

Approved Antibiotics



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AMPICILLIN
(EMTP, EMTI for LDT only)

CLASS: Broad Spectrum Antibiotic Agent

ACTION:

Interferes with cell wall replication of susceptible organisms causing the cell to swell and burst.

INDICATIONS:

Infections of the respiratory and GI tract, kin structures, otitis media, meningitis, sinusitis, septicemia, and endocarditis prophylaxis.

CONTRAINDICATIONS:

Hypersensitivity to Penicillin.

PRECAUTIONS:

Assess for allergic reactions (rash, fever, chills, pruritus), and if severe diarrhea ensues, stop the medication immediately.

ADVERSE EFFECTS:

Lethargy, hallucinations, anxiety, depression, twitching, coma seizures, nausea, vomiting, diarrhea.

ADMINISTRATION:

Administer drip settings by physician order only.

ONSET OF ACTION:

Rapid with a half life of 50 – 110 minutes.

Reviewed 7/13

ANCEF

CLASS: Broad Spectrum Antibiotic

ACTION:

A semisynthetic, first generation, broad spectrum antibiotic that is bactericidal through inhibition of cell wall synthesis to some gram-positive and gram-negative organisms. Half life of 1.8 hours

INDICATIONS:

Serious infection of the bone, joints, skin, soft tissue, respiratory tract, biliary tract, and GU tract.

CONTRAINDICATED:

Previous serious allergic reaction (Penicillin)

PRECAUTIONS:

Assess for allergic reactions (rash, fever, chills, pruritus), and if severe diarrhea ensues, stop the medication immediately.

ADVERSE EFFECTS:

Lethargy, hallucinations, anxiety, depression, twitching, coma seizures, nausea, vomiting, diarrhea.

ADMINISTRATION:

Administer drip settings by physician order only.

USUAL DOSE:

250mg to 1.5g q 6 to 8 hours up to 6g max 12g in 24 hours

Max 500mg q 8 hours in elderly

Pediatric dose; over 1 month 6.25 to 25mg/kg q 6 hours

Neonatal dose: 20mg/kg every 12 hours < 1 week old

20mg/kg every 8 hours > 1 week old

Reviewed 7/13

AVELOX
(Moxifloxacin Hydrochloride)

CLASS: Antibacterial (fluoroquinolone)

ACTION: A synthetic, broad spectrum antibacterial agent. Effective against a wide range of gram-positive and gram-negative respiratory pathogens. Bactericidal action results from inhibition of bacterial DNA replication, transcription, repair, and recombination.

INDICATIONS: Treatment of adults with infections caused by acute bacterial sinusitis, acute bacterial exacerbation of chronic bronchitis, complicated and uncomplicated skin and skin structure infections, and complicated intra-abdominal infections. Treatment of community acquired pneumonia.

CONTRAINDICATIONS: History of hypersensitivity of moxifloxacin or other quinolone antibiotics (e.g. Trovan, Cipro, Tequin, Levaquin, Noroxin, and Floxin)

PRECAUTIONS: For IV use only. **Can cause prolongation of the QT interval.** Stop administration immediately if QT interval widens or is greater than its normal duration of less than half the cardiac cycle.

Use in caution with patients receiving drugs that prolong the QT interval (e.g. antipsychotics, cisapride, erythromycin, and tricyclic antidepressants). Use with caution in patients with a known or suspected CNS disorders.

ADVERSE EFFECTS: Most common are diarrhea, dizziness, and nausea.

ADMINISTRATION: Administer drip settings by physician order only. Usual dose: 400 mg every 24 hours lasting 5-21 days.

ONSET OF ACTION: Rapidly distributed with a half-life of 10-13 hours.

Reviewed 7/13

AZITHROMYCIN
(Zithromax)

CLASS: Antibiotic Agent

ACTION: Interferes with microbial protein synthesis by binding a ribosomal subunit of a susceptible microorganism. Has a long tissue half-life permitting once-a-day dosing and is metabolized in the liver.

INDICATIONS: Treatment of community-acquired pneumonia and pelvic inflammatory disease caused by specific organisms, i.e. staphylococcus, streptococcus, influenza.

CONTRAINDICATIONS: Hypersensitivity to azithromycin, erythromycin, or any macrolide antibiotic.

PRECAUTIONS: Use with caution in patients with impaired hepatic and renal function and patients with a prolonged QT interval. Check infusion site for inflammation and/or extravasation or signs of allergic reaction- difficulty breathing, itching, rash, or swelling.

