# Acronyms

- AAP American Academy of Pediatrics recommendation
- ACG American College of Gastroenterology recommendation
- ADA American Dental Association
- AHA American Heart Association recommendation
- CDC Centers for Disease Control recommendation
- CTE dosing based on clinical trial(s) and/or expert opinion
- IDSA Infectious Disease Society of America recommendation
- IM Intramuscular
- MRSA Methicillin-resistant Staphylococcus aureus
- PI Manufacturer's prescribing information
- TMP Trimethoprim

# **Cefadroxil**

#### **Duricef®**

#### **Dosage forms**

# <u>Capsule</u>

• 500 mg (\$)

#### Tablet

• 1000 mg (\$)

#### Suspension

- 250 mg/5 ml (\$-\$\$)
- 500 mg/5 ml (\$-\$\$)

# Dosing

# <u>Pediatric</u>

- Impetigo 30 mg/kg/day (max 1000 mg/day) given once daily or divided into 2 doses (PI)
- Skin infections 30 mg/kg/day (max 1000 mg/day) given in 2 divided doses (PI)
- Strep throat 30 mg/kg once daily (max 1000 mg/day) for 10 days (IDSA)
- <u>Urinary tract infection</u> 30 mg/kg/day (max 1000 mg/day) given in 2 divided doses (PI)

## <u>Adults</u>

- Skin infections 1000 mg/day given once daily or divided into 2 doses (PI)
- Strep throat 1000 mg/day given once daily or divided into 2 doses for 10 days (IDSA)
- <u>Urinary tract infection</u> 1000 2000 mg/day given once daily or divided into 2 doses for 3 - 7 days (IDSA, PI)

#### Other

- Cefadroxil is a first generation cephalosporin
- May take without regard to food
- Kidney disease (adults)
  - <u>CrCl < 50 ml/min:</u> dose adjustment recommended; see <u>cefadroxil Pl</u>

# Cephalexin

**Keflex®** 

# **Dosage forms**

#### <u>Capsule</u>

- 250 mg (\$)
- 500 mg (\$)
- 750 mg (\$\$\$-\$\$\$)

#### <u>Tablet</u>

- 250 mg (\$-\$\$)
- 500 mg (\$-\$\$)

# Suspension

- 125 mg/5 ml (\$)
- 250 mg/5 ml (\$)

# Dosing

#### Pediatric

- <u>Cellulitis (non-MRSA)</u> 25 50 mg/kg/day (max 2000 mg/day) given in 4 divided doses for 5 10 days (IDSA)
- Endocarditis prophylaxis 50 mg/kg (max 2000 mg) 30 60 minutes before procedure (penicillin allergic without severe reaction) (AHA)
- <u>Impetigo</u> 25 50 mg/kg/day (max 1000 mg/day) given in 3 4 divided doses for 7 days (IDSA)
- Otitis media 75 100 mg/kg/day given in 4 divided doses for 5 10 days (PI)

- Strep throat 40 mg/kg/day (max 1000 mg/day) given in 2 divided doses for 10 days (IDSA)
- <u>Urinary tract infection</u> 50 100 mg/kg/day (max 2000 mg/day) given in 4 divided doses for 7 - 14 days (CTE)

# Adults (15 years and older)

- Cellulitis (non-MRSA) 500 mg 4 times a day for 5 10 days (IDSA)
- <u>Diabetic foot ulcer (mild, non-MRSA)</u> 500 mg 4 times a day for 7 14 days (IDSA)
- Endocarditis prophylaxis 2 grams 30 60 minutes before procedure (penicillin allergic without severe reaction) (AHA)
- Impetigo 250 mg 4 times a day for 7 days (IDSA)
- Mastitis 500 mg four times a day for 10 14 days (CTE)
- Pulpitis (toothache) 500 mg four times a day for 3 7 days (ADA)
- Strep throat 500 mg twice a day for 10 days (IDSA)
- <u>Urinary tract infection</u> 500 mg twice a day for 7 days (IDSA, PI)
- Urinary tract infection, prophylaxis
  - Postcoital 250 mg one time postcoital (CTE)
  - o Continuous 125 250 mg once daily (CTE)

#### Other

- Cephalexin is a first generation cephalosporin
- May take without regard to food
- Cephalexin may increase metformin levels
- Kidney disease
  - CrCl ≥ 60 ml/min: no dose adjustment necessary
  - <u>CrCl 30 59 ml/min:</u> no dose adjustment; maximum daily dose should not exceed 1000 mg
  - CrCl 15 29 ml/min: 250 mg every 8 hours or every 12 hours
  - CrCl 5 14 ml/min (nondialysis): 250 mg every 24 hours
  - CrCl 1 4 ml/min (nondialysis): 250 mg every 48 hours or every 60 hours

# **Cefaclor**

Ceclor®

#### **Dosage forms**

#### Capsule

- 250 mg (\$)
- 500 mg (\$)

#### Suspension

- 125 mg/5 ml (\$)
- 250 mg/5 ml (\$\$\$)
- 375 mg/5 ml (\$\$-\$\$\$)

# **Dosing**Pediatric

- <u>Cellulitis (non-MRSA)</u> 20 40 mg/kg/day (max 1000 mg/day) given in 3 divided doses (PI)
- Otitis media 40 mg/kg/day (max 1000 mg/day) given in 2 divided doses (PI)
- Pneumonia, community-acquired 20 40 mg/kg/day (max 1000 mg/day) given in 3 divided doses (PI)
- Strep throat 20 40 mg/kg/day (max 1000 mg/day) given in 2 divided doses for 10 days (PI)
- <u>Urinary tract infection</u> 20 40 mg/kg/day (max 1000 mg/day) given in 3 divided doses (PI)

#### <u>Adults</u>

- Cellulitis (non-MRSA) 250 500 mg every 8 hours (PI)
- Otitis media 250 500 mg every 8 hours (PI)
- Pneumonia, community-acquired 500 mg every 8 hours (PI)
- Strep throat 250 500 mg every 8 hours for 10 days (PI)
- Urinary tract infection 250 500 mg every 8 hours (PI)

# Other

- Cefaclor is a second generation cephalosporin
- Food slows absorption but does not affect the extent of absorption
- Liver disease manufacturer makes no dosage recommendation
- Kidney disease no dose adjustment necessary

# **Cefprozil**

#### Cefzil®

#### **Dosage forms**

#### Tablet

- 250 mg (\$)
- 500 mg (\$)

# Suspension

• 125 mg/5 ml (\$)

• 250 mg/5 ml (\$)

# Dosing

# Pediatric (6 months - 12 years)

- <u>Cellulitis</u> 20 mg/kg/day (max 1000 mg/day) given once daily for 10 days (PI)
- Otitis media 30 mg/kg/day (max 1000 mg/day) given in 2 divided doses for 10 days (PI)
- Pneumonia, community-acquired 30 mg/kg/day (max 1000 mg/day) given in 2 divided doses for 7 - 10 days (IDSA)
- <u>Sinusitis</u> 15 30 mg/kg/day (max 1000 mg/day) given in 2 divided doses for 10 days (PI)
- Strep throat 15 mg/kg/day (max 500 mg/day) given in 2 divided doses for 10 days (PI)

# Adolescents and Adults (age 12 years and older)

- Cellulitis 250 500 mg twice a day or 500 mg once daily for 10 days (PI)
- Sinusitis 250 500 mg twice a day for 10 days (PI)
- Strep throat 500 mg once daily for 10 days (PI)

#### Other

- Cefprozil is a second generation cephalosporin
- May take without regard to food
- Liver disease no dose adjustment necessary
- Kidney disease
  - CrCl ≤ 29 ml/min: use half the standard dose

#### **Cefuroxime**

#### **Ceftin®**

## **Dosage forms**

#### Tablet

- 125 mg (?)
- 250 mg (\$)
- 500 mg (\$)

#### Suspension

- 125 mg/5 ml (\$\$\$\$)
- 250 mg/5 ml (\$\$\$\$)

# Dosing

# Pediatric (3 months to 12 years)

- NOTE: Pediatric dosing is for suspension only. Suspension and tablet are not bioequivalent on a mg-to-mg basis.
- Impetigo 30 mg/kg/day (max 1000 mg/day) given in 2 divided doses for 10 days (PI)
- Otitis media 30 mg/kg/day (max 1000 mg/day) given in 2 divided doses for 5 - 10 days (AAP)
- Pneumonia, community-acquired 30 mg/kg/day (max 1000 mg/day) given in 2 divided doses for 7 - 10 days (IDSA)
- <u>Sinusitis</u> 30 mg/kg/day (max 1000 mg/day) given in 2 divided doses for a minimum of 10 days (AAP)
- <u>Strep throat</u> 20 mg/kg/day (max 500 mg/day) given in 2 divided doses for 10 days (PI)
- <u>Urinary tract infection</u> 20 30 mg/kg/day (max 1000 mg/day) given in 2 divided doses for 7 14 days (CTE)

# Adolescents and Adults (13 years and older)

- Bite, animal Cefuroxime 500 mg twice a day +
  - Clindamycin 300 mg three times a day; OR
  - Metronidazole 250 500 mg three times a day (IDSA)
- Early Lyme disease 500 mg twice a day for 20 days (PI)
- Gonorrhea 1000 mg one time dose (PI)
- Pneumonia, community-acquired Cefuroxime 500 mg twice a day
   + macrolide or doxycycline for 5 14 days (IDSA, PI)
- Sinusitis 250 mg twice a day for 10 days (PI)
- Skin infections 250 500 mg twice a day for 10 days (PI)
- Strep throat 250 mg twice a day for 10 days (PI)
- <u>Urinary tract infection</u> 250 mg twice a day for 7 days (IDSA, PI)

- Cefuroxime is a second generation cephalosporin
- Suspension should be taken with food
- Tablets may be taken without regard to food
- Tablets and suspension are not substitutable on a mg-to-mg basis
- Kidney disease
  - <u>CrCl ≥ 30 ml/min</u> no adjustment necessary
  - CrCl 10 29 ml/min give standard individual dose every 24 hours
  - CrCl < 10 ml/min give standard individual dose every 48 hours</li>

#### Cefdinir

#### Omnicef®

# **Dosage forms**

# Capsule

• 300 mg (\$)

#### Suspension

- 125 mg/5 ml (\$)
- 250 mg/5 ml (\$)

#### Dosing

# Pediatric (6 months - 12 years)

- Otitis media 14 mg/kg/day (max 600 mg/day) given in 1 or 2 divided doses for 5 - 10 days (AAP)
- <u>Sinusitis</u> 14 mg/kg/day (max 600 mg/day) given in 1 or 2 divided doses for a minimum of 10 days (AAP)
- Skin infections 7 mg/kg/dose (max 300 mg/dose) twice a day for 10 days (PI)
- Strep throat 7 mg/kg/dose (max 300 mg/dose) twice a day for 5 to 10 days OR 14 mg/kg (max 600 mg/day) once daily for 10 days (PI)

#### Adults and Adolescents (Age 13 years and older)

- Pneumonia, community-acquired 300 mg twice a day for 10 days (PI)
- Sinusitis 300 mg twice a day or 600 mg once daily for 10 days (IDSA)
- Skin infections 300 mg twice a day for 10 days (PI)
- <u>Strep throat</u> 300 mg twice a day for 5 10 days or 600 mg once daily for 10 days (PI)
- Urinary tract infection 300 mg twice a day for 3 7 days (IDSA)

- Cefdinir is a third generation cephalosporin
- May take without regard to food
- Iron supplements and antacids reduce cefdinir absorption. Do not take within 2 hours of each other.
- Cefdinir and iron may cause stool to turn red
- Liver disease no dose adjustment necessary
- Kidney disease
  - CrCl < 30 ml/min: adult dose is 300 mg once daily; pediatric dose is 7 mg/kg/day (max 300 mg/day) given once daily

#### Cefditoren

Spectracef®

# **Dosage forms**

#### Tablet

- 200 mg (\$\$\$\$)
- 400 mg (\$\$\$\$)
- Discontinued in U.S.

#### Dosing

# Adults and Adolescents (Age 12 years and older)

- Pneumonia, community-acquired 400 mg twice a day for 14 days (PI)
- Skin infections 200 mg twice a day for 10 days (PI)
- Strep throat 200 mg twice a day for 10 days (PI)

#### Other

- Cefditoren has been discontinued in the U.S.
- Cefditoren is a third generation cephalosporin
- Take with a meal to increase absorption
- Drugs that reduce gastric acidity (e.g. antacids, H2 blockers, PPIs) decrease absorption
- Liver disease
  - Child-Pugh A/B: no dose adjustment necessary
  - Child-Pugh C: has not been studied
- Kidney disease
  - CrCl > 50 ml/min: No dose adjustment necessary
  - o CrCl 30 49 ml/min: 200 mg twice a day
  - CrCl < 30 ml/min: 200 mg once daily

# **Cefixime**

Suprax®

#### **Dosage forms**

#### Capsule

• 400 mg (\$ for 2 capsules)

#### Tablet, chewable

• 100 mg (\$\$ for 2 tablets)

• 200 mg (\$\$\$ for 2 tablets)

# Suspension

- 100 mg/5 ml (\$\$\$ for 50 ml)
- 200 mg/5 ml (\$\$\$ for 50 ml)
- 500 mg/5 ml (?)

