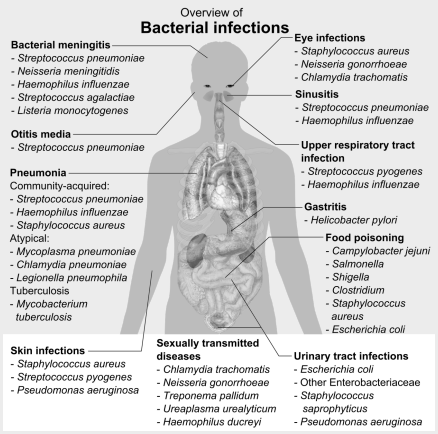
Bacterial Infections Based on Bugs



When Prophylaxis is Appropriate

Prosthetic heart valve/valvular disease + dental/oral procedures
- infective endocarditis
- GU/GI procedures
Rheumatic fever (recurrence)
People in contact with meningococcal disease
Surgical
People at high risk/in contact with TB
People at high risk/in contact with HIV

Medically Important Microorganisms

G+/G- cocci
G+/G- bacilli
Anaerobes
Spirochetes
Mycoplasma
Chlamydia

General AE of ABX

Vomiting
Severe watery diarrhea
Abdominal cramps
Allergic rxn

Antibiotic Spectra

Narrow Spectrum	Active against single or limited group of microorganisms
Extended Spectrum	Effective against G+ and some G-
Broad Spectrum	Effective against both G+ and G-

Static Vs. Cidal

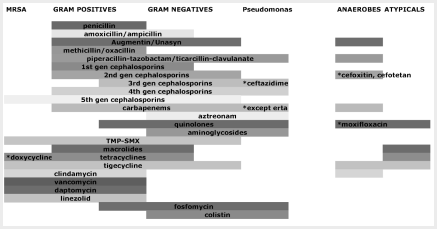
Bacteriostatics	**Bactericidal**
inhibit growth without causing death	*Kill* bacteria
Sulfonamides *(DNA synthesis)*, Chloramphenicol *(transcription and translation)*	PCN (cell wall inhibitor)
Relies on INTACT immune system to clear nongrowing/viable bacteria	Can be given to patients with COMPROMISED immunity

Empiric Treatment - Match the Bug to Location

G+ cocci	Skin
G- bacilli	Urethras
G+, G-, anaerobes	Large Intestine

Drug Distribution

Antibiotic Activity



Site of Action of ABX

Cell Wall Inhibitors	Fosfomycin Cycloserine Vanco PCN CPN Monobactams Carbapenems Ethambutol Pyrrazinamide Isoniazid
DNA Synthesis & Integrity Inhibitors	Sulfonamides Trimethoprim Quinolones
Transcription & Translation Inhibitors	Rifampin AGs Spectinomycin Tetracyclines Macrolides Chloramphenicol Streptogramins Oxazolidinones

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