THE MANAGEMENT OF COMMUNITY ACQUIRED PNEUMONIA

SUSPECTED or PROVEN COMMUNITY ACQUIRED PNEUMONIA

NHS Tayside

TRANSFER OF PATIENTS AFTER INITIAL ASSESSMENT:

CURB65: 4 or 5
Medical HDU or ICU

CURB65: 3
Consider Medical HDU or admit to medical ward

CURB65: 2
Admit to medical ward or Acute Medical Outpatient Clinic

CURB65: 0 or 1
Home therapy or admit if clinical concern or co-morbidity

ALL PATIENTS SHOULD BE ASSESSED IMMEDIATELY FOR:

- SEVERITY - Use severity box below to guide management. Record clearly in notes.
- SEVERE SEPSIS/SEPTIC SHOCK – refer to SEPSIS BUNDLE (Early Goal Directed Therapy)
- ANTIBIOTICS – GIVE IMMEDIATELY – within 4 hours of arrival at hospital. Take blood culture first, but DO NOT AWAIT the results of a CXR. See appropriate antibiotic box below.
- OXYGEN – Aim to keep oxygen saturations in non-COPD patients 94-98% if <75y or 92-98% if >75y. In COPD patient aim for 88-92% initially and take ABG.
  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, BASELINE SEROLOGY, CXR, ECG, nursing observations 4-hourly (including RR and oximetry) until stable. SPUTUM CULTURE – only in severe CAP patients with productive cough.
IN SEVERE CAP PATIENTS: throat swab or gargle for virology PCR, urine for legionella antigen

ASSESS SEVERITY OF PATIENT'S PNEUMONIA

CORE Adverse Prognostic Features (Score 1 for each)

- CONFUSION, NEW (MSQ ≤8/10)
- UREA >7mmol/l (if available)
- RESPIRATORY RATE ≥ 30/minute
- BP <90mmHg (systolic) or ≤60mmHg (diastolic)
- 65 AGE ≥ 65 years

PRE-EXISTING Adverse Prognostic Features

- Co-existing 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 (9-5pm) *or* Medical Team on-call (5pm-9am) via switchboard

Note:
ASPIRATION PNEUMONIA should be treated with:

Non severe -
Amoxicillin + metronidazole

Severe –
IV amoxicillin + metronidazole + gentamicin
(see gentamicin guideline)
(step down to oral co-amoxiclav)

CURB 65 SCORE 0 OR 1 (MILD)

CONSIDER HOME THERAPY IF:

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

NO

YES

HOME THERAPY

- *1st CHOICE:* AMOXICILLIN 1g x3/day PO for 7 days
- *ALTERNATIVE:* DOXYCYCLINE 200mg on Day 1 then 100mg daily PO for 6 days
- Oral fluids, antipyretics, analgesia
- Smoking advice
- CAP PATIENT INFORMATION LEAFLET

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
- GP to ORGANISE FOLLOW-UP ARRANGEMENTS
- Influenza/pneumococcal vaccination for those at risk
- Smoking advice

CURB65 SCORE 0 OR 1 (WITH A CO-MORBIDITY OR CLINICAL CONCERN)

ANTIBIOTICS:

- *IF ORAL ROUTE AVAILABLE:* AMOXICILLIN 1g x3/day
- *IF IV REQUIRED:* AMOXICILLIN 1g x3/day

(PENICILLIN ALLERGY: Doxycycline 200mg on day 1 then 100mg daily for 6 days. If IV required use Clarithromycin 500mg x 2/day then step down to doxycycline)

- Treat for 7 days (IV/oral)

CURB65 SCORE 2 (MODERATE)

ANTIBIOTICS:

- *IF ORAL ROUTE AVAILABLE:* AMOXICILLIN 1g x3/day
- *IF IV REQUIRED:* AMOXICILLIN 1g x3/day

(PENICILLIN ALLERGY: Doxycycline 200mg on day 1 then 100mg daily for 6 days. If IV required use Clarithromycin 500mg x 2/day then step down to doxycycline)

- Treat for 7 days (IV/oral)

CURB65 SCORE 3 OR MORE (SEVERE)

ANTIBIOTICS: SEVERE

- *ALL SHOULD INITIALLY RECEIVE:* IV CO-AMOXICLAV 1.2g x3/day *PLUS* IV CLARITHROMYCIN 500mg x2/day or PO DOXYCYCLINE 100mg x2/day
  (PENICILLIN ALLERGY: IV Levofloxacin 500mg2/day)
- Step down to oral doxycycline 100mg x 2/day in all patients
- *ALL SHOULD HAVE:* Paired serology, throat swab/gargle for virology PCR, urinary legionella antigen tests
- Treat for at least 10 days (IV/oral)

PENICILLIN ALLERGY = RASH and/or ANAPHYLAXIS (see Penicillin Hypersensitivity Guideline)

ASSESS & RECORD PROGRESS EVERY 12 HOURS UNTIL STABLE

- *IF NOT IMPROVING*: RE-ASSESS SEVERITY, ANTIBIOTICS, OXYGENATION and IV FLUIDS. Repeat CXR (empyema), FBC & CRP, SPUTUM CULTURE and consider investigations for mycobacteria spp including TB. 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
- Pulse <100/minute
- Temperature <38°C for 24h
- RR < 30/minute
- SaO_2/PaO_2 ≥92%/8.0kPa (air)
- BP ≥90/60 mmHg

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

Updated August 2008
Ref: BTS Guidelines 2004