#### Dosing

# Pediatric (6 months - 12 years)

- <u>Sinusitis</u> 8 mg/kg/day (max 400 mg/day) given in one or two divided doses for a minimum of 10 days. Give with <u>clindamycin</u>. See <u>AAP sinusitis</u> recs. (AAP, PI)
- <u>Urinary tract infection</u> 8 mg/kg/day (max 400 mg/day) given once daily for 7 - 14 days (CTE)
- <u>Urinary tract infection, prophylaxis</u> 2 mg/kg/day given once daily (CTE)

#### Adults and Adolescents (Age 12 years and older)

• Gonorrhea (cervical, urethral, rectal) - 800 mg single dose (CDC)

#### Other

- Cefixime is a third generation cephalosporin
- May take without regard to food
- Kidney disease
  - CrCl ≥ 60 ml/min: no dose adjustment necessary
  - <u>CrCl < 60 ml/min:</u> dose adjustment recommended; see <u>Suprax Pl</u>
     [sec 2.3] for recommendations

# Cefpodoxime

**Vantin®** 

#### **Dosage forms**

#### <u>Tablet</u>

- 100 mg (\$)
- 200 mg (\$)

#### Suspension

- 50 mg/5 ml (\$)
- 100 mg/5 ml (\$)

# Dosing

# Pediatric (age 2 months through 12 years)

- Otitis media 10 mg/kg/day (max 400 mg/day) given in 2 divided doses for 5 - 10 days (AAP)
- Pneumonia, community-acquired 10 mg/kg/day (max 400 mg/day) given in 2 divided doses for 7 - 10 days (IDSA)
- <u>Sinusitis</u> 10 mg/kg/day (max 400 mg/day) given in 2 divided doses for a minimum of 10 days (AAP)
- Strep throat 10 mg/kg/day (max 200 mg/day) given in 2 divided doses for 5 - 10 days (PI)
- <u>Urinary tract infection</u> 10 mg/kg/day (max 400 mg/day) given in 2 divided doses for 7 - 14 days (CTE)

#### Adolescents and Adults (age 12 years and older)

- Gonorrhea 200 mg one time dose (PI)
- Pneumonia, community-acquired Cefpodoxime 200 mg twice a day
   + macrolide or doxycycline for 5 14 days (IDSA, PI)
- Sinusitis 200 mg twice a day for 10 days (PI)
- Skin infections 400 mg twice a day for 7 14 days (PI)
- Strep throat 100 mg twice a day for 5 10 days (PI)
- Urinary tract infection 100 mg twice a day for 3 7 days (IDSA, PI, CTE)

#### Other

- Cefpodoxime is a third generation cephalosporin
- Suspension may be taken without regard to food
- Tablets should be taken with food
- Drugs that reduce gastric acidity (e.g. antacids, H2 blockers, PPIs) decrease absorption
- Liver disease no dose adjustment necessary
- Kidney disease
  - CrCl < 30 ml/min: increase dosing interval to every 24 hours

#### Ceftibuten

Cedax®

#### **Dosage forms**

# Capsule

400 mg (\$\$\$\$)

#### Suspension

• 180 mg/5 ml (\$\$\$\$)

# Dosing

#### Pediatric

- Otitis media 9 mg/kg/day (max 400 mg/day) given once daily for 10 days
   (PI)
- Strep throat 9 mg/kg/day (max 400 mg/day) given once daily for 10 days (PI)

# Adolescents and Adults (age 12 years and older)

- Otitis media 400 mg once daily for 10 days (PI)
- Strep throat 400 mg once daily for 10 days (PI)

#### Other

- Ceftibuten is a third generation cephalosporin
- Ceftibuten should be taken at least 2 hours before or one hour after a meal. Food decreases absorption.
- Liver disease manufacturer makes no dosage recommendation
- Kidney disease
  - <u>CrCl > 50 ml/min:</u> No dose adjustment necessary
  - o CrCl 30 49 ml/min: 4.5 mg/kg/day or 200 mg once daily
  - CrCl 5 29 ml/min: 2.25 mg/kg/day or 100 mg once daily

#### Ceftriaxone

Rocephin®

#### **Dosage forms**

#### Vial

- 250 mg (\$)
- 500 mg (\$)
- 1000 mg (\$)
- 2000 mg (\$)

# Dosing

#### Pediatric

- <u>E. coli, enterotoxigenic</u> 50 mg/kg/day IM/IV given once daily for 3 days (CTE)
- <u>Endocarditis prophylaxis</u> 50 mg/kg (max 1000 mg) IM 30 60 minutes before procedure (AHA)

- Otitis media 50 mg/kg/day (max 1000 mg) IM for 1 to 3 days (AAP)
- Pneumonia, community-acquired 50 100 mg/kg/day (max 2000 mg/day)
   IM given once daily for 7 10 days (IDSA)
- <u>Salmonella, nontyphoidal</u> 100 mg/kg/day IV given in 2 divided doses for 7 - 10 days (CTE)
- Shigella 50 mg/kg/day IM/IV given once daily for 3 days (CTE/IDSA)
- Skin infections 50 75 mg/kg/day (max 2000 mg/day) given once a day or in two divided doses (PI)
- Vibrio vulnificus 50 mg/kg/day IM/IV given once daily for 3 days (CTE)

## Adults

- <u>Diabetic foot ulcer (moderate, non-MRSA)</u> 1 2 gram(s) IM once daily for 7 - 14 days (IDSA, PI)
- <u>Endocarditis prophylaxis</u> 1 gram IM 30 60 minutes before procedure (AHA)
- Epididymitis
  - <u>Likely caused by chlamydia or gonorrhea</u> Ceftriaxone 500 mg IM (1000 mg if ≥ 330 lbs) single dose + <u>Doxycycline</u> 100 mg twice daily for 10 days (CDC)
  - Likely caused by chlamydia, gonorrhea, and/or enteric organisms -Ceftriaxone 500 mg IM (1000 mg if ≥ 330 lbs) single dose
    - + Levofloxacin 500 mg once daily for 10 days (CDC)
- Gonorrhea (cervical, urethral, rectal, pharyngeal)
  - Patients weighing < 150 kg (330 lbs): 500 mg IM single dose (CDC)</li>
  - Patients weighing ≥ 150 kg (330 lbs): 1000 mg IM single dose (CDC)
- Neurosyphilis (pen-allergic) 2 grams IM/IV daily for 10 14 days (CDC)
- Pneumonia, community-acquired Ceftriaxone 1 gram IM/IV once daily for 7 14 days + macrolide (CTE)
- <u>Salmonella</u>, <u>nontyphoidal</u> 1 2 gram(s) IV once daily for 5 10 days (CTE/IDSA)
- Syphilis (primary and secondary, pen-allergic) 1 gram IM/IV daily for 10 14 days (CDC)

- Ceftriaxone is a third generation cephalosporin
- Do not give to neonates ≤ 28 days old with hyperbilirubinemia
- Liver disease no dose adjustment necessary
- Kidney disease no dose adjustment necessary
- Kidney and liver disease (concurrent) do not exceed 2 grams daily

First generation	Second generation	Third generation	Fourth generation
<ul> <li>Cefadroxi I     (Duricef</li></ul>	<ul> <li>Cefaclor (Ceclor®)</li> <li>Cefoxitin (Mefoxin ®)</li> <li>Cefotetan (Cefotan® )</li> <li>Cefprozil (Cefzil®)</li> <li>Cefuroxim e (Ceftin®)</li> </ul>	<ul> <li>Cefdinir (Omnicef®)</li> <li>Cefditoren (Spectracef ®)</li> <li>Cefixime (Suprax®)</li> <li>Cefotaxime (Claforan®)</li> <li>Cefpodoxim e (Vantin®)</li> <li>Ceftazidime (Fortaz®)</li> <li>Ceftibuten (Cedax®)</li> <li>Ceftriaxone (Rocephin®)</li> </ul>	• Cefepime (Maxipime ®)

# Clindamycin

Cleocin®

# Dosage forms

# Capsule

- 75 mg (\$)
- 150 mg (\$)
- 300 mg (\$)

# <u>Solution</u>

- 75 mg/5 ml (\$)
- Comes in 100 mg bottle

# Vaginal cream

- 2% (\$)
- Comes in 40 gm tube

# Vaginal cream (Clindesse®)

- 2% (\$\$\$)
- Comes in 5.8 gm applicator

# Vaginal suppository (Cleocin®)

- 100 mg (\$\$\$\$)
- Comes in carton with 3 suppositories

#### Vaginal gel (Xaciato®)

- 2% (\$\$\$)
- Comes in 8 gm tube

#### Topical

See topical derm chart

# **Dosing**Pediatric

- <u>Cellulitis (MRSA coverage)</u> 30 40 mg/kg/day (max 1800 mg/day) given in 3 divided doses for 5 - 10 days (IDSA)
- <u>Endocarditis prophylaxis</u> 20 mg/kg (max 600 mg) 30 60 minutes before procedure (penicillin allergic) (AHA)
- <u>Impetigo</u> 20 mg/kg/day (max 1600 mg/day) given in 3 divided doses for 7 days (IDSA)
- Otitis media 30 40 mg/kg/day (max 1800 mg/day) given in 3 divided doses for 5 - 10 days (AAP)
- <u>Sinusitis</u> 8 12 mg/kg/day divided into 3 or 4 equal doses for a minimum of 10 days. Give with <u>Cefixime (Suprax®)</u>. See <u>AAP sinusitis recs</u>. (AAP, PI)
- Strep throat 7 mg/kg/dose (max 300 mg/dose) three times daily for 10 days (IDSA)

#### Adults

- Bacterial vaginosis
  - Clindamycin 2% vaginal cream one full applicator (5g) intravaginally at bedtime for 7 days (CDC)
  - Clindamycin 2% vaginal cream (Clindesse®) one full applicator
     (5g) once intravaginally at any time of the day (PI)
  - Clindamycin 2% vaginal gel (Xaciato®) one applicatorful (5g) administered once intravaginally as a single dose at any time of the day (PI)
  - Clindamycin vaginal suppository (Cleocin®) 100 mg intravaginally once at bedtime for 3 days (CDC)
  - Clindamycin oral 300 mg twice a day for 7 days (CDC)
- Bite, animal Clindamycin 300 mg three times a day +
  - Cefuroxime (Ceftin®) 500 mg twice a day; OR

- Levofloxacin (Levaquin®) 750 mg once daily; OR
- Sulfamethoxazole-trimethoprim 800/160 twice a day (IDSA)
- <u>Cellulitis (MRSA coverage)</u> 300 450 mg four times a day for 5 10 days (IDSA)
- <u>Diabetic foot ulcer (mild)</u> 300 450 mg four times a day for 7 14 days (IDSA)
- <u>Diabetic foot ulcer (moderate)</u> <u>Clindamycin</u> 300 450 mg four times a day +
  - Ciprofloxacin 500 mg twice a day for 7 14 days; OR
  - <u>Levofloxacin</u> 750 mg once daily for 7 14 days (IDSA)
- Endocarditis prophylaxis 600 mg 30 60 minutes before procedure (penicillin allergic) (AHA)
- <u>Hidradenitis suppurativa</u>
  - Clindamycin 300 mg twice a day + <u>Rifampin</u> 600 mg once daily for 10 weeks [Based on PMID 19590173]
  - Topical clindamycin applied twice a day (CTE)
- Impetigo 300 400 mg four times a day for 7 days (IDSA)
- Mastitis 300 mg four times a day for 10 14 days (CTE)
- <u>Pseudofolliculitis barbae</u> Benzoyl peroxide + topical clindamycin applied twice a day (CTE)
- Pulpitis (toothache) 300 mg four times a day for 3 7 days (ADA)
- Strep throat 300 mg three times a day for 10 days (IDSA)

#### Other

- May take without regard to food
- Liver disease dose adjustment not likely necessary
- Kidney disease no dose adjustment necessary

# **Fosfomycin**

Monurol®

#### **Dosage forms**

#### Powder

• 3 gram packet (\$\$)

# Dosing

# <u>Adults</u>

- Urinary tract infection 3 gram packet one time dose (IDSA, PI)
- Urinary tract infection, prophylaxis 3 gram packet every 10 days (CTE)

- May take without regard to food
- Mix packet with 3 4 ounces of water
- <u>Kidney disease</u> clearance is decreased. Manufacturer makes no specific recommendation.

