Community Acquired Pneumonia: Reviewer Assessment Form

A. Case Review details

What is this study about

To identify and explore avoidable and modifiable factors in the care of adults presenting to hospital with a diagnosis of community acquired pneumonia.

Inclusions

All patients aged 18 or over who presented to hospital between 1st October 2021 and 31st December 2021 with a primary diagnosis of community acquired pneumonia. Same day emergency care patients and those admitted to hospital are included.

2a. Date of Case Reviewer meeting

2b. Case Reviewer initials

2c. Was a completed clinician questionnaire available at the time of case review

◯ Yes ◯ No

2d. NCEPOD site ID

B. Patient details

1. Age at presentation to hospital?
Patients aged 18 or over are included in the study

years ☐ Unknown

Value should be between 18 and 150

2. Sex

◯ Male ◯ Female ◯ Other ◯ Unknown

3a. Was ethnicity documented?

◯ Yes ◯ No ◯ Unknown

3b. If answered "Yes" to [3a] then:
Ethnicity

◯ White British/White - other
◯ Black/African/Caribbean/Black British
◯ Asian/Asian British (Indian, Pakistani, Bangladeshi, Chinese, other Asian)
◯ Mixed/Multiple ethnic groups

If not listed above, please specify here...

4a. Was there a documented learning disability?

◯ Yes ◯ No ◯ Unknown

4b. If answered "Yes" to [4a] then:
What was documented?

5. Patient's usual place of residence

◯ Own home ◯ Residential home ◯ Nursing home ◯ Homeless
◯ Unknown

If not listed above, please specify here...

6a. Did the patient have any co-morbidities pre-dating this presentation?

◯ Yes ◯ No ◯ Unknown

6b. If answered "Yes" to [6a] then:
Which of the following co-morbidities did the patient have?
Please tick all that apply

- ☐ AIDS
- ☐ Bronchiectasis
- ☐ Coronary artery disease
- ☐ Congestive cardiac failure
- ☐ Chronic liver disease
- ☐ COPD
- ☐ Cancer (metastatic)
- ☐ Cancer (localised)
- ☐ Connective tissue disease
- ☐ Dementia
- ☐ Diabetes Type 1
- ☐ Diabetes Type 2
- ☐ Dysphagia
- ☐ Hemiplegia
- ☐ HIV
- ☐ Hypertension
- ☐ Leukemia
- ☐ Lymphoma
- ☐ Moderate or severe kidney disease
- ☐ Multiple sclerosis
- ☐ Myocardial infarction
- ☐ Parkinsons
- ☐ Pulmonary fibrosis
- ☐ Previous stroke
- ☐ Peripheral vascular disease
- ☐ Peptic ulcer disease
- ☐ Transient ischaemic attack

Please specify any additional options here...

7a. What was the patient's smoking status?

- ◯ Current smoker (including stopped within 3 months)
- ◯ Ex-smoker (at least 3 months since stopped)
- ◯ Never-smoker
- ◯ Current vaping
- ◯ Not recorded

If not listed above, please specify here...

7b. If answered "Current smoker (including stopped within 3 months)" to [7a] then:
Was smoking cessation advice offered to the patient during this admission?

◯ Yes ◯ No ◯ Unable to answer

7c. If answered "Current smoker (including stopped within 3 months)" to [7a] then:
Was nicotine replacement prescribed to the patient during this admission?

◯ Yes ◯ No ◯ Unknown

8a. Did the patient have a history of recreational drug use documented?

◯ Yes ◯ No ◯ Unknown

8b. If answered "Yes" to [8a] then:
In your opinion was this relevant to the patient's pneumonia?

◯ Yes ◯ No ◯ Unable to answer

8c. If answered "Yes" to [8b] then:
Please expand on your answer

9. From your review of the case notes, please score the patient's baseline Rockwood clinical frailty score prior to presentation to hospital.
https://www.england.nhs.uk/south/wp-content/uploads/sites/6/2022/02/rockwood-frailty-scale_.pdf

◯ 1 - Very Fit ◯ 2 - Well ◯ 3 - Managing Well
◯ 4 - Vulnerable ◯ 5 - Mildly Frail ◯ 6 - Moderately Frail
◯ 7 - Severely Frail ◯ 8 - Very Severely Frail ◯ 9 - Terminally ill
◯ Unable to answer

10a. Prior to this hospital attendance, did the patient contact/engage with healthcare services relating to this episode of community acquired pneumonia?

◯ Yes ◯ No ◯ Unknown

10b. If answered "Yes" to [10a] then:
Which services? (please mark all that apply)

☐ GP
☐ Emergency department at this hospital
☐ Community nurse
☐ Emergency department of another hospital
☐ Urgent Care Centre
☐ 111/ NHS 24 services
☐ Other out-of-hours service

Please specify any additional options here...

11a. Were antibiotics prescribed pre-hospital?

◯ Yes ◯ No ◯ Unknown

11b. If answered "Yes" to [11a] then:
Date first dose of antibiotics was prescribed?

☐ Unknown

11c. If answered "Yes" to [11a] then:
Indication for these antibiotics?

◯ Treatment for pneumonia or LRTI
◯ Treatment for other infection
◯ Unclear

If not listed above, please specify here...

11d. If answered "Yes" to [11a] then:
How were initial antibiotics prescribed?

