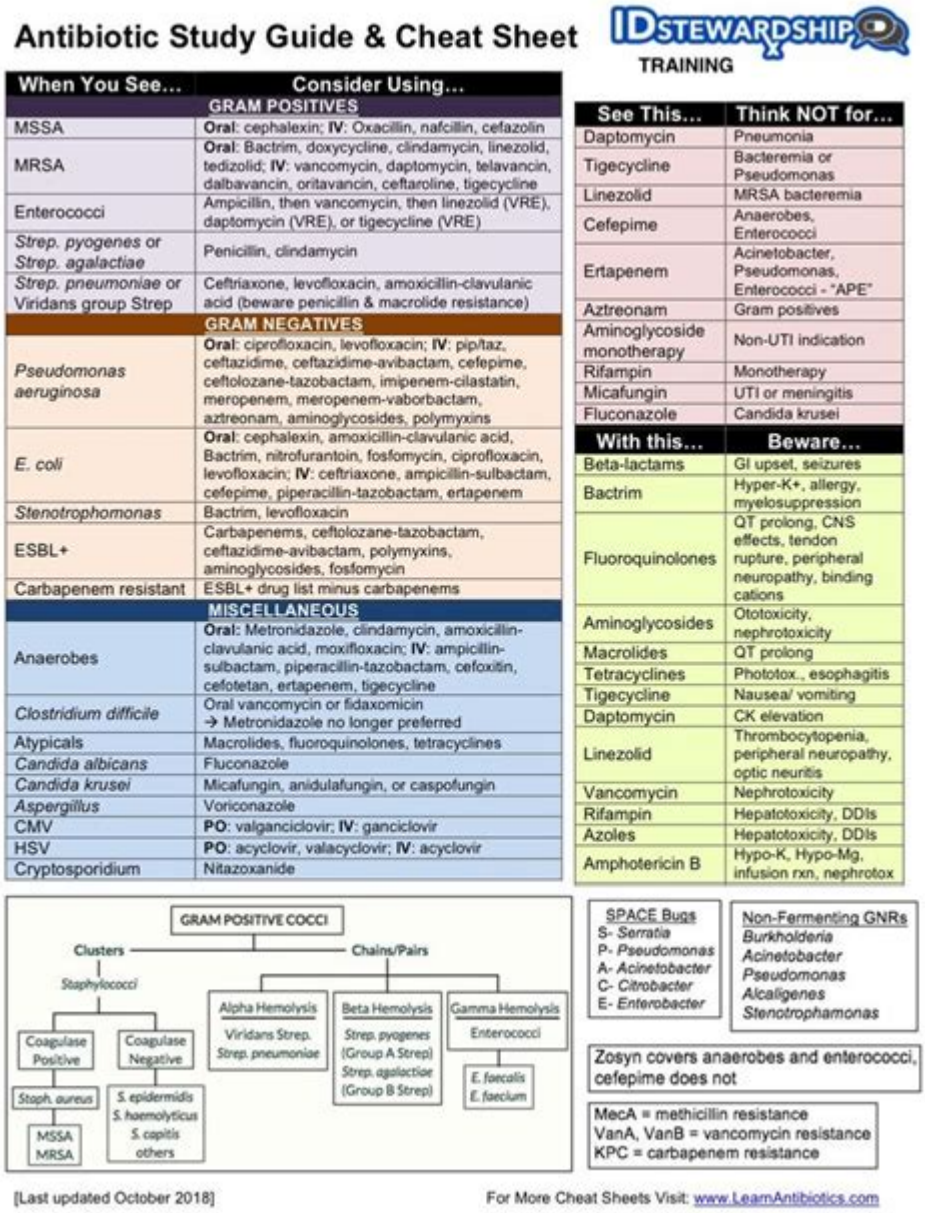
Antibiotic Cheat Sheet For Np



Antibiotic Study Guide & Cheat Sheet

IDSTEWARDSHIP TRAINING

When You See…	Consider Using…
GRAM POSITIVES	
MSSA	**Oral**: cephalexin; **IV**: Oxacillin, nafcillin, cefazolin
MRSA	**Oral**: Bactrim, doxycycline, clindamycin, linezolid, tedizolid; **IV**: vancomycin, daptomycin, telavancin, dalbavancin, oritavancin, ceftaroline, tigecycline
Enterococci	Ampicillin, then vancomycin, then linezolid (VRE), daptomycin (VRE), or tigecycline (VRE)
Strep. pyogenes or *Strep. agalactiae*	Penicillin, clindamycin
Strep. pneumoniae or Viridans group Strep	Ceftriaxone, levofloxacin, amoxicillin-clavulanic acid (beware penicillin & macrolide resistance)
GRAM NEGATIVES	
Pseudomonas aeruginosa	**Oral**: ciprofloxacin, levofloxacin; **IV**: pip/taz, ceftazidime, ceftazidime-avibactam, cefepime, ceftolozane-tazobactam, imipenem-cilastatin, meropenem, meropenem-vaborbactam, aztreonam, aminoglycosides, polymyxins
E. coli	**Oral**: cephalexin, amoxicillin-clavulanic acid, Bactrim, nitrofurantoin, fosfomycin, ciprofloxacin, levofloxacin; **IV**: ceftriaxone, ampicillin-sulbactam, cefepime, piperacillin-tazobactam, ertapenem
Stenotrophomonas	Bactrim, levofloxacin
ESBL+	Carbapenems, ceftolozane-tazobactam, ceftazidime-avibactam, polymyxins, aminoglycosides, fosfomycin
Carbapenem resistant	ESBL+ drug list minus carbapenems
MISCELLANEOUS	
Anaerobes	**Oral:** Metronidazole, clindamycin, amoxicillin-clavulanic acid, moxifloxacin; **IV**: ampicillin-sulbactam, piperacillin-tazobactam, cefoxitin, ertapenem, tigecycline
Clostridium difficile	Oral vancomycin or fidaxomicin → Metronidazole no longer preferred
Atypicals	Macrolides, fluoroquinolones, tetracyclines
Candida albicans	Fluconazole
Candida krusei	Micafungin, anidulafungin, or caspofungin
Aspergillus	Voriconazole
CMV	**PO**: valganciclovir; **IV**: ganciclovir
HSV	**PO**: acyclovir, valacyclovir; **IV**: acyclovir
Cryptosporidium	Nitazoxanide

See This…	Think NOT for…
Daptomycin	Pneumonia
Tigecycline	Bacteremia or Pseudomonas
Linezolid	MRSA bacteremia
Cefepime	Anaerobes, Enterococci
Ertapenem	Acinetobacter, Pseudomonas, Enterococci - "APE"
Aztreonam	Gram positives
Aminoglycoside monotherapy	Non-UTI indication
Rifampin	Monotherapy
Micafungin	UTI or meningitis
Fluconazole	Candida krusei
With this…	**Beware…**
Beta-lactams	GI upset, seizures
