via the SNAP-CAP programme https://www.scottishmedicines.org.uk/SAPG/Quality_Improvement/Community_Acquired_Pneumonia Since the NICE guideline promotes use of CRP testing to inform clinical decision making in primary care it may be useful to include it, although not currently common practice and would require funding.
67	Association of Respiratory Nurse Specialists	Question 1	We agree that the draft covers many of the key factors to improve quality of care for patient with (or suspected) community or hospital acquired pneumonia. It is good to see timescales given for key pathway stages e.g. chest x-ray and commencing antibiotics in line with existing BTS and NICE guidance. Also the use of single antibiotic in low-severity CAP and advice on recovery. There are some strategies and clarification missing from the draft:

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			· Point of care CRP testing to determine antibiotic use when clinical diagnosis is not clear after examination. The reliance on CXR moves care from primary into secondary which for some patients is inconvenient, disrupts care plans and increases cost to health economy. Whilst the briefing paper refers to the cost of this test there would be benefits from reducing inappropriate antibiotic use and associated harm. Quality of secondary care review and in particular chest x-ray interpretation by junior doctors is an ongoing problem (Satia et al, 2013 available at http://www.ncbi.nlm.nih.gov/pubmed/23908502). We like the use of adapting CURB-65 score for primary care and specifying CRB-65 which is useful to determine who needs hospitalisation. The quality standards do lean towards treatment in secondary care and do not mention the use of ambulatory care to provide acute assessment and treatment without hospital admission (http://www.institute.nhs.uk/ambulatory_emergency_care/public_view_of_ambulatory_emergency_care/directory.html)
68	Royal College of Nursing	Question 1	Before referral to hospital and prior to investigations/treatment the patient wishes must be discussed. Advanced directions should be reviewed and Lasting Power of Attorneys (LPAs) consulted if appropriate.
69	Royal College of Pathologists	Question 1	Yes this draft quality standard accurately reflects the key areas for improvement
70	NHS England	Question 2	Yes, except for statement 6
71	Scottish Antimicrobial Prescribing Group	Question 2	Collection of the some of the measures (CURB 65 and CRB65 recording) relies on auditing documentation in clinical notes (paper based or electronic) so may be challenging on a large scale. If using a quality improvement approach then sampling could be used to give an indication of compliance and measure trends over time. Time to diagnosis and time to antibiotic therapy in hospital should be feasible as has parallels with current work on sepsis.
72	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	Question 2	Standards 1-3 & 6: data available from medical case notes but not always recorded and resource-intensive to retrieve and maintain surveillance. Use of electronic records would greatly enhance monitoring capability and reduce the resource burden. In the short term, it would be prudent to draft a template to prompt clinicians to document the relevant activities and precise times in order to reliably and objectively measure performance. Guidance on frequency of audit and number of patients would also be welcome.
73	Association of Respiratory Nurse Specialists	Question 2	The annual BTS CAP audit is widely used in secondary care and would collect most of the data; statement 6 would need to be added. Many trusts also collect data like this related to CQUIN targets and in primary care there may be QOF data.

ID	Stakeholder	Statement number	Comments[1]
74	Royal College of Nursing	Question 2	Data should be extracted from current patient administration system (PAS) and not required new data input. Collection of additional data in a four hour window might detract from patient care. If used, four hours should be time to report x- ray not simply x-ray as without review / report an x ray is not helpful.
75	Royal College of Pathologists	Question 2	Yes it would be possible to collect the data for the proposed quality measures if the systems and structures were available
76	Scottish Antimicrobial Prescribing Group	Question 3	Communication of the standards through all available channels will help with implementation. Prioritisation by managers and linking to sepsis work also important. The use of compliance targets may also help for some measures.
77	Primary Care Respiratory Society UK	Question 3	Encourage the development of lead nurses/GPs (many practices have this) who could cascade information to colleagues. Needs to be CCG led to ensure funding available. Also asthma and COPD patients need to be aware of changes in their symptoms (again this is being done for pts who actually turn up for their reviews but what about those who don't?)
78	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	Question 3	For all standards, a CQUIN payment for hospitals from commissioners would incentivise compliance and fund resource investment in quality improvement and surveillance. A national electronic resource for recording key interventions and times would be welcomed by Trusts to reduce the burden of manual audit (e.g. comparable to the national CAP audit hosted by the British Thoracic Society). • Statement 1. Adults with suspected community-acquired pneumonia presenting at hospital are diagnosed, including having a chest X-ray, within 4 hours of presentation. o Radiology must be consistently available throughout 24 hours and 7 days per week. • Statement 2. Adults diagnosed with community-acquired pneumonia in primary care have a severity assessment that includes a mortality risk CRB65 score. o Provide a template (e.g. care pathway) that prompts clinicians to record the information. • Statement 3. Adults diagnosed with community-acquired pneumonia presenting at hospital have a severity assessment that includes a mortality risk CURB65 score. o Provide a template (e.g. care pathway) that prompts clinicians to record the information. • Statement 4. Adults with community-acquired pneumonia who are admitted to hospital are offered antibiotic therapy within 4 hours of admission. o Provide a template Patient Group Direction for local adaptation to empower nursing staff to administer first dose. This has been deployed in many hospitals in response to the Surviving Sepsis Campaign.