◯ Primary care clinician (GP or ANP)
◯ Patient held rescue pack
◯ Out of hours service
◯ Unknown

If not listed above, please specify here...

11e. If answered "Yes" to [11a] then:
In your opinion, were the antibiotics appropriate?

◯ Yes ◯ No ◯ Unknown

11f. If answered "No" to [11e] then:
Please expand on your answer

12. Had the patient ever been treated previously for pneumonia that was not related to this episode of CAP?
(in either primary or secondary care)

◯ Yes ◯ No ◯ Unknown

C. Pre-hospital care

1. Source of admission/presentation
Tick all that apply

- ☐ Primary care clinician (GP or ANP) referral
- ☐ Emergency department
- ☐ Out of hours service
- ☐ Unknown
- ☐ Outpatient clinic
- ☐ Urgent care centre
- ☐ Same day emergency care (SDEC)

Please specify any additional options here...

2a. Date of arrival to hospital

☐ Unknown

2b. Time of arrival to hospital
24 Hour Format Only

☐ Unknown

3a. Did the patient arrive by ambulance?

◯ Yes ◯ No ◯ Unknown

3b. If answered "Yes" to [3a] then:
Is the Ambulance Service Patient Report Form available to you?

◯ Yes ◯ No

3c. If answered "Yes" to [3b] then:
Date of ambulance crew assessment

☐ Unknown

3d. If answered "Yes" to [3b] then:
Time of ambulance crew assessment
24 Hour Format Only

☐ Unknown

Please complete the following questions from the Ambulance Service Patient Report Form:

5a. If answered "Yes" to [3a] and "Yes" to [3b] then:
ACVPU Score

- ◯ Alert
- ◯ Pain
- ◯ Unknown
- ◯ Confused
- ◯ Unresponsive
- ◯ Verbal
- ◯ Not recorded as GCS used

5b. If answered "Yes" to [3a] and "Yes" to [3b] then:
Respiratory rate

breaths p/m ☐ Unknown

Value should be no more than 100

5c. If answered "Yes" to [3a] and "Yes" to [3b] then:
Systolic Blood Pressure

mmHg ☐ Unknown

Value should be no more than 200

5d. If answered "Yes" to [3a] and "Yes" to [3b] then:
Diastolic Blood Pressure

mmHg ☐ Unknown

Value should be no more than 200

5e. If answered "Yes" to [3a] and "Yes" to [3b] then:
Temperature

°C ☐ Unknown

Value should be no more than 50

5f. If answered "Yes" to [3a] and "Yes" to [3b] then:
Pulse rate

beats p/m ☐ Unknown

Value should be no more than 300

5g. If answered "Yes" to [3a] and "Yes" to [3b] then:
GCS (new)

- ◯ 3
- ◯ 4
- ◯ 5
- ◯ 6
- ◯ 7
- ◯ 8
- ◯ 9
- ◯ 10
- ◯ 11
- ◯ 12
- ◯ 13
- ◯ 14
- ◯ 15
- ◯ Not applicable ACVPU used
- ◯ Not recorded

5h. If answered "Yes" to [3a] and "Yes" to [3b] then:
Oxygen saturation

% ☐ Unknown

Value should be no more than 100

6a. If answered "Yes" to [3a] and "Yes" to [3b] then:
Did the patient receive oxygen?

- ◯ Yes
- ◯ No
- ◯ Unknown

6b. If answered "Yes" to [6a] and "Yes" to [3a] and "Yes" to [3b] then:
Oxygen delivery device

- ◯ Nasal cannulae
- ◯ Venturi
- ◯ Non-rebreathe device
- ◯ HUDSON oxygen mask
- ◯ Not recorded

If not listed above, please specify here...

7a. If answered "Yes" to [3a] then:
How would you rate the pre-hospital care?

- ◯ Good
- ◯ Adequate
- ◯ Poor
- ◯ Unacceptable
- ◯ Unable to rate

7b. If answered "Good", "Adequate", "Poor" or "Unacceptable" to [7a] then:
Please expand on your answer (pre-hospital care)

D. Initial review in hospital

1a. Location of first hospital review

- ◯ Emergency department
- ◯ Same day emergency care service
- ◯ Ambulatory care unit
- ◯ Medical assessment unit
- ◯ Unknown

If not listed above, please specify here...

1b. Date of review

☐ Unknown

1c. Time of review
24 Hour Format Only

☐ Unknown

1d. Details of reviewer grade

- ◯ Advanced nurse practitioner
- ◯ Basic grade (FY1 or 2)
- ◯ Specialist trainee (ST1-2)
- ◯ Specialist trainee (ST3+)
- ◯ Specialty doctor
- ◯ Consultant
- ◯ Unknown

If not listed above, please specify here...

1e. Reviewer Specialty?

- ◯ Emergency medicine
- ◯ Acute medicine
- ◯ General medicine
- ◯ Respiratory
- ◯ Critical Care
- ◯ Unknown

If not listed above, please specify here...

2. What were the presenting symptoms/features?
Please tick all that apply

- ☐ Cough purulent (yellow/green)
- ☐ Cough non-purulent (clear/white)
- ☐ Cough dry
- ☐ Dyspnoea
- ☐ Wheeze
- ☐ Pleuritic pain
- ☐ Haemoptysis
- ☐ Fever
- ☐ Rigors
- ☐ Fall
- ☐ Fatigue
- ☐ Vomiting
- ☐ Diarrhoea
- ☐ Abdominal pain
- ☐ Confusion
- ☐ None of these

Please specify any additional options here...

