

Medical Letter Institutional Access Essentials

**The
Medical
Letter**

Because the source matters.

Facts & Features Users Need to Know

The Medical Letter®

Medical Letter Essentials: The Basics

- Electronic Table of Contents
 - Reference Tables
- Continuing Medical Education – CME/CE
 - Outline & Table Box
 - Summary Box
 - Conclusions
 - Mobile Apps

The Medical Letter®

The Medical Letter on Drugs and Therapeutics

- Published biweekly, additional online-only content
- Evidence-based, peer-reviewed editorial process

(<https://secure.medicalletter.org/sites/all/themes/TheMedicalLetter/files/Editorialchart.pdf>)

- Consensus-based critical appraisals of **new drugs**
- **Comparative reviews** of drugs for a specific disorder
- Comprehensive **charts** for quick reference/comparison

The Medical Letter®

Sign up for Electronic Table of Contents

Stay current on new drugs & changes in therapeutics

The screenshot displays the website interface for 'The Medical Letter'. The top navigation bar includes the date 'Wednesday, January 9, 2019', a 'Log Out' link, and a search box. The main header features the site title 'The Medical Letter' and the tagline 'Because the source matters.' Below this, there are several sections: 'THE MEDICAL LETTER' with links to 'Current Issue', 'Previous Issues', 'Reference Tables', and 'Most Read Articles'; 'ABOUT US' with 'The Medical Letter In the News'; 'PRODUCTS' with 'Continuing Education', 'Mobile App', 'Drugs of Choice', and 'Drug Interactions'; and 'CONTACT US' with a 'Blog' link. A sidebar on the left contains 'Epinephrine Injections for Anaphylaxis', 'Dietary Supplements: When Will They Ever Learn?', 'No Financial Contamination Here', and 'Treatment of Opioid Withdrawal Symptoms'. The main content area features a 'Site License Gateway' and a 'Conversation' section. A highlighted article titled 'Antiviral Drugs for Treatment and Prophylaxis of Seasonal Influenza' is shown, dated 'January 14, 2019', with a 'CURRENT ISSUE 1563' badge. Below the article is a 'More from Issue 1563' section listing related articles. A 'FROM ISSUE 1563' badge is also visible. A 'Click Email alerts' callout points to the 'Email Alerts' link in the 'Conversation' section. On the right, a 'Select Table of Contents & complete form' callout points to the 'The Medical Letter Contact Manager' section. This section includes a heading 'How would you like to hear from us?' and a list of preferences: 'Electronic Table of Contents - The Medical Letter on Drugs and Therapeutics', 'The Medical Letter on Drugs and Therapeutics', 'Site Licenses', 'Continuing Medical Education', 'Drug Interactions from The Medical Letter', 'Drugs of Choice 2018', 'Content Licensing', 'The Medical Letter Searchable Collection', and 'The Medical Letter Annual Bound Volume'. A 'mandatory fields' note is present. Below the preferences is an 'About You' section with form fields for 'E-mail Address', 'Prefix', 'First Name', 'Last Name', 'Suffix', 'Company/Practice Name', 'Address 1', 'Address 2', 'City', 'State/Province' (with a dropdown menu), 'Zip/Postal Code', 'Country' (with a dropdown menu), and 'Phone'.

