

Surgical Antibiotic Prophylaxis Guidelines

Obstetrics / Gynaecology

Pre-Operative Considerations

Consider individual risk factors for every patient – need for prophylaxis, drug choice or dose may alter (e.g. immune suppression, presence of prostheses, allergies, obesity, diabetes, remote infection, available pathology or malignancy).

Pre-existing infections (known or suspected) – if present, use appropriate treatment regimen instead of prophylactic regimen for procedure. Doses should be scheduled to allow for re-dosing just prior to skin incision.

Before hysterectomy – screening for and treating bacterial vaginosis (BV) reduces BV-associated cuff infection.

Before surgical termination of pregnancy – screening for and treating Chlamydia trachomatis and BV reduces infectious complications.

Practice Points

Drug administration

- > IV bolus – should be timed \leq 60 minutes before skin incision (optimal 15 to 30 minutes). Commencing administration of any antibiotic after skin incision or completing administration of antibiotics > 60 minutes before incision reduces effectiveness.
- > IV infusion – should be commenced 30-60 minutes prior to skin incision (e.g. metronidazole, clindamycin). See below for vancomycin administration.

MRSA risk (defined as history of MRSA colonisation or infection, OR inpatient of metropolitan or other high risk hospital for more than the last five days)

- > Add vancomycin to cefazolin (see vancomycin administration below)

Clindamycin administration

- > Give clindamycin 600mg (child: 15mg/kg up to 600mg) by IV infusion over at least 20 minutes just before procedure. Repeat 4 hourly intra-operatively for prolonged procedures.

Vancomycin administration

- > Give vancomycin 1g (1.5g for patients > 80kg actual body weight) started 30 to 120 minutes before surgical incision and given at a recommended rate of 1g per hour (1.5g over 90 minutes). Note: Infusion can be completed after skin incision.

Gentamicin administration

Dosing should be based on ideal body weight, provided ideal body weight is *less* than actual body weight.

Repeat doses

A single pre-operative dose is sufficient for most procedures, however repeat intra-operative doses are advisable:

- > for prolonged surgery (> 4 hours from the time of first preoperative dose) when a short-acting agent is used (e.g. cefazolin), OR
- > if major blood loss occurs, following fluid resuscitation.

Obese patients

- > Consider increased dose of cefazolin (3g) if patient is obese (>120kg). Consult ID for advice.

Recommended Prophylaxis

	Recommended Prophylaxis	*High risk penicillin/cephalosporin allergy
Hysterectomy, laparotomy procedures, vaginal repair	cefazolin 2g IV 15-30 mins prior to incision PLUS either (for vaginal hysterectomy) metronidazole 500mg IV infusion OR tinidazole 2g PO as a single dose (6-12hrs prior to incision) <u>High risk of MRSA:</u> Add cefazolin with vancomycin 1g IV infusion (1.5g for patients > 80kg actual body weight)	clindamycin 600mg IV infusion PLUS gentamicin 2 mg/kg IV <u>High risk of MRSA:</u> Replace clindamycin with vancomycin 1g IV infusion (1.5g for patients > 80kg actual body weight)
Caesarean section	cefazolin 2g IV 15-30 mins prior to incision <u>High risk of MRSA:</u> Add cefazolin with vancomycin 1g IV infusion (1.5g for patients > 80kg actual body weight)	clindamycin 600mg IV infusion PLUS gentamicin 2mg/kg IV <u>High risk of MRSA:</u> Replace clindamycin with vancomycin 1g IV infusion (1.5g for patients > 80kg actual body weight)
Endoscopic procedures, IUD insertion, early suction termination, other minor procedures	Prophylaxis NOT recommended	

Recommended Prophylaxis

	Recommended Prophylaxis	*High risk penicillin/cephalosporin allergy
Surgical termination of pregnancy	doxycycline 400mg PO as a single dose (1hr prior to procedure) OR azithromycin 1g PO (1hr prior to procedure)	
Later term termination	As for hysterectomy (see on previous page)	

Post-Operative Care

Except where included above, post-operative antibiotics are NOT indicated unless infection is confirmed or suspected, regardless of the presence of surgical drains

If infection is suspected, consider modification of antibiotic regimen according to clinical condition and microbiological results.

Additional notes

Caesarian section: Traditionally administration of antibiotics after the cord is clamped has been common practice to avoid exposing the neonate to antibiotics. However, recent studies have shown lower surgical site infection rates, without compromising neonatal outcome, if prophylaxis is administered before skin incision.

Definitions / Acronyms

DRESS	Drug rash with eosinophilia and systemic symptoms
ID	Infectious Diseases
IV	Intravenous
MRSA	Methicillin-resistant <i>Staphylococcus aureus</i>
SJS / TEN	Stevens-Johnson syndrome / Toxic epidermal necrolysis

* High Risk penicillin/cephalosporin allergy: History suggestive of high risk (eg. anaphylaxis, angioedema, bronchospasm, urticaria, DRESS/SJS/TEN)

References

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