3a. Was the patient reviewed by a consultant?

- ◯ Yes
- ◯ No
- ◯ Unknown

3b. If answered "Yes" to [3a] then:
Date of first consultant review

☐ Unknown

3c. If answered "Yes" to [3a] then:
Time of first consultant review
24 Hour Format Only

☐ Unknown

3d. If answered "Yes" to [3a] then: Consultant reviewer specialty?

- ◯ Emergency medicine
- ◯ Acute medicine
- ◯ Respiratory medicine
- ◯ Care of the elderly
- ◯ General medicine
- ◯ Critical care
- ◯ Not recorded

If not listed above, please specify here...

4a. The time recorded of the FIRST vital signs assessment in hospital

☐ Unknown

4b. V1 ACVPU Score

- ◯ Alert
- ◯ Confused
- ◯ Verbal
- ◯ Pain
- ◯ Unresponsive
- ◯ Not recorded as GCS used
- ◯ Unknown

4c. V1a GCS

- ◯ 3
- ◯ 4
- ◯ 5
- ◯ 6
- ◯ 7
- ◯ 8
- ◯ 9
- ◯ 10
- ◯ 11
- ◯ 12
- ◯ 13
- ◯ 14
- ◯ 15
- ◯ Not recorded as ACVPU used
- ◯ unknown

4d. V2 Respiratory rate

breaths p/m ☐ Unknown

Value should be no more than 100

4e. V3 Systolic Blood Pressure

mmHg ☐ Unknown

Value should be no more than 200

4f. V4 Diastolic Blood Pressure

mmHg ☐ Unknown

Value should be no more than 200

4g. V5 Temperature

°C ☐ Unknown

Value should be no more than 50

4h. V6 Pulse rate

beats p/m ☐ Unknown

Value should be no more than 200

4i. What was the O2 saturation (SpO2)

% ☐ Unknown

Value should be no more than 100

5. Was there new onset confusion?

- ◯ Yes
- ◯ No
- ◯ Unknown

6a. Was the patient receiving supplemental oxygen?

- ◯ Yes
- ◯ No
- ◯ Unknown

6b. If answered "Yes" to [6a] then:
Oxygen delivery device

- ◯ Nasal cannulae
- ◯ Venturi
- ◯ Non-rebreathe device
- ◯ Nasal high flow oxygen
- ◯ HUDSON oxygen mask
- ◯ Not recorded

If not listed above, please specify here...

7a. Was a NEWS 2 Score documented?

- ◯ Yes
- ◯ No

7b. If answered "Yes" to [7a] then:
NEWS 2 Score

Score ☐ Unknown

Value should be no more than 50

7c. Was a CURB65 Score documented?

- ◯ Yes
- ◯ No
- ◯ Unknown

7d. If answered "Yes" to [7c] then:
CURB65 Score

Score ☐ Unknown

Value should be no more than 5

8a. Was there a suspicion of sepsis?

- ◯ Yes
- ◯ No
- ◯ Unknown

8b. If answered "Yes" to [8a] then:
In your opinion, was this managed appropriately?

- ◯ Yes
- ◯ No
- ◯ Unknown

8c. If answered "No" to [8b] then:
Please expand on your answer (sepsis)

E. Investigations

1a. On what pathway was the patient managed after initial review?

- ◯ Admitted to hospital ward
- ◯ Discharged after initial review
- ◯ Same day emergency care pathway
- ◯ Unknown

If not listed above, please specify here...

1b. In your opinion was this the most appropriate pathway?

- ◯ Yes
- ◯ No
- ◯ Unknown

1c. If answered "No" to [1b] then:
Please expand on your answer (pathway)
Free text

2a. Was an initial management plan documented in the notes?

- ◯ Yes
- ◯ No
- ◯ Unknown

2b. If answered "Yes" to [2a] then:
Were the results of all relevant investigations known at the time of the initial management plan?

- ◯ Yes
- ◯ No
- ◯ Unknown

2c. If answered "Yes" to [2a] then:
What was included in the initial management plan?
Please tick all that apply

- ☐ Oxygen administration
- ☐ Intravenous antibiotics
- ☐ Thromboprophylaxis
- ☐ Escalation requirements
- ☐ Referral for specialist review
- ☐ Steroids
- ☐ Oral antibiotics
- ☐ Intravenous fluids
- ☐ Ceilings of treatment
- ☐ Frequency of vital signs
- ☐ Nebulisers

Please specify any additional options here...

2d. If answered "Yes" to [2a] then:
In your opinion was the initial management plan appropriate?

- ◯ Yes
- ◯ No
- ◯ Unknown

2e. If answered "No" to [2d] then:
Please expand on your answer (plan)
Free Text

Radiology

3a. Did the patient have a Chest X-ray during this presentation to hospital?

◯ Yes ◯ No ◯ Unknown

3b. If answered "No" to [3a] then:
Why wasn't a chest x-ray undertaken?
e.g. rushed to CT, mild pneumonia, death

3c. If answered "Yes" to [3a] then:
Date of Chest X-ray

☐ Unknown

3d. If answered "Yes" to [3a] then:
Time of Chest X-ray

☐ Unknown

3e. If answered "Yes" to [3a] then:
In your opinion, was there a delay to the patient receiving the X-Ray?