ADVERSE EFFECTS: Abdominal pain, anemia, arrhythmias, cough, diarrhea, dizziness, fatigue, dyspnea, and facial edema.

ADMINISTRATION: Administer drip settings by physician order only. Initial IV dose of 500 mg daily-dose for 2 days.

ONSET OF ACTION: Rapid absorption with a half-life of 68 hours.

Reviewed 7/13

FLAGYL
(Metronidazole Hydrochloride)

CLASS: Antibacterial; Antiprotozoal

ACTION: A bactericidal agent with cytotoxic effects against specific bacteria and protozoa. Widely distributed in therapeutic levels to all body fluids. Crosses the placental and blood-brain barriers.

INDICATIONS: Treatment of serious intraabdominal, skin, skin structure, gynecologic, bone and joint, CNS, and lower respiratory infections. Also, bacterial septicemia and endocarditis caused by susceptible bacteria.

CONTRAINDICATIONS: Hypersensitivity to metronidazole or nitroimidazole derivatives; first trimester of pregnancy.

PRECAUTIONS: Use with caution in patients predisposed to edema and/or taking corticosteroids, patients with impaired cardiac function, CNS disease, or a history of blood dyscrasias.

ADVERSE EFFECTS: Abdominal cramping, constipation, darkened deep red urine, diarrhea, dryness of mouth, dysuria, fever, headache, nausea, seizures, syncope, T-wave flattening, urticaria, and vomiting.

ADMINISTRATION: Administer drip settings by physician order only.

Adult and Pediatrics:

Anaerobic infections: Loading dose of 15 mg/kg, followed by 7.5 mg/kg (up to 1 Gm/dose) in 6 hours and every 6 hours thereafter for 7 – 10 days. Intraabdominal infections: 500 mg every 6 hours in combination with ciprofloxacin 400 mg every 12 hours or cefepime 2 Gm every 12 hours.

ONSET OF ACTION: Immediate peak effect with a half-life of 6-8 hours.

Reviewed 7/13

GENTAMICIN

CLASS: Anti-infective Agent

ACTION:

Interferes with protein synthesis in bacterial cell leading to cell

INDICATIONS:

Severe systemic infection of the CNS, respiratory tract, GI and urinary tract as well as bone, skin, and soft tissue.

CONTRAINDICATIONS:

Hypersensitivity to Gentamicin and patients with severe renal failure.

PRECAUTIONS:

Precautions when giving to patients with mild renal failure, pregnancy, myasthenia gravis, Parkinson's and neonates. Assess for allergic reactions (rash, pruritus, fever, chills). Identify urine output, if decreases (may indicate nephrotoxicity)

ADVERSE EFFECTS:

Confusion, depression, tremors, convulsions, muscle twitching, dizziness, vertigo, Hypo and Hypertension, palpitations, chest pain, Nausea, vomiting, rash and burning at the site.

ADMINISTRATION:

Administer drip settings by physician order only. 3-5mg/kg/day in 3 divided doses q 8 hours given over ½ - 1 hour. Dilute in 50 – 200 ml NS or D5W. Assess the site q30 minutes checking for redness, swelling and pain from a thrombosis, change the site if needed and place a warm pack on the effected area.

ONSET OF ACTION:

Rapid with a half life of 1- 2 hours

Reviewed 7/13

INSULIN (Regular)
Humulin

CLASS: Hypoglycemic hormone

ACTION:

Increase glucose transport across muscle and fat membranes to reduce blood glucose levels. Promotes conversion of glucose to its stored form, glycogen.

INDICATIONS:

To treat hyperglycemia, ketoacidosis and hyperkalemia in combination with D50

CONTRAINDICATIONS:

Allergies to this particular type of insulin or history of systemic allergic reaction to pork.

PRECAUTIONS:

Insulin potency can be reduced by 20% - 30% when added to plastic or glass containers or tubing. Use caution with patients taking Digitalis and patients susceptible to hypoglycemia.

ADVERSE EFFECTS:

Transient blurred vision, hypoglycemia, rebound hyperglycemia, coma, confusion and HA

ADMINISTRATION:

Administer drip settings by physician order only. Adult and children; 0.1 unit/kg/hour, continue until blood glucose levels drops to 250mg/dl. Mix 100 units of Regular Insulin in 100ml of NS (1unit/ml)

ONSET OF ACTION:

10 -30 minutes with a half life of ½ - 1 hour.