ID	Stakeholder	Statement number	Comments[1]
			• Statement 5. Adults with low-severity community-acquired pneumonia are offered a 5-day course of a single antibiotic. o Ensure British National Formulary is updated to reflect this recommendation and subsequently incorporated into Public Health England guidelines for primary care. • Statement 6. Adults with community-acquired pneumonia are told about how long it may take to recover from their symptoms after they start treatment o Develop a patient information leaflet that clinicians can download from the NICE website or order printed copies for their organisation.
79	Association of Respiratory Nurse Specialists	Question 3	1. This is realistic – BTS audit gives just under 80% compliance in 2012/13 data (https://www.brit-thoracic.org.uk/media/95230/bts-adult-community-acquired-pneumonia-audit-report-2012-13.pdf) In the statement it defines Healthcare professionals as hospital doctors, we would prefer to use of the word clinician as patient may be seen by advanced nurse practitioners or clinical nurse specialists.
80	Public Health England	Question 3	We suggest that all primary care antibiotic guidance related to lower respiratory tract infections should make reference to undertaking a mortality risk assessment using CRB65 score (Quality Statement 2) and also refer to speaking to patients about how long their symptoms are likely to last (Quality Statement 6). The addition of these references will be considered as part of PHE's next review of its guidance Managing common infections: guidance for primary care[1].
81	Royal College of Pathologists	Question 3	More rapid access to a chest X Ray
82	Faculty of Intensive Care Medicine	Question 4	We accept that CURB65 is a validated mortality prediction tool in CAP. However producing a score and risk of mortality assessment does not in itself indicate that appropriate actions have been taken. The NEWS scoring system shares 3 of the 4 domains of CURB65 and has the advantage that it is linked to defined actions to be taken (e.g. discuss with the critical care team). NEWS scores are already audited and would therefore not add a significant data collection burden. We suggest that all hospital admissions with CAP are entered onto a NEWS pathway as an auditable goal. It would also be possible to perform selective audits on whether appropriate actions were taken, depending on the NEWS scores. A further advantage of adopting the NEWS approach is that it underlies the importance of regular and routine physiological monitoring of all "at risk" patients in hospital rather than focusing on the separate and unlinked scoring of individual conditions.

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83	Scottish Antimicrobial Prescribing Group	Question 4	The timeframe for CURB65 score should be the same as for diagnosis and antibiotic therapy i.e. 4 hours since the score will inform which antibiotics are used and also which type of care the patient requires e.g. high CURB 65 needs critical care/high dependency bed. Chest X ray is often the rate determining step in diagnosis so if the target for it is 4 hours then surely CURB 65 score should be the same.
84	British Thoracic Society	Question 4	If we are going to use the tool to identify patients appropriately to either facilitate discharge or fast track them through the system into areas of higher monitoring then the CURB score need to be done virtually immediately and certainly within 4-6 hours if we are going to predict the level of monitoring. Leaving it to the proposed 24 hours is far too late.
85	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	Question 4	This severity assessment should ideally be carried out before antibiotics are prescribed or administered but will be subject to delays in obtaining a urea measurement. A 4-hour timeframe is reasonable, to correspond to the 4-hour timeframe for starting treatment.
86	Association of Respiratory Nurse Specialists	Question 4	A timeframe would be useful and we would suggest 14 hours. This is in line with targets for Post Take Ward Rounds with a consultant review. Many trusts have CQUINS related to this and also care bundle use to standardise care (https://www.brit-thoracic.org.uk/document-library/audit-and-quality-improvement/care-bundles-project/bts-pilot-care-bundle-project-report-2014)
87	Royal College of Nursing	Question 4	CRB 65 - please see comment above about concerns on the use of CRB 65
88	Royal College of Pathologists	Question 4	The CURB-65 score must take place within 24 hours
89	Intensive Care Society	Question 5	low severity could be defined as National Early Warning Score < 4 or when FiO2 < 50% and Respiratory Rate < 20. In terms of the prescriptive approach of a 5 day course of a single antibiotic, in general this is probably ok but there might be local circumstances or patient factors that indicate an alternative approach. I recommend building this into the statement.
90	Scottish Antimicrobial Prescribing Group	Question 5	In the community low severity may be defined as CRB score 0 or 1 but in other areas only a score of 0 is considered low severity. This is important since it may affect hospital referral rates. Use of CRB65 in primary care may not be standard practice so diagnosis of low severity pneumonia can be subjective and based on clinical judgement. CRB65 recording would also need to be 'coded' on primary care IT systems and linked to a pneumonia diagnosis.