# **Gepotidacin**

Blujepa®

# **Dosage forms**

#### Tablet, film-coated

• 750 mg (\$\$\$)

# Dosing

Pediatric (female patients ≥ 12 years weighing at least 88 lbs (40 kg))

 <u>Urinary tract infections</u> - 1500 mg (two 750 mg tablets) twice daily (approximately 12 hours apart) for 5 days (PI)

#### Adult females

 <u>Urinary tract infections</u> - 1500 mg (two 750 mg tablets) twice daily (approximately 12 hours apart) for 5 days (PI)

- Administer Gepotidacin tablets after a meal to reduce the possibility of gastrointestinal intolerance
- Mechanism: Gepotidacin is a triazaacenaphthylene antibacterial that inhibits Type II topoisomerases including bacterial topoisomerase II (DNA gyrase) and topoisomerase IV, thereby inhibiting DNA replication
- <u>Side effects:</u> In trials, the most common adverse reactions were diarrhea (16%), nausea (9%), and abdominal pain (4%)
- Drug interactions
  - Strong CYP3A4 Inhibitors: Avoid coadministration of Gepotidacin with strong CYP3A4 inhibitors due to increased gepotidacin exposure.
  - Strong CYP3A4 Inducers: Avoid coadministration of Gepotidacin with strong CYP3A4 inducers due to decreased gepotidacin exposure.
  - Drugs extensively metabolized by CYP3A4 with a narrow therapeutic window: Avoid concomitant administration of Gepotidacin with drugs that are extensively metabolized by CYP3A4 and have a narrow therapeutic index (e.g., quinidine, cyclosporine).

- Digoxin: Due to an increase in digoxin exposures, consider monitoring digoxin serum concentrations, as appropriate, with concomitant administration of Gepotidacin.
- Succinylcholine-type neuromuscular blocking agents: There is potential for an exaggerated effect of concomitantly administered succinylcholine-type neuromuscular blocking agents resulting in a delay in recovery of neuromuscular function. Monitor for exaggerated neuromuscular blockade or excessive cholinergic effects.
- Other acetylcholinesterase inhibitors: Gepotidacin may augment the effect of other acetylcholinesterase inhibitors (e.g., donepezil).
   Monitor for exaggerated neuromuscular blockade or excessive cholinergic effects.
- Systemic anticholinergic medications or non-depolarizing neuromuscular blocking agents: There is potential for an antagonistic effect with systemic anticholinergic medications (e.g., benztropine, oxybutynin) or non-depolarizing neuromuscular blocking agents. Consider the potential for this interaction if Gepotidacin is administered concomitantly with anticholinergic medications.
- Drugs that prolong the QTc interval: Due to the increased risk of QTc prolongation, avoid concomitant administration of Gepotidacin with other medications that can potentially prolong the QTc interval.
- Kidney disease
  - eGFR ≥ 30 ml/min: No dosage adjustment required
  - ∘ eGFR < 30 ml/min: DO NOT USE
- Liver disease
  - Child-Pugh A and B: No dosage adjustment required
  - Child-Pugh C: DO NOT USE

#### **Studies**

UTI

 Gepotidacin vs Nitrofurantoin for UTI in Females Aged 12 Years and Older, Lancet (2024) [PubMed abstract]

#### Gonnorrhea

• Gepotidacin vs Ceftriaxone + Azithromycin for Gonorrhea in Patients Aged 12 Years and Older, Lancet (2025) [PubMed abstract]

#### Lefamulin

Xenleta™

# **Dosage forms**

Tablet

• 600 mg (\$\$\$\$)

#### Dosing

#### Adults (18 years and older)

Pneumonia, community-acquired - 600 mg every 12 hours for 5 days (PI)

#### Other

- Take at least 1 hour before a meal or 2 hours after a meal. Food decreases absorption.
- Do not use in pregnant women
- Lefamulin is a bacterial ribosomal RNA inhibitor
- Lefamulin is a <u>sensitive CYP3A4 substrate and inhibitor</u>. Strong and moderate CYP3A4 inducers may decrease the effectiveness of lefamulin. Do not take lefamulin with strong CYP3A4 inhibitors. Monitor for adverse effects when taking with moderate CYP3A4 inhibitors.
- Lefamulin is a <u>P-glycoprotein substrate</u>. P-glycoprotein inducers may decrease the effectiveness of lefamulin. Do not take with strong Pglycoprotein inhibitors. Monitor for adverse effects when taking with moderate P-glycoprotein inhibitors.
- Lefamulin can prolong the <u>QT interval</u>. Avoid use in patients with prolonged QT syndrome and in those taking concomitant medications that can prolong the QT interval.
- Lefamulin is contraindicated with sensitive CYP3A4 substrates that prolong the QT interval (e.g. pimozide)
- Liver disease
  - Mild (Child-Pugh A): no dose adjustment necessary
  - Moderate to severe (Child-Pugh B/C): has not been evaluated. Not recommended.
- Kidney disease no dose adjustment necessary

#### **Studies**

<u>Lefamulin vs Moxifloxacin in Adults with Community-acquired Pneumonia,</u>
 <u>JAMA (2019) [PubMed abstract]</u>

#### Linezolid

**Zyvox®** 

#### **Dosage forms**

#### Tablet

• 600 mg (\$)

#### Suspension

• 100 mg/5 ml (\$\$\$\$)

# **Dosing**Pediatric

- Cellulitis (MRSA coverage)
  - < 5 years old 10 mg/kg/dose every 8 hours for 5 10 days (IDSA, PI)
  - 5 11 years old 10 mg/kg/dose (max 600 mg/dose) twice a day for
     5 10 days (IDSA, PI)
- Pneumonia, community-acquired
  - < 12 years old 30 mg/kg/day given in 3 divided doses for 7 10 days (IDSA)</p>
  - ≥ 12 years old 20 mg/kg/day (max 1200 mg/day) given in 2 divided doses for 7 10 days (IDSA)

#### Adults (12 years and older)

- Cellulitis (MRSA coverage) 600 mg twice a day for 5 10 days (IDSA)
- <u>Diabetic foot ulcer (moderate, MRSA coverage)</u> 400 600 mg twice a day for 7 - 14 days (IDSA)
- Pneumonia, community-acquired 600 mg twice a day for 10 14 days (PI)

- May take without regard to food
- Linezolid is a bacterial ribosomal RNA inhibitor
- Linezolid is a reversible, nonselective MAO inhibitor. Do not take within 2 weeks of other MAO inhibitors.
- Linezolid may increase the pressor effect of adrenergic agents including pseudoephedrine and phenylpropanolamine. Foods containing tyramine should also be avoided in large quantities (e.g. aged cheeses, fermented or air-dried meats, sauerkraut, soy sauce, tap beers, and red wines)
- Linezolid has been shown to increase the risk of <u>serotonin syndrome</u>. Do
  not use with other serotonergic agents unless no other options are
  available. If concomitant therapy is necessary, monitor for symptoms of
  serotonin syndrome for two weeks (five weeks if fluoxetine was taken) or
  until 24 hours after the last dose of linezolid, whichever comes first.
- Postmarketing cases of the syndrome of inappropriate antidiuretic hormone secretion (SIADH) have been reported in patients receiving linezolid. Monitor sodium levels during linezolid therapy in patients who are at increased risk of SIADH (e.g. elderly, taking diuretics).
- Linezolid can cause myelosuppression, including anemia, leukopenia, pancytopenia, and thrombocytopenia. Patients with severe renal impairment and liver disease are at greatest risk. Check weekly CBCs,

particularly in patients receiving therapy for more than 2 weeks and those at increased risk of cytopenias (e.g., immunosuppressed, chronic infections, liver disease, kidney disease, pre-existing myelosuppression).

- <u>Liver disease</u>
  - Mild to moderate (Child-Pugh A/B): no dose adjustment necessary
  - Severe (Child-Pugh C): has not been evaluated
- Kidney disease no dose adjustment necessary

#### **Studies**

 <u>Linezolid susceptibility testing in 2014 [PubMed abstract]</u> - 6,865 Grampositive pathogens from 36 states collected in 2014 were tested for susceptibility to linezolid. Linezolid demonstrated excellent activity and a sustained susceptibility rate of 99.78% overall.

#### **Tedizolid**

Sivextro®

#### **Dosage forms**

#### <u>Tablet</u>

• 200 mg (\$\$\$\$)

# Dosing

Adults and children (12 years and older)

Cellulitis (MRSA coverage) - 200 mg once daily for 6 days (PI)

- May take without regard to food
- For a missed dose, take as soon as possible anytime up to 8 hours prior to the next scheduled dose. If less than 8 hours remain before the next dose, wait until next scheduled dose.
- Tedizolid is a bacterial ribosomal RNA inhibitor
- Tedizolid is a reversible MAO inhibitor. Do not take within 2 weeks of other MAO inhibitors.
- Tedizolid is a BCRP inhibitor and may increase exposure to BCRP substrates
- May increase the pressor effect of adrenergic agents including pseudoephedrine and phenylpropanolamine. Foods containing tyramine should also be avoided in large quantities (e.g. aged cheeses, fermented or air-dried meats, sauerkraut, soy sauce, tap beers, and red wines)

- May increase the risk of <u>serotonin syndrome</u>. Use caution when taken with antidepressants and other serotonergic drugs. A retrospective cohort study (N=479) among hospitalized patients receiving tedizolid with other serotonergic medications found that the incidence of clinically suspected serotonin syndrome was 0.4%. [PMID 39235251]
- <u>Liver disease</u> no dose adjustment necessary
- <u>Kidney disease</u> no dose adjustment necessary

# **Azithromycin**

**Zithromax®** 

# **Dosage forms**

## Tablet

- 250 mg (\$)
- 500 mg (\$)
- 600 mg (\$)

### Suspension

- 100 mg/5 ml (\$)
- 200 mg/5 ml (\$)

#### Powder, one packet

• 1000 mg (\$)

#### Suspension, extended-release (Zmax®)

• 2 grams/bottle (\$\$\$)

#### **Ophthalmic**

• See conjunctivitis

#### Dosing

#### Pediatric (0 - 5 months)

- Bordetella pertussis (treatment or postexposure prophylaxis)
  - < 1 month 10 mg/kg/day given once daily for 5 days (CDC)</p>
  - 1 5 months 10 mg/kg/day given once daily for 5 days (CDC)

# Pediatric (6 months to 12 years)

- Bordetella pertussis (treatment or postexposure prophylaxis) 10 mg/kg given as a single dose on day 1, then 5 mg/kg/day (max 500 mg) given once daily on days 2 - 5 (CDC)
- <u>Campylobacter</u> 10 mg/kg/day (max 500 mg/day) given once daily for 3 -5 days (CTE)
- Cat scratch disease
  - < 45 kg 10 mg/kg (max 500 mg) on Day 1 followed by 5 mg/kg/day (max 250 mg/day) on Days 2 5</li>
  - > 45 kg 500 mg on Day 1 followed by 250 mg once daily on Days 2 - 5 (IDSA)
- <u>E. coli, enterotoxigenic</u> 10 mg/kg/day (max 500 mg/day) given once daily for 3 days (CTE)
- <u>Endocarditis prophylaxis</u> -15 mg/kg (max 500 mg) 30 60 minutes before procedure (penicillin allergic) (AHA)
- Pneumonia, community-acquired, atypical 10 mg/kg (max 500 mg) on Day 1 followed by 5 mg/kg/day (max 250 mg/day) given once daily on Days 2 - 5 (IDSA)
- <u>Salmonella (nontyphoidal)</u> 20 mg/kg/day (max 500 mg/day) given once daily for 7 days (CTE)
- Shigella 10 mg/kg/day (max 500 mg/day) given once daily for 3 days (CTE)
- <u>Strep throat</u> 12 mg/kg/day (max 500 mg/day) given once daily for 5 days (IDSA)
- <u>Vibrio vulnificus</u> 10 mg/kg/day (max 500 mg/day) given once daily for 3 days (CTE)

#### Adolescents and Adults

- Bordetella pertussis (treatment or postexposure prophylaxis) 500 mg on day 1, then 250 mg once daily on days 2 - 5 (CDC)
- Campylobacter 500 mg once daily for 3 days (CTE)
- <u>Cat scratch disease</u> 500 mg on day 1 followed by 250 mg for 4 additional days (IDSA)
- Chlamydia 1000 mg single dose (CDC)
- E. coli, enterotoxigenic 1000 mg given as a single dose (CTE)
- Gonorrhea (cervical, urethral, rectal, pharyngeal)
  - <u>Azithromycin</u> 2000 mg single dose + <u>gemifloxacin</u> 320 mg single dose [Based on PMID 25031289]
  - Azithromycin 2000 mg single dose + gentamicin 240 mg IM single dose [Based on PMID 25031289]
- Endocarditis prophylaxis 500 mg 30 60 minutes before procedure (penicillin allergic) (AHA)
- Mycoplasma genitalium (macrolide sensitive) Doxycycline 100 mg twice daily for 7 days, followed by <u>azithromycin</u> 1 gram initial dose, followed by 500 mg once daily for 3 additional days (2.5 grams total) (CDC)
- Pneumonia, community-acquired
  - <u>Azithromycin</u> 500 mg on Day 1 followed by 250 mg once daily on Days 2 - 5 (IDSA, PI)
  - Extended-release (Zmax®) 2000 mg one time dose (PI)
- Prostatitis, chronic 500 mg once daily for 4 6 weeks (CTE)

