

# Management of Infections in Adult Patients

## Short Guide to Antimicrobial Recommendations in SEPSIS of known source

For management of SEPSIS of unknown source in Adult Patients – see separate poster



Scan QR code for Clinical Decision Support on IV to oral antibiotic switch

If in doubt, please contact the on-call Microbiologist through switchboard, or the Antimicrobial pharmacist team (available Monday-Friday 9am-5pm)

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Not sure which antimicrobial pharmacist is around? Call the office on 01522 573735



Scan QR code for direct access to the full guidelines on MicroGuide

Access ULHT antimicrobial guidelines via the Microguide App (through App store or Google Play, and select **Lincolnshire STP** guides), or via the **ULHT Intranet antibiotic pages** (also holds Microguide webviewer links, ULHT gentamicin calculator, educational videos and much more).

### CNS INFECTIONS

**Meningitis:** Cefotaxime 2g 6 hourly IV or Ceftriaxone 2g 12 hourly IV. Refer to Antimicrobial Guidelines if severe penicillin allergy.

If >55yr old, or significantly immunocompromised ADD Amoxicillin 2g 4 hourly IV. Refer to Antimicrobial Guidelines if severe penicillin allergy.

**HSV encephalitis:** Aciclovir 10mg/kg IBW 8 hourly IV.

### SUSPECTED ENDOCARDITIS (initial empirical treatment)

Take 3 sets of blood cultures over an hour and URGENTLY contact Consultant Microbiologist BEFORE starting treatment.

**Native valve:** If indolent presentation: Amoxicillin 2g 4 hourly IV. If penicillin allergy, or for acute/severe presentation: Vancomycin IV (target blood level 15-20mg/L) + gentamicin 1mg/kg IBW 12 hourly IV (NOT once daily regimen).

**Prosthetic valve or Intracardiac Prosthesis:** Vancomycin IV (target blood level 15-20mg/L) + gentamicin 1mg/kg IBW 12 hourly IV (NOT once daily regimen) + rifampicin 600mg 12 hourly IV/PO.

### URINARY INFECTIONS

Check previous cultures & sensitivity results

Specify type of UTI, and document diagnosis based on clinical signs and symptoms. Remember, negative urine dip rules out urinary infection. If positive urine dip, send MSU sample to microbiology.

For patients aged >65 and in all catheter associated UTI (CAUTI), diagnosis rationale should not include positive urine dipstick result.

**Pyelonephritis / Urinary Sepsis:** Co-amoxiclav 1.2g 8 hourly IV. If minor penicillin allergy (rash): Cefuroxime 1.5g 8 hourly IV. If severe penicillin allergy: Ciprofloxacin 400mg 12 hourly IV.

Consider need for gentamicin IV STAT, if signs of systemic sepsis

### SOFT TISSUE INFECTIONS

**Cellulitis/Erysipelas (non-facial) severe, or signs of sepsis:** Flucloxacillin 2g 6 hourly IV.

If penicillin allergy: Clarithromycin 500mg 12 hourly IV/PO.

If high risk MRSA: Vancomycin IV (target blood level 10-15mg/L).

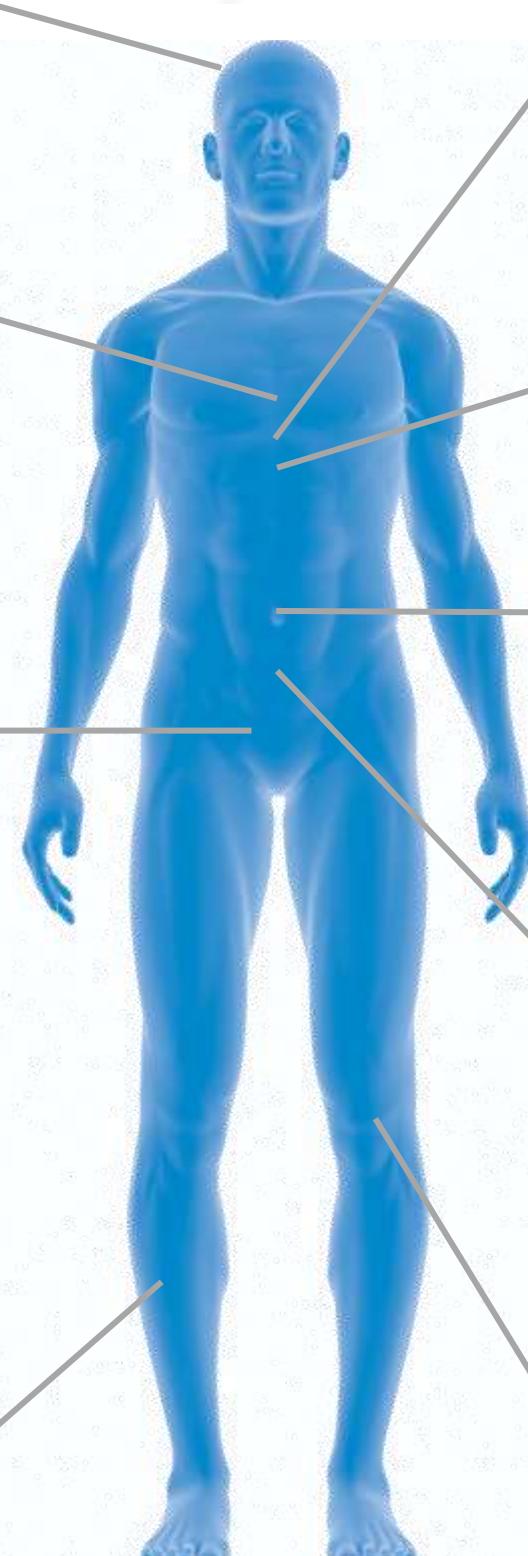
**Necrotising Fasciitis:** requires URGENT surgical debridement and discussion with consultant microbiologist. Meropenem 2g 8 hourly IV + clindamycin 1.2g 6 hourly IV. If severe penicillin allergy: Vancomycin IV (target blood level 15-20mg/L) + Clindamycin 1.2g 6 hourly IV + Ciprofloxacin 12 hourly IV.