◯ Yes ◯ No ◯ Unknown

3f. If answered "Yes" to [3e] and "Yes" to [3a] then:
Please give further details

4a. If answered "Yes" to [3a] then:
Were the CXR findings recorded by the clinical team in the case notes?

◯ Yes ◯ No ◯ Unknown

4b. If answered "Yes" to [4a] and "Yes" to [3a] then:
Which of the following were documented by the clinical team?
Please tick all that apply

- ☐ Unilateral lobar consolidation/pneumonia
- ☐ Unilateral patchy consolidation/bronchopneumonia
- ☐ Bilateral lobar consolidation/pneumonia
- ☐ Pleural effusion
- ☐ Suspicion of lung cancer
- ☐ Multilobar consolidation/pneumonia
- ☐ None apply
- ☐ Normal X-Ray

Please specify any additional options here...

4c. If answered "Yes" to [4a] and "Yes" to [3a] then:
Date recorded?

☐ Unknown

4d. If answered "Yes" to [4a] and "Yes" to [3a] then:
Time recorded?
24 Hour Format Only

☐ Unknown

5a. If answered "Yes" to [3a] then:
Is a copy of the CXR report included in the case notes you have to review?

◯ Yes ◯ No

5b. If answered "Yes" to [3a] and "Yes" to [5a] then:
Date of CXR report

☐ Unknown

5c. If answered "Yes" to [3a] and "Yes" to [5a] then:
Time of CXR report
24 Hour Format Only

☐ Unknown

5d. If answered "Yes" to [3a] and "Yes" to [5a] then:
Did the report differ from the findings noted by the clinical team?

◯ Yes ◯ No ◯ Unknown

5e. If answered "Yes" to [5d] and "Yes" to [5a] then:
What did the report say?
Tick all that apply

- ☐ Unilateral lobar consolidation/pneumonia
- ☐ Unilateral patchy consolidation/pneumonia
- ☐ Bilateral lobar consolidation/pneumonia
- ☐ Multilobar consolidation/pneumonia
- ☐ Pleural effusion
- ☐ Suspicion of lung cancer
- ☐ None apply
- ☐ Normal X-Ray

Please specify any additional options here...

5f. If answered "Yes" to [3a] and "Yes" to [5a] then:
Could anything have been improved about the X-Ray reporting?

◯ Yes ◯ No ◯ Unable to answer

5g. If answered "Yes" to [5f] and "Yes" to [5a] then:
Please expand on your answer (X-ray reporting)

6a. Were any of the following additional investigations done?
Please tick all that apply

- ☐ CT thorax
- ☐ CT pulmonary angiogram
- ☐ Ultrasound
- ☐ Bronchoscopy
- ☐ Repeat Chest X-Ray
- ☐ None apply
- ☐ Unknown

Please specify any additional options here...

6b. If answered "CT thorax", "CT pulmonary angiogram", "Ultrasound", "Bronchoscopy" or "Repeat Chest X-Ray" to [6a] then:
In your opinion, were all of these investigations appropriate?

- ◯ Yes
- ◯ No
- ◯ Unknown

6c. If answered "No" to [6b] then:
Please expand on your answer (investigations)

6d. In your opinion should any additional radiological investigations have been done?

- ◯ Yes
- ◯ No
- ◯ Unknown

6e. If answered "Yes" to [6d] then:
Please detail which investigations and why they should have been done

Initial blood tests

7a. Urea

mmol/L ☐ Unknown

Value should be between 1 and 100

7b. Creatinine

umol/L ☐ Unknown

Value should be between 1 and 9,999

7c. C-reactive protein

mg/L ☐ Unknown

Value should be no more than 999

7d. HIV test

◯ Positive ◯ Negative ◯ Not done ◯ Unknown

7e. Lactate

mmol/L ☐ Unknown

Value should be no more than 50

7f. White cell count

10^9 /L ☐ Unknown

Value should be no more than 100

7g. Was liver function:

◯ Normal ◯ Abnormal ◯ Not done

7h. If answered "Abnormal" to [7g] then:
Please give further detail

7i. Was an ABG or VBG measured?

◯ ABG ◯ VBG ◯ Both ABG and VBG ◯ Neither
◯ Unknown

7j. If answered "ABG" or "Both ABG and VBG" to [7i] then:
Blood pH level (ABG)

pH ☐ Not Applicable ☐ Unknown

Value should be no more than 10

7k. If answered "ABG" or "Both ABG and VBG" to [7i] then:
Units for pO2 and pCO2

◯ kPa ◯ mmHg ◯ Unknown ◯ Not done

7l. If answered "ABG" or "Both ABG and VBG" to [7i] and "kPa" or "mmHg" to [7k] then:
Blood pCO2 level (ABG)

mmHg or kPa ☐ Not Applicable ☐ Unknown

Value should be no more than 200

7m. If answered "ABG" or "Both ABG and VBG" to [7i] and "kPa" or "mmHg" to [7k] then:
Blood pO2 level (ABG)

mmHg or kPa ☐ Not Applicable ☐ Unknown

Value should be no more than 200

8a. F8a In your opinion should any additional blood tests have been done?