- <u>Pulpitis (toothache)</u> 500 mg on day 1 followed by 250 mg for 4 additional days (ADA)
- Salmonella (nontyphoidal) 500 mg once daily for 7 days (CTE)
- Shigella 500 mg once daily for 3 days (CTE)
- Strep throat 500 mg once daily for 5 days (IDSA)
- Syphilis (primary and secondary, pen-allergic) 2000 mg single dose (CDC)
- Vibrio vulnificus 500 mg once daily for 3 days (CTE)

#### Other

- May take without regard to food
- Do not take with aluminum or magnesium antacids
- Azithromycin may cause <u>QT interval prolongation</u>. Use caution in susceptible patients.
- <u>Liver disease:</u> has not been studied. Manufacturer makes no recommendation. Azithromycin-induced hepatotoxicity has occurred in some patients.
- Kidney disease
  - <u>CrCl > 10 ml/min:</u> no dose adjustment necessary
  - CrCl < 10 ml/min: use caution

#### **Studies**

- Macrolide use during pregnancy and adverse child outcomes in the UK, BMJ (2020) [PubMed abstract]
- Macrolide use in pregnancy and risk of birth defects, Pharmacoepidemiol Drug Saf (2015) [PubMed abstract]

# Clarithromycin

Biaxin®

# **Dosage forms**

#### Tablet

- 250 mg (\$)
- 500 mg (\$)

# Suspension

- 125 mg/5 ml (\$)
- 250 mg/5 ml (\$\$)

#### Tablet, extended-release (Biaxin XL®)

• 500 mg (\$)

#### Dosing

# Pediatric (0 - 5 months)

- Bordetella pertussis (treatment or postexposure prophylaxis)
  - < 1 month Not recommended. Use azithromycin. (CDC)</li>
  - 1 5 months 15 mg/kg/day given in 2 divided doses for 7 days (CDC)

### Pediatric (≥ 6 months and children)

- Bordetella pertussis (treatment or postexposure prophylaxis) 15 mg/kg/day (max 1000 mg/day) given in 2 divided doses for 7 days (CDC)
- <u>Endocarditis prophylaxis</u> 15 mg/kg (max 500 mg) 30 60 minutes before procedure (penicillin allergic) (AHA)
- H. pylori Clarithromycin 20 mg/kg/day (max 1000 mg/day) given in 2 divided doses +
  - Amoxicillin 50 mg/kg/day (max 2000 mg/day) given in 2 divided doses +
  - Proton Pump Inhibitor (PPI) (CTE)
    - DURATION: 10 14 days
- <u>H. pylori, sequential therapy</u> see <u>H. pylori treatment</u>
- Pneumonia, community-acquired, atypical 15 mg/kg/day (max 1000 mg/day) given in 2 divided doses for 7 10 days (IDSA)
- <u>Strep throat</u> 15 mg/kg/day (max 500 mg/day) given in 2 divided doses for 10 days (IDSA)

#### Adults

- Bordetella pertussis (treatment or postexposure prophylaxis) 500 mg twice a day for 7 days (CDC)
- Endocarditis prophylaxis 500 mg 30 60 minutes before procedure (penicillin allergic) (AHA)
- H. pylori treatment regimens
- Pneumonia, community-acquired
  - Standard-release: 250 500 mg twice a day for 7 14 days (IDSA, PI)
  - Extended-release: 1000 mg once daily for 7 days (IDSA, PI)
- Prostatitis, chronic 500 mg twice a day for 4 6 weeks (CTE)
- Sinusitis
  - Standard-release: 500 mg twice a day for 14 days (PI)
  - Extended-release: 1000 mg once daily for 14 days (PI)
- Skin infections 250 mg twice a day for 7 14 days (PI)
- Strep throat 250 mg twice a day for 10 days (IDSA)

- Standard-release tablet and suspension may be taken without regard to food. Extended-release tablets should be taken with food.
- Clarithromycin is a <u>CYP3A4 strong inhibitor</u> and is contraindicated with a number of CYP3A4 sensitive substrates. See <u>Biaxin PI</u> for more.
- Clarithromycin is not recommended in patients with heart disease because of a potential increased risk of heart problems or death that can occur years later
- Clarithromycin is not recommended in pregnancy
- Liver disease no dose adjustment necessary
- Kidney disease
  - CrCl < 30 ml/min: reduce dose by 50%</li>

#### **Studies**

- Macrolide use during pregnancy and adverse child outcomes in the UK, BMJ (2020) [PubMed abstract]
- Macrolide use in pregnancy and risk of birth defects, Pharmacoepidemiol Drug Saf (2015) [PubMed abstract]

# **Erythromycin**

Eryc®, ERY-tab®, E.E.S.®, Eryped®, PCE®

# **Erythromycin base**

#### **Tablet**

- 250 mg (\$\$-\$\$\$)
- 500 mg (\$\$-\$\$\$)

#### Capsule, enteric-coated (Eryc®)

• 250 mg (\$\$)

#### <u>Tablet, delayed-release (Ery-tab®)</u>

- 250 mg (\$-\$\$)
- 333 mg (\$\$)
- 500 mg (\$\$-\$\$\$)

#### Tablet, enteric-coated (PCE®)

- 333 mg (\$\$\$\$)
- 500 mg (\$\$\$\$)

# **Ophthalmic**

• See conjunctivitis

#### **Topical**

• See topical derm meds

# **Erythromycin ethylsuccinate**

# Tablet (E.E.S.®)

• 400 mg (\$\$\$\$)

#### Suspension (E.E.S.®, Eryped®)

- 200 mg/5 ml (\$\$-\$\$\$)
- 400 mg/5 ml (\$\$\$\$)

# Dosing

# Pediatric (0 - 5 months)

- Bordetella pertussis (treatment or postexposure prophylaxis)
  - < 1 month: 40 50 mg/kg/day given in 4 divided doses for 14 days. Dosing is for erythromycin base. Azithromycin is the preferred agent in this age group. (CDC)
  - 1 5 months: 40 50 mg/kg/day given in 4 divided doses for 14 days. Dosing is for erythromycin base. (CDC)

# Pediatric (≥ 6 months and children)

- Bordetella pertussis (treatment or postexposure prophylaxis)
  - <u>Erythromycin base:</u> 40 50 mg/kg/day (max 2000 mg/day) given in 4 divided doses for 14 days (CDC)
- Campylobacter
  - <u>Erythromycin base</u> 30 mg/kg/day given in 2 4 divided doses for 3
     5 days (CTE)
- Impetigo
  - <u>Erythromycin ethylsuccinate</u> 40 mg/kg/day (max 1600 mg/day) given in 3 - 4 divided doses for 7 days (IDSA)
- Pneumonia, community-acquired, atypical
  - Erythromycin ethylsuccinate 40 mg/kg/day (max 1600 mg/day) given in 4 divided doses for 7 10 days (IDSA)

#### Adolescents and adults

- Acne
  - <u>Erythromycin base:</u> 250 500 mg once daily or 250 500 mg twice a day (AAP)
- Bordetella pertussis (treatment or postexposure prophylaxis)
  - Erythromycin base 500 mg four times a day for 14 days (CDC)
- Campylobacter

- Erythromycin base 500 mg two to four times a day for 3 5 days (IDSA/CTE)
- Chlamydia
  - <u>Erythromycin base</u> 500 mg four times a day for 7 days (CDC)
  - Erythromycin ethylsuccinate 800 mg four times a day for 7 days (CDC)
- <u>Impetigo</u>
  - Erythromycin base 250 mg four times a day for 7 days (IDSA)
  - <u>Erythromycin ethylsuccinate</u> 400 mg four times a day for 7 days (IDSA)
- Pneumonia, community-acquired
  - Erythromycin base 500 mg four times a day or 1000 mg twice a day for 7 - 14 days (CTE) [2]
  - Erythromycin ethylsuccinate 800 mg four times a day or 1600 mg twice a day for 7 - 14 days

#### Other

- May take without regard to food
- 400 mg of erythromycin ethylsuccinate is equivalent to 250 mg of erythromycin base or stearate
- Erythromycin is a <u>Moderate CYP3A4 inhibitor</u>
- Erythromycin is contraindicated with lovastatin and simvastatin
- <u>Liver disease</u> use caution. Manufacturer makes no specific recommendation.
- <u>Kidney disease</u> erythromycin is mostly excreted in the bile. Manufacturer makes no specific recommendation.

#### **Studies**

- Macrolide use during pregnancy and adverse child outcomes in the UK, BMJ (2020) [PubMed abstract]
- Macrolide use in pregnancy and risk of birth defects, Pharmacoepidemiol Drug Saf (2015) [PubMed abstract]

# **Fidaxomicin**

**Dificid®** 

# **Dosage forms**

# <u>Tablet</u>

• 200 mg (\$\$\$\$)

#### Granules for oral suspension

- 40 mg/ml (\$\$\$\$)
- One bottle contains 136 ml after reconstitution

### Dosing

# Pediatric (≥ 6 months old)

- Clostridium difficile
  - Weight 8.8 lbs (4 kg) to 15.3 lbs (6.9 kg): 80 mg twice daily for 10 days
  - Weight 15.4 lbs (7 kg) to 19.7 lbs (8.9 kg): 120 mg twice daily for 10 days
  - Weight 19.8 lbs (9 kg) to 27.4 lbs (12.4 kg): 160 mg twice daily for 10 days
  - Weight  $\geq$  27.5 lbs (12.5 kg): 200 mg twice daily for 10 days (PI)

#### Adults

• <u>Clostridium difficile</u> - 200 mg twice a day for 10 days (IDSA,PI)

#### Other

- May take without regard to food
- After granules are reconstituted, they should be refrigerated and are good for up to 12 days
- Fidaxomicin undergoes minimal absorption and should not be used for systemic infections
- <u>Liver disease</u> fidaxomicin undergoes minimal absorption. Liver disease should not affect.
- Kidney disease no dose adjustment necessary

#### **Nitazoxanide**

Alinia®

## **Dosage forms**

#### Tablet

• 500 mg (\$\$\$\$)

# Oral suspension

- 100 mg/5 ml (\$\$\$\$)
- Comes in bottle of 60 ml

#### Dosing

# Pediatric (1 - 11 years old)

- Cryptosporidium parvum
  - 1 3 years: 5 ml (100 mg) twice a day with food for 3 days [CDC/PI]
     (\$\$\$\$)
  - 4 11 years: 10 ml (200 mg) twice a day with food for 3 days
     [CDC/PI] (\$\$\$\$)
- Giardia
  - 1 3 years: 5 ml (100 mg) twice a day with food for 3 days [CDC/PI]
     (\$\$\$\$)
  - 4 11 years: 10 ml (200 mg) twice a day with food for 3 days
     [CDC/PI] (\$\$\$\$)

# Adolescents and Adults (age 12 years and older)

- Cryptosporidium parvum 500 mg twice a day for 3 days [CDC/PI] (\$\$\$\$)
- Giardia 500 mg twice a day for 3 days [CDC/PI] (\$\$\$\$)

## Other

- Take with food. Food increases absorption.
- Nitazoxanide is a highly protein-bound drug (> 99%)
- <u>Liver disease</u> has not been studied. Manufacturer makes no recommendation.
- <u>Kidney disease</u> has not been studied. Manufacturer makes no recommendation.