Bactrim	Hyper-K+, allergy, myelosuppression
Fluoroquinolones	QT prolong, CNS effects, tendon rupture, peripheral neuropathy, binding cations
Aminoglycosides	Ototoxicity, nephrotoxicity
Macrolides	QT prolong
Tetracyclines	Phototox., esophagitis
Tigecycline	Nausea/ vomiting
Daptomycin	CK elevation
Linezolid	Thrombocytopenia, peripheral neuropathy, optic neuritis
Vancomycin	Nephrotoxicity
Rifampin	Hepatotoxicity, DDIs
Azoles	Hepatotoxicity, DDIs
Amphotericin B	Hypo-K, Hypo-Mg, infusion rxn, nephrotox

SPACE Bugs
S- *Serratia*
P- *Pseudomonas*
A- *Acinetobacter*
C- *Citrobacter*
E- *Enterobacter*

Non-Fermenting GNRs
Burkholderia
Acinetobacter
Pseudomonas
Alcaligenes
Stenotrophamonas

Zosyn covers anaerobes and enterococci, cefepime does not

MecA = methicillin resistance
VanA, VanB = vancomycin resistance
KPC = carbapenem resistance

[Last updated October 2018]

For More Cheat Sheets Visit: www.LearnAntibiotics.com

Antibiotic cheat sheet for NP is an essential tool for nurse practitioners (NPs) who frequently face the challenge of selecting appropriate antibiotic therapies for their patients. With the rise of antibiotic resistance and the complexity of infections, having a reliable reference can enhance clinical decision-making and improve patient outcomes. This article provides a comprehensive antibiotic cheat sheet tailored for NPs, including classifications, common indications, dosing guidelines, and considerations for use.

Understanding Antibiotic Classes

Antibiotics are categorized into several classes based on their mechanism of action. Familiarity with these classes is crucial for NPs in determining the most effective treatment options.

1. Beta-Lactams

- Examples: Penicillins (e.g., amoxicillin, ampicillin), Cephalosporins (e.g., ceftriaxone, cephalexin), Carbapenems (e.g., meropenem).
- Mechanism: Inhibit bacterial cell wall synthesis.
- Indications:
- Streptococcal infections
- Staphylococcal infections (non-MRSA)
- Urinary tract infections (UTIs)

2. Macrolides

- Examples: Azithromycin, Clarithromycin, Erythromycin.
- Mechanism: Inhibit bacterial protein synthesis.
- Indications:
- Respiratory tract infections (e.g., pneumonia, bronchitis)
- Chlamydia infections
- Skin infections

3. Tetracyclines

- Examples: Doxycycline, Minocycline, Tetracycline.
- Mechanism: Inhibit bacterial protein synthesis.
- Indications:
- Acne
- Lyme disease
- Respiratory infections

