

Perioperative Antimicrobial Prophylaxis Guidelines for Adults

Antimicrobial Section and Dosing — 2009

Surgical Category	Pre-op Antimicrobial Agent	Comments
Gastrointestinal		
Biliary Tract, Gastroduodenal, Appendectomy (non-perforated), Colorectal	Cefotetan 2g IV x 1 or Cefoxitin 2g IV x 1 or Cefazolin 2g IV plus metronidazole 500mg IV	For cephalosporin or highly penicillin-allergic patients: clindamycin 900mg x 1 plus gentamicin 2mg/kg x 1 (max 250mg)
Orthopedic		
With prosthetic material or total joints	Cefazolin 2g IV x 1	Most clean procedures without prosthetic material do not require prophylaxis. For cephalosporin or highly penicillin-allergic patients, use vancomycin.
Vascular/ Thoracic	Cefazolin 2g IV x 1	For cephalosporin or highly penicillin-allergic patients, use vancomycin
Head and Neck		
With prosthetic material	Cefazolin 2g IV x 1	Most clean procedures without prosthetic material do not require prophylaxis.
Clean-contaminated (oral or pharyngeal mucosa is compromised)	Cefazolin 2g IV x 1 plus Clindamycin 900mg IV x 1	For cephalosporin or highly penicillin-allergic patients: clindamycin 900mg IV x 1 plus gentamicin 2mg/kg IV x 1 (max 250mg)
Neurosurgical	Cefazolin 2g IV x 1	For cephalosporin or highly penicillin-allergic patients, use vancomycin
Ob/Gyn		
Cesarean delivery with active labor or premature rupture of membranes	Cefazolin 2g IV x 1; or Ampicillin 2g plus gentamicin 2mg/kg x 1	For highly pen-allergic pts, give clindamycin 900mg IV x 1. Prior to skin incision.
Hysterectomy, Pubovaginal sling	Cefotetan 2g IV x 1 or Cefoxitin 2g IV x 1 or Cefazolin 2g IV x 1	For highly penicillin-allergic patients: clindamycin 900mg IV x 1 plus gentamicin 2mg/kg IV x 1 (max 250mg)
Urologic surgery		
Transrectal prostate biopsy	Ciprofloxacin 400mg IV or Cefotetan 2g IV x 1	For highly pen-allergic pts use gentamicin plus metronidazole in lieu of cefotetan
Penile prosthesis insertion or revision	Unasyn 3 gm IV x 1; or Cefazolin 2 gm IV x 1 plus Gentamicin 2mg/kg IV x 1	For highly pen-allergic patients use gentamicin + either vancomycin or clindamycin

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Comments:

-All pre-op cephalosporins must be administered within 60 minutes of incision; for vancomycin, within 120 minutes of incision. Vancomycin dose is 1 gram, or 1.5 gram if patient weight is over 100kg. *Vancomycin must be infused over 60-90 minutes.*

-For patients with known or likely colonization with MRSA, or previous MRSA infection, vancomycin should be used.

-For all procedures in which cefazolin or ceftiofen is administered, a repeat dose should be given if the procedure lasts >3 hrs.

-For all procedures in which cefotetan is administered, a repeat dose should be given if procedure lasts > 4 hrs.

-Post-operative doses are generally not needed. If given, they should be limited to less than 24 hours post-op (usually one dose).

Endocarditis prophylaxis:

For adults with prosthetic heart valves, previous endocarditis, or other conditions requiring endocarditis prophylaxis (Circulation 118:887, 2008)

Procedure	Agent	Penicillin allergy
Dental, Oral, Respiratory Tract, or Esophageal	Ampicillin 2g IV or IM x 1 or Amoxicillin 2g PO x 1	Clindamycin 600mg IV or Cefazolin 1g IV/IM x 1 or Clindamycin 600mg PO or Cephalexin 2g PO x 1
Genitourinary/ Gastro-intestinal surgery	<u>Not routinely recommended</u>	<u>Not routinely recommended</u>

Comments:

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Genitourinary/ Gastro-intestinal surgery	<u>Not routinely recommended</u>	<u>Not routinely recommended</u>

Stamford Hospital Antibigram — 2009 (percent of strains susceptible, MIC in mcg/ml)

ORGANISM	# STRAINS	AMP	A/S	P/T	CFZ	CTN	CPE	CAZ	GM	T/S	CIP
		≤ 8	≤ 8/4	≤ 16	≤ 8	≤ 16	≤ 8	≤ 8	≤ 4	≤ 2/38	≤ 1
E. COLI	2564	51	55	97	87	99	98	97	90	72	77
CIT. FREUNDII	75	39	71	99	5	87	99	80	96	92	87
CIT. KOSERI	68	0	96	100	99	99	100	100	100	97	96
KLEB. PNEUMONIAE	554	7	83	94	92	99	97	96	97	89	94
KLEB. OXYTOCA	118	12	76	99	62	99	100	100	98	97	98
ENT. AEROGENES	69	16	59	91	9	86	99	90	100	93	97
ENT. CLOACAE	178	14	24	84	3	67	94	76	89	83	89
SER. MARCESCENS	104	12	12	91	0	98	99	98	97	96	89
PR. MIRABILIS	395	85	93	99	93	99	100	99	5	91	84
M. MORGANII	68	0	4	96	1	97	97	82	94	72	87
PS. AERUGINOSA	551	n/a	n/a	97	n/a	n/a	89	92	85	n/a	70
ACINETOBACTER	89	n/a	79	n/a	n/a	n/a	80	82	84	82	79
S. MALTOPHILIA	104	n/a	n/a	n/a	n/a	n/a	14	48	34	99	26
ORGANISM	# STRAINS	PEN	VA	OX	CFZ	E	CD	T/S	CIP		
		≤ .12	≤ 4	≤ 2	≤ 8	≤ 0.5	≤ 2/38	≤ 4	≤ 1		
STAPH AUREUS	1561	12	100	69	69	47	62	98	64		
STAPH EPIDERMIDIS	392	7	100	34	34	24	55	56	39		
ORGANISM	# STRAINS	AMP	VA	E	TE	CIP	LZD	SYN			
		≤ 8	≤ 4	≤ 0.5	≤ 4	≤ 1	≤ 2	≤ 1			
E. FAECALIS	78	97	96	27	27	55	100	3			
E. FAECIUM	138	2	6	2	38	3	95	94			

Stamford Hospital - Departments of Infectious Diseases and Microbiology, 2008.

203-276-7487, 203-276-7430

ORGANISM	# STRAINS	L VX	CD	E	CFT	VA	PEN	# STRAINS	# STRAINS	IMP	MET
		≤ 2	≤ .25	≤ 0.25	≤ 1	≤ 1	≤ 0.06	89		≤ 16	≤ 8
STREP. PNEUMONIAE	89	51	51	37	60	100	83			≤ 4	≤ 8
ORGANISM											
BACT. FRAGILIS	76	100	100	76	54	95	1				99

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