#### **Nitrofurantoin**

Macrobid®, Macrodantin®, Furadantin®

#### **Dosage forms**

# Macrobid® capsule

- Nitrofurantoin monohydrate : Nitrofurantoin macrocrystalline
  - 75 mg : 25 mg (\$)

#### Macrodantin® capsule

- Nitrofurantoin macrocrystalline
  - 25 mg (\$)
  - o 50 mg (\$)
  - o 100 mg (\$)

# Furadantin® suspension

Nitrofurantoin

25 mg/5 ml (\$\$\$\$)

# Dosing

#### Pediatric (one month and older)

- Urinary tract infection
  - Macrodantin® and Furadantin® 5 7 mg/kg/day given in 4 divided doses for 7 days (PI)
- Urinary tract infection, prophylactic
  - <u>Macrodantin® and Furadantin®</u> 1 2 mg/kg/day given once daily (CTE)

#### Adults

- Urinary tract infection
  - Macrobid® 100 mg twice a day for 5 days (IDSA)
  - Macrodantin® 50 100 mg 4 times a day for 7 days (PI)
- Urinary tract infection, prophylaxis
  - <u>Postcoital</u> 50 100 mg one time postcoital (Macrobid® or Macrodantin®) (CTE)
  - Continuous 50 100 mg once daily (Macrobid® or Macrodantin®)
     (CTE)

#### Other

- Take with food
- Do not take with antacids containing magnesium
- Nitrofurantoin has been associated with rare cases of interstitial lung disease in patients who took it for ≥ 6 months
- Kidney disease
  - CrCl < 60 ml/min: do not use

#### Metronidazole

Flagyl®, Likmez®, Metrogel®, Vandazole®, Nuvessa®

#### **Dosage forms**

#### **Tablet**

- 250 mg (\$)
- 500 mg (\$)

# Tablet, extended-release (Flagyl® ER)

• 750 mg (\$\$\$\$)

#### <u>Capsule</u>

• 375 mg (\$\$)

#### Oral suspension (Likmez®)

- 500 mg/5 ml (\$\$\$\$)
- Comes in 200 ml bottle
- Store at room temp

#### Vaginal gel (Metrogel-vaginal®)

- 0.75% gel (\$)
- Comes in 70 g tube

# Vaginal gel (Vandazole®)

- 0.75% gel (\$)
- Comes in 70 g tube

# Vaginal gel (Nuvessa®)

- 1.3% gel (\$\$\$\$)
- Comes in single-dose applicator

# Topical (rosacea)

See topical derm meds

# **Dosing**Pediatric

- Clostridium difficile 7.5 mg/kg/dose (max 500 mg/dose) given 3 4 times a day for 10 days (IDSA)
- Entamoeba histolytica 35 50 mg/kg/day (max 2250 mg/day) given in 3 divided doses for 10 days (PI)
- Giardia 5 mg/kg/dose (max 250 mg/dose) given 3 times a day for 7 10 days (CTE)
- H. pylori Metronidazole 20 mg/kg/day (max 1000 mg/day) given in 2 divided doses +
  - Amoxicillin 50 mg/kg/day (max 2000 mg/day) given in 2 divided doses +
  - Proton Pump Inhibitor (PPI) (CTE)
    - DURATION: 10 14 days
- <u>H. pylori, sequential therapy</u> see <u>H. pylori treatment</u>

#### Adults

Bacterial vaginosis

- Metronidazole 500 mg twice a day for 7 days (CDC)
- Metronidazole gel 0.75% (Metrogel-vaginal, Vandazole) one full applicator (5g) intravaginally once daily for 5 days (CDC,PI)
- Metronidazole gel 1.3% (Nuvessa) one applicator (5g) intravaginally one time (PI)
- Metronidazole extended-release 750 mg once daily for 7 days (PI)
- Bite, animal Metronidazole 250 500 mg three times a day +
  - Cefuroxime 500 mg twice a day; OR
  - Levofloxacin 750 mg once daily; OR
  - Sulfamethoxazole-trimethoprim 800/160 twice a day (IDSA)
- Bite, human Metronidazole 250 500 mg three times a day +
  - Levofloxacin 750 mg once daily; OR
  - Ciprofloxacin 500 mg 750 mg twice a day (IDSA)
- Clostridium difficile 500 mg three times a day for 10 days (IDSA)
- <u>Diverticulitis</u> <u>Metronidazole</u> 500 mg three to four times a day +
  - Ciprofloxacin 500 mg twice a day; OR
  - Levofloxacin 750 mg once daily; OR
  - Sulfamethoxazole-trimethoprim 800/160 twice a day
    - DURATION: 7 14 days
- Entamoeba histolytica 750 mg three times a day for 5 10 days (IDSA/CTE)
- Giardia 250 mg 750 mg three times a day for 7 10 days (IDSA); OR 500 mg twice a day for 5 - 7 days (CTE)
- H. pylori treatment regimens
- Trichomoniasis
  - Women: 500 mg twice daily for 7 days (CDC)
  - Men: 2000 mg single dose (CDC)

#### Other

- May take standard-release without regard to food. Extended-release should be taken one hour before or 2 hours after meals.
- Potential for disulfiram-like reaction if taken with alcohol. Do not ingest alcohol during, or for 3 days after stopping metronidazole.
- Liver disease
  - Mild to moderate (Child-Pugh A/B): no dose adjustment necessary
  - Severe (Child-Pugh C): reduce dose by 50%
- <u>Kidney disease</u> patients with end-stage renal disease may have decreased clearance. Manufacturer makes no specific recommendation.

# **Secnidazole**

Solosec®

# Dosage forms

Oral granules

• 2 grams (\$\$\$\$)

# Dosing

# Adults and pediatric patients ≥ 12 years old

- <u>Bacterial vaginosis</u> 2 grams one time (PI)
- Trichomoniasis 2 grams one time (PI)

#### Other

- May take without regard to food
- Granules are sprinkled on applesauce, yogurt, or pudding. Mixture should be consumed within 30 minutes without chewing.
- Granules do not dissolve and are not meant to be dissolved in liquid
- Avoid consumption of alcoholic beverages and preparations containing ethanol or propylene glycol during treatment and for at least 2 days after completing therapy
- <u>Liver disease</u> manufacturer makes no specific recommendation
- <u>Kidney disease</u> manufacturer makes no specific recommendation

#### **Tinidazole**

**Tindamax®** 

### **Dosage forms**

# <u>Tablet</u>

- 250 mg (\$)
- 500 mg (\$)

#### Dosing

#### Pediatric (3 years and older)

- Entamoeba histolytica 50 mg/kg/day (max 2000 mg/day) given once daily for 3 days (PI)
- Giardia 50 mg/kg (max 2000 mg) given as a one time dose (PI)

#### Adults

- Bacterial vaginosis
  - 2000 mg once daily for 2 days (CDC)
  - 1000 mg once daily for 5 days (CDC)
- Entamoeba histolytica 2000 mg once daily for 3 days (PI)
- Giardia 2000 mg given as a one time dose (CTE/PI)
- H. pylori treatment regimens

• <u>Trichomoniasis</u> - 2000 mg single dose (CDC)

#### Other

- Take with food to minimize stomach upset
- Tinidazole is a CYP3A4 sensitive substrate
- Potential for disulfiram-like reaction if taken with alcohol. Do not ingest alcohol during, or for 3 days after stopping tinidazole.
- <u>Liver disease</u> use caution. Manufacturer makes no specific recommendation.
- <u>Kidney disease</u> no dose adjustment necessary

#### **Amoxicillin**

# **Amoxil®**

#### **Dosage forms**

# Capsule

- 250 mg (\$)
- 500 mg (\$)

## <u>Tablet</u>

- 500 mg (\$)
- 875 mg (\$)

# Tablet, chewable

- 125 mg (\$)
- 250 mg (\$)

# Suspension

- 125 mg/5 ml (\$)
- 200 mg/5 ml (\$)
- 250 mg/5 ml (\$)
- 400 mg/5 ml (\$)

#### Dosing

#### Pediatric

- Endocarditis prophylaxis 50 mg/kg (max 2000 mg) 30 60 minutes before procedure (AHA)
- H. pylori Amoxicillin 50 mg/kg/day (max 2000 mg/day) given in 2 divided doses +

- Proton Pump Inhibitor (PPI) +
- <u>Clarithromycin</u> 20 mg/kg/day (max 1000 mg/day) given in 2 divided doses; OR
- Metronidazole 20 mg/kg/day (max 1000 mg/day) given in 2 divided doses (CTE)
  - DURATION: 10 14 days
- H. pylori, sequential therapy see H. pylori treatment
- Otitis media 80 90 mg/kg/day given in 2 divided doses for 5 10 days (AAP)
- Pneumonia, community-acquired 90 mg/kg/day (max 4000 mg/day) given in 2 divided doses for 7 - 10 days (IDSA)
- Sinusitis
  - Standard therapy 45 mg/kg/day given in 2 divided doses for a minimum of 10 days (AAP)
  - High-dose therapy 80 to 90 mg/kg/day (max 4000 mg/day) given in 2 divided doses for a minimum of 10 days (AAP)
- <u>Strep throat</u> 50 mg/kg/day (max 1000 mg/day) given once daily or in 2 divided doses for 10 days (IDSA)

# <u>Adults</u>

- <u>Endocarditis prophylaxis</u> 2000 mg 30 60 minutes before procedure (AHA)
- H. pylori treatment regimens
- <u>Pneumonia, community-acquired</u> 1000 mg three times a day for 5 14 days (IDSA)
- Pulpitis (toothache) 500 mg three times a day for 3 7 days (ADA)
- Strep throat 1000 mg once daily or 500 mg twice a day for 10 days (IDSA)
- Syphilis (primary, secondary, early latent, latent) Amoxicillin 1000 mg three times a day + probenecid 250 mg three times a day for 14 - 16 days [Based on PMID 25829004]

#### Other

- May take without regard to food
- Kidney disease
  - CrCl 10 30 ml/min: 250 500 mg every 12 hours
  - CrCl < 10 ml/min: 250 500 mg every 24 hours</li>

# **Amoxicillin-Clavulanate potassium**

Augmentin®

**Dosage forms** 

Tablet (amoxil : clav)

- 250 mg : 125 mg (\$)
- 500 mg: 125 mg (\$)
- 875 mg: 125 mg (\$)

#### Tablet, chewable (amoxil : clav)

• 200 mg : 28.5 mg (\$)

• 400 mg : 57 mg (\$)

# Tablet, extended-release (Augmentin XR®)

• 1000 mg : 62.5 mg (\$\$-\$\$\$)

#### Suspension (amoxil:clav)

- 4:1 ratio
  - 125 mg : 31.25 mg/5 ml (\$\$\$\$)
  - 250 mg : 62.5 mg/5 ml (\$)
- 7:1 ratio
  - 200 mg : 28.5 mg/5 ml (\$)
  - 400 mg: 57 mg/5 ml (\$)
- 14:1 ratio (Augmentin ES®)
  - 600 mg : 42.9 mg/5 ml (\$)

# **Dosing**Pediatric

- Impetigo 25 mg/kg/day (max 1750 mg/day) of the amoxicillin component given in 2 divided doses for 7 days (IDSA)
- Otitis media 90 mg/kg/day of amoxicillin, with 6.4 mg/kg/day of clavulanate [amoxicillin to clavulanate ratio, 14:1] (max 4000 mg/day) in 2 divided doses for 5 - 10 days (AAP)
- Pneumonia, community-acquired 90 mg/kg/day (max 4000 mg/day) given in 2 divided doses for 7 - 10 days (IDSA)
- <u>Sinusitis</u> 80 90 mg/kg/day of the amoxicillin component with 6.4 mg/kg/day of clavulanate [amoxicillin to clavulanate ratio, 14:1] in 2 divided doses (max 4000 mg/day) for a minimum of 10 days (AAP)
- <u>Urinary tract infection</u> 20 40 mg/kg/day given in 3 divided doses for 7 -14 days (CTE)
- <u>Urinary tract infection, prophylaxis</u> 15 mg/kg/day (amoxicillin component) given once daily (CTE)

#### Adults

- Bite, animal 875/125 mg twice a day (IDSA)
- Bite, human 875/125 mg twice a day (IDSA)
- <u>Diabetic foot ulcer (mild, non-MRSA)</u> 875/125 mg twice a day for 7 14 days (IDSA)
- Diverticulitis 875/125 mg twice a day for 7 14 days (CTE)

- Impetigo 875/125 mg twice a day for 7 days (IDSA)
- Pneumonia, community-acquired Amoxicillin-clavulanate 500/125 mg three times daily OR 875/125 mg twice daily OR 2000/125 mg twice daily + macrolide or doxycycline for 5 - 14 days (IDSA)
- Pulpitis (toothache) 500/125 mg three times a day for 7 days (ADA)
- Sinusitis
  - Standard therapy 875/125 mg twice a day for 5 7 days (IDSA)
  - High-dose therapy 2000 mg twice a day for 5 7 days (IDSA)
- <u>Urinary tract infection</u> 875/125 mg twice a day for 3 7 days (IDSA)

- May take without regard to meals, although taking with food may help reduce gastrointestinal upset
- Amoxicillin-clavulanate preparations with a 14:1 ratio of amoxicillinclavulanate may be less likely to cause diarrhea than preparations with a lower ratio
- Kidney disease
  - Standard tablet and suspension
    - CrCl < 30 ml/min: do not give 875 mg dose</p>
    - CrCl 10 30 ml/min: 250 500 mg every 12 hours
    - CrCl < 10 ml/min: 250 500 mg every 24 hours</li>

#### **Dicloxacillin**

#### **Dosage forms**

#### Capsule

- 250 mg
- 500 mg (\$)

## Dosing

#### Pediatric

<u>Cellulitis (non-MRSA)</u> - 25 - 50 mg/kg/day (max 2000 mg/day) given in 4 divided doses for 5 - 10 days (IDSA)

#### Adults

- Cellulitis (non-MRSA) 500 mg four times a day for 5 10 days (IDSA)
- <u>Diabetic foot ulcer (mild, non-MRSA)</u> 500 mg four times a day for 7 14 days (IDSA)
- Impetigo 250 mg four times a day for 7 days (IDSA)
- Mastitis 500 mg four times a day for 10 14 days (CTE)

- Should be taken on an empty stomach at least 1 hour before and 2 hours after a meal
- <u>Kidney disease</u> dose reduction recommended. Manufacturer makes no specific recommendation.

