CLINICAL PROTOCOL FOR COMMUNITY ACQUIRED PNEUMONIA

SCOPE: Western Australia

Inclusion Criteria	Exclusion Criteria
All criteria must be met: • Mild/moderate pneumonia confirmed by chest x-ray (radiologist report to be included in referral) CXR confirmation may not be required for the treatment of palliative patients, but must be discussed with Medical governance prior to acceptance. AND • Patients in class 1 – 3 on the Pneumonia Severity Index (PS.I) **(ED Departments only)**) OR • CORB score 0 (See **Appendix 1)**. AND • Unsuitable for or intolerance to oral antibiotics. AND • Patient's medical condition has been assessed as stable, has a clear diagnosis and prognosis and is at a low risk of rapid deterioration.	• CORB score equal or above 1. • PSI score >3 for patients referred from ED. • Co-existing medical condition requiring hospital admission. • Need for supplementary oxygen. • CXR with multi-lobar infiltrates/ consolidation and/or pleural effusion. • Suspected aspiration pneumonia. • Immuno-compromised individual. • Pregnancy.

PATHOLOGY WORK-UP

- Full blood picture (FBP), urea and electrolytes (U&E), blood glucose, blood cultures x 2 sets if temperature >38^{O}C.
- C- Reactive Protein (CRP) on referral and repeat day 3.
- Throat / Nasel swab (dry swab) for influenza, mycoplasma, legionella and respiratory virus PCR (mark urgent).
- Sputum for culture and sensitivity (prior to antibiotics if possible but will not delay treatment).

TREATMENT

- Access pathology results from referral source.
- Collaborate with medical governance doctor regarding abnormal results.
- CRP on day 3 should indicate a >50% fall as compared to baseline. If not, needs medical review.
- Initiate intravenous access and commence intravenous therapy as prescribed.
- Nursing assessment and care delivery as per Clinical Pathway for Community Acquired Pneumonia.
- Close monitoring of patient's clinical signs and note/report any deterioration to levels outlined in **monitoring section.**
- Minimum of twice daily visits to monitor patient's vital signs including oxygen saturation for first 48 hours of HATH admission. Education of patient and carer regarding client's condition and action plan if condition deteriorates.
- If IV antibiotics continue for greater than 3 days consider referral to General, Respiratory or Infectious Diseases Physician.

MONITORING

Indicators for urgent medical re-assessment or hospital admission:

- New onset confusion
- O_2 saturation <90%
- Respiratory Rate > 30 breaths/minute
- Heart rate >125/minute
- Systolic BP < 90 mmHg
- Persistent fever (>38^{o}C) for > 72 hours
- CRP ⇑ on day 3
- Drug reaction

Antibiotic treatment for CORB score 0 or PSI class 1 – 3.

Suggested Antibiotic Regimen If Suitable For Oral Antibiotics But Requires HATH Monitoring

- Amoxicillin 1g PO 8-hourly oral

  PLUS

If intending to treat for Mycoplasma pneumoniae, Chlamydophila pneumoniae or Legionella.

- Doxycycline 200mg PO day 1 and then 100mg PO daily.

  OR

- Clarithromycin 500mg PO 12-hourly.

Suggested Antibiotic Regimen If Patient Intolerant Of Oral Antibiotics And Suitable For HATH

- Ceftriaxone 1g, once daily IV.

  PLUS

- Doxycycline 200mg PO day 1 and then 100mg PO daily

  OR

- Clarithromycin 500mg PO 12-hourly

For patients with severe hypersensitivity reaction to Penicillin (anaphylaxis, angioedema, immediate type urticaria) use Moxifloxacin 400mg once daily PO.

In those patients at risk of gram negative lung infections (eg pre-existing structural lung disease, previous Pseudomonas aeruginosa infection , positive blood or sputum cultures for gram negative bacteria) consult with an Infectious Diseases Physician and/or Clinical Microbiologist.

The usual duration of antimicrobial therapy for a non - severe CAP is 5 – 7 days. Early cessation is recommended if viral pneumonia is proven (ie review results of throat / nasal swab PCR). **NB:** During the influenza season (May – November) all admitted cases of CAP with recent onset of symptoms (< 72 hours), should also be considered for oral oseltamivir treatment after collection of influenza investigations (nose / throat swab for PCR) in confirmed cases continue anti – viral treatment for 5 days and consider cessation of antimicrobials

Patient can be returned to their own GP once:

- Suitable for oral antibiotics.
- Afebrile >24 hours.
- Sustained improvement in respiratory symptoms.
- No unstable medical co – morbidities.
- Adequate social support.

MEDICAL GOVERNANCE

Patient has access to medical governance support twenty four (24) hours per day, seven (7) days a week. Care delivery is planned and provided in consultation with the patient, medical officer/specialist holding medical governance and nursing staff. Medical specialists may retain medical governance with treatment interventions delivered by Silver Chain. When governance is retained by a Silver Chain medical officer the patient will have a medical review within twenty four (24) hours of admission and scheduled follow-up up as determined by the medical officer for that individual patient.

In the instance when a patient's condition deteriorates the Silver Chain medical officer or nursing staff will confer with an emergency department medical officer. All Silver Chain medical officers are formally credentialed. Silver Chain's medical officer holding governance will determine when the patient can be discharged and a summary is sent to the referrer or patient's general practitioner.

FOLLOW UP

With patient's own General Practitioner (GP).

Ensure patient has a GP appointment prior to discharge from the HATH service.

REFERENCES

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APPENDIX 1: ASSESSMENT FOR COMMUNITY PATIENTS SUITABILITY FOR HOME HOSPITAL TREATMENT

CORB Pneumonia Severity Assessment Tool

- **C**onfusion: New onset or worsening of existing state if cognitive impairment present (= 1 point).
- **O**xygen: PaO2 <60mm Or O2 sat < 90% (= 1 point).
- **R**espiratory Rate: ≥ 30/min (**=** 1 point).
- **B**lood Pressure: Systolic BP <90mmHg or diastolic ≤ 60mmHg (= 1 point).

Score of ≥ 1 point = NOT SUITABLE for HATH management.

Antibiotic treatment for **CORB score 0.**