The Tayside Critical Care Pathway for the Management of Community-Acquired Pneumonia

PATIENT ADMITTED TO WARD 15 with SUSPECTED/PROVEN COMMUNITY-ACQUIRED PNEUMONIA

ALL PATIENTS SHOULD BE ASSESSED IMMEDIATELY FOR:
- SEVERITY – Use severity box below to guide management. Record clearly in notes
- ANTIBIOTICS – GIVE IMMEDIATELY. Take blood culture first, but DO NOT WAIT the results of a CXR. See appropriate antibiotic box below
- OXYGEN – Aim to keep SaO2/PaO2 well above 92%/8.0kPa. Do ABG if SaO2 <92%. In non-COPD patients, 60-100% FiO2 is safe. COPD: 28% and adjust according to ABG
- IV FLUIDS – Aim to keep BP >90/60 with good urine output (>30mls/hour)

THE FOLLOWING SHOULD BE PERFORMED ON ALL PATIENTS:
- FBC, U&E, LFT, CRP, BLOOD CULTURE, SPUTUM CULTURE, BASELINE SEROLOGY, CXR, ECG and nursing observations 4-hourly (including RR and oximetry) until stable

ASSESS SEVERITY of PATIENT'S PNEUMONIA

CORE Adverse Prognostic Features
- CONFUSION, NEW (MSQ ≤8/10)
- UREA >7mmol/l (if available)
- RESPIRATORY RATE ≥30/minute
- BP <90mmHg (systolic) or ≤60mmHg (diastolic)

PREEXISTING Adverse Prognostic Features
- Age ≥50 years
- Coexisting chronic illness

ADDITIONAL Adverse Prognostic Features
- Pulse oximetry <92% or PaO2 <8.0kPa on any FiO2 (if available)
- Bilateral or multi-lobar changes on CXR (if available)

CONSIDER HOME THERAPY IF:
- Oral route available
- Satisfactory social situation
- Consider the Early Supportive Discharge Service (9am-5pm) OR a Community Hospital bed

HOME THERAPY
- 1st CHOICE: AMOXICILLIN 500mg x3/day PO for 7-days
- ALTERNATIVE: ERYTHROMYCIN 500mg x4/day PO OR CLARITHROMYCIN 500mg x2/day PO for 7-days
- Oral fluids, antipyretics, analgesia
- Smoking advice
- CAP INFORMATION SHEET

FOLLOW-UP
- CXR at 6/52 if risk of lung cancer (e.g. smokers and/or age >50y).
- Consider further investigation for persistent symptoms/signs
- HOSPITAL to ORGANISE FOLLOW-UP ARRANGEMENTS
  - Influenza/pneumococcal vaccination for those at risk
  - Smoking advice

ALL PATIENTS: USE CLINICAL JUDGEMENT

NON-SEVERE, BUT NEEDS HOSPITAL MANAGEMENT
- ORAL ROUTE AVAILABLE:
  - AMOXICILLIN 1g x3/day PLUS ERYTHROMYCIN 500mg x4/day
- IV REQUIRED:
  - AMOXICILLIN 1g x3/day PLUS CLARITHROMYCIN 500mg x2/day (PENICILLIN ALLERGY: Erythromycin OR Clarithromycin monotherapy)
  - Treat for 7-days (IV/oral)

ANTIBIOTICS: NON-SEVERE

SEVERE
- ALL SHOULD INITIALLY RECEIVE:
  - IV CO-AMOXICLAV 1.2g x3/day PLUS IV CLARITHROMYCIN 500mg x2/day
  - PENICILLIN ALLERGY: IV Levofloxacin 500mg x2/day OR Moxifloxacin when available

- ALL SHOULD HAVE: Paired serology & urinary legionella antigen tests
- Treat for at least 10-days (IV/oral)

PENICILLIN ALLERGY = RASH and/or ANAPHYLAXIS

ASSESS & RECORD PROGRESS EVERY 12 HOURS UNTIL STABLE
- IF NOT IMPROVING: REASSESS SEVERITY, ANTIBIOTICS, OXYGENATION and IV FLUIDS. Repeat CXR (emphyema), FBC & CRP. Discuss with Respiratory Team
- REFER TO ICU (Consultant/Senior SpR only) IF: Persistent hypoxia (PaO2 <8.0kPa) despite high FiO2, progressive hypercapnia, pH <7.26, shock or depressed GCS (≤8)

CONSIDER IV to ORAL SWITCH IF:
- Oral/GI route available
- Temperature <38°C for 24h
- SaO2/PaO2 ≥92%/8.0kPa (air)
- Pulse <100/minute
- BP ≥90/60 mmHg
  - CONSIDER DISCHARGE 24-HOURS AFTER SWITCH TO ORAL THERAPY
  - GIVE ALL PATIENTS A CAP INFORMATION SHEET