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91	Primary Care Respiratory Society UK	Question 5	The draft statement questions what constitutes "low severity" CAP. It is essential to be able to define this in a way that is recognisable in primary care if antibiotics are to be used appropriately in primary care. In simple terms his could be CAP that does not require admission to hospital (CRB 65 score 0 or 1) but this probably requires a wider definition to include : oxygen saturations , lack of significant co-morbidities(to be defined by the standards group) . It is also inadequate to state that a patient should be given a 5 day course of single antibiotics, It is also vital to state that the patient should be reviewed after the 5 day course to determine general progress but also to determine if a longer course of antibiotics is needed. (per the CAP NICE Guideline)
92	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	Question 5	"Please can you define low-severity community-acquired pneumonia" Consistent with BTS definitions (2009). CURB-65 = 0 or 1 This should equate to approximately 40% of patients admitted to hospital with CAP [Lim WS, Woodhead M; British Thoracic Society. British Thoracic Society adult community acquired pneumonia audit 2009/10. Thorax. 2011 Jun;66(6):548-9. http://www.ncbi.nlm.nih.gov/pubmed/21502103 This should equate to approximately 40% of patients admitted to hospital with CAP [Lim WS, Woodhead M; British Thoracic Society. British Thoracic Society adult community acquired pneumonia audit 2009/10. Thorax. 2011 Jun;66(6):548-9. http://www.ncbi.nlm.nih.gov/pubmed/21502103]
93	Association of Respiratory Nurse Specialists	Question 5	Patients who after clinical assessment have lower respiratory tract infection signs & symptoms, focal chest sounds on auscultation and a CURB-65 (or CRB-65) score of 0 or 1
94	Royal College of Pathologists	Question 5	Low severity CAP generally defined as CURB 65 0-1
95	Royal College of Nursing	Question 5	Low-severity community-acquired pneumonia should be measured in functional ability to carry out activities of daily living, this may need rapid assessment at home, example being Sheffield's discharge to assess model. Low severity would be ability to carry out activities of daily living with minimal increase in current level of support i.e. one additional visit a day by statutory services
96	Scottish Antimicrobial Prescribing Group	Question 6	The key issue here is preventing overuse of antibiotics rather than measuring clinical judgement. Treating low severity pneumonia with dual therapy or overly long courses drives resistance. National and local patient level data can provide information about course lengths but currently this cannot be linked to diagnosis and cannot pick up

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			the use of dual therapy. Not sure that this quality statement has an associated measure that can be implemented.
97	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	Question 6	If based on the CURB=0 score, provision of a 5-day course of a single antibiotic can be judged. Normally a clinical assessment is needed then to determine if any further antibiotic required so clinical judgement. The decision of duration of antibiotic would often not be made at the outset except for the most severe infections. Audit would be pharmacy or microbiology led.
98	Association of Respiratory Nurse Specialists	Question 6	This is feasible and could be monitored by existing audits and data e.g. PACT data in primary care. By having a quality statement the local prescribing guidance committee's will review and integrate into local guidelines. The BTS national audit covers prescribing according to local guidelines also.
99	Royal College of Nursing	Question 6	Yes this is feasible providing clinical handover is of high quality and the patient/carers are aware and educated about signs of deterioration and provided with information to retain.
100	Royal College of Pathologists	Question 6	It may be difficult to monitor as the assessment is made at the discretion of individual clinicians.
Additional areas			
101	County Durham and Darlington Foundation Trust	Additional area	Disappointing lack of recommendation with respect to antimicrobial therapy choices in this document.
102	British Thoracic Society	Additional area	An improvement could be facilitated by initiatives such as CAP Care Bundles. It is difficult to change the current activities unless there is clear funding support for it. Care bundles are a way forward with an evidence base of benefit.
103	Alere Ltd	Additional area	We believe that this quality standard (QS) has omitted a key area that would enhance the quality agenda for both healthcare professionals, people and commissioners. In the briefing paper published on the 4th of June the first suggested improvement area (section 4 and stakeholder response (appendix 4. 1.1 page 9) supported the use of point-of-care C-reactive protein test (POC CRP). Furthermore omitting POC CRP testing could be confusing for commissioners since the NICE Pneumonia guideline CG191 recommends that using the C-reactive protein test in cases which are unclear can help GPs determine whether a person with a chest infection has pneumonia and should be treated with antibiotics. Thus, commissioners will be unsure whether to follow CG191 or the pneumonia NICE quality standard. We also believe that the addition of a statement around POC CRP enhances the drive for measurable improvement

