

# Surgical antimicrobial prophylaxis

## All IV single doses unless stated

# L4 OR & L8 OR

### CONSIDERATIONS

#### When to give

Give **cefazolin** over 10 minutes to complete 0-60 min before incision. **Vancomycin** infusion should complete 30 min before or after incision.

#### Obesity ( $\geq 120\text{kg}$ or $\text{BMI} \geq 35\text{kg/m}^2$ )

Increase cefazolin dose to 3g

#### MRSA colonised/infected

cephalosporin **PLUS** either vancomycin 15mg/kg or clindamycin 600mg

#### ESBL colonised/infected

Seek advice from ID or Clinical Microbiology for intra-abdominal surgeries only

#### Antibiotic Allergy

**Immediate hypersensitivity to penicillin or another cephalosporin**

Use cefazolin 2g

#### Immediate hypersensitivity to cefazolin

Use cefuroxime 1.5g

#### Delayed hypersensitivity to penicillin or cephalosporin

Intra-abdominal **replace** cefazolin with gentamicin 3mg/kg (LBW) (Max 240mg)

All others **replace** cefazolin with vancomycin 15mg/kg (ABW) (Max 2.5g) or clindamycin 600mg

#### When to redose (the same dose) with blood loss >1500mL or surgery >4 hours:

*Amoxicillin* every 4 hours  
*Cefazolin* every 4 hours  
*Cefuroxime* every 4 hours  
*Clindamycin* every 6 hours  
*Vancomycin* Discuss with ID/Micro  
*Metronidazole* every 12 hours  
*Gentamicin* not required

Continue current antimicrobial treatment regimens as scheduled peri-operatively

### CLEAN SURGERY

#### Antibiotic and dose

##### Neurosurgery

1. Craniotomy and CSF shunt insertion
2. Deep brain or spinal cord stimulation

cefazolin 2g

3. Spinal surgery with implants

cefazolin 2g then 1g q8h for up to 3 doses

##### Head and neck surgery

Thyroidectomy  
Para-thyroidectomy

None required

##### Cardiothoracic Surgery

1. Cardiac surgery
2. Thoracic surgery

See cardiothoracic specific table

3. Implantable cardiac device

cefazolin 2g

##### Breast Surgery

cefazolin 2g

##### Orthopaedics

1. Primary joint arthroplasty
2. Spinal surgery with implants
3. Open reduction internal fixation
4. Hemi-arthroplasty
5. Revision arthroplasty

cefazolin 2g then 1g q8h for up to 3 doses

##### Vascular surgery

1. Carotid endarterectomy
2. AV fistula
3. Abdominal aorta repair
4. Graft and stent insertions

cefazolin 2g

##### Hernia repair

- Hernioplasty or herniorrhaphy

cefazolin 2g

##### Solid organ transplantation

Unit -specific guidelines

### CLEAN-CONTAMINATED SURGERY

#### Antibiotic and dose

##### ORL involving head and neck cancers:

1. Breach in oral cavity
2. Irradiated skin
3. Elderly patient
4. Complex or previous surgery

cefazolin 2g and metronidazole 500mg

##### Other ORL:

5. Adenoidectomy
6. Tonsillectomy
7. Septoplasty
8. Functional endoscopic sinus surgery (FESS)
9. Complex rhinoplasty
10. Repair of CSF leak

None required

cefazolin 2g

##### Upper GI/HPB/Bariatric

1. Oesophagectomy
2. Gastrectomy
3. Pancreatectomy
4. Hepatectomy
5. Splenectomy
6. Open cholecystectomy

cefazolin 2g

##### Trauma with laparotomy

cefazolin 2g and metronidazole 500mg

##### Colorectal

1. Appendicectomy
2. Colectomy

cefazolin 2g and metronidazole 500mg

##### Plastic Surgery

cefazolin 2g

##### Urology

1. Nephrectomy
2. Prostatectomy
3. Urethroplasty
4. Scrotal surgery

cefazolin 2g

5. TURP, TURBT
6. Cystoscopy

cefazolin 2g or as per culture

7. Procedures with stones, stents, catheters or nephrostomies in situ

amoxicillin 2g and gentamicin 3mg/kg LBW

### CONTAMINATED/DIRTY/COMPLEX SURGERY

#### Antibiotic and dose

Other complex procedures above the diaphragm

cefazolin 2g and metronidazole 500mg

Other complex procedures below the diaphragm e.g. Peritonitis, Abscess drainage, Bowel anastomotic leak, Biliary procedures with existing stents

cefuroxime 1.5g and metronidazole 500mg and ongoing treatment

→ ESWL does not require prophylaxis unless MSU culture positive or stents or catheters in situ