The Medical Letter®

Comparison Tables

Our signature tables make comparing drugs quick and easy

► Comparison Table: Some Lipid-Lowering Drugs

Comparison Table: Some Lipid-Lowering Drugs						
Drug	Some Formulations	Usual Adult Dosage ¹	Average LDL-C Reduction ²	Adverse Effects/Pregnancy/ Drug Interactions	Comments	Cost ³
Statins⁴						
Atorvastatin – generic Lipitor (Pfizer)	10, 20, 40, 80 mg tabs	Initial: 10-20 mg once/day Maximum: 80 mg once/day Renal impairment: no dosage adjustment required	35-40% 50-60%	Adverse Effects <ul style="list-style-type: none"> ► Muscle pain and weakness with or without increased creatine kinase (CK) levels can occur ► Rhabdomyolysis and myoglobinemia leading to renal failure occur rarely ► Serum aminotransferase levels >3 times the upper limit of normal occur in 1-2% of patients receiving high-intensity statin therapy ► New-onset diabetes, particularly in patients with diabetes risk factors, can occur ► Peripheral neuropathy, memory loss, sleep disturbances, erectile dysfunction, gynecomastia, a lupus-like syndrome, and acute pancreatitis have been reported, but causal relationships are unclear 	<ul style="list-style-type: none"> ► Statins are the drugs of choice for treatment of hyperlipidemia and prevention of cardiovascular disease in most patients ► Statins can reduce the risk of a first cardiovascular event and death in patients at increased risk for ASCVD ► Statins can decrease the risk of major coronary events and death in patients with ASCVD ► High-intensity statin therapy (atorvastatin 40-80 mg/day, rosuvastatin 20-40 mg/day) reduces LDL-C levels by ≥50% ► Moderate-intensity statin therapy (e.g., atorvastatin 10-20 mg/day, rosuvastatin 5-10 mg/day, simvastatin 20-40 mg/day) reduces LDL-C levels by 30-49% ► Low-intensity statin therapy (e.g., pravastatin 10-20 mg/day, lovastatin 20 mg/day) reduces LDL-C levels by <30% 	\$5.60 299.40
Fluvastatin – generic Lescol (Novartis)	20, 40 mg caps	Initial: 40 mg bid Maximum: 40 mg bid	30-35% 30-35%			220.10 306.10
extended-release – generic Lescol XL	80 mg ER tabs	Initial: 80 mg once/day Maximum: 80 mg once/day Renal impairment: no dosage adjustment required	35-40% 35-40%			194.10 323.10
Lovastatin – generic	10, 20, 40 mg tabs	Initial: 20 mg once/day Maximum: 80 mg once/day or 40 mg bid Renal impairment: CrCl <30 mL/min: doses >20 mg/day use cautiously	25-30% 35-40%			6.30
extended-release – <i>Altprev</i> (Covis)	20, 40, 60 mg ER tabs	Initial: 20 mg once/day Maximum: 60 mg once/day Renal impairment: CrCl <30 mL/min: doses >20 mg/day use cautiously	20-25% 40-45%			921.10

The Medical Letter®

Table Tip:

Quickly find manufacturer, dosage & costs for easy reference

Table 1. Antiviral Drugs for Seasonal Influenza¹

Drug	Formulations	Usual Treatment Dosage	Usual Prophylaxis Dosage	Cost ²
Neuraminidase Inhibitors				
Osetamivir ³ – generic	30, 45, 75 mg caps ⁴ ;	<1 yr: 3 mg/kg PO bid ^{5,6} x 5 d ⁷	<1 yr: 3 mg/kg PO once/d ^{8,9} x 7 d ¹⁰	\$93.30
Tamiflu (Genentech)	6 mg/mL oral susp	1-12 yrs: 30-75 mg PO bid ^{5,6} x 5 d ⁷ ≥13 yrs: 75 mg PO bid ⁵ x 5 d ⁷ Renal Impairment: See footnote 12	1-12 yrs: 30-75 mg PO once/d ^{8,9} x 7 d ¹⁰ ≥13 yrs: 75 mg PO once/d ⁸ x 7 d ¹⁰ Renal Impairment: See footnote 12	152.00
Peramivir ¹¹ – Rapivab (BioCryst)	200 mg/20 mL single-use vials	2-12 yrs: 12 mg/kg (max 600 mg) IV once ¹⁴ ≥13 yrs: 600 mg IV once ¹⁴ Renal Impairment: See footnote 15	Not FDA-approved for prophylaxis	950.00
Zanamivir ¹⁶ – Relenza (GSK)	5 mg/blisters of powder for inhalation ¹⁷	≥7 yrs: 2 inhalations bid x 5 d	≥5 yrs: 2 inhalations once/d x 7 d ¹⁰	59.00
Polymerase Acidic (PA) Endonuclease Inhibitor				
Baloxavir marboxil ¹⁸ – Xofluza (Shionogi/Genentech)	20, 40 mg tabs in 2-tablet blister packs	≥12 yrs and <80 kg: 40 mg PO once ¹⁸ ≥12 yrs and ≥80 kg: 80 mg PO once ¹⁸	Not FDA-approved for prophylaxis	150.00