Reviewed 7/13

LEVAQUIN
(Levofloxacin)

CLASS:

Anti- infective Agent

ACTION:

Interferes with conversion of intermediate DNA fragments into high-molecular DNA in bacteria.

INDICATIONS:

Adult UTI's, lower respiratory and skin infections.

CONTRAINDICATIONS:

Hypersensitivity to quinolones.

PRECAUTIONS:

Check for irritation, extravasations, phlebitis. Assess for allergic reactions and anaphylaxis. (Rash, urticaria, pruritus, chills, fever, joint pain. Angioedema may occur a few days after therapy begins). Determine a baseline urinary output. If urinary output drops notify physician as it may be a sign of nephrotoxicity. Discontinue if severe diarrhea occurs.

ADVERSE EFFECTS:

HA, dizziness, anxiety, seizures, chest pain, palpitations, hypotension, nausea vomiting, flatulence, diarrhea and abdominal pain.

ADMINISTRATION:

Administer drip settings by physician order only. (500 mg over 1 hour q 24 hours x 7 -14 days depending upon the infection).

ONSET OF ACTION:

Immediate with a half life of 6- 8 hours

Reviewed 7/13

MEFOXIN
(Cefoxitin Sodium)

CLASS: Antibacterial (cephalosporin)

ACTION: A cephalosporin antibiotic that is bactericidal to many gram-positive, gram-negative, and anaerobic organisms. Inhibits cell wall synthesis.

INDICATIONS: Treatment of serious respiratory, GU, intraabdominal, gynecologic, bone and joint, skin and skin structure infections, and septicemia.

CONTRAINDICATIONS: Previous hypersensitivity reaction to cephalosporins or related antibiotics (penicillin). Absolute only if reaction was serious.

PRECAUTIONS: Use with caution in patients with impaired renal function, allergies, or a history of GI disease (especially colitis).

ADVERSE EFFECTS: Anorexia, flushing, hypersensitivity reactions including anaphylaxis, leucopenia, nausea and vomiting, proteinuria, seizures, and urticaria.

ADMINISTRATION: Administer drip settings by physician order only. 1 to 2 Gm every 6-8 hours, up to 12 Gm in 24 hours. Maximum recommended dose is 2 Gm every 8 hours in the elderly (over 75 years of age).

ONSET OF ACTION: Immediate onset with a half-life of 0.5 to 1 hour.

Reviewed 7/13

MULTIVITAMIN

CLASS:

Multivitamin

ACTION:

INDICATIONS:

CONTRAINDICATIONS:

Allergies to any of the ingredients contained within the mixture.

PRECAUTIONS:

Signs of allergic reaction.

ADVERSE EFFECTS:

None

ADMINISTRATION:

Administer per physician order. Premixed by emergency room staff. Add 1 gram of multivitamin, 2mg folic acid and 100 mg thiamine to 1000cc normal saline.

ONSET OF ACTION:

Reviewed 7/13

PRIMAXIN
(Imipenem-Cilastatin)

CLASS: Antibacterial (carbapenem)

ACTION: A potent broad-spectrum antibacterial agent. Bactericidal too many gram-positive, gram-negative, and anaerobic organisms. Bactericidal activity results from the inhibition of bacterial wall synthesis.

INDICATIONS: Treatment of serious lower respiratory tract, urinary tract, skin and skin structure, bone and joint, gynecologic, intraabdominal, bacterial septicemia, and endocarditis.

Note: Not recommended in pediatric patients with CNS infections due to risk of seizures. Not recommended in patients < 30kg or patients in renal failure.

CONTRAINDICATIONS: Known hypersensitivity to any component of this product.

PRECAUTIONS: Use extreme caution in patients with history of hypersensitivity reactions. Can cause CNS adverse effects, including confusional states, myoclonic activity, and seizures. These incidence increases with higher doses, compromised renal function, or pre-existing CNS disorders.

ADVERSE EFFECTS: Hypersensitivity reactions including anaphylaxis, abdominal pain, anuria, burning, discomfort and pain at injection site, confusion, diarrhea, dizziness, dyspnea, fever, headache, heartburn, hyperventilation, hypotension, increased salivation, nausea and vomiting, parathesia, polyuria, and seizures.

ADMINISTRATION: Administer drip settings by physician order only. Dose ranges from 250 mg to 1 Gm every 6-8 hours. Dose is based on severity of disease, susceptibility of pathogen, and condition of patient, age, and weight.

