| Policy Category | BC - Best Care | | |
|---|---|---|---|
| Best Care Goals | ☒ Safe ☐ Personal ☐ Connected ☐ Effective | | |
| Applies To | National | | |
| **Version** | **Approval Authority** | **Effective from** | **Review by date** |
| 1 | National Medical Director, WA | 5/10/2021 | 5/10/2024 |

## Contents



## 1. Rationale

The purpose of this Clinical Protocol is to provide a guiding framework for Hospital at the Home service Medical Practitioners and clinical staff.

## 2. Scope

The Clinical Protocol applies Nationally for HATH clients diagnosed with community acquired pneumonia or hospital acquired pneumonia where the patient has been in hospital for less than 48 hrs.

The Clinical Protocol does not apply to clients who have been in a tertiary hospital for more than 48hrs.

## 3. Acceptance to HATH Criteria and Pathway

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|---|---|
| **RED**<br>Unacceptable for community admission to HATH<br>Refer to ED/ Inpatient management.<br>(May become suitable for HATH after ED or inpatient stabilisation) | • CORB score equal or above one, see Appendix A<br>• New requirement for supplementary oxygen<br>• Chest X-ray showing multi -lobar infiltrates/consolidation and/or pleural effusion<br>• Coexisting complex medical conditions requiring hospital admission<br>• Suspected or confirmed immediate penicillin or cephalosporin hypersensitivity (anaphylaxis, angioedema and/or urticaria)<br>• Client has been in hospital for greater than 48hrs<br>• History of aspiration<br>• Pregnancy beyond 22 weeks |
| **ORANGE**<br>Requires discussion with referring Medical Governor prior to acceptance. | • Risk factors for drug resistance/treatment failure:<br>▪ Evidence or suspicion of multi resistant organisms.<br>▪ International travel<br>▪ Recent antibiotic exposure<br>▪ Residential care<br>▪ Immunocompromised<br>• Aged between 13 and 18, suitable for adult dosing who are not under the care of a paediatrician |
| **GREEN**<br>Accepted for HATH protocol | All criteria must be met:<br>• Mild/moderate pneumonia confirmed by chest X-ray (radiologist report to be included in the referral).<br>• CORB score 0 or PSI (Pneumonia Severity Index) class I – III.<br>• Unsuitable for or intolerance to oral antibiotics.<br>• Client's medical condition has been assessed as stable, has a clear diagnosis/prognosis and is at low risk of deterioration.<br>• Adults 18 years or over. |


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## 4. Pathology Work Up

- Full blood picture (FBP), urea and electrolytes, blood glucose, CRP.
- Blood cultures times two sets if temperature > $38^0$C.
- Throat/Nasal swab (dry swab) for NAAT testing for respiratory viruses (including influenza), Chlamydia, Mycoplasma and Legionella.
- Urinary antigen assays-Streptococcal and Legionella
- Sputum culture and sensitivity (ideally prior to antibiotics but it should not delay treatment).
- Calculate creatinine clearance using Cockcroft – Gault equation.
- Serology testing may be available but is not essential and rarely influences management acutely
- CXR report confirming mild/moderate pneumonia. NB CXR confirmation may not be required for the treatment of palliative patients, but these cases must be discussed with a Silver Chain medical officer

## 5. General Management

- Access blood results and most recent CXR report from referral source.
- Liaise with medical governance doctor regarding any abnormal results.
- Initiate intravenous access and commence intravenous therapy as prescribed.
- Nursing assessment and care delivery as per Clinical Pathway for Community Acquired Pneumonia.
- Twice daily visits to monitor patient's vital signs and report/escalate any deterioration to levels outlined in monitoring section. Virtual reviews may occur in between face to face
- Educate patient and carer regarding patient's condition and action plan if condition deteriorates.
- If no clinical signs of improvement after three days liaise with medical governance doctor regarding need for referral to respiratory or infectious disease physician.