◯ Yes ◯ No ◯ Unable to answer

8b. If answered "Yes" to [8a] then:
F8b Please explain which additional blood tests should have been done and why

Microbiology

9a. Sputum culture

- ◯ No growth
- ◯ Only resp. commensals
- ◯ Positive
- ◯ Not done
- ◯ Unknown

9b. If answered "No growth", "Only resp. commensals" or "Positive" to [9a] then:
Date sample taken?

☐ Unknown

9c. If answered "No growth", "Only resp. commensals" or "Positive" to [9a] then:
Time samples taken
24 Hour Format Only

☐ Unknown

9d. If answered "Positive" to [9a] then:
If positive, result?

- ◯ Pneumococcus
- ◯ Pseudomonas aeruginosa
- ◯ Staphylococcus aureus
- ◯ Haemophillus
- ◯ Klebsiella pneumoniae

If not listed above, please specify here...

9e. Blood culture

- ◯ No growth
- ◯ Positive culture
- ◯ Probable contaminant
- ◯ Not done
- ◯ Unknown

10a. If answered "No growth", "Positive culture" or "Probable contaminant" to [9e] then:
Date sample taken?

☐ Unknown

10b. If answered "No growth", "Positive culture" or "Probable contaminant" to [9e] then:
Time samples taken?
24 Hour Format Only

☐ Unknown

10c. If answered "Positive culture" to [9e] then:
G6 If positive, result?

- ◯ Pneumococcus
- ◯ Pseudomonas aeruginosa
- ◯ Staphylococcus aureus
- ◯ Klebsiella pneumoniae
- ◯ Haemophillus

If not listed above, please specify here...

11a. Respiratory viral testing

◯ Done ◯ Not done ◯ Unknown

11b. If answered "Done" to [11a] then:
SARS-COV2

◯ Positive ◯ Negative ◯ Not done ◯ Unknown

11c. If answered "Done" to [11a] then:
Influenza

◯ Positive ◯ Negative ◯ Not done ◯ Unknown

11d. If answered "Done" to [11a] then:
RSV

◯ Positive ◯ Negative ◯ Not done ◯ Unknown

11e. Pneumococcal urinary antigen

◯ Negative ◯ Positive ◯ Not done ◯ Unknown

11f. Legionella urinary antigen

◯ Negative ◯ Positive ◯ Not done ◯ Unknown

11g. Serum for atypical titres
e.g. mycoplasma, legionella

◯ Negative ◯ Positive ◯ Not done ◯ Unknown

12a. In your opinion was the microbiological investigation appropriate for the patient?

◯ Yes ◯ No ◯ Unknown

12b. If answered "No" to [12a] then:
Please expand on your answer (micro)
under or over investigation

F. Clinical Care

1a. Please tick which pathway relates to the patient:

- ◯ In-patient
- ◯ Ambulatory care
- ◯ Unknown

1b. If answered "In-patient" to [1a] then:
Which of the following best describes the ward the patient was FIRST admitted to?

- ◯ Short stay bed in Emergency Department
- ◯ Acute medical
- ◯ Non-Respiratory
- ◯ Respiratory
- ◯ Respiratory support unit
- ◯ ICU level 3
- ◯ HDU level 2
- ◯ Unknown

If not listed above, please specify here...

2a. If answered "In-patient" to [1a] then:
Was a ward transfer required to optimise treatment at any stage of the admission?

- ◯ Yes
- ◯ No
- ◯ Unknown

2b. If answered "Yes" to [2a] then:
What ward was the patient transferred to?
If the patient had more than one ward transfer please select the highest level ward they were treated on

- ◯ Acute medical
- ◯ Non-Respiratory
- ◯ Respiratory
- ◯ Respiratory support unit
- ◯ ICU level 3
- ◯ HDU level 2
- ◯ Unknown

If not listed above, please specify here...

2c. If answered "Yes" to [2a] then:
What was the reason for the ward transfer?
Free Text

3a. Which of the following treatments were administered?
*Please tick all that apply. **Please note antibiotic treatment is dealt with separately***

- ☐ Mucolytics
- ☐ Analgesia
- ☐ Intravenous fluids
- ☐ VTE prophylaxis (or anticoagulation)
- ☐ Nutritional support
- ☐ Bronchodilators (nebulised)
- ☐ Saline (nebulised)
- ☐ None of the treatments listed were given
- ☐ Unknown

Please specify any additional options here...

3b. After your review of the case notes, do you consider that any additional treatments should have been given?

◯ Yes ◯ No ◯ Unknown

3c. If answered "Yes" to [3b] then:
Please specify what treatments and why
Free Text

Antibiotics

4a. Was the patient prescribed antibiotics in hospital?

◯ Yes ◯ No ◯ Unknown

4b. Were any allergies to antibiotics documented?

◯ Yes ◯ No ◯ Unknown

4c. If answered "Yes" to [4b] then:
Which antibiotics (allergy)?

☐ Penicillin based ☐ Macrolides

Please specify any additional options here...

5a. If answered "Yes" to [4a] then:
Please indicate all antibiotics included on the first hospital antibiotic course
Please tick all that apply

☐ Amoxicillin (oral)
☐ Amoxicillin (intravenous)
☐ Benzylpenicillin (intravenous)
☐ Cephalosporin (oral)
☐ Cephalosporin (intravenous)
☐ Clarithromycin (oral)
☐ Clarithromycin (intravenous)
☐ Co-amoxiclav (oral)
☐ Co-amoxiclav (intravenous)
☐ Co-trimoxazole (oral)
☐ Co-trimoxazole (intravenous)
☐ Doxycycline (oral)
☐ Erythromycin (oral)
☐ Erythromycin (intravenous)
☐ Gentamicin (intravenous)
☐ Levofloxacin (oral)
☐ Levofloxacin (intravenous)
☐ Meropenem (intravenous)
☐ Moxifloxacin (oral)
☐ Moxifloxacin (intravenous)
☐ Tazocin (intravenous)
☐ No data or not recorded
☐ No antibiotics prescribed

Please specify any additional options here...