ONSET OF ACTION: Rapid onset with a half-life of 1 hour.

Reviewed 7/13

ROCEPHIN
(Ceftriaxone)

CLASS: Broad-Spectrum Antibiotic Agent

ACTION:

Inhibits bacterial cell wall synthesis, leading to cell death by binding to the cell wall membrane.

INDICATIONS:

Uncomplicated skin and skin structure infections, community acquired pneumonia, acute exacerbation of chronic bronchitis, sinusitis, pharyngitis, tonsillitis. Serious lower respiratory infection, intraabdominal and urinary tract infections. Septicemia, meningitis, joint and bone infection.

CONTRAINDICATIONS:

Hypersensitivity to cephalosporins, infants <1 month old.

PRECAUTIONS:

Check for irritation, extravasations, phlebitis. Assess for allergic reactions and anaphylaxis. (Rash, urticaria, pruritus, chills, fever, joint pain. Angioedema may occur a few days after therapy begins).

ADVERSE EFFECTS:

HA, dizziness, weakness, paresthesia, fever, chills, seizures, nausea vomiting, diarrhea, SOB.

ADMINISTRATION:

Administer drip settings by physician order only. (1-2g, q8-12 hours. May give up to 4g, q8 hours for life-threatening infections).

ONSET OF ACTION:

Immediate with a half life of 1 1/2- 2 hours

Reviewed 7/13

VANCOMYCIN HYDROCHLORIDE
(Vancocin)

CLASS: Antibiotic Agent

ACTION: A very potent tricyclic glycopeptide antibiotic, it is bactericidal against gram-positive organisms. Bacterial action results from the inhibition of cell wall synthesis. It is excreted in biologically active form in the urine, crosses the placental barrier, and is secreted in breast milk.

INDICATIONS: Serious gram-positive infections (staphylococcal), including endocarditis, septicemia, bone, lower respiratory tract, and skin. Used for penicillin-allergic patients.

CONTRAINDICATIONS: Known hypersensitivity. Solutions containing dextrose may be contraindicated in patients with allergies to corn or corn products.

PRECAUTIONS: Should be used only to treat or prevent infections proven or strongly suspected to be caused by bacteria. Use caution in patients with impaired hearing, impaired renal function, pregnancy, breast feeding, neonates, and the elderly. May cause “red man syndrome” if given faster than 1 gram in 1 hour. Red man syndrome is caused by the rapid release of histamine caused by the overly rapid administration of the antibiotic.

ADVERSE EFFECTS: Chills, dizziness, fever, macular rashes, pain at injection site, pruritis, tinnitus, urticaria.

ADMINISTRATION: Administer drip settings by physician order only.

7.5 mg/kg or 500 mg every 6 hours.

15 mg/kg or 1 Gram every 12 hours.

MAX: 3-4 Grams in 24 hours.

Note: Should not be given faster than 1 gram over 1 hour. Administer 50mg Benadryl if patients exhibit an adverse reaction to Vancomycin

ONSET OF ACTION: Immediate with a half-life of 6 hours

Reviewed 7/13

ZOSYN
(Piperacillin sodium and Tazobactam sodium)

CLASS: Antibacterial

ACTION: A bactericidal against all three classes (gram-negative aerobes, anaerobes, and enterococci). Well distributed in all body fluids and tissues.

INDICATIONS: Treatments of infections caused by piperacillin resistant strains of specific microorganisms- intraabdominal, gynecologic, skin, skin structure, and pneumonia.

CONTRAINDICATIONS: History of hypersensitivity reaction to any penicillin, cephalosporin, or beta-lactamase inhibitors.

PRECAUTIONS: Bleeding manifestations associated with abnormal coagulation. Caution in patients with impaired renal function, CHF, or those with a history of bleeding disorders or GI disease.

ADVERSE EFFECTS: Abdominal pain, agitation, anxiety, chest pain, constipation, diarrhea, dizziness, dyspnea, edema, fever, and headache.

ADMINISTRATION: Administer drip settings by physician order only. For every Gram of piperacillin there is 0.125 grams of tazobactam (8:1 ratio). 12 Gram piperacillin/1.5 Gram tazobactam/24 hours given as 3.375 every 6 hours. A single dose should be administered over 30 minutes.

ONSET OF ACTION: Peak levels reached immediately with a half-life from 0.7-1.2 hours.

Reviewed 7/13