

## Perioperative Antimicrobial Prophylaxis Guidelines for Adults

### Antimicrobial Selection and Dosing — 2007

Surgical Category	Pre-op Antimicrobial Agent	Comments
<b>Gastrointestinal</b>		
Biliary Tract, Gastroduodenal, Appendectomy (non-perforated), Colorectal	Cefoxitin 2g IV x 1 or Cefotetan 2g IV x 1 or Cefazolin 2g IV plus metronidazole 500mg IV	For cephalosporin- or severely penicillin-allergic patients: clindamycin 900mg x 1 plus gentamicin 2mg/kg x 1 (max 250mg)
<b>Orthopedic</b>		
With prosthetic material or total joints	Cefazolin 2g IV x 1	Most clean procedures without prosthetic material do not require prophylaxis. For cephalosporin- or severely penicillin-allergic patients, use vancomycin.
<b>Vascular/ Thoracic</b>	Cefazolin 2g IV x 1	For cephalosporin or severely penicillin-allergic patients, use vancomycin
<b>Head and Neck</b>		
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 severely penicillin-allergic patients: clindamycin 900mg IV x 1 plus gentamicin 2mg/kg IV x 1 (max 250mg)
<b>Neurosurgical</b>	Cefazolin 2g IV x 1	For cephalosporin- or severely penicillin-allergic patients, use vancomycin
<b>Ob/Gyn</b>		
Cesarean delivery with active labor or premature rupture of membranes	Cefazolin 2g IV x 1 or Ampicillin 2g plus gentamicin 2mg/kg x 1	Prophylaxis should be given immediately after the umbilical cord is clamped.
Hysterectomy	Cefoxitin 2g IV x 1 or Cefotetan 2g IV x 1 or Cefazolin 2g IV x 1	For cephalosporin- or severely penicillin-allergic patients: clindamycin 900mg IV x 1 plus gentamicin 2mg/kg IV x 1 (max 250mg)

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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 ceftiofloxacin 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.

-For adults with prosthetic heart valves, previous endocarditis, or other conditions requiring endocarditis prophylaxis (Circulation 2007. doi: 0.1161/CIRCULATION.AHA.106.183095):

## Endocarditis prophylaxis:

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>Nor routinely recommended</u>

## Comments:

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-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.

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Genitourinary/ Gastro-intestinal surgery	<u>Not routinely recommended</u>	<u>Nor routinely recommended</u>

## Stamford Hospital Antibigram — 2007 (percent of strains susceptible, MIC in mcg/ml)

ORGANISM	# STRAINS	AMP	A/S	P/T	PIP	CFZ	CTN	CPE	CFT	GM	T/S	CIP
		≤ 8	≤ 8/4	≤ 16	≤ 16	≤ 8	≤ 16	≤ 8	≤ 8	≤ 4	≤ 2/38	≤ 1
E. COLI	1690	51	59	98	55	90	99	98	98	92	70	79
CIT. FREUNDII	60	55	82	98	83	10	92	100	90	95	83	90
CIT. KOSERI	51	0	92	100	67	92	94	100	98	100	94	96
KLEB. PNEUMONIAE	397	10	81	95	79	91	99	96	95	96	89	93
KLEB. OXYTOCA	73	19	89	100	88	81	100	100	100	99	99	96
ENT. AEROGENES	51	27	73	98	90	20	88	100	98	98	98	98
ENT. CLOACAE	174	15	45	95	82	3	76	98	85	97	90	93
SER. MARCESCENS	105	14	14	97	92	0	98	99	93	98	97	96
PR. MIRABILIS	322	87	91	100	93	90	99	99	99	97	89	81
M. MORGANII	70	1	6	100	93	3	100	100	96	96	80	86
PS. AERUGINOSA	540	n/a	n/a	94	93	n/a	n/a	86	16	76	n/a	68
ACINETOBACTER	97	n/a	87	x	61	n/a	n/a	65	38	73	77	69
S. MALTOPHILIA	102	n/a	n/a	x	x	n/a	n/a	24	19	23	97	24
ORGANISM	# STRAINS	PEN	VA	OX	CFZ	E	CD	T/S	TE	CIP		
		≤ .12	≤ 4	≤ 4	≤ 8	≤ 0.5	≤ 0.5	≤ 2/38	≤ 4	≤ 1		
STAPH AUREUS	1340	11	100	65	65	45	58	98	91	64		
STAPH EPIDERMIDIS	393	8	99	34	34	24	55	59	85	37		
ORGANISM	# STRAINS	AMP	VA	E	TE	CIP	LZD	SYN				
		≤ 8	≤ 4	≤ 0.5	≤ 4	≤ 1	≤ 2	≤ 1				
E. FAECALIS	39	100	96	15	28	64	100	0				
E. FAECIUM	74	5	2	4	73	5	91	92				

Stamford Hospital - Departments of Infectious Diseases and Microbiology, 2007.

203-276-7487, 203-276-7430

# STRAINS	LVX	CD	LVX	E	CD	IMP
	≤ 2	≤ .25	≤ 2	≤ 0.25	≤ 16	≤ 4
	95	63	95	40	82	98
	73	40	73	30	0	33
	100	100	100	30	0	94
	43	43	43	30	0	94
	51	51	51	0	0	98

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