5b. If answered "Yes" to [4a] then:
In your opinion, were the prescribed antibiotics appropriate?

◯ Yes ◯ No ◯ Unknown

5c. If answered "No" to [5b] then:
Please expand on your answer (prescribed antibiotics)
Free Text

6a. If answered "Yes" to [4a] then:
What was the date of the first antibiotic prescription in hospital?

☐ Unknown

6b. If answered "Yes" to [4a] then:
What time was recorded?
24 Hour Format Only

☐ Unknown

6c. If answered "Yes" to [4a] then:
What was the date the first dose of antibiotics was administered in hospital?

☐ Unknown

6d. If answered "Yes" to [4a] then:
What time were the first antibiotics administered?
24 Hour Format Only

☐ Unknown

7a. If answered "Yes" to [4a] then:
Were antibiotics changed during the course of hospital treatment?

◯ Yes ◯ No ◯ Unknown

7b. If answered "Yes" to [7a] then:
Please indicate all of the additional/subsequent antibiotics prescribed
Please tick all that apply

- ☐ Amoxicillin (oral)
- ☐ Amoxicillin (intravenous)
- ☐ Benzylpenicillin (intravenous)
- ☐ Cephalosporin (oral)
- ☐ Cephalosporin (intravenous)
- ☐ Clarithromycin (oral)
- ☐ Clarithromycin (intravenous)
- ☐ Co-amoxiclav (oral)
- ☐ Co-amoxiclav (intravenous)
- ☐ Co-trimoxazole (oral)
- ☐ Co-trimoxazole (intravenous)
- ☐ Doxycycline (oral)
- ☐ Erythromycin (oral)
- ☐ Erythromycin (intravenous)
- ☐ Gentamicin (intravenous)
- ☐ Levofloxacin (oral)
- ☐ Levofloxacin (intravenous)
- ☐ Meropenem (intravenous)
- ☐ Moxifloxacin (oral)
- ☐ Moxifloxacin (intravenous)
- ☐ Tazocin (intravenous)
- ☐ No data or not recorded

Please specify any additional options here...

7c. If answered "Yes" to [7a] then:
Was this due to:
Tick all that apply

- ☐ Poor clinical response
- ☐ Worsening pneumonia severity
- ☐ Culture results
- ☐ Microbiology advice
- ☐ Patient improvement

Please specify any additional options here...

8a. If answered "Yes" to [4a] then:
In your opinion, were antibiotics (need for treatment and route) reviewed at appropriate time intervals?

- ◯ Yes
- ◯ No
- ◯ Unknown

If not listed above, please specify here...

8b. If answered "No" to [8a] then:
Please expand on your answer (antibiotic review)
Free Text

8c. In your opinion, was there any room for improvement with antibiotics use?

- ◯ Yes
- ◯ No
- ◯ Unknown

8d. If answered "Yes" to [8c] then:
Please expand on your answer (antibiotics)

8e. How would you rate the use of antibiotics?

- ◯ Good
- ◯ Adequate
- ◯ Poor
- ◯ Unacceptable
- ◯ Unable to rate

If not listed above, please specify here...

Oxygen administration

10a. Was oxygen prescribed?

◯ Yes ◯ No ◯ Unknown

10b. Was oxygen therapy administered to this patient?

◯ Yes ◯ No ◯ Unknown

10c. If answered "Yes" to [10b] then:
What was the target saturation documented?

10d. Was blood gas analysis done appropriately when indicated?

◯ Yes ◯ No ◯ Not indicated ◯ Unknown

10e. If answered "No" to [10d] then:
Please expand on your answer (blood gas)

10f. In your opinion, was the target saturation (or a saturation of 94-98% if no target saturation documented) achieved consistently (e.g. more than 80% of the time)?

◯ Yes ◯ No ◯ Unknown

11a. If answered "Yes" to [10b] then:
Which of the following devices were used?
Please tick all that apply

☐ Nasal cannulae ☐ HUDSON oxygen mask ☐ Venturi device
☐ Nasal high flow system ☐ Device not documented

Please specify any additional options here...

11b. If answered "In-patient" to [1a] then:
Were any of the following used for respiratory support?
Please tick all that apply

☐ Non-Invasive ventilation ☐ CPAP ☐ Invasive ventilation
☐ None apply

Please specify any additional options here...

11c. If answered "Nasal high flow system" to [11a] then:
If nasal high flow used, in what location(s) was this delivered

☐ Acute medical or admission ward ☐ General ward
☐ Specialist respiratory ward ☐ Respiratory support unit
☐ HDU (level 2) ☐ ITU (level 3)
☐ Unknown

Please specify any additional options here...

11d. Was there any room for improvement in the use of oxygen?

◯ Yes ◯ No ◯ Unknown

11e. If answered "Yes" to [11d] then:
Please expand on your answer (oxygen use)

G. Monitoring, escalation and critical care

1a. Was an initial monitoring plan documented?

