

# HOSPITAL ADULT Empirical Treatment of Infection Guidelines

When male and female are stated within this policy, it refers to sex assigned at birth

## NEWS $\geq 5$ AND INFECTION: THINK SEPSIS

## COMPLETE SEPSIS 6 BUNDLE WITHIN 1 HOUR

If 2 or more of the following **AND** clinical suspicion of infection

Temperature  $>38^{\circ}\text{C}$  or  $<36^{\circ}\text{C}$  Pulse rate  $\geq 90$  beats per minute Altered mental state  
Respiratory rate  $>20$  breaths/min WCC  $<4$  or  $>12$  Known or suspected neutropenia

**ALWAYS DOCUMENT INDICATION & DURATION IN NOTES AND MEDICINE CHART**  
**REVIEW ANTIBIOTIC THERAPY DAILY- CAN YOU STOP? SWITCH? SIMPLIFY? STATE DURATION?**

**INDICATIONS FOR IV USE:** Review IV therapy every 12-24 hours – see [IVOST](#) guideline

- Specific infections e.g. endocarditis, septic arthritis, abscess, meningitis, osteomyelitis
- 2 or more criteria as above out with range (temperature, respiratory rate, pulse, WCC)
- Febrile with neutropenia or immunosuppression
- Oral route compromised
- Post surgery – unable to tolerate 1 litre of oral fluids
- No oral formulation available

**DOSES (UNLESS OTHERWISE STATED) NOTE: ALL DOSES ASSUME NORMAL RENAL & HEPATIC FUNCTION**

ANTIBIOTIC	ORAL	IV
Amoxicillin	1g tds	1g tds
Co-trimoxazole	960mg bd	960mg bd
Co-amoxiclav	625mg tds	1.2g tds
Clarithromycin *	500mg bd	500mg bd
Metronidazole	400mg tds	500mg tds
Flucloxacillin	1g qds	1g qds

\*Consider risk of prolonged QT interval and [interactions](#) e.a. statins

**MICROMAN:** FOR ANTIBIOTIC 'RULES OF THUMB' AND BASIC MICROBIOLOGY INFORMATION ON COMMON INFECTIONS

**GENTAMICIN:** ALWAYS CHECK EXCLUSION CRITERIA PRIOR TO PRESCRIBING

IF IV THERAPY IS STILL INDICATED AFTER 72 HOURS OF GENTAMICIN (OR AFTER 24 HOURS IF POOR/DETERIORATING RENAL FUNCTION):

1. CHECK MICROBIOLOGY RESULTS & SENSITIVITIES
2. CONSIDER SWITCH TO AZTREONAM
3. IF REQUIRED ASK ID OR MICRO FOR ADVICE

**AZTREONAM:** FOR CERTAIN PATIENTS ONLY AS ALTERNATIVE TO GENTAMICIN – REFER TO GUIDANCE

**PENICILLIN ALLERGY:** TAKE ACCURATE HISTORY AND REFER TO GUIDANCE

## CNS ENT

**MENINGITIS** Ceftriaxone IV 2g bd + Dexamethasone IV 10mg qds (started with or just before first dose of antibiotics for 4 days) Duration: refer to guidance  
• Aciclovir IV (10mg/kg tds) if encephalitis suspected (oral treatment never appropriate) • Add Amoxicillin IV 2g 4 hourly if  $\geq 60$  years or immunocompromised

**EPIGLOTTITIS/SUPRAGLOTTITIS** Ceftriaxone IV 2g od Refer to [ENT Guidance](#) for oral step down and treatment of other infections

**COMMUNITY ACQUIRED PNEUMONIA** Assess CURB65 score  
**0-2 Mild/Mod** Amoxicillin 1g tds IV/PO (**5 days**) (If penicillin allergic: Doxycycline PO 200mg on day 1 then 100mg od or IV Clarithromycin\* if NBM)  
**3-5 Severe** Co-amoxiclav IV 1.2g tds + Doxycycline PO 100mg bd (If penicillin allergic: IV Levofloxacin 500mg bd monotherapy)  
**ICU/HDU or NBM** Co-amoxiclav IV 1.2g tds + Clarithromycin\* IV 500mg bd (If penicillin allergic: IV Levofloxacin 500mg bd monotherapy)  
Step down to Doxycycline 100mg bd for ALL patients with severe CAP **TOTAL IV/PO 5 days**

**HOSPITAL ACQUIRED PNEUMONIA** (previous ICU admission or history of MRSA: seek advice)  
**Non severe:** PO Amoxicillin (If penicillin allergic: Doxycycline 100mg bd) **TOTAL 5 days**  
**Severe:** IV Amoxicillin + Gentamicin (If penicillin allergic: IV Co-trimoxazole + Gentamicin) Step down: PO Co-trimoxazole **TOTAL IV/PO 7 days**

**ASPIRATION PNEUMONIA**  
**Non severe** PO Amoxicillin + Metronidazole (If penicillin allergic: PO Doxycycline 100mg bd + Metronidazole) **TOTAL 5 days**  
**Severe** IV Amoxicillin + Metronidazole + Gentamicin (If penicillin allergic: replace amoxicillin with PO Doxycycline or IV Clarithromycin\*)  
Step down: PO Amoxicillin + Metronidazole (If penicillin allergic: Doxycycline 100mg bd + Metronidazole) **TOTAL IV/PO 7 days**

