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

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

ADVICE ONLY
Respiratory Team (9-5pm) *or* Medical SpR (5pm-9am) via NW switchboard

REVIEW DATE: AUGUST 2003

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 AWAIT** the results of a CXR. See appropriate antibiotic box below
- **OXYGEN** – Aim to keep Sa/PaO_2 well above 92%/8.0kPa. Do ABG if SaO_2 <92%. In non-COPD patients, 60-100% FiO_2 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 PaO_2 <8.0kPa on any FiO_2 (if available)**
- **Bilateral or multi-lobar changes on CXR (if available)**

ADVICE ONLY
Respiratory Team (9-5pm) *or* Medical SpR (5pm-9am) via NW switchboard

REVIEW DATE: AUGUST 2003

NO ADVERSE PROGNOSTIC FEATURES

CONSIDER HOME THERAPY IF:

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

YES

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

NO

ALL OTHER PATIENTS: *USE CLINICAL JUDGEMENT*

NON-SEVERE, BUT NEEDS HOSPITAL MANAGEMENT

ANTIBIOTICS: NON-SEVERE

- ***IF ORAL ROUTE AVAILABLE:*** AMOXICILLIN 1g x3/day ***PLUS*** ERYTHROMYCIN 500mg x4/day
- ***IF IV REQUIRED:*** AMOXICILLIN 1g x3/day ***PLUS*** CLARITHROMYCIN 500mg x2/day (**PENICILLIN ALLERGY:** Erythromycin ***OR*** Clarithromycin monotherapy)
- **Treat for 7-days** (IV/oral)

TWO OR MORE *CORE* FEATURES

SEVERE

ANTIBIOTICS: 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 (empyema), FBC & CRP. **Discuss with Respiratory Team**
- ***REFER TO ICU*** *(Consultant/Senior SpR only)* ***IF:*** Persistent hypoxia (PaO_2 <8.0kPa) despite high FiO_2, 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
- SaO_2/PaO_2 ≥92%/8.0kPa (air)
- Pulse <100/minute
- RR <30/minute
- BP ≥90/60 mmHg

➢ **CONSIDER DISCHARGE 24-HOURS AFTER SWITCH TO ORAL THERAPY**
➢ **GIVE ALL PATIENTS A CAP INFORMATION SHEET**