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			in the 3 dimensions of quality – patient safety, patient experience and clinical effectiveness. The statement would also reduce the inappropriate use of antibiotics and would strongly support domain 5 of the Outcomes Framework; assisting in the reduction of avoidable harm and the incidence of healthcare associated infection (HCAI) (MRSA, C. difficile). In summary the statement would; • Improve the clinical diagnosis of a patient presenting in primary care with a lower respiratory tract infection and potential pneumonia. • Obviate inappropriate antibiotic use, which both reduces the clinical effectiveness and exposes the individual to the risk of a subsequent HCAI. • Improve the patient experience at the time of consultation in reassuring the individual and the clinician that an antibiotic is either unnecessary or conversely necessary. • Support the NICE patient experience QS that specifies that people receiving care should be treated with dignity, have opportunities to discuss their preferences, and be supported to understand their options and make fully informed decisions. • Support implementation of the 2014 NICE Pneumonia clinical guideline 191. • Support the Clinical Commissioning Group quality premium, which aims at improving antibiotic prescribing in primary and secondary care. • Engender behaviour change and greater understanding of rational antibiotic prescribing among HCPs, patients and the general public. • Ensure patients are aware of length of recovery and appropriate treatment as set out in statement 6. It would also impact on 5 of the outcomes delineated in 'Why a quality standard is needed'; • Mortality. • Hospital admission and re-admission. • Health-related quality of life. • Hospital-related infections such as MRSA and C. difficile-associated diarrhoea. • Inappropriate antibiotic use. POC CRP in primary care could reduce the number of antibiotic prescriptions by up to 10 million each year, which would make a significant contribution to the UK's AMR strategy. In addition, POC CRP in primary care could save £56

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			million a year in prescription and dispensing costs. We therefore propose the following draft for the quality statement; 'Adults presenting with a lower respiratory tract infection and in whom a clinical diagnosis of pneumonia is not evident are offered a point-of-care C-reactive protein test'. Quality measure Structure: a) Evidence of local arrangements to ensure that healthcare professionals test for POC CRP in individuals presenting with LRTIs where pneumonia is not evident. b) Evidence of local arrangements within the commissioning framework to ensure that POC CRP testing is reviewed to ensure effective practice. c) Evidence of a reduction in inappropriate antibiotic use Process: a) Proportion of people aged 18 years and over in the locally defined target population who receive POC CRP. Numerator – the number of people in the denominator who receive POC CRP. Denominator – the number of people aged 18 years and over in the locally defined target population. b) Proportion of people aged 18 years and over in the locally defined target population who are not prescribed antibiotics. Numerator – the number of people in the denominator who are not prescribed antibiotics. Denominator – the number of people aged 18 years and over in the locally defined target population whose POC CRP <20mg/l. Outcome: Decrease in the quantity and frequency of inappropriate antibiotic use in the locally defined target population. What the quality statement means for service providers, healthcare professionals and commissioners Service providers ensure that healthcare staff are aware of the role of CRP POCT in reducing inappropriate antibiotic use and the impact. Healthcare professionals ensure they opportunistically carry out CRP POCT in people presenting with LRTIs and where a clinical diagnosis of pneumonia is not evident. Commissioners ensure they commission services that increase the uptake of CRP POCT and develop commissioning frameworks that review this practice to ensure effectiveness.

