Management of Infections in Adult Patients
Short Guide to First-Line Antimicrobial Recommendations

BEFORE PRESCRIBING ANTIMICROBIALS, ADEQUATE CULTURES AND RELEVANT SAMPLES SHOULD BE TAKEN WHERE POSSIBLE.
ALSO TAKE INTO ACCOUNT:
Drug allergies & sensitivities | Drug-drug and –food interactions | Contraindications | Recent antibiotic use | Clostridium *difficile* risk
Ideal Body Weight (IBW) | Renal Function | Hepatic Function | Past Medical History

PIPERACILLIN/TAZOBACTAM AND MEROPENEM ARE HEAVILY RESTRICTED ANTIBIOTICS.
ANY USE OUTSIDE THE ANTIMICROBIAL GUIDELINES REQUIRES MICROBIOLOGY APPROVAL WITHIN 24 HOURS OF INITIATION
PHARMACY WILL LIMIT SUPPLY TO 24 HOURS IF APPROPRIATE INDICATION OR MICROBIOLOGY APPROVAL IS NOT MADE CLEAR ON THE PRESCRIPTION.

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

In cases of Neutropenic Sepsis, high risk of MRSA, or high risk of ESBL – refer to the full version of the antimicrobial guidelines, via the ULHT intranet.
For further advice please contact Consultant Microbiologist via Switchboard.

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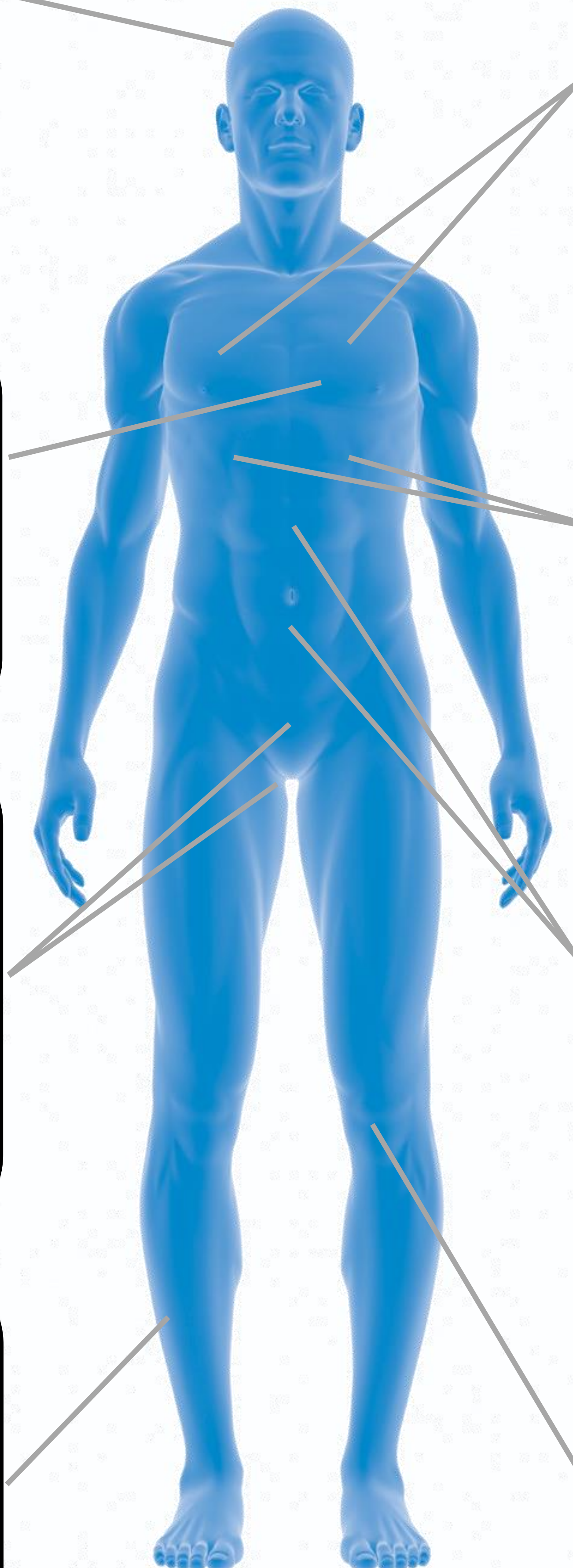

CNS INFECTIONS

Meningitis:
Cefotaxime* 2g 6 hourly IV.
Refer to Antimicrobial Guidelines if severe penicillin allergy.
If >55yr old, or pregnant, or immune dysfunction ADD amoxicillin 2g 4 hourly IV.
Refer to Antimicrobial Guidelines if penicillin allergy.

Brain abscess:
Cefotaxime 2g 6 hourly IV + metronidazole 500mg 8 hourly IV and refer to Neurosurgeon.
Refer to Antimicrobial Guidelines if severe penicillin allergy.
If previous neurosurgery: Meropenem 2g 8 hourly IV + vancomycin IV (see Antimicrobial Guidelines for dosing) and refer to Neurosurgeon.
If severe penicillin allergy contact Consultant Microbiologist.

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

SUSPECTED ENDOCARDITIS (initial blind treatment)

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

Native valve: Indolent: Amoxicillin 2g 4 hourly IV
If penicillin allergic use vancomycin (see Antimicrobial Guidelines for dosing) + gentamicin1mg/kg IBW 12 hourly IV (NOT once daily regimen).

Prosthetic valve: Vancomycin (see Antimicrobial Guidelines for dosing) + gentamicin 1mg/kg IBW 12 hourly IV (NOT once daily regimen) + rifampicin 600mg 12 hourly IV or PO.