## 6. Medical Management / Treatment Plan

**6.1** Suggested antibiotic regimen if patient requires intravenous antibiotics and suitable for HATH (moderate Community Acquired Pneumonia), **noting that the majority of mild CAP should be managed with oral antibiotic therapy:**

Benzylpenicillin 1.2 g intravenously, 6-hourly

OR

If immediate non-severe or delayed non severe hypersensitivity to penicillins OR if 6hrly visits are not possible

Ceftriaxone 1g IV, daily

**PLUS**

Doxycycline 100mg orally, 12-hourly

OR

Clarithromycin 500mg orally, 12 - hourly

- In rural and remote Australia procaine benzylpenicillin 1.5 g intramuscularly, daily is often preferred to prevent rheumatic fever

**6.2** Once there has been significant improvement, consider changing to oral therapy:

- Amoxycillin 1g orally, eight - hourly, (IV + oral)

OR

- Cefuroxime 500mg orally, 12 - hourly, (IV + oral) for patients hypersensitive to penicillins (excluding immediate hypersensitivity)
- For patients with severe immediate hypersensitivity reaction to penicillins (anaphylaxis, angioedema and/or immediate type urticaria) use Moxifloxacin 400mg orally, once daily.

- Once the patient has significantly improved after 2 to 3 days of combination therapy, continue combination therapy for 5 days.
- If the clinical response to combination therapy is slow, continue combination therapy for 7 days.

- If the patient is not improving after 48 hours of combination therapy, reassess the diagnosis. Consider infective and noninfective diagnoses but if pneumonia remains the likely diagnosis, reassess the need for hospital admission.
- 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 Disease Physician and/or Clinical Microbiologist.
- Note adjunctive corticosteroids are not currently recommended in the management of CAP
- Early cessation of antibiotics is recommended if viral pneumonia is proven.
- During the influenza season (May to 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 usually). In confirmed cases, continue antiviral treatment for five days and consider cessation of antimicrobials.
- Patient can be discharged to the care of their own GP once:
    - Suitable for oral antibiotics
    - Afebrile > 24 hours
    - Sustained improvement in respiratory symptoms
    - No unstable comorbidities
    - Adequate social support

## 7. Monitoring

Indicators for urgent medical re-assessment or hospital admission:

- New onset confusion
- $O^2$ saturation < 92%
- Respiratory rate > 30 breaths/minute
- Heart rate > 100 beats/min
- Systolic BP < 90mmHg
- Persistent fever (>38$^0$C) for > 72 hours
- Raising CRP on day three

- Drug reaction

## 8. Medical Governance

- The client must have access to medical governance support for 24 hours per day, 7 days per week.
- Primary medical governance can be held by referring medical specialists, credentialed referring GPs or by Silver Chain medical staff.
- When governance is retained by a Silver Chain medical officer the client will have a medical review within 24 hours of admission and the medical officer will determine when the scheduled follow up and discharge will occur.
- Where the primary medical governor is unavailable the Silver Chain medical officer will provide the medical governance.
- Care delivery is planned and provided in consultation with the client, medical officer/specialist holding medical governance and nursing staff.
- In the instance when a client's condition deteriorates, the Silver Chain medical officer or nursing staff will confer with an emergency department medical officer.
- A summary of the episode of care is sent to the referrer or the client's GP at discharge highlighting any significant clinical or additional risks that exist.

## 9. Discharge Planning

- Ensure the client has an appointment arranged with own General Practitioner (GP) prior to discharge to ensure continuity of care.
- Discharge summary must include the key clinical risks for handover
- Fax protocol with client discharge summary to GP.

## 10. Supporting Documents

Silver Chain Group documents that directly relate to and inform this Clinical Protocol are available with this document in the Policy Document Management System (PDMS).

Other documents that directly relate to and inform this Clinical Protocol are as follows:

- Australian Commission on Safety and Quality in Health Care 2017 National Safety and Quality Health Service Standards (2nd), Sydney. Australia

- eTG Community Acquired Penumonia
  https://tgldcdp-tg-org-au.silverchain.idm.oclc.org/viewTopic?topicfile=community-acquired-pneumonia-adults&sectionId=abg16-c108-s8#toc_d1e1161

## 11. Document Details

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|---|---|
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Silver Chain Group's policies align with relevant legislation and standards and are based on providing a fair, inclusive and safe working environment free from bullying and discrimination and one that enables equal opportunity for all Silver Chain staff. Our policies embody our values of Care, Community, Integrity and Excellence.

## Appendix A: 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 < 60mmHg or SpO2 < 90% RA (= 1 point)
- **R**espiratory Rate: ≥ 30 breaths/min (= 1 point)
- **B**lood pressure: Systolic BP < 90mmHg or diastolic ≤ 60 mmHg (= 1 point)

CORB Score of ≥ 1 point, **NOT SUITABLE for HATH Management**.

CORB Score 0, appropriate for HATH referral.