## **Penicillin G benzathine**

Bicillin L-A®

## **Dosage forms**

### Disposable syringe

- 1 ml 600,000 units (\$\$)
- 2 ml 1,200,000 units (\$\$\$\$)
- 4 ml 2,400,000 units (\$\$\$\$)

# **Dosing**Pediatric

- Rheumatic fever prevention
  - $\circ$   $\leq$  27 kg: 600,000 units IM every 4 weeks (AHA/AAP)
  - > 27 kg: 1,200,000 units IM every 4 weeks (AHA/AAP)
- Strep throat
  - < 27 kg: 600,000 units IM single dose (IDSA)</li>
  - ≥ 27 kg: 1,200,000 units IM single dose (IDSA)
- Impetigo
  - $\circ$   $\leq$  6 kg: 225 mg (300,000 units) IM given as a one time dose
  - 6.1 10 kg: 337.5 mg (450,000 units) IM given as a one time dose
  - 10.1 15 kg: 450 mg (600,000 units) IM given as a one time dose
  - 15.1 20 kg: 675 mg (900,000 units) IM given as a one time dose
  - > 20 kg: 900 mg (1,200,000 units) IM given as a one time dose
    - [Based on PMID 25172376]

#### Adults

- Rheumatic fever prevention 1,200,000 units IM every 4 weeks (AHA)
- Strep throat 1,200,000 units IM single dose
- Syphilis
  - Primary and secondary 2.4 million units IM single dose (CDC)
  - <u>Early latent</u> 2.4 million units IM single dose (CDC)
  - <u>Latent</u> 2.4 million units IM once a week for a total of 3 doses (CDC)
  - <u>Tertiary</u> 2.4 million units IM once a week for a total of 3 doses (CDC)

- For intramuscular use only
- <u>Kidney disease</u> clearance is decreased. Manufacturer makes no specific recommendation.
- Milligram-unit conversion
  - 225 mg = 300,000 units
  - $\circ$  337.5 mg = 450,000 units
  - 450 mg = 600,000 units
  - 675 mg = 900,000 units
  - 900 mg = 1,200,000 units

#### **Penicillin**

Pen VK®

#### **Dosage forms**

#### Tablet

- 250 mg (\$)
- 500 mg (\$)

#### Solution

- 125 mg/5 ml (\$)
- 250 mg/5 ml (\$)

#### Dosing

## <u>Pediatric</u>

- Rheumatic fever prevention 250 mg twice daily (AAP/AHA)
- Strep throat 250 mg two to three times a day for 10 days (IDSA)

## **Adults**

- <u>Cellulitis (Streptococcal infections)</u> 250 500 mg four times a day for 5 -10 days (IDSA)
- Pulpitis (toothache) 500 mg four times a day for 3 7 days (ADA)
- Rheumatic fever prevention 250 mg twice daily (AHA)
- Strep throat 250 mg four times a day or 500 mg twice a day for 10 days (IDSA)

#### Other

May take without regard to meals

• <u>Kidney disease</u> - drug clearance is decreased. Manufacturer makes no specific dosage recommendation.

## **Pivmecillinam**

Pivya®

#### **Dosage forms**

## Tablet

- 185 mg (\$\$\$\$)
- Comes in pack of 9 tablets
- Discontinued in the U.S.

## Dosing

## Adults (female)

• <u>Urinary tract infection</u> - 185 mg three times a day for 3 - 7 days (PI)

#### Other

- May take without regard to meals
- Pivya contains pivalate, an acid that improves absorption but also depletes carnitine, a compound involved in muscle fatty acid metabolism. It should not be given to patients with carnitine deficiency or those receiving other carnitine-depleting drugs, including valproic acid, valproate, carbamazepine, and phenytoin.
- Kidney disease no dose adjustment necessary

## **Ciprofloxacin**

**Cipro®** 

## **Dosage forms**

## <u>Tablet</u>

- 100 mg (?)
- 250 mg (\$)
- 500 mg (\$)
- 750 mg (\$)

## Tablet, extended-release (Cipro XR®)

- 500 mg (\$-\$\$)
- 1000 mg (\$-\$\$)

## Suspension

- 250 mg/5 ml (\$-\$\$)
- 500 mg/5 ml (\$-\$\$)

### **Ophthalmic**

See conjunctivitis

## **Otic**

• See Otitis externa

#### **Dosing**

## Pediatric (≥ 1 year old)

 <u>Urinary tract infection</u> - 10 - 20 mg/kg/dose (maximum 750 mg/dose) every 12 hours for 7 - 14 days (PI)

#### <u>Adults</u>

- <u>Bite, human</u> <u>Ciprofloxacin</u> 500 750 mg twice a day
   + <u>metronidazole</u> 250 500 mg three times a day (IDSA)
- <u>Diabetic foot ulcer (moderate)</u> <u>Ciprofloxacin</u> 500 mg twice a day
   + <u>clindamycin</u> 300 450 mg four times a day for 7 14 days (IDSA)
- Diarrhea, bacterial 500 mg twice a day for 5 7 days (PI)
- <u>Diverticulitis</u> <u>Ciprofloxacin</u> 500 mg twice a day + <u>metronidazole</u> 500 mg three to four times a day for 7 - 14 days (CTE)
- <u>E Coli, enterotoxigenic</u> 500 mg twice a day or 750 mg once daily for 1 3 days (CTE/IDSA)
- Prostatitis, acute 500 mg twice a day for 2 4 weeks (CTE)
- Prostatitis, chronic 500 mg twice a day for 4 6 weeks (CTE, PI)
- Pyelonephritis
  - Standard-release 500 mg twice a day for 7 days (IDSA)
  - Extended-release 1000 mg once daily for 7 days (IDSA)
  - NOTE: If community resistance to fluoroquinolones is > 10%, then also give Ceftriaxone 1000 mg IM one time dose (IDSA)
- Salmonella, nontyphoidal 500 mg twice a day for 5 10 days (CTE/IDSA)
- Shigella 750 mg once daily or 500 mg twice a day for 3 days (CTE/IDSA)
- Sinusitis 500 mg twice a day for 10 days (PI)
- Urinary tract infection
  - Standard-release 250 mg twice a day for 3 days (IDSA, PI)
  - Extended-release 500 mg once daily for 3 days (IDSA, PI)
- Vibrio vulnificus 750 mg once daily for 3 days (CTE)

#### Other

May take without regard to food

- Do not take with tizanidine (Zanaflex®)
- Take 2 hours before or 6 hours after magnesium- or aluminum-containing antacids
- Ciprofloxacin is a Strong CYP1A2 inhibitor
- May cause photosensitivity. Limit sun exposure and use sunscreen.
- <u>Liver disease</u> in studies involving patients with chronic cirrhosis, no significant changes in ciprofloxacin pharmacokinetics were observed. The effects of acute hepatic insufficiency on ciprofloxacin are unknown.
- Kidney disease
  - Standard-release
    - CrCl > 50 ml/min: no dose adjustment necessary
    - CrCl 30 50 ml/min: 250 500 mg every 12 hours
    - CrCl 5 29 ml/min: 250 500 mg every 18 hours
  - Extended-release
    - CrCl ≤ 30 ml/min: 500 mg once daily

#### **Delafloxacin**

Baxdela™

#### **Dosage forms**

#### Tablet

• 450 mg (\$\$\$\$)

## Dosing

#### Adults

- Pneumonia, community-acquired 450 mg every 12 hours for 5 10 days
   (PI)
- Skin and skin structure infections (including MRSA) 450 mg every 12 hours for 5 - 14 days (PI)

#### Other

- · May take without regard to food
- Take 2 hours before or 6 hours after chelating agents (e.g. magnesium or aluminum antacids, sucralfate, multivitamins, iron)
- <u>Liver disease</u> no dosage adjustment necessary
- Kidney disease
  - CrCl ≥ 15 ml/min: no dose adjustment necessary for tablets
  - CrCl < 15 ml/min: not recommended</li>

#### **Gemifloxacin**

Factive®

## **Dosage forms**

#### Tablet

• 320 mg (\$\$\$\$)

## Dosing

## Adults

- Gonorrhea (cervical, urethral, rectal, pharyngeal)
  - Gemifloxacin 320 mg single dose + <u>azithromycin</u> 2000 mg single dose [Based on PMID 25031289]
- Pneumonia, community-acquired 320 mg once daily for 5 7 days (IDSA, PI)

#### Other

- May take without regard to food
- Antacids, sucralfate, metal cations (e.g. iron), and multivitamins may reduce gemifloxacin absorption. Gemifloxacin should be taken 3 hours before or 2 hours after these medications.
- Liver disease no dose adjustment necessary
- Kidney disease
  - o <u>CrCl ≤ 40 ml/min:</u> 160 mg every 24 hours

#### Levofloxacin

Levaquin®

#### **Dosage forms**

#### Tablet

- 250 mg (\$)
- 500 mg (\$)
- 750 mg (\$)

#### Solution

• 25 mg/ml (\$\$)

## Ophthalmic

• See conjunctivitis

# **Dosing**Pediatric

- Pneumonia, community-acquired
  - 6 months 5 years old 16 20 mg/kg/day given in 2 divided doses for 7 - 10 days (IDSA)
  - 5 16 years old 8 10 mg/kg/day (max 750 mg/day) given once daily for 7 - 10 days (IDSA)
- <u>Sinusitis</u> 16 mg/kg/day (max 500 mg/day) given in 2 divided doses for a minimum of 10 days (AAP)

## <u>Adults</u>

- <u>Bite, animal</u> <u>Levofloxacin</u> 750 mg once daily +
  - clindamycin 300 mg three times a day; OR
  - metronidazole 250 500 mg three times a day (IDSA)
- <u>Bite, human</u> <u>Levofloxacin</u> 750 mg once daily + <u>metronidazole</u> 250 500 mg three times a day (IDSA)
- Chlamydia 500 mg once daily for 7 days (CDC)
- <u>Diabetic foot ulcer (mild, non-MRSA)</u> 750 mg once daily for 7 14 days (IDSA)
- <u>Diabetic foot ulcer (moderate)</u> <u>Levofloxacin</u> 750 mg once daily
   + <u>clindamycin</u> 300 450 mg four times a day for 7 14 days (IDSA)
- <u>Diverticulitis</u> <u>Levofloxacin</u> 750 mg once daily + <u>metronidazole</u> 500 mg three to four times a day for 7 - 14 days (CTE)
- Epididymitis
  - <u>Likely caused by enteric or urinary tract pathogen</u> Levofloxacin
     500 mg once daily for 10 days (CDC)
  - <u>Likely caused by chlamydia, gonorrhea, and/or enteric</u>
     organisms <u>Ceftriaxone</u> 500 mg IM (1000 mg if ≥ 330 lbs) single
     dose + Levofloxacin 500 mg once daily for 10 days (CDC)
- H. pylori treatment regimens
- Pneumonia, community-acquireda 500 mg once daily for 7 14 days (PI)
- Pneumonia, community-acquired 750 mg once daily for 5 days (IDSA, PI)
- Pneumonia, nosocomial 750 mg once daily for 7 14 days (PI)
- Prostatitis, acute 500 mg 750 mg once daily for 2 4 weeks (CTE)
- Prostatitis, chronic 500 mg once daily for 4 6 weeks (CTE, PI)
- <u>Pyelonephritis</u> 750 mg once daily for 5 days; if community resistance to fluoroquinolones is > 10%, then also give <u>Ceftriaxone</u> 1000 mg IM one time dose (IDSA)
- Salmonella, nontyphoidal 500 mg once daily for 5 10 days (CTE/IDSA)
- <u>Sinusitis</u> 750 mg once daily for 5 days OR 500 mg once daily for 10 14 days (IDSA, PI)
- Skin infections, complicated 750 mg once daily for 7 14 days (PI)
- Skin infections, uncomplicated 500 mg once daily for 7 10 days (PI)
- Urinary tract infection 250 mg once daily for 3 days (IDSA, PI)
- <u>Urinary tract infection, complicated<sup>c</sup></u> 750 mg once daily for 5 days (PI)
- Urinary tract infection, complicated<sup>d</sup> 250 mg once daily for 10 days (PI)

- aDue to methicillin-susceptible Staphylococcus aureus, Streptococcus pneumoniae (including multidrug-resistant isolates [MDRSP]), Haemophilus influenzae, Haemophilus parainfluenzae, Klebsiella pneumoniae, Moraxella catarrhalis, Chlamydophila pneumoniae, Legionella pneumophila, or Mycoplasma pneumoniae
- bDue to *Streptococcus pneumoniae* (excluding multi-drug-resistant isolates [MDRSP]), *Haemophilus influenzae*, *Haemophilus parainfluenzae*, *Mycoplasma pneumoniae*, or *Chlamydophila pneumoniae*
- c due to Escherichia coli, Klebsiella pneumoniae, Proteus mirabilis and pyelonephritis due to E. coli, including cases with concurrent bacteremia
- d Enterococcus faecalis, Enterococcus cloacae, Escherichia coli, Klebsiella pneumoniae, Proteus mirabilis, Pseudomonas aeruginosa; and for pyelonephritis due to E. coli

- May take without regard to food
- Antacids, sucralfate, metal cations (e.g. iron), and multivitamins may reduce levofloxacin absorption. Do not take within 2 hours of each other.
- Quinolones have not been considered first-line agents in children because
  of the possible risk of adverse effects on developing cartilage. In studies,
  these effects appear to be uncommon. [1,5]
- Fluoroquinolones, including levofloxacin, have been associated with an increased risk of tendinitis and tendon rupture, particularly of the Achilles tendon. Factors associated with an increased risk of tendinopathy and tendon rupture include age over 60, corticosteroid use, and organ transplantation. However, in a study (N=2041) where patients (median age 40 years) were randomized to daily levofloxacin or placebo for 6 months, the incidence of tendinopathy was very low (<1%) and similar between groups. [PMID 39693541]</li>
- Levofloxacin has been associated with <u>QT interval prolongation</u>. In a study (N=2041) where participants (median age 40 years) were randomized to daily levofloxacin or placebo for 6 months, levofloxacin did not prolong the QT interval. [PMID 39693541]
- May cause photosensitivity. Limit sun exposure and use sunscreen.
- Liver disease no dose adjustment necessary
- Kidney disease
  - <u>CrCl ≤ 49 ml/min:</u> dose adjustment recommended; see <u>Levaquin®</u>
     <u>Pl</u> for more.