1. Use of amantadine or rimantadine is not recommended because of high levels of resistance to these drugs among currently circulating influenza A viruses; they are not active against influenza B viruses.
 2. Approximate WAC for 5 days' treatment with oseltamivir capsules or zanamivir, or for a single treatment dose of peramivir or baloxavir, at the usual adult dosage. WAC = wholesaler acquisition cost, or manufacturer's published price to wholesalers; WAC represents published catalogue or list prices and may not represent an actual transactional price. Source: AnalySource® Monthly, December 5, 2018. Reprinted with permission by First Databank, Inc. All rights reserved. ©2018. www.fdahealth.com/policies/drug-pricing-policy.
 3. FDA-approved for treatment of acute uncomplicated influenza and for influenza prophylaxis. Not FDA-approved for treatment of severe or complicated influenza illness.
 4. Capsules can be opened and the contents mixed in a thick sweetened liquid (e.g., chocolate syrup, corn syrup, caramel topping, or brown sugar dissolved in water) to mask the bitter taste and consumed immediately.
 5. Although not FDA-approved for use in children <2 weeks old, the CDC recommends children <2 weeks old be treated with 3 mg/kg bid. The American Academy of Pediatrics has recommended a dose of 3.5 mg/kg for infants 9-11 months old based on the results of a study showing that a higher dose was needed to achieve the target exposure in this age group (DW Kimberlin et al. J Infect Dis 2013; 207:709). For treatment of premature infants, refer to CDC recommendations (www.cdc.gov/flu).
 6. Taking oseltamivir with food may improve tolerability.
 7. In hospitalized, critically ill, or immunocompromised patients, a longer treatment course of oseltamivir (e.g., 10 days) is often used. Oseltamivir can be administered by oro/nasogastric tube to patients who are unable to swallow. IV peramivir (for at least 5 days) may be considered for those who cannot tolerate or absorb oral or enterically administered oseltamivir because of gastric stasis, malabsorption, or GI bleeding.
 8. Although not FDA-approved for prophylaxis in children <1 year old, the Advisory Committee on Immunization Practices (ACIP) and CDC recommend that children 3 months-<1 year old receive 3 mg/kg once/day. Prophylaxis is generally not recommended for premature infants or infants <3 months old (refer to CDC recommendations at: www.cdc.gov/flu).
 9. Duration of prophylaxis recommended by the CDC is 7 days after the last known exposure. The recommended duration in the labeling of oseltamivir and zanamivir is 10 days.
 10. For control of outbreaks in institutions, the CDC recommends prophylaxis be given for at least 2 weeks and continued for 1 week after the end of the outbreak. Some experts would use twice-daily therapeutic doses for post-exposure prophylaxis in highly immunocompromised patients.
 11. FDA-approved doses for children 1-12 years old: ≤15 kg: 30 mg; >15-23 kg: 45 mg; >23-40 kg: 60 mg; >40 kg: 75 mg.
 12. Osetamivir renal dosage adjustment for adults and children who weigh >40 kg (recommended by the CDC): CrCl >30-60 mL/min: 30 mg bid for treatment and 30 mg once/d for prophylaxis; CrCl 10-30 mL/min: 30 mg once/day for treatment and 30 mg every other day for prophylaxis; hemodialysis (HD): 30 mg after every HD for treatment (may be started immediately if influenza symptoms develop between HD sessions) and 30 mg after every other HD for prophylaxis (initial dose can be given before start of HD); continuous ambulatory peritoneal dialysis (CAPD): 30 mg once after exchange for treatment and 30 mg once/week after exchange for prophylaxis; end-stage renal disease (ESRD) not on HD: not recommended for treatment or prophylaxis.
 13. FDA-approved for treatment of acute uncomplicated influenza. Not FDA-approved for prophylaxis or treatment of severe or complicated influenza illness.
 14. Infused over 15-30 minutes.
 15. Peramivir renal dosage adjustment for patients 2-12 years old: CrCl 30-49 mL/min: 4 mg/kg once; CrCl 10-29 mL/min: 2 mg/kg once. For patients ≥13 years old: CrCl 30-49 mL/min: 200 mg once; CrCl 10-29 mL/min: 100 mg once; hemodialysis (HD): administer dose (based on CrCl) after HD.
 16. Inhaled zanamivir is not recommended for use in patients with underlying respiratory disease such as asthma or COPD, or in patients with severe influenza, including hospitalized patients. It is contraindicated in patients with a history of milk protein allergy.
 17. Available in a carton containing 5 rotadisks (each rotadisk contains four 5-mg blisters of the active drug in a lactose carrier) and a Diskhaler inhalation device. Zanamivir should not be used in a nebulizer.
 18. Coadministration of dairy products, calcium-fortified beverages, or products containing polyvalent cations such as calcium, aluminum, iron, magnesium, selenium, or zinc should be avoided.