◯ Yes ◯ No ◯ Unknown

1b. If answered "Yes" to [1a] then:
Was the monitoring plan appropriate?

◯ Yes ◯ No ◯ Unknown

1c. If answered "No" to [1b] then:
Please expand on your answer (monitoring plan)

2a. Was NEWS2 used to monitor vital signs?

◯ Yes ◯ No ◯ Unknown

2b. If answered "Yes" to [2a] then:
What was the highest NEWS2 value recorded

2c. If answered "Yes" to [2a] then:
Was appropriate escalation provided in response to NEWS2 triggers?

◯ Yes ◯ No ◯ Unknown

2d. If answered "No" to [2c] then:
Please explain your answer (NEWS)

3a. Were decisions on ceilings of treatment made for the patient?

◯ Yes ◯ No ◯ Unable to answer

3b. If answered "Yes" to [3a] then:
Which of these were used to make the decisions?

☐ DNACPR ☐ TEP form ☐ Limited Critical Care
☐ ReSPECT form ☐ Ward-based care

Please specify any additional options here...

3c. If answered "Yes" to [3a] then:
Could escalation decision making have been improved?

◯ Yes ◯ No ◯ Unknown

3d. If answered "Yes" to [3c] then:
Please expand on your answer (ceilings)

3e. Were appropriate discussions with the patient and/or family/friend/carer documented?

◯ Yes ◯ No ◯ Not applicable ◯ Unknown

3f. If answered "No" to [3a] then:
In your opinion should decisions on ceilings of treatment have been made?

◯ Yes ◯ No ◯ Unknown

3g. If answered "Yes" to [3f] then:
Please expand on your answer (ceilings 2)

4a. Was the critical care outreach team involved in the care of this patient?

◯ Yes ◯ No ◯ Unknown

4b. If answered "No" to [4a] then:
Should they have been?

◯ Yes ◯ No ◯ Unknown

5a. Was the patient admitted to a level 2 or level 3 ward at any stage during their admission?

◯ Yes ◯ No ◯ Unknown

5b. If answered "No" to [5a] then:
In your opinion, should they have been?

◯ Yes ◯ No ◯ Unknown

5c. If answered "Yes" to [5b] and "No" to [5a] then:
Please expand on your answer (critical care)

5d. If answered "Yes" to [5a] then:
Was there any delay in escalation?

◯ Yes ◯ No ◯ Unknown

5e. If answered "Yes" to [5a] then:
Which of the following treatments or interventions were used in critical care?
Please tick all that apply

- ☐ High Nasal Flow Oxygen
- ☐ Non-invasive ventilation
- ☐ Invasive ventilation
- ☐ Blood pressure support
- ☐ Invasive blood pressure monitoring
- ☐ Haemofiltration
- ☐ Tracheostomy

Please specify any additional options here...

5f. Was there room for improvement in escalation of treatment?

- ◯ Yes
- ◯ No
- ◯ Unknown

5g. If answered "Yes" to [5f] then:
Please expand on your answer (critical care 2)

5h. If answered "Yes" to [5a] then:
How would you rate the escalated care received?

- ◯ Good
- ◯ Adequate
- ◯ Poor
- ◯ Unacceptable
- ◯ Unable to rate

5i. If answered "Yes" to [5a] and "Good", "Adequate", "Poor" or "Unacceptable" to [5h] then:
Please expand on your answer (escalation)

H. Complications

1a. On your review of the case notes, was there clinical improvement during the first 72 hours of treatment?

- ◯ Yes
- ◯ No
- ◯ Not applicable patient discharged within 72 hours
- ◯ Not applicable patient died within 72 hours
- ◯ Unknown

1b. If answered "No" to [1a] then:
Were appropriate actions taken?

- ◯ Yes
- ◯ No
- ◯ Unknown

1c. If answered "No" to [1a] and "No" to [1b] then:
Please expand on your answer (72 hours)
Free Text

Complications of pneumonia

2a. Were there any complications of pneumonia?

- ◯ Yes
- ◯ No
- ◯ Unknown

2b. If answered "Yes" to [2a] then:
Please tick all that apply:

- ☐ Pleural effusion
- ☐ Empyema
- ☐ Lung abscess
- ☐ Disseminated infection
- ☐ Sepsis
- ☐ Cardiac event

Please specify any additional options here...

2c. If answered "Yes" to [2a] then:
Was pleural intervention needed?

- ◯ Yes
- ◯ No
- ◯ Unknown

2d. If answered "Yes" to [2a] then:
In your opinion, were any complications appropriately managed?

- ◯ Yes
- ◯ No
- ◯ Unknown

2e. If answered "Yes" to [2a] and "No" to [2d] then:
Please expand of your answer (complications)

I. Discharge and follow-up arrangements

1a. Discharge destination

◯ Own home ◯ Residential home ◯ Nursing home ◯ Death
◯ Unknown

If not listed above, please specify here...

1b. Date of hospital discharge or death

☐ Unknown

1c. Time of hospital discharge or death
24 Hour Format Only

☐ Unknown

2a. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] then: In your opinion did the patient receive the appropriate input from specialist clinicians prior to discharge?

◯ Yes ◯ No ◯ Unknown

2b. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] and "No" to [2a] then: Please expand on your answer (specialist)

3a. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] then: In your opinion did the patient receive the appropriate input from allied health professionals prior to discharge?