ID	Stakeholder	Statement number	Comments[1]
			People aged 18 and over are asked questions about their experience when presenting with a suspected LRTI/pneumonia. What the quality statement means for patients, service users and carers Adults presenting with a lower respiratory tract infection and in whom a clinical diagnosis of pneumonia is not evident are offered a point-of-care C-reactive protein test' Source guidance: Pneumonia: diagnosis and management of community and hospital acquired pneumonia in adults (2014) NICE guideline CG191, recommendation 1.1.1
104	Primary Care Respiratory Society UK	Additional area	One major omission in this standard is the lack of requirement to measure oxygen saturations using pulse oximetry. This is a vital measurement in assessing the severity of the acute episode and can be used to guide life saving treatment in primary and secondary care. Education is needed for primary care staff to recognise change in symptoms for common respiratory conditions and more importantly recognising when it is not an exacerbation of asthma or COPD. Education should be CCG-led.
105	Imperial College London	Additional area	We would like to propose that the Quality Statement 2 on Page 5 "Adults diagnosed with community-acquired pneumonia in primary care have a severity assessment that includes a mortality risk CRB65 score" is split into two sub-statements eg. 2a. Adults presenting with a lower respiratory tract infection and in whom a clinical diagnosis of pneumonia is not evident following clinical assessment are offered a point-of-care C-reactive protein test' 2b. Adults diagnosed with community-acquired pneumonia in primary care have a severity assessment that includes a mortality risk CRB65 score In the briefing paper published on the 4th of June the first suggested improvement area (section 4 and stakeholder response (appendix 4 1.1) highlighted the importance of using point-of-care C-reactive protein test (POC CRP) in primary care for patients presenting with lower respiratory tract infections (LRTI). We believe that the addition of a statement around POC CRP enhances the drive for measurable improvement in the 3 dimensions of quality – patient safety, patient experience and clinical effectiveness. The statement would also reduce the inappropriate use of antibiotics and would strongly support domain 5 of the NHS Outcomes Framework; assisting in the reduction of avoidable harm and the incidence of healthcare associated infection (HCAI) (MRSA, C. difficile).

ID	Stakeholder	Statement number	Comments[1]
			In summary, the addition of a statement highlighting the importance of undertaking POC CRP in primary care would; • Improve the clinical diagnosis of a patient presenting in primary care with a LTRI and potential pneumonia. • Obviate inappropriate antibiotic use, which both reduces the clinical effectiveness and exposes the individual to the risk of a subsequent HCAI and contribute to antimicrobial resistance (AMR) reduction. • Improve the patient experience at the time of consultation in reassuring the individual and the clinician that an antibiotic is either unnecessary or conversely necessary. • Support the NICE patient experience QS that specifies that people receiving care should be treated with dignity, have opportunities to discuss their preferences, and be supported to understand their options and make fully informed decisions. • Support implementation of the 2014 NICE Pneumonia clinical guideline 191. • Support the Clinical Commissioning Group quality premium, which aims at improving antibiotic prescribing in primary and secondary care. • Engender behaviour change and greater understanding of rational antibiotic prescribing among HCPs, patients and the general public. It would also impact on 5 of the outcomes delineated in 'Why a quality standard is needed'; • Mortality. • Hospital admission and re-admission. • Health-related quality of life. • Hospital-related infections such as MRSA and C. difficile-associated diarrhoea. • Inappropriate antibiotic use. POC CRP in primary care could reduce the number of antibiotic prescriptions by up to 10 million each year, which would make a significant contribution to the UK's AMR strategy. In addition, POC CRP in primary care could save £56 million a year in prescription and dispensing costs. About the Straight to the Point! Steering Group: A multidisciplinary panel of leading researchers and healthcare experts first met in December 2014 to consider the evidence for the value of CRP POCT in assisting in the clinical decision making for the management of patients presenting in general practice with symptoms of respiratory tract infection. The Panel reached a consensus about