Manufacturer

Wholesaler Acquisition Cost or Manufacturer's Publishing Pricing

Recommended Dosage



For a more detailed table, [click here](#).

The Medical Letter®

Table Tip: View the Expanded Table for Adverse Effects and Valuable Comments

Table 1. Antiviral Drugs for Seasonal Influenza¹

Drug	Formulations	Usual Treatment Dosage	Usual Prophylaxis Dosage	Cost ²
Neuraminidase Inhibitors				
Osetamivir ² – generic	30, 45, 75 mg caps ⁴ ;	<1 yr: 3 mg/kg PO bid ⁵ x 5 d ⁷	<1 yr: 3 mg/kg PO once/d ⁸ x 7 d ¹⁰	\$93.30
Tamiflu (Genentech)	6 mg/mL oral susp	1-12 yrs: 30-75 mg PO bid ⁵ x 5 d ⁷ ≥13 yrs: 75 mg PO bid ⁵ x 5 d ⁷	1-12 yrs: 30-75 mg PO once/d ⁸ x 7 d ¹⁰ ≥13 yrs: 75 mg PO once/d ⁸ x 7 d ¹⁰	152.00
Renal Impairment: See footnote 12				
Peramivir ¹³ – Rapivab (BioCryst)	200 mg/20 mL single-use vials	2-12 yrs: 12 mg/kg (max 600 mg) IV once ¹⁴ ≥13 yrs: 600 mg IV once ¹⁴	Not FDA-approved for prophylaxis	950.00
Renal Impairment: See footnote 15				
Zanamivir ¹⁶ – Relenza (GSK)	5 mg/blisters of powder for inhalation ¹⁷	≥7 yrs: 2 inhalations bid x 5 d	≥5 yrs: 2 inhalations once/d x 7 d ¹⁰	59.00
Polymerase Acidic (PA) Endonuclease Inhibitor				
Baloxavir marboxil ¹⁸ – Xofluza (Shionogi/Genentech)	20, 40 mg tabs in 2-tablet blister packs	≥12 yrs and <80 kg: 40 mg PO once ¹⁸ ≥12 yrs and ≥80 kg: 80 mg PO once ¹⁸	Not FDA-approved for prophylaxis	150.00

