

Appropriate Antibiotic Selection

For the Most Common Bacterial Organisms

- (+) Gram Positive
- (-) Gram Negative
- (*) Anaerobes
- (~) Atypical

Meningitis

Young Adults: (+)
N. meningitidis
Strep. pneumoniae

Older Adults:
Strep. Pneumoniae
N. meningitidis
L. monocytogenes

(+) (*)

Otitis
Sinusitis
Pharyngitis

Pneumonia *

(+) (-) (*) (~)

HAPI/HCAP **VAP**
E.coli
Klebsiella
Enterobacter
Pseudomonas
Acinetobacter
S aureus
MRSA
Atypical
Legionella
Mycoplasma
HCAP

Follow Guidelines:
CAP: IDSA/ATS 2007 Guidelines for CAP
HAP: Am J Respir Crit Care Med ; 2005

Cholecystitis (-) (~)

Enterobacter spp. E. coli,
Klebsiella, E. faecalis
Enterococcus, Salmonella
Clostridium, Bacteroides,
Vibrio vulnificans

Gastroenteritis

Salmonella, (-) (*)
Shigella,
Campylobacter,
Aeromonas
Yersinia enterocolitica
E. coli (EHEC)
E. coli (EAEC)
E. coli (EPEC)
E. coli (VTEC-O157)
Clostridium diff.

Urinary Tract Infection

(-) (+) (*) (~)
E. coli (75%)
Klebsiella, Proteus,
Enterobacter (10-15%)
Pseudomonas, Serratia,
Citrobacter, Staph. Aureus
Staph. saprophyticus (5 to 10%)
E. faecalis (GDS), Strep. agalactiae (GAS)
Rare: Anaerobes, Salmonella, Leptospira
Mycoplasma, Chlamydia,
Morganella morganii

Cellulitis (+) (-) (*)

Streptococcus pyogenes (65%)
Staphylococcus aureus (35%)
Rare: Pseudomonas aeruginosa,
Haemophilus influenza
Human Bites: Anaerobes,
Eikenella, Strep. viridans
Cat or Dog: Pasteurella multocida
Salt Water injury: Vibrio vulnificus
Fresh water injury: Aeromonas

(+) (-) (*) (~)

Osteomyelitis

Most Common: Staph. aureus
Foreign Body: Coag-neg
Staph, Propionibacterium
Nosocomial: Pseudomonas,
Enterobacteriaceae,
Human mouth, Diabetic foot,
Decubitus ulcers:
Streptococci, Anaerobes
Sickle cell disease:
Salmonella, Pneumococcus
HIV: Bartonella henselae
Human or animal bites:
Pasteurella , Eikenella
Immunocompromised:
Aspergillus, MAC, Calixans
Geographic: MTB, Brucella,
Coccidia

(+) (*) (-)

Bacterial Endocarditis *

Strep. viridans (50%–80%)
Staph. Aureus (50% acute), MRSA
Staph. epidermidis (20%–30%)
Enterococci (5%–15%)
HLA-B* :
H. parainfluenza, H. aphrophilus,
Actinobacillus actinomycetemcomitans
Cardiobacterium, Eikenella, Kingella
Brucella , Enterococci, Coxiella burnetii

Follow Guidelines:
Circulation. 2005; 111: 3167-3184
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MRSA	Gram Positive (+)	Gram Negative (-)	PsMo	Anaerobes (*)	Atypical (~)
	VANCOMYCIN				
	DAPTOMYCIN (VISA, VRSA, VRE)			(ZOSYN)	
	LINEZOLID (po) (VISA, VRSA, VRE)			(UNASYN) (AUGMENTIN)	
		PIPERACILLIN—TAZOBACTAM AMPIICILLIN/SULBACTAM AMOXICILLIN/CLAVULINIC ACID AZTREONAM			
		IMIPENEM, MEROPENEM, DORIPENEM			
		COLISTIN			
	CEFAZOLIN (1G)			CEFOX; TETAN (2G)	
	CEFTRIAXONE, CEFOTAXIME, CEFPODOXIME (3G)				
	CEFTAZIDIME (3G)				
	CEFEPIME (4G)				
	BACTRIM (TMP-SMX)				
	MOXIFLOXACIN			MOXIFLOXACIN	
	LEVOFLOXACIN			LEVOFLOX	
	CIPROFLOXACIN			CIPROFLOX	
	DOXYCYCLINE			DOXYCYCLINE	
	TIGECYCLINE			TIGECYCLINE	
	AZITHROMYCIN				AZITHRO
	ERYTHROMYCIN				
	CLINDAMYCIN			CLINDAMYCIN	
		GENTAMYCIN			
		TOBRAMYCIN			
		AMIKACIN			
				METRONIDAZOLE	

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