

Drug Name: **Antibiotics**

Trade Name: **N/A**

Revised: **November 1, 2018**

**Class:**

- This monograph covers a wide range of antibiotic infusions too broad to list individually.

**Mechanism of Action:**

- Class specific

**Indications:**

- Used to treat suspected or confirmed infections
- Suspected or confirmed sepsis
- Prophylactic measure for patients at high risk for developing infection or sepsis

**Contraindications:**

- Allergy

**Precautions:**

- Rapid infusion may cause adverse effect and paradoxical reactions

**Dosage:**

**Doses are highly variable and based on institutional guidelines and patient laboratory values. Double check orders with transferring physician.**

**Onset:**

- Class and drug dependent

**Duration:**

- N/A

**Side Effects:**

- Pain, warmth, burning upon administration.
- Phlebitis, sclerosis, and thrombosis of vein can occur

**Interactions:**

- Class specific

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IFT DRUG: Antibiotics

## PEARLS:

- Deliver all empty vials/medication infusion sets/bottles to receiving facility. Do not throw away.
- Antibiotic therapy should initiated by transferring hospital prior to transport
- An infusion pump is preferred but not always required
- Verify and confirm drug, route, dose, and rate from the written order
- Monitor for signs of allergic/anaphylactic response or adverse reactions. If observed, stop infusion, treat under the appropriate protocol, and contact medical control as soon as possible.
- Once complete, disconnect antibiotic and maintain line with a crystalloid solution at TKO or saline lock, or other ongoing infusion.
- Antibiotics can be classified as bactericidal or bacteriostatic.
  - Bactericidals directly kill bacterial cells.
  - Bacteriostatics prevent cell division of bacterial cells.

## ANTIBIOTIC CLASSES

- Aminoglycosides
  - Examples: Amikacin, Garamycin, Kantrex, Netromycin, Nebcin, Humantin
  - Uses: infections caused by E. coli, Pseudomonas, Klebsiella
  - Side effects: hearing loss, vertigo, kidney damage
- Ansamycins
  - Examples: Geldanamycin, Herbimycin
  - Uses: experimental anti-tumor medications
- Carbacephem
  - Examples: Lorabid
- Carbapenems
  - Examples: Invanz, Finibax, Primaxin, Merrem
  - Uses: broad-spectrum antibacterial
  - Side Effects: GI upset, seizure, headache
- Cephalosporins
  - Examples: Duricef, Ancef, Keflex, Ceclor, Ceftin, Omnicef, Fortaz, Rocephin
  - Side Effects: GI upset
- Glycopeptides
  - Example: Vancomycin
- Macrolides
  - Examples: Zithromax, Erythromycin
  - Uses: streptococcal infections, syphilis, Lyme disease, pneumonia
  - Side Effects: GI upset, jaundice
- Monobactams
  - Example: Aztreonam

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- Penicillin's
  - Examples: Amoxicillin, Ampicillin, Penicillin
  - Uses: wide range of infections
  - Side Effects: GI upset, anaphylaxis, rarely neuro or kidney damage
- Polypeptides
  - Example: Bacitracin
  - Uses: eye, ear or bladder infections
  - Side Effects: when given by injection, kidney or nerve damage
- Quinolones
  - Examples: Cipro, Levaquin
  - Uses: UTI, pneumonia, gonorrhea, bacterial diarrhea
  - Side Effects: rarely tendinitis or nausea
- Sulfonamides
  - Examples: Mafenide, Sulfamethoxazole, Bactrim
  - Uses: UTI, topically for burns (Mafenide)
  - Side Effects: GI upset, allergic rxn, kidney failure, sunlight sensitivity
- Tetracyclines
  - Examples: Tetracycline, Doxycycline
  - Uses: syphilis, chlamydia, Lyme disease, acne
  - Side Effects: GI upset, sunlight sensitivity, staining of teeth (children)
- Others
  - Examples: Clindamycin (for acne, surgery prophylaxis), Flagyl (for Giardia)

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