4. Fluoroquinolones

- Examples: Ciprofloxacin, Levofloxacin, Moxifloxacin.
- Mechanism: Inhibit bacterial DNA synthesis.
- Indications:
- UTIs
- Gastrointestinal infections (e.g., traveler’s diarrhea)
- Respiratory infections

5. Aminoglycosides

- Examples: Gentamicin, Tobramycin, Amikacin.
- Mechanism: Inhibit bacterial protein synthesis.
- Indications:
- Severe infections caused by Gram-negative bacteria
- Endocarditis (in combination with other antibiotics)

6. Glycopeptides

- Examples: Vancomycin, Teicoplanin.
- Mechanism: Inhibit bacterial cell wall synthesis.
- Indications:
- MRSA infections
- Serious Gram-positive infections

Common Indications and Antibiotic Choices

The following are common clinical scenarios encountered by NPs and recommended first-line antibiotic therapies based on current guidelines.

1. Urinary Tract Infections (UTIs)

- First-line options:
- Nitrofurantoin: 100 mg orally twice daily for 5 days.
- Trimethoprim-sulfamethoxazole: 160/800 mg orally twice daily for 3 days (only if local resistance is <20%).
- Fosfomycin: 3 grams orally as a single dose.

2. Community-Acquired Pneumonia (CAP)

- First-line options:
- Amoxicillin: 1 g orally three times daily.
- Doxycycline: 100 mg orally twice daily.
- Azithromycin: 500 mg orally on day 1, followed by 250 mg for 4 days.

3. Skin and Soft Tissue Infections

- First-line options:
- Cephalexin: 500 mg orally four times daily.
- Clindamycin: 300 mg orally three times daily (for penicillin-allergic patients).
- Trimethoprim-sulfamethoxazole: 160/800 mg orally twice daily (for suspected MRSA).

4. Sinusitis

- First-line options:
- Amoxicillin: 500 mg orally three times daily or 875 mg twice daily for 5-7 days.
- Amoxicillin-clavulanate: 875/125 mg orally twice daily for 5-7 days (if symptoms persist).

5. Pharyngitis/Tonsillitis

- First-line options:
- Penicillin V: 500 mg orally twice daily for 10 days.
- Amoxicillin: 1 g orally once daily for 10 days (improved palatability).

Antibiotic Dosing Considerations

Proper dosing is critical for effective treatment and minimizing the risk of resistance. NPs should consider the following factors when prescribing antibiotics:

1. Patient Age and Weight

- Adjust dosages based on the patient's weight, especially in pediatric patients.
- Consider age-related pharmacokinetics, as elderly patients may require dosage adjustments due to decreased renal function.

2. Renal Function

- Assess creatinine clearance (CrCl) to adjust dosages for medications primarily excreted by the kidneys (e.g., aminoglycosides, vancomycin).

3. Drug Interactions

- Be aware of potential interactions with other medications that can affect antibiotic efficacy or increase toxicity (e.g., warfarin with certain antibiotics).

Antibiotic Resistance and Stewardship

Antibiotic resistance is a significant global health concern. NPs play a vital role in promoting antibiotic stewardship by:

- Prescribing antibiotics only when necessary.
- Choosing narrow-spectrum antibiotics when appropriate.
- Educating patients on the importance of adherence to prescribed regimens.
- Monitoring for treatment efficacy and adverse effects.

Conclusion

In summary, an **antibiotic cheat sheet for NP** serves as a practical guide for nurse practitioners in selecting appropriate antibiotic therapies. By understanding antibiotic classes, common indications, dosing considerations, and the importance of stewardship, NPs can enhance their clinical practice and contribute to improved patient care. Regular updates to the cheat sheet are recommended to stay current with evolving guidelines and local resistance patterns.

Frequently Asked Questions

What is the primary purpose of an antibiotic cheat sheet for nurse practitioners?

An antibiotic cheat sheet serves as a quick reference guide for nurse practitioners to select the appropriate antibiotic based on the patient's condition, allergies, and local resistance patterns.

Which factors should be considered when choosing an antibiotic from the cheat sheet?

Factors to consider include the type of infection, patient's medical history, allergies, renal function, and local antibiogram data.

How can a nurse practitioner use an antibiotic cheat sheet to combat antibiotic resistance?

By using the cheat sheet to select the most appropriate and narrow-spectrum antibiotics, nurse practitioners can help minimize unnecessary broad-spectrum antibiotic use, thereby reducing the risk of developing antibiotic-resistant organisms.

What common infections can be addressed using an antibiotic cheat sheet?

Common infections include urinary tract infections, respiratory infections, skin infections, and sexually transmitted infections, each with specific recommended antibiotics listed on the cheat sheet.

Are there any limitations to using an antibiotic cheat sheet?

Yes, limitations include the potential for outdated information, lack of patient-specific details, and the need for clinical judgment to consider individual circumstances and local resistance trends.

How often should nurse practitioners update their antibiotic cheat sheets?

Nurse practitioners should update their antibiotic cheat sheets at least annually or whenever significant changes in local resistance patterns or guidelines occur.

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