URINARY INFECTIONS

Pyelonephritis / Urinary Sepsis (check previous cultures & sensitivity results): Co-amoxiclav 1.2g 8 hourly IV.
If penicillin allergic use ciprofloxacin 500mg 12 hourly PO.

Epididymo-orchitis:
Suspecting STI? Ceftriaxone* 500mg single dose IM or IV + doxycycline 100mg 12 hourly PO. If gonorrhoea likely, ADD azithromycin 1g stat PO.
* If penicillin allergic contact Consultant Microbiologist.
Not suspecting STI? Co-amoxiclav 625mg 8 hourly PO (Consider 1.2g 8 hourly IV if unwell).
If penicillin allergic, refer to Antimicrobial Guidelines.

Acute Prostatitis:
Ciprofloxacin 500mg PO (or 400mg IV) 12 hourly **if not tried in primary care**, otherwise contact Consultant Microbiologist.

SOFT TISSUE INFECTIONS

Cellulitis (no known MRSA colonisation):
Flucloxacillin 1g 6 hourly PO (or 2g 6 hourly IV if severe) and **then** follow algorithm in Antimicrobial Guidelines
If penicillin allergic refer to algorithm in Antimicrobial Guidelines

Necrotising fasciitis: URGENT debridement
Meropenem* 2g 8 hourly IV + clindamycin 1.2g 6 hourly IV.
*If **severe** penicillin allergic contact Consultant Microbiologist.

Surgical wound infections:
Gastrointestinal or genitourinary tract surgery:
Co-amoxiclav 625mg 8 hourly PO.
If penicillin allergic contact Consultant Microbiologist.
Clean surgery not involving GU/GI tract:
Flucloxacillin 500mg 6 hourly PO.

Ideal Body Weight (IBW) Calculations

Female IBW = 45 + (0.91 x (ht. in cm – 152.4))
Male IBW = 50 + (0.91 x (ht. in cm – 152.4))
If patient < 150cm tall, use IBW = 45kg (females), 50kg (males)

COMMUNITY-ACQUIRED PNEUMONIA

If pneumonia developed in hospital setting, refer to guidance for Hospital-Acquired Pneumonia instead.

Urinary antigen testing advised for Community-Acquired Pneumonia, to guide 72 hour review.

CURB 0-1: Amoxicillin 500mg to 1g 8 hourly PO.
If penicillin allergic use Doxycycline 200mg loading dose on day 1, then 100mg 24 hourly PO from day 2.

CURB 2: Amoxicillin 500mg to 1g 8 hourly PO + clarithromycin 500mg 12 hourly PO.
If penicillin allergic use doxycycline 100mg 12 hourly PO OR clarithromycin 500mg 12 hourly PO as single agent.

CURB ≥ 3: Co-amoxiclav 1.2g 8 hourly IV + clarithromycin 500mg 12 hourly PO (give IV only if PO route is not available).
If **minor** penicillin allergic (rash) use cefuroxime 1.5g 8 hourly IV + clarithromycin 500mg 12 hourly PO (only give IV if PO route is not available).
If **severe** penicillin allergic use levofloxacin 500mg 12 hourly (only give IV if PO route is not available).

HOSPITAL-ACQUIRED PNEUMONIA

≤ 5d onset: if mild: Doxycycline 100mg 12 hourly PO

<5d onset: if moderate: Co-amoxiclav 1.2g 8 hourly IV.
If **minor** penicillin allergic (rash) use cefuroxime 1.5g 8 hourly IV.
If **severe** penicillin allergic contact Consultant Microbiologist.

>5d onset or severe: Piperacillin/tazobactam 4.5g 8 hourly IV.
If **minor** penicillin allergic (rash) use ceftazidime 2g 8 hourly IV + metronidazole 500mg 8 hourly IV.
If **severe** penicillin allergic contact Consultant Microbiologist.

ABDOMINAL INFECTIONS

Acute surgical abdomen: Includes Appendicitis, Cholecystitis, Diverticulitis, Peritonitis, Hepato-biliary sepsis:
Co-amoxiclav 1.2g 8 hourly IV.
If **minor** penicillin allergic (rash), use cefuroxime 1.5g 8 hourly IV + metronidazole 500mg 8 hourly IV.
If **severe** penicillin allergic use vancomycin IV + metronidazole 500mg 8 hourly IV + gentamicin IV (see antimicrobial guidelines for vancomycin and gentamicin dosing).
Substitute Ciprofloxacin 400mg 12 hourly IV for the gentamicin if concerned about nephrotoxicity or AKI (500mg 12 hourly PO once able to absorb).

G.I. bleed secondary to hepatic cirrhosis:
Co-amoxiclav 1.2g 8 hourly IV OR Ciprofloxacin 400mg 12 hourly

BONE & JOINT INFECTIONS

Osteomyelitis OR septic Arthritis: Flucloxacillin 2g 6 hourly IV and refer to Antimicrobial Guidelines for addition of second agent. For penicillin allergic patients, or those with prosthetic materials, discuss with Consultant Microbiologist.

Discitis: Ciprofloxacin 500mg 8 hourly PO (or 400mg 8 hourly iv) + rifampicin 600mg 12 hourly PO or IV.

Open Fractures: Flucloxacillin 2g 6 hourly IV + metronidazole 500mg 8 hourly IV (+ gentamicin 160mg stat IV if visibly soiled).
If **minor** penicillin allergic (rash) use cefuroxime 1.5g 8 hourly IV + metronidazole 500mg 8 hourly IV (+ gentamicin 160mg stat IV if visibly soiled).
If **severe** penicillin allergic or MRSA risk refer to Antimicrobial Guidelines.