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**Avelox®** 

**Dosage forms** 

Tablet

• 400 mg (\$)

#### **Ophthalmic**

See conjunctivitis

# Dosing

## <u>Adults</u>

- Appendicitis, uncomplicated 400 mg once daily for 7 days [Based on PMID 33427870]
- <u>Bite, animal</u> 400 mg once daily (IDSA)
- Bite, human 400 mg once daily (IDSA)
- <u>Diabetic foot ulcer (moderate, non-MRSA)</u> 400 mg once daily for 7 14 days (IDSA)
- <u>Diverticulitis</u> 400 mg once daily for 7 14 days (CTE)
- Mycoplasma genitalium (macrolide resistant or unknown) - Doxycycline 100 mg twice daily for 7 days, followed by moxifloxacin 400 mg once daily for 7 days (CDC)
- Pneumonia, community-acquired 400 mg once daily for 7 14 days (IDSA, PI)
- Sinusitis 400 mg once daily for 10 days (IDSA, PI)
- Skin infections, uncomplicated 400 mg once daily for 7 days (PI)
- Skin infections, complicated 400 mg once daily for 7 21 days (PI)

### Other

- May take without regard to food
- Antacids, sucralfate, metal cations (e.g. iron), and multivitamins may reduce moxifloxacin absorption. Moxifloxacin should be taken 4 hours before or 8 hours after these medications.
- Liver disease no dose adjustment necessary
- Kidney disease no dose adjustment necessary

### **Ofloxacin**

#### **Dosage forms**

#### Tablet

- 200 mg
- 300 mg
- 400 mg (\$\$)

#### Ophthalmic

See conjunctivitis

#### Otic

• See otitis externa

# **Dosing** Adults

- Chlamydia 300 mg twice a day for 7 days (CDC)
- E. coli, enterotoxigenic 300 mg twice a day for 3 days (IDSA)
- Epididymitis (likely caused by urinary tract pathogens) 300 mg twice a day for 10 days (CDC)
- Pelvic inflammatory disease 400 mg twice a day for 10 14 days (PI)
- Pneumonia, community-acquired 400 mg twice a day for 10 days (PI)
- Prostatitis due to E. coli 300 mg twice a day for 6 weeks (PI)
- Salmonella, nontyphoidal 300 mg twice a day for 5 -7 days (IDSA)
- Shigella 300 mg twice a day for 3 days (IDSA)
- Skin infections, uncomplicated 400 mg twice a day for 10 days (PI)
- <u>Urinary tract infection due to E. coli or K. pneumoniae</u> 200 mg twice a day for 3 days (IDSA, PI)
- <u>Urinary tract infection due to other pathogens</u> 200 mg twice a day for 7 days (PI)
- <u>Urinary tract infections, complicated</u> 200 mg twice a day for 10 days (PI)

#### Other

- May take without regard to food
- Antacids, sucralfate, metal cations (e.g. iron), and multivitamins may reduce ofloxacin absorption. Do not take within 2 hours of each other.
- May cause photosensitivity. Limit sun exposure and use sunscreen.
- Liver disease
  - Severe (Child-Pugh C): do not exceed 400 mg/day
- Kidney disease
  - CrCl 20 50 ml/min: usual dose every 24 hours
  - CrCl < 20 ml/min: half the usual dose every 24 hours</li>

## Rifamycin

**Aemcolo®** 

#### **Dosage forms**

#### Tablet, delayed-release

- 194 mg (\$\$\$\$)
- Comes in package of 12 tablets

# **Dosing** Adults

<u>Traveler's diarrhea from E. Coli</u> - 388 mg (two tablets) twice daily for 3 days (PI)

#### Other

- Take dose with 6 8 ounces of liquid
- DO NOT TAKE with alcohol
- May take without regard to food
- Swallow tablets whole. Do not crush, cut, or chew.
- Rifamycin is not effective against diarrhea complicated by fever and/or blood in stool or diarrhea due to pathogens other than *E. Coli*
- Rifamycin undergoes minimal systemic absorption and clinically relevant drug interactions are not expected
- <u>Liver disease</u> given its minimal absorption, a dose adjustment is not necessary
- <u>Kidney disease</u> given its minimal absorption, a dose adjustment is not necessary

#### Rifaximin

Xifaxan®

### **Dosage forms**

## <u>Tablet</u>

- 200 mg (\$\$\$\$)
- 550 mg (\$\$\$\$)

#### Dosing

#### Adults and children ≥ 12 years old

• Traveler's diarrhea from E. Coli - 200 mg three times a day for 3 days (PI)

#### Adults (≥ 18 years old)

- Hepatic encephalopathy 550 mg two times a day (PI)
- <u>Irritable bowel syndrome (IBS) with diarrhea</u> 550 mg three times a day for 14 days. Patients with recurrence may be retreated up to two times with the same regimen. (PI)

#### Other

- See <u>rifaximin for IBS</u> for complete prescribing information
- May take without regard to food
- Rifaximin is not effective against diarrhea complicated by fever and/or blood in stool or diarrhea due to pathogens other than E. Coli
- Rifaximin undergoes minimal systemic absorption and its effects are thought to be local
- Rifaximin is a <u>P-glycoprotein substrate</u>. P-glycoprotein inhibitors may increase systemic exposure. The clinical significance of increased rifaximin exposure is unknown.
- Liver disease
  - Mild to moderate (Child-Pugh A/B): Exposure is increased. No dose adjustment recommended.
  - Severe (Child-Pugh C): Exposure is increased. No dose adjustment recommended. Use caution.
- Kidney disease has not been studied

#### **Studies**

 Rifaximin + Simvastatin vs Placebo in Decompensated Cirrhosis, JAMA (2025) [PubMed abstract]

#### **Sulfadiazine**

#### **Dosage forms**

#### **Tablet**

500 mg (\$\$\$\$)

## Dosing

## Pediatric (> 2 months old)

- Rheumatic fever prophylaxis
  - Weight ≤ 60 lbs (27 kg): 500 mg once daily
  - Weight > 60 lbs (27 kg): 1000 mg once daily (AHA/AAP)

## **Adults**

Rheumatic fever prophylaxis - 1000 mg once daily (AHA)

#### Other

- Not recommended for the treatment of group A strep infections
- Do not use in pregnancy near term or during nursing. May cause kernicterus.

- <u>Liver disease</u> clearance is reduced. Use caution. Manufacturer makes no specific recommendation.
- <u>Kidney disease</u> clearance is reduced. Use caution. Manufacturer makes no specific recommendation.

## **Sulfamethoxazole-Trimethoprim**

Septra®, Bactrim®

## **Dosage forms**

## Tablet (Sulfa/TMP)

- 800/160 mg (double strength) (\$)
- 400/80 mg (single strength) (\$)

## Suspension (Sulfa/TMP)

• 200 mg/40 mg/5 ml (\$)

## Dosing

## Pediatric (≥ 2 months old)

- NOTE: All pediatric dosing based on trimethoprim component
- Bordetella pertussis (treatment or postexposure prophylaxis) 8 mg/kg/day given in 2 divided doses for 14 days (CDC)
- Cellulitis (MRSA coverage) 8 12 mg/kg/day given in 2 divided doses for 5 - 10 days (IDSA)
- Cyclospora 5 mg/kg/day (max 320 mg/day) given in 2 divided doses for 3 days (CTE)
- Impetigo
  - Once daily 8 mg/kg/day (max 320 mg/day) given once daily for 5 days
  - Twice daily 8 mg/kg/day (max 320 mg/day) given in two divided doses for 3 days
    - [Based on <u>PMID 25172376</u>]
- <u>Salmonella, nontyphoidal</u> 10 mg/kg/day (max 320 mg/day) given in 2 divided doses for 5 - 7 days (IDSA)
- Shigella 10 mg/kg/day (max 320 mg/day) given in 2 divided doses for 3 days (IDSA)
- <u>Urinary tract infection</u> 6 12 mg/kg/day (max 320 mg/day) given in 2 divided doses for 7 - 14 days (CTE)
- <u>Urinary tract infection, prophylaxis</u> 2.5 3 mg/kg/day (max 40 mg/day) given once daily (CTE)

#### Adolescents and adults

- Acne 800/160 twice a day (AAP)
- Bite, animal Sulfamethoxazole-trimethoprim 800/160 twice a day +
  - o clindamycin 300 mg three times a day; OR
  - metronidazole 250 500 mg three times a day (IDSA)
- Bordetella pertussis (treatment or postexposure prophylaxis) 800/160 twice a day for 14 days (CDC)
- <u>Cellulitis (MRSA coverage)</u> one to two 800/160 tablet(s) twice a day for 5
   10 days (IDSA)
- Cyclospora 800/160 twice a day for 7 days (IDSA)
- <u>Diabetic foot ulcer (mild, MRSA coverage)</u> one to two 800/160 tablet(s) twice a day for 7 14 days (IDSA)
- <u>Diverticulitis</u> <u>Sulfamethoxazole-trimethoprim</u> 800/160 twice a day
   + metronidazole 500 mg three to four times a day for 7 14 days (CTE)
- <u>E.Coli, enterotoxigenic</u> 800/160 twice a day for 3 days (IDSA)
- <u>Mastitis</u> 800/160 mg twice daily for 10 14 days (CTE)
- Prostatitis, acute 800/160 twice a day for 2 4 weeks (CTE)
- Prostatitis, chronic 800/160 twice a day for 4 6 weeks (CTE)
- <u>Pyelonephritis</u> 800/160 twice a day for 14 days; If this regimen is used empirically, then also give <u>Ceftriaxone</u> 1000 mg IM one time dose (IDSA)
- Salmonella, nontyphoidal 800/160 twice a day for 5 -7 days (IDSA)
- Shigella 800/160 twice a day for 3 days (IDSA)
- <u>Urinary tract infection</u> 800/160 twice a day for 3 days (as long as local resistance rates do not exceed 20%) (IDSA)
- Urinary tract infection, prophylaxis
  - Postcoital 200/40 one time postcoital (CTE)
  - Continuous 200/40 once daily OR 200/40 three times a week (CTE)

- May be taken without regard to food
- May cause photosensitivity. Limit sun exposure and use sunscreen.
- Trimethoprim may raise potassium levels in susceptible patients
- Trimethoprim is a CYP2C8 inhibitor and a OCT2 inhibitor and substrate
- Sulfamethoxazole is a <u>weak CYP2C9 inhibitor</u>
- Liver disease do not use in patients with significant liver disease
- Kidney disease
  - CrCL > 30 ml/min: no dose adjustment necessary
  - o CrCl 15 30 ml/min: use half the usual dose
  - CrCl < 15 ml/min: do not use

# Sulopenem + probenecid

Orlynvah®

**Dosage forms** 

**Tablet** 

• Each tablet contains 500 mg sulopenem and 500 mg probenecid (\$\$\$\$)

## **Dosing**

### <u>Adult</u>

<u>Uncomplicated urinary tract infection</u> - 1 tablet twice daily with food for 5 days