◯ Yes ◯ No ◯ Unknown

3b. If answered "No" to [3a] and "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] then: Please expand on your answer (Allied health)

4. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] then: Did the patient require home oxygen on discharge?

◯ Yes ◯ No ◯ Unknown

5a. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] then: Was the patient discharged while on antibiotics?

◯ Yes ◯ No ◯ Unknown

5b. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] and "Yes" to [5a] then: How many days were the antibiotics prescribed for?

Days ☐ Unknown

5c. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] and "Yes" to [5a] then: In your opinion, was this appropriate (discharge antibiotics)?

◯ Yes ◯ No ◯ Unknown

5d. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] and "Yes" to [5a] and "No" to [5c] then:
Please expand on your answer (input)

6a. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] then:
In your opinion, was it appropriate/safe to discharge the patient when they were discharged?

◯ Yes ◯ No ◯ Unknown

6b. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] and "No" to [6a] then:
Please expand on your answer (safe discharge)

7a. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] then:
Is the discharge summary included with the notes you are reviewing?

◯ Yes ◯ No

7b. If answered "Yes" to [7a] then:
How would you rate the discharge summary?

◯ Good ◯ Adequate ◯ Poor ◯ Unacceptable
◯ Unable to rate

7c. If answered "Good", "Adequate", "Poor" or "Unacceptable" to [7b] then:
Please expand on your answer (summary)

8a. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] then:
What follow up was arranged for the patient?
Please tick all that apply

☐ Ambulatory care follow-up
☐ Hospital nurse led outpatient clinic
☐ GP follow up
☐ Non-CAP related follow-up (e.g. oncology)
☐ Unknown
☐ Hospital physician led outpatient clinic
☐ Chest x-ray only
☐ Physiotherapy
☐ No follow up arranged

Please specify any additional options here...

8b. If answered "Non-CAP related follow-up (e.g. oncology)" to [8a] then:
Please provide details (non-CAP follow-up)

8c. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] then:
In your opinion was the follow-up that was arranged for the patient appropriate?

◯ Yes ◯ No ◯ Unknown

8d. If answered "Own home", "Residential home", "Nursing home" or "Unknown" to [1a] and "No" to [8c] then:
Please expand on your answer (follow up)

J. Outcome and readmissions

1. Overall outcome of hospital admission

◯ Discharged ◯ Died

2a. If answered "Discharged" to [1] then:
Was the patient readmitted within 30 days?
This is likely to be unknown but we will have the data from the clinician questionnaire

◯ Yes ◯ No ◯ Unknown

2b. If answered "Yes" to [2a] and "Discharged" to [1] then:
Was the readmission due to pneumonia and/or complications of pneumonia?

◯ Yes ◯ No ◯ Unknown

2c. If answered "Yes" to [2b] and "Yes" to [2a] then:
M5 What treatment was required?

◯ Antibiotics for pneumonia with same area of consolidation
◯ Chest drain for pleural effusion or empyema

If not listed above, please specify here...

2d. If answered "No" to [2b] and "Yes" to [2a] then:
M6 What was the reason for readmission
Free Text

K. Overall quality of care

Please use the following grading to rate the overall quality of care received by this patient
GOOD PRACTICE: A standard that you would accept from yourself, your trainees and your institution
ROOM FOR IMPROVEMENT: Aspects of CLINICAL care that could have been better
ROOM FOR IMPROVEMENT: Aspects of ORGANISATIONAL care that could have been better
ROOM FOR IMPROVEMENT: Aspects of CLINICAL AND ORGANISATIONAL care that could have been better
LESS THAN SATISFACTORY: Several aspects of clinical and/or organisational care that were well below that you would accept from yourself, your trainees and your institution.
INSUFFICIENT DATA: Insufficient information submitted to NCEPOD to assess the quality of care

1a. Please rate the overall quality of care using the grading system provided (new).

- ◯ Good practice
- ◯ Room for improvement in clinical aspects of care
- ◯ Room for improvement in organisational aspects of care
- ◯ Room for improvement in clinical AND organisational aspects of care
- ◯ Less than satisfactory
- ◯ Insufficient data to grade

1b. If answered "Good practice", "Room for improvement in clinical aspects of care", "Room for improvement in organisational aspects of care", "Room for improvement in clinical AND organisational aspects of care" or "Less than satisfactory" to [1a] then:
Please provide reasons for assigning this grade

1c. Are there any themes/ issues from this case you feel should be highlighted in the final report?

◯ Yes ◯ No

1d. If answered "Yes" to [1c] then:
Please expand on your answer (vignette)

CAUSE FOR CONCERN
Occasionally NCEPOD will refer cases that have been identified as 'LESS THAN SATISFACTORY' when it is felt that further feedback to the Trust/ Health Board concerned is warranted. This is usually due to an area of concern to the hospital or clinician involved, and not for issues highlighted across the body of case notes.

This process has been agreed by the NCEPOD Steering Group and the GMC. The medical director of the Trust/ Health Board is written to by the Chief Executive of NCEPOD explaining our concerns. This process

has been in operation for 10 years and the responses received have always been positive in that they feel we are dealing with the concerns in the most appropriate manner.

2. **If answered "Less than satisfactory" to [1a] then:**
   Do you feel that this case should be considered for such action?

   ◯ Yes ◯ No