Inclusion Criteria	Exclusion Criteria
• Mild/moderate pneumonia confirmed by chest x-ray (radiologist report to be included in referral). • Patients in class 1 – 3 on the PSI (See **Appendix 1**). • Unsuitable or intolerance to oral antibiotics. • Over 16 years of age but not under the care of a paediatrician. • Less than 22 weeks gestation. • Patient's medical condition has been assessed as stable, has a clear diagnosis and prognosis and is at a low risk of rapid deterioration.	• Refer to **Appendix 1** Pneumonia Severity Index. • 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.

PATHOLOGY WORK-UP

- Full blood picture (FBP), urea and electrolytes (U&E), blood glucose, as per **Appendix 1.**
- Blood cultures if Pyrexial.
- CRP on referral and repeat day 3.
- Sputum for culture and sensitivity.

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 as per respiratory assessment tool.
- Close monitoring of clients clinical signs and note/report any deterioration to levels outlined in PSI – **Appendix 1.**
- Minimum of twice daily visits to monitor clients vital signs including oxygen saturation.
- Education of client and carer regarding client's condition and action plan if condition deteriorates.
- If IV antibiotics continue for greater than 3 days consider referral to respiratory physician.

FOLLOW UP

With clients own General Practitioner (GP):

- Ensure client has a GP appointment prior to discharge from the HATH program.

APPENDIX 1: CALCULATING PATIENTS' PNEUMONIA SEVERITY INDEX (PSI)

PSI Risk Class 1

Patient aged < 50 years and has none of the following.

History of:

- Neoplastic disease.
- Liver disease.
- Congestive cardiac failure.
- Cerebral vascular disease.
- Renal disease.

Clinical signs of:

- Acutely altered mental state.
- Respiratory rate >30
- Systolic blood pressure < 90mmHg
- Temperature <35° or > 38.5°
- Pulse rate > 125 bpm.

None of the above criteria = Class 1 low risk.

One or more of the above criteria = higher risk

1. Further investigation necessary.
2. Full blood Examination.
3. Urea and Electrolyte.
4. Arterial blood gas analyses or Oxygen saturation on room air plus venous Ph.
5. Microbiology: Blood cultures, gram stain and culture of Sputum.
6. Calculate PSI.

Higher Risk (See Below)

Factor	PSI Score
Patient age	Age in years (male) Age in years – 10 (female)
Nursing home resident	+ 10
Co – existing illness	
Neoplastic disease	+30
Liver Disease	+20
Congestive cardiac faliure	+10
Cerebrovascular disease	+10
Chronic renal disease	+10
Signs on Examination	
Acutely altered mental state	+20
Respiratory rate >30	+20
Systolic blood pressure <90	+20
Temperature <35 or >40	+15
Pulse rate >125	+10
Results of investigations	
Arterial pH <7.35	+30
Serum Urea >11mmol/l	+20
Serum sodium <130mmol/L	+20
Serum glucose > 14mmol/L	+10
Haemocrit <30%	+10
PaO2 <60mmhg or O2 sats. <90%	+10
Pleural effusion on chest x–ray	+10

Class 1	Class2	Class 3	Class 4	Class 5
No further investigations.	Score 1 – 70	Score 71 - 90	91 - 130	> 130

Class 1	Class 2	Class 3	Class 4	Class 5
Consider outpatient treatment with adequate support and monitoring by Hospital at Home	Consider out-patient treatment with adequate support and monitoring by hospital at home	Hospital care or Hospital at home care if social support adequate and provision of twice daily monitoring	Hospital Care	Hospital care May warrant ICU admission

Class 1 and 2

Amoxicillin oral PLUS
(if intending to treat for Mycoplasma Pneumoniae)
Doxycycline oral OR Clarithromycin

Class 2 and 3

If patient suitable for Hospital at Home, but intolerant to oral antibiotics use Ceftriaxone 1gm, once daily IV.
Plus either
Doxycycline oral 100mg BD
OR
Clarithromycin oral 250-500mg daily
Patients with severe hypersensitivity reaction to Penicillin (anaphylaxis, angioedema, immediate 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, positive blood or sputum cultures for gram negative bacteria) consult with an Infectious Diseases Physician and/or Clinical Microbiologist.

Class 4 and 5

Treat as per current hospital inpatient.

MEDICAL GOVERNANCE

Client 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 client, 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 client 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 client.

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. All Silver Chain medical officers are formally credentialed. Silver Chain's medical officer holding governance will determine when the client can be discharged and a summary is sent to the referrer or client's general practitioner.

REFERENCES

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