#### Other

- Sulopenem is a beta-lactam antibiotic in the penem class that inhibits bacterial cell wall synthesis. Probenecid inhibits OAT3-mediated renal clearance of sulopenem, increasing its exposure. Probenecid also increases renal uric acid excretion and is used to treat gout (see probenecid in gout).
- Orlynvah should be taken with food
- Diarrhea (10%) and nausea (4%) were the most common side effects in trials
- Probenecid inhibits renal OAT1/3 and can increase OAT1/3 substrate exposure. Orlynvah should not be coadministered with ketorolac or ketoprofen, and caution should be used when given with indomethacin, naproxen, methotrexate, rifampin, lorazepam, and sulfonylureas.
- Kidney disease
  - CrCl ≥ 15 mL/min: no dosage adjustment is required
  - CrCl < 15 mL/min: not recommended</li>
  - Hemodialysis: administration of Orlynvah is not recommended
- Liver disease
  - The effect of hepatic impairment on Orlynvah pharmacokinetics is unknown

#### **Studies**

• Sulopenem vs Ciprofloxacin for Uncomplicated UTI in Women, Clin Infect Dis (2023) [PubMed abstract]

## **Doxycycline**

Acticlate®, Vibramycin®, Doryx®, Oracea®

#### Doxycycline monohydrate

#### Tablet

• 50 mg (\$)

- 75 mg (\$)
- 100 mg (\$)
- 150 mg (\$\$)

## <u>Capsule</u>

- 50 mg (\$)
- 75 mg (\$\$-\$\$\$)
- 100 mg (\$)
- 150 mg (\$\$\$-\$\$\$)

## Capsule (Oracea®)

- 40 mg (\$\$\$\$)
- Contains 30 mg immediate release and 10 mg delayed release

## Suspension

- 25 mg/5 ml (\$)
- · Comes in 60 ml bottle

## **Doxycycline hyclate**

## <u>Capsule</u>

- 50 mg (\$)
- 100 mg (\$)

## <u>Tablet</u>

- 20 mg (\$)
- 50 mg (\$\$\$)
- 75 mg (\$)
- 100 mg (\$)
- 150 mg (\$\$\$)

## Tablet (Acticlate®)

- 75 mg (\$\$\$\$)
- 150 mg (\$\$\$\$)

## Tablet, delayed release (Doryx®)

- 50 mg (\$\$)
- 75 mg (\$)
- 100 mg (\$)
- 150 mg (\$)
- 200 mg (\$\$\$\$)

## Tablet, delayed release (Doryx® MPC)

- 60 mg (\$\$\$\$)
- 120 mg (\$\$\$\$)
- Doryx® MPC 120 mg = 100 mg of standard doxycycline, and 60 mg = 50 mg

#### Dosing

## Pediatric (≥ 8 years old)

Pneumonia, community-acquired, atypical - 2 - 4 mg/kg/day given in 2 divided doses for 7 - 10 days (IDSA)

#### Adolescents and adults

- Acne 50 150 mg once daily or 50 100 mg twice a day (AAP)
- Bite, animal 100 mg twice a day (IDSA)
- <u>Bite, human</u> 100 mg twice a day (IDSA)
- Cellulitis (MRSA coverage) 100 mg twice a day 5 10 days (IDSA)
- Chlamydia 100 mg twice a day for 7 days (CDC)
- <u>Diabetic foot ulcer (mild, MRSA coverage)</u> 100 mg twice a day for 7 14 days (IDSA)
- Epididymitis (likely caused by chlamydia or gonorrhea) Ceftriaxone 500 mg IM (1000 mg if ≥ 330 lbs) single dose + Doxycycline 100 mg twice daily for 10 days (CDC)
- Malaria prophylaxis 100 mg once daily starting 1 2 days before travel.
   Continue while in endemic region and for 4 weeks after leaving region.
   [CDC]
- Mycoplasma genitalium
  - Macrolide resistant or unknown: Doxycycline 100 mg twice daily for 7 days, followed by moxifloxacin 400 mg once daily for 7 days (CDC)
  - <u>Macrolide sensitive:</u> Doxycycline 100 mg twice daily for 7 days, followed by <u>azithromycin</u> 1 gram initial dose, followed by 500 mg once daily for 3 additional days (2.5 grams total) (CDC)
- Pneumonia, community-acquired 100 mg twice a day for 7 14 days (IDSA, CTE) [3,4]
- Prostatitis, chronic 100 mg twice a day for 4 6 weeks (CTE)
- Rosacea (Oracea®) 40 mg once daily in the morning on an empty stomach (preferably ≥ 1 hour before or 2 hours after a meal)
- <u>STD postexposure prophylaxis</u> doxycycline hyclate 200 mg delayedrelease tablet one time within 72 hours. [Based on <u>PMID 37018493</u>]
- Sinusitis 100 mg twice a day for 7 days (IDSA, PI)
- Syphilis (primary and secondary, pen-allergic) 100 mg twice a day for 14 days (CDC)
- Syphilis (latent, pen-allergic) 100 mg twice a day for 28 days (CDC)

#### Other

May be taken without regard to food (except Oracea®)

- Take with full glass of water to reduce risk of esophageal irritation
- Dairy products do not affect doxycycline absorption
- Tetracyclines should not be used during the second and third trimesters of pregnancy, infancy, and childhood up to 8 years. All tetracyclines bind calcium in tissues, and this can lead to inhibition of bone growth, tooth discoloration (yellow-gray-brown), and enamel hypoplasia.
- Concomitant use of tetracyclines and <u>isotretinoin</u> has been associated with pseudotumor cerebri. Concurrent use should be avoided.
- May cause photosensitivity. Limit sun exposure and use sunscreen.
- Antacids and bismuth subsalicylate decrease doxycycline bioavailability.
   Do not take within 4 hours of each other.
- Kidney disease no dose adjustment necessary

## Minocycline

Minocin®, Ximino®, Emrosi®, Dynacin®, Minolira®, Solodyn®,

#### **Dosage forms**

#### Capsule (Minocin®)

- 50 mg (\$)
- 75 mg (\$)
- 100 mg (\$)

### Capsule, extended-release (Ximino®)

- 45 mg (\$\$\$\$)
- 90 mg (\$\$\$\$)
- 135 mg (\$\$\$\$)

## Capsule, extended-release (Emrosi®)

• 40 mg (\$\$\$\$)

#### Tablet (Dynacin®)

- 50 mg (\$)
- 75 mg (\$)
- 100 mg (\$)

## <u>Tablet</u>, <u>extended-release</u> (Minolira®)

- 105 mg (\$\$\$\$)
- 135 mg (\$\$\$\$)
- Tablets are scored and may be split

## Tablet, extended-release (Solodyn®)

- 45 mg (\$\$\$)
- 55 mg (\$\$-\$\$\$)
- 65 mg (\$\$\$)
- 80 mg (\$\$\$)
- 90 mg (\$\$-\$\$\$)
- 105 mg (\$\$-\$\$\$)
- 115 mg (\$\$\$)
- 135 mg (\$\$\$)

### **Topical**

• See topical acne antibiotics

## Dosing

#### Minocycline standard-release (≥ 12 years old)

- Acne: 50 100 mg once daily or 50 100 mg twice daily (AAP)
- Cellulitis (MRSA coverage) 100 mg twice daily for 5 10 days (IDSA)

#### Minolira® (≥ 12 years old)

 Acne ~ 1 mg/kg/day (max 135 mg/day) given once daily. Tablets are scored and may be split. (PI)

## Solodyn® (≥ 12 years old)

Acne ~ 1 mg/kg/day (max 135 mg/day) given once daily (PI)

### Ximino®(≥ 12 years old)

Acne ~ 1 mg/kg/day (max 135 mg/day) given once daily (PI)

#### Emrosi® (adults)

Rosacea - 40 mg once daily (PI)

### Other

- May be taken without regard to food
- Dairy products do not affect minocycline absorption
- Take with full glass of water to reduce risk of esophageal irritation
- Tetracyclines should not be used during the second and third trimesters of pregnancy, infancy, and childhood up to 8 years. All tetracyclines bind calcium in tissues, and this can lead to inhibition of bone growth, tooth discoloration (yellow-gray-brown), and enamel hypoplasia.
- Antacids may decrease bioavailability of minocycline. Do not take within 4 hours of each other.
- May cause photosensitivity. Limit sun exposure and use sunscreen.

- Concomitant use of tetracyclines and <u>isotretinoin</u> has been associated with pseudotumor cerebri. Concurrent use should be avoided.
- May cause hyperpigmentation around scars, shins, and mucous membranes with prolonged use
- <u>Liver disease</u> use caution. Manufacturer makes no specific recommendation.
- <u>Kidney disease</u> has not been studied. Manufacturer makes no specific recommendation.

## **Omadacycline**

**Nuzyra®** 

## **Dosage forms**

**Tablet** 

• 150 mg (\$\$\$\$)

# Dosing

#### Adults

- <u>Cellulitis (MRSA coverage)</u> 450 mg once daily for 2 days followed by 300 mg once daily for a total of 7 14 days (PI)
- Pneumonia, community-acquired 300 mg twice on day 1 then 300 mg once daily for a total of 7 - 14 days (PI)

### Other

- Fast for at least 4 hours and then take with water. After oral dosing, no food or drink (except water) is to be consumed for 2 hours and no dairy products, antacids, or multivitamins for 4 hours.
- Tetracyclines should not be used during the second and third trimesters of pregnancy, infancy, and childhood up to 8 years. All tetracyclines bind calcium in tissues, and this can lead to inhibition of bone growth, tooth discoloration (yellow-gray-brown), and enamel hypoplasia.
- May cause photosensitivity. Limit sun exposure and use sunscreen.
- Concomitant use of tetracyclines and <u>isotretinoin</u> has been associated with pseudotumor cerebri. Concurrent use should be avoided.
- <u>Liver disease</u> no dose adjustment necessary
- Kidney disease no dose adjustment necessary

# Sarecycline

Seysara™

#### **Dosage forms**

#### Tablet

- 60 mg (\$\$\$\$)
- 100 mg (\$\$\$\$)
- 150 mg (\$\$\$\$)

#### Dosing

## Children ≥ 9 years old and adults

- Acne
  - 33 54 kg: 60 mg once daily
  - o <u>55 84 kg:</u> 100 mg once daily
  - 85 136 kg: 150 mg once daily (PI)

#### Other

- May take without regard to food
- Take with full glass of water to reduce risk of esophageal irritation
- Tetracyclines should not be used during the second and third trimesters of pregnancy, infancy, and childhood up to 8 years. All tetracyclines bind calcium in tissues, and this can lead to inhibition of bone growth, tooth discoloration (yellow-gray-brown), and enamel hypoplasia.
- May cause photosensitivity. Limit sun exposure and use sunscreen.
- Antacids may decrease bioavailability of sarecycline. Do not take within 4 hours of each other.
- Concomitant use of tetracyclines and <u>isotretinoin</u> has been associated with pseudotumor cerebri. Concurrent use should be avoided.
- Sarecycline is a <u>P-glycoprotein inhibitor</u>
- Liver disease
  - Child-Pugh A/B: no dose adjustment necessary
  - Child-Pugh C: has not been studied
- <u>Kidney disease</u> manufacturer states that "renal impairment" has no clinically significant effect on pharmacokinetics, but it has not been studied in end-stage renal disease

# **Tetracycline**

Achromycin V®

#### **Dosage forms**

#### Capsule

- 250 mg (\$\$-\$\$\$)
- 500 mg (\$\$-\$\$\$)

## Dosing

## Adolescents and adults

- Acne 500 mg twice a day (AAP)
- H. pylori treatment regimens
- Syphilis (primary and secondary, pen-allergic) 500 mg four times a day for 14 days (CDC)
- Syphilis (latent, pen-allergic) 500 mg four times a day for 28 days (CDC)

#### Other

- Take at least 1 hour before food or two hours after
- Dairy products taken at the same time as tetracycline may decrease absorption
- Take with full glass of water to reduce risk of esophageal irritation
- Tetracyclines should not be used during the second and third trimesters of pregnancy, infancy, and childhood up to 8 years. All tetracyclines bind calcium in tissues, and this can lead to inhibition of bone growth, tooth discoloration (yellow-gray-brown), and enamel hypoplasia.
- Antacids may decrease bioavailability of tetracycline. Do not take within 4 hours of each other.
- May cause photosensitivity. Limit sun exposure and use sunscreen.
- Concomitant use of tetracyclines and <u>isotretinoin</u> has been associated with pseudotumor cerebri. Concurrent use should be avoided.
- Liver disease manufacturer makes no specific recommendation
- <u>Kidney disease</u> dose reduction recommended. Manufacturer makes no specific recommendation.

# PRICE (\$) INFO

- \$ = 0 \$50
- \$\$ = \$51 \$100
- \$\$\$ = \$101 \$150
- \$\$\$\$ = > \$151
- ? = Pricing not found. Availability may be limited.
- Pricing based on one course of therapy at standard dosing in an adult
- Pricing based on information from GoodRX.com®
- Pricing may vary by region and availability

- 1 PMID 24918220
- 2 PMID 8666093
- 3 PMID 20456738 Doxy trial in CAP
- 4 PMID 9989538 Doxy trial in CAP
  5 PMID 39693542 Levofloxacin Preventive Treatment in Children Exposed to MDR Tuberculosis, NEJM (2024)