**ACUTE EXACERBATION OF COPD** Give antibiotics if  $\uparrow$  sputum purulence. If **no**  $\uparrow$  sputum purulence then **no** antibiotics unless consolidation on CXR or signs of pneumonia. **1<sup>ST</sup> LINE Amoxicillin 500mg tds 2<sup>ND</sup> LINE Doxycycline 200mg on day 1 then 100mg od (5days)**

**ACUTE COUGH/ACUTE BRONCHITIS** Antibiotics give **no significant benefit** in clinical improvement but may be considered in the frail elderly.  
**1<sup>ST</sup> LINE Amoxicillin 500mg tds 2<sup>ND</sup> LINE Doxycycline 200mg on day 1 then 100mg od (5 days)**

**BRONCHIECTASIS ACUTE EXACERBATION** • Send sputum cultures on admission & review previous sputum results prior to prescribing  
Refer to full guidance for antimicrobial choice and duration **TOTAL IV/PO 7days (mild) 14 days (severe)**

**ENDOCARDITIS** • Take appropriate blood cultures • Start empirical therapy and refer to ID/Microbiology  
• ALWAYS check full [endocarditis guidance](#) for gentamicin/vancomycin dosing especially if reduced renal function • Do not use gentamicin chart/calc  
**Native valve indolent (Subacute):** Amoxicillin IV 2g 4 hourly + Gentamicin (See [synergistic gentamicin guidance](#))  
**Native valve severe sepsis (Acute):** Flucloxacillin IV 2g 6 hourly (4 hourly if  $>85\text{kg}$ )  
**Prosthetic valve or Suspected MRSA:** Vancomycin IV + Gentamicin (See [synergistic gentamicin guidance](#))  
+ when therapeutic vancomycin levels reached add Rifampicin PO 600mg bd (always check for interactions)

**C. DIFFICILE INFECTION** Refer to full guidance to assess severity  
**Severe/Non severe:** Vancomycin 125mg qds (**10 days**)  
**Recurrent:** positive CDI in previous 12 weeks - see [guidance](#)

**ACUTE GASTROENTERITIS**  
No antibiotic treatment required. Seek advice if severe.  
**ACUTE PANCREATITIS**  
Antibiotics unlikely to affect outcome. Seek advice.  
**PROVEN SPONTANEOUS BACTERIAL PERITONITIS (5 - 7 days)**  
**Mild disease:** (incidental diagnosis on routine tap): Co-trimoxazole PO  
**Severe disease:** Piperacillin/Tazobactam IV 4.5g tds then step down to Co-trimoxazole PO

**PERITONITIS/BILIARY TRACT/ INTRA-ABDOMINAL (TOTAL IV/PO 7 days)**  
IV Amoxicillin + Metronidazole + Gentamicin  
Step down: PO Co-trimoxazole + Metronidazole  
(If penicillin allergic: IV [Vancomycin](#) + Metronidazole + Gentamicin  
Step down: PO Co-trimoxazole + Metronidazole)

**CATHETERISED PATIENTS:** DO NOT USE URINALYSIS. DO NOT TREAT UNLESS CLINICAL SIGNS/SYMPTOMS OF INFECTION. IF DEFINITE INFECTION TREAT AS PER COMPLICATED UTI.  
**UTI IN OLDER ADULTS:** DO NOT USE URINALYSIS. DO NOT TREAT UNLESS CLINICAL SIGNS/SYMPTOMS OF INFECTION. IF DEFINITE INFECTION TREAT AS PER GUIDANCE BELOW.  
**COMPLICATED UTI/PYELONEPHRITIS/UROSEPSIS** IV Amoxicillin + Gentamicin (If penicillin allergic: IV Co-trimoxazole + Gentamicin)  
Step down: PO Co-trimoxazole or as per sensitivities **TOTAL IV/PO 7 days**  
**UNCOMPLICATED FEMALE LOWER UTI** Nitrofurantoin 100mg MR bd or 50mg qds or Trimethoprim 200mg bd (**3 days**)  
**UNCATHETERISED MALE UTI** Nitrofurantoin 100mg MR bd or 50mg qds or Trimethoprim 200mg bd (**7 days**)  
**ACUTE BACTERIAL PROSTATITIS OR EPIDIDYMO-ORCHITIS** Refer to separate guidance and update on [quinolone](#) warnings

**CELLULITIS** Refer to full guidance to assess severity **TOTAL IV/PO 5-7 days**  
Flucloxacillin 1g qds (If penicillin allergic: Doxycycline 100mg bd PO)  
If history of MRSA or not responding: see [CELLULITIS](#) guidance

**DIABETIC FOOT INFECTION (7 days)**  
Refer to full guidance to assess severity OR if antibiotics in last month  
**Mild:** Flucloxacillin 1g qds or Doxycycline 100mg bd  
**Moderate:** Flucloxacillin 1g qds + Metronidazole 400mg tds  
or Doxycycline 100mg bd + Metronidazole 400mg tds  
**ACUTE SEPTIC ARTHRITIS/OSTEOMYELITIS** (seek ID advice)  
IV Flucloxacillin 2q qds

**OPEN FRACTURE PROPHYLAXIS** (including hand injuries)  
Cefuroxime 1.5g IV every 8 hours  
Start within 3 hours for max 72 hours

IV Amoxicillin + Metronidazole + Gentamicin (If PWID add *S. aureus* cover IV Flucloxacillin 2g qds or if penicillin allergic use regime below)  
Penicillin allergy: IV [Vancomycin](#) + Metronidazole + Gentamicin **Neutropenic patients:** refer to [guidance](#)

## LUNG

## HEART

## GI

## GU

## BONE/ SKIN

## SEVERE SYSTEMIC INFECTION SOURCE UNKNOWN