ID	Stakeholder	Statement number	Comments[1]
			the most effective and efficient means to implement CRP POCT in the NHS to enable rational use of antibiotics in primary care. The Straight to the Point! report published in June 2015 is the result of the panel's deliberations and can be accessed at http://www.patients-association.org.uk/wp-content/uploads/2015/06/straight-to-the-point.pdf. Members of the consensus panel include: Professor Jonathan Cooke, Visiting Professor in the Infectious Diseases and Immunity Section, Division of Infectious Diseases, Department of Medicine, Imperial College, London – Chair of consensus panel Helen Bosley, Infection Prevention and Control Matron at Oxford Health NHS Foundation Trust Professor Chris Butler, Professor of Primary Care at the Nuffield Department of Primary Care Health Sciences Philip Howard, Consultant Pharmacist in Antimicrobials at the Leeds Teaching Hospital NHS Trust Katherine Murphy, CEO, Patients Association Professor Dilip Nathwani OBE, Consultant Physician of Infectious Diseases Graham Philips, Director, Manor Pharmacy Group Ashok Soi, OBE President, Royal Pharmaceutical Society Doris-Ann Williams MBE, CEO, BIVDA Rose Gallagher, Infection Prevention and Control Lead, RCN The Panel made a number of recommendations, one of which was that 'Quality Statements and CCG Outcomes Indicators should be developed to encourage CRP POCT (CRP Point of care testing) in primary care covering pneumonia and antimicrobial stewardship.' As 79% of all antibiotics used in the UK are prescribed in primary care it is thus important that in this sector, the best practice in managing suspected pneumonia in the community is adopted. In 2014 the Clinical Guideline 191, NICE recommended that in order to reduce the diagnostic uncertainty of antibiotic prescribing for suspected pneumonia, point of care CRP testing should be available. Therefore it is important and logical that point of care CRP testing is included in the Quality Standard for Pneumonia. We do hope that our recommendation is considered by the Pneumonia Quality Standard Committee as CRP POCT also fits in with the Government's long term AMR/AMS strategy.
	Royal Pharmaceutical	Additional	Pharmacists play in an important role in ensuring that appropriate antibiotic prescribing occurs and support patients

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106	Society	area	with adherence to antibiotic therapies. The Royal Pharmaceutical Society (RPS) are committed to supporting Antimicrobial Stewardship .The recommendations in the RPS "New Medicines, Better Medicines, Better Use Of Medicines" guide for stimulating new antimicrobial development and improving antimicrobial stewardship are: · Educate the public and patients on the use of antimicrobials and their place in therapy · Encourage further development of antimicrobial stewardship by healthcare professionals to maintain the effectiveness of current and any future antimicrobials · Support the discovery and development of new antimicrobials or treatment methods, by developing new financial incentives
107	DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI)	Additional area	It is unclear why the list of quality statements does not reflect the list of key priorities for implementation listed in the full pneumonia guideline. For example, the recommendation to take blood and sputum for culture in all patients with moderate or severe pneumonia, is not included in the list of quality statements. A key area for quality improvement not currently captured in the list of quality standards is the proportionate use of broad-spectrum antibiotics. Prescribing of broad-spectrum penicillin combinations (co-amoxiclav and piperacillin-tazobactam) is rising significantly in English hospitals, potentially presdisposing patients to healthcare associated infection (relevant to NHS Outcomes Framework, Domain 5, Improvement areas 5.2). The NICE guideline states: "Consider dual antibiotic therapy with amoxicillin and a macrolide for patients with moderate-severity community-acquired pneumonia." It would be valuable to have a quality standard that incorporated this recommendation and discouraged over-prescribing of co-amoxiclav or piperacillin-tazobactam for moderately-severe pneumonia. No more than 30% of patients hospitalised with CAP will meet the definition of high-severity and require broad-spectrum beta-lactams. [Lim WS, Woodhead M; British Thoracic Society. British Thoracic Society adult community acquired pneumonia audit 2009/10. Thorax. 2011 Jun;66(6):548-9. http://www.ncbi.nlm.nih.gov/pubmed/21502103] Perhaps a standard could be added to say that only patients meeting the definition of high-severity CAP will receive broad-spectrum beta-lactam or fluoroquinolone therapy. We suggest that asking GPs to give safety netting advice could be given greater prominence than length of symptoms.

Registered stakeholders who submitted comments at consultation

- Alere Ltd
- Association of Respiratory Nurse Specialists
- British Infection Association
- British Medical Association
- British Thoracic Society
- County Durham and Darlington Foundation Trust
- Department of Health
- DH Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection
- Faculty of Intensive Care Medicine
- Healthcare Infection Society (HIS)
- Imperial College London
- Intensive Care Society
- NHS England
- Oxford University NHS Hospitals (OUH)
- Primary Care Respiratory Society UK
- Public Health England
- Rotherham Doncaster & South Humber NHS Trust
- Royal College of General Practitioners

- Royal College of Nursing
- Royal College of Pathologists
- Royal College of Radiologists
- Royal Pharmaceutical Society
- Scottish Antimicrobial Prescribing Group