**Leg ulcers or Diabetic Foot infection and signs of sepsis:** IF no antibiotics within 90 days: Flucloxacillin 2g 6 hourly IV + Metronidazole 500mg 8 hourly IV

If penicillin allergy: Co-trimoxazole 960mg 12 hourly IV + Metronidazole 500mg 8 hourly IV.

**Leg ulcers or Diabetic Foot infection and signs of sepsis:** IF recent antibiotic therapy, document detail and timeframe clearly in notes before using: Co-amoxiclav 1.2g 8 hourly IV. If penicillin allergy: Clindamycin 600mg 6 hourly IV + Ciprofloxacin 400mg 12 hourly IV.

2022



See antimicrobial guidelines for further detail such as calculating Ideal Body Weight (IBW), Vancomycin and Gentamicin dosing and monitoring, etc.

### COMMUNITY-ACQUIRED PNEUMONIA

Clinical or X-ray evidence of lobar consolidation required. Refer to CAP Bundles. Send urine sample for antigen testing.

Treat as HAP if >72 hours post admission, or recent discharge from a hospital setting <14 days.

**Severe:** CURB ≥ 3 (or Pa O<sub>2</sub> <8 kPa or Sa O<sub>2</sub> <92% on any Fi O<sub>2</sub>): Co-amoxiclav 1.2g 8 hourly IV + clarithromycin 500mg 12 hourly IV/PO.

If minor penicillin allergy (rash): Cefuroxime 1.5g 8 hourly IV + clarithromycin 500mg 12 hourly IV/PO.

If severe penicillin allergy: Levofloxacin 500mg 12 hourly IV/PO.

### HOSPITAL-ACQUIRED PNEUMONIA

Treat as HAP if >72 hours post admission, or recent discharge from a hospital setting <14 days.

**Severe symptoms/signs:** Piperacillin/tazobactam 4.5g 8 hourly IV.

If minor penicillin allergy (rash): Ceftazidime 2g 8 hourly IV.

If severe penicillin allergy: Co-trimoxazole 1.44g 12 hourly IV.

If high risk MRSA ADD Vancomycin IV (target blood level 10-15mg/L).

### ABDOMINAL INFECTIONS

**Acute surgical abdomen:** Includes sepsis related to Appendicitis, acute Cholangitis, Cholecystitis, Diverticulitis, Peritonitis (where not dialysis associated), and Hepato-biliary infection: Co-amoxiclav 1.2g 8 hourly IV. If slow response, ADD Metronidazole 500mg 8 hourly IV for 48-72 hours then review. If minor penicillin allergy (rash): Cefuroxime 1.5g 8 hourly IV + metronidazole 500mg 8 hourly IV.

If severe penicillin allergy, or high risk MRSA: Vancomycin IV (target blood level 10-15mg/L) + metronidazole 500mg 8 hourly IV + Ciprofloxacin 400mg 12 hourly IV.

Consider need for gentamicin IV STAT, if signs of systemic sepsis.

### ABDOMINAL INFECTIONS C. difficile associated diarrhoea

Seek urgent multidisciplinary team input (Microbiologist, gastroenterologist, surgeon, pharmacist, dietitian).

Frequency of stools is not a reliable indicator of severity.

Severe infection indicators include WCC >15, acute rise (>50% from baseline) in serum Cr, pyrexia, evidence of severe colitis (abdominal or radiological signs): Vancomycin 125mg 6 hourly PO.

If ineffective increase dose to Vancomycin 250mg 6 hourly PO

### BONE & JOINT INFECTIONS

**Osteomyelitis OR septic Arthritis OR septic bursitis:**

Low risk MRSA: Flucloxacillin 2g 6 hourly IV

If penicillin allergy, or high risk MRSA: Vancomycin IV (target blood level 15-20mg/L).

**Open Fractures:** Co-amoxiclav 1.2g IV loading then 8 hourly If minor penicillin allergy (rash): Cefuroxime 1.5g 8 hourly IV + metronidazole 500mg 8 hourly IV.

If severe penicillin allergy: Discuss with microbiologist.

If high risk MRSA ADD Vancomycin IV (target blood level 15-20mg/L).

Teicoplanin (target blood level 20-40mg/L) may be used in place of Vancomycin depending on stock being accessible, renal function, etc.