The All Wales Secondary Care Community Acquired Pneumonia Guideline

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STEP 1 INFORMATION:
ASSESSMENT

Sepsis - 1 Hour Target

Sepsis 6 bundle

Give stat doses as per high severity IV options.

Chest x-ray and CURB65 score within first hour if possible, **but do not delay first dose of antibiotics**

No Sepsis - 4 Hour Target

1. Chest x-ray
2. CURB65 score
3. Antibiotics

STEP 2 INFORMATION:
DIAGNOSE

No new consolidation on chest x-ray

Look for alternative sources of infection.

Treat non-pneumonic exacerbations of COPD or bronchiectasis as per local guidance

Most patients with LRTI without consolidation do not benefit from antibiotics.

Consider treating with antibiotics if:

- Systemically very unwell
- CRP >100
- At high risk of complications due to major co-morbidity or immunocompromised
- Age 65+ with 2 of the following, or age 80+ with 1 of the following:
  - Hospital admission in last year
  - Diabetes
  - Heart failure
  - On oral steroids

STEP 3 INFORMATION:
ASSESS SEVERITY AND MICROBIOLOGY

Severity Assesssment

1 point for each
Document score in notes and on medication chart

Confusion (new)
Urea >7mmol/l
Resp rate ≥ 30/min
BP <90mmHg systolic or ≤60 diastolic
Age ≥**65** years

Use **clincal judgement** alongside CURB65 score to determine severity.

Consider treating as high severity if:

- Multi-lobar consolidation
- Immunocompromised
- Requiring critical care

If pregnant or breast-feeding, treat with:

- Amoxicillin PO 500mg TDS

or

- IV 1g TDS, +/- Erythromycin PO/IV 500mg QDS if high severity or atypical pathogen suspected

Remember TB and lung cancer can mimic CAP.

If influenza is suspected, follow local guidance.

Clinical Pathway

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More information at
icst.info/the-all-wales-secondary-care-community-acquired-pneumonia-guideline

CAP: Community-acquired pneumonia
CRP: C-reactive protein
IV: Intravenous
LRTI: Lower respiratory tract infection
NEWS: National early warning score
PO: Orally
TB: Tuberculosis

TDS: Three times a day
QDS: Four times a day

STEP 1: ASSESSMENT

Suspected CAP
- *LRTI symptoms*
- *Systemic upset (e.g. fever)*
- *Focal chest signs*

Check for evidence of Sepsis
NEWS 6+ or critically unwell

Sepsis 1 Hour Target	No Sepsis 4 Hour Target

STEP 2: DIAGNOSIS

Consolidation on chest x-ray Confirmed CAP	**No new consolidation on chest x-ray**

STEP 3: ASSESS SEVERITY AND MICROBIOLOGY

CURB65 0-1	CURB65 2	CURB65 3+	CURB65 3+ or SEPSIS
Low severity *Consider treatment in the community if appropriate*	Moderate severity *Send sputum culture, blood cultures (if febrile or starting IV antibiotics), and consider urinary antigen tests for Pneumococcus and Legionella.*	High severity - Oral and IV options *Send sputum culture, blood cultures (if febrile or starting IV antibiotics), and consider urinary antigen tests for Pneumococcus and Legionella.*	High severity - IV options *Send sputum culture, blood cultures (if febrile or starting IV antibiotics), and consider urinary antigen tests for Pneumococcus and Legionella.*

Early discussion with microbiology (+/- isolation) is advised if:

- Recent foreign travel
- Cavitating disease
- Previous isolates of resistant organisms

STEP 4: TREAT

Five days of antibiotics is a sufficient course for most patients

	CURB65 0-1	CURB65 2	CURB65 3+	CURB65 3+ or SEPSIS
1st line	**Amoxicillin** PO 500mg TDS	**Amoxicillin** PO 500mg TDS PLUS **Clarithromycin** PO 500mg BD	**Amoxicillin** PO 1g TDS PLUS **Clarithromycin** PO 500mg BD If recent flu or chicken pox ADD **Flucloxacillin** PO 500mg QDS	**Amoxicillin** IV 1g TDS PLUS **Clarithromycin** IV 500mg BD If recent flu or chicken pox ADD **Flucloxacillin** IV 1g QDS
2nd line	**Doxycycline** PO 200mg stat then 100mg OD *Consider if:* *- Allergic to penicillin* *- Failed treatment with amoxicillin* *- Underlying lung disease* *- Atypical pathogen suspected*	**Doxycycline** PO 200mg stat then 100mg OD *Consider if:* *- Allergic to penicillin* *- Underlying lung disease*	**Co-trimoxazole** PO 960mg BD PLUS **Clarithromycin** PO/IV 500mg BD *Consider if:* *- Allergic to penicillin* *- Underlying COPD* *- Already failed antibiotics in the community*	**Co-trimoxazole** PO 960mg BD (first dose iv if sepsis) PLUS **Clarithromycin** PO/IV 500mg BD *Consider if:* *- Allergic to penicillin* *- Underlying COPD* *- Already failed antibiotics in the community*
3rd line	**Co-trimoxazole** PO 960mg BD *Reserve for patients who have failed treatment with doxycycline*	**Co-trimoxazole** PO 960mg BD PLUS **Clarithromycin** PO 500mg BD *Reserve for patients with underlying lung disease who have failed treatment with doxycycline*	**Levofloxacin** PO/IV 500mg BD *Reserve for patients allergic to penicillin and Co-trimoxazole (septrin)* **OR** **Tazocin** IV 4.5g TDS PLUS **Clarithromycin** IV 500mg BD *Reserve for patients with previous pseudomonas infection or underlying bronchiectasis*	**Levofloxacin** PO/IV 500mg BD *Reserve for patients allergic to penicillin and Co-trimoxazole (septrin)* **OR** **Tazocin** IV 4.5g TDS PLUS **Clarithromycin** IV 500mg BD *Reserve for patients with previous pseudomonas infection or underlying bronchiectasis*

STEP 5: REVIEW

Consider extending the course beyond 5 days based on clinical response.
Most patients on IV antibiotics can be stepped down to oral antibiotics within 48 hours.