- Use of amantadine or rimantadine is not recommended because of high levels of resistance to these drugs among currently circulating influenza A viruses; they are not active against influenza B viruses.
- Approximate WAC for 5 days' treatment with osetamivir capsules or zanamivir, or for a single treatment dose of peramivir or baloxavir, at the usual adult dosage. WAC = wholesaler acquisition cost, or manufacturer's published price to wholesalers; WAC represents published catalogue or list prices and may not represent an actual transactional price. Source: AnalySource® Monthly, December 5, 2018. Reprinted with permission by First Databank, Inc. All rights reserved. ©2018. www.fdahealth.com/policies/drug-pricing-policy.
- FDA-approved for treatment of acute uncomplicated influenza and for influenza prophylaxis. Not FDA-approved for treatment of severe or complicated influenza illness.
- Capsules can be opened and the contents mixed in a thick sweetened liquid (e.g., chocolate syrup, corn syrup, caramel topping, or brown sugar dissolved in water) to mask the bitter taste and consumed immediately.
- Although not FDA-approved for use in children <2 weeks old, the CDC recommends children <2 weeks old be treated with 3 mg/kg bid. The American Academy of Pediatrics has recommended a dose of 3.5 mg/kg for infants 9-11 months old based on the results of a study showing that a higher dose was needed to achieve the target exposure in this age group (DW Kimberlin et al. J Infect Dis 2013; 207:709). For treatment of premature infants, refer to CDC recommendations (www.cdc.gov/flu).
- Taking osetamivir with food may improve tolerability.
- In hospitalized, critically ill, or immunocompromised patients, a longer treatment course of osetamivir (e.g., 10 days) is often used. Osetamivir can be administered by oro/nasogastric tube to patients who are unable to swallow. IV peramivir (for at least 5 days) may be considered for those who cannot tolerate or absorb oral or enterally administered osetamivir because of gastric stasis, malabsorption, or GI bleeding.
- Although not FDA-approved for prophylaxis in children <1 year old, the Advisory Committee on Immunization Practices (ACIP) and CDC recommend that children 3 months-1 year old receive 3 mg/kg once/day. Prophylaxis is generally not recommended for premature infants or infants <3 months old (refer to CDC recommendations at: www.cdc.gov/flu).
- Duration of prophylaxis recommended by the CDC is 7 days after the last known exposure. The recommended duration in the labeling of osetamivir and zanamivir is 10 days.
- For control of outbreaks in institutions, the CDC recommends prophylaxis be given for at least 2 weeks and continued for 1 week after the end of the outbreak. Some experts would use twice-daily therapeutic doses for post-exposure prophylaxis in highly immunocompromised patients.
- FDA-approved doses for children 1-12 years old: <15 kg: 30 mg; >15-23 kg: 45 mg; >23-40 kg: 60 mg; >40 kg: 75 mg.
- Osetamivir renal dosage adjustment for adults and children who weigh >40 kg (recommended by the CDC): CrCl >30-60 mL/min: 30 mg bid for treatment and 30 mg once/d for prophylaxis; CrCl >10-30 mL/min: 30 mg once/day for treatment and 30 mg every other day for prophylaxis; hemodialysis (HD): 30 mg after every HD for treatment (may be started immediately if influenza symptoms develop between HD sessions) and 30 mg after every other HD for prophylaxis (initial dose can be given before start of HD); continuous ambulatory peritoneal dialysis (CAPD): 30 mg once after exchange for treatment and 30 mg once/week after exchange for prophylaxis; end-stage renal disease (ESRD) not on HD: not recommended for treatment or prophylaxis.
- FDA-approved for treatment of acute uncomplicated influenza. Not FDA-approved for prophylaxis or treatment of severe or complicated influenza illness.
- Infused over 15-30 minutes.
- Peramivir renal dosage adjustment for patients 2-12 years old: CrCl 30-49 mL/min: 4 mg/kg once; CrCl 10-29 mL/min: 2 mg/kg once. For patients ≥13 years old: CrCl 30-49 mL/min: 200 mg once; CrCl 10-29 mL/min: 100 mg once; hemodialysis (HD): administer dose (based on CrCl) after HD.
- Inhaled zanamivir is not recommended for use in patients with underlying respiratory disease such as asthma or COPD, or in patients with severe influenza, including hospitalized patients. It is contraindicated in patients with a history of milk protein allergy.
- Available in a carton containing 5 rotadisks (each rotadisk contains four 5-mg blisters of the active drug in a lactose carrier) and a Diskhaler inhalation device. Zanamivir should not be used in a nebulizer.
- Coadministration of dairy products, calcium-fortified beverages, or products containing polyvalent cations such as calcium, aluminum, iron, magnesium, selenium, or zinc should be avoided.

The Medical Letter®
on Drugs and Therapeutics

Last updated: January 14, 2019

Expanded Table: Antiviral Drugs for Treatment and Prophylaxis of Seasonal Influenza 2018-2019

Drug	Formulations	Usual Treatment Dosage	Usual Prophylaxis Dosage	Pregnancy	Adverse Effects	Class Comments	Cost ¹
Neuraminidase Inhibitors							
Osetamivir ² – generic (Genentech)	30, 45, 75 mg caps, 6 mg/mL oral susp	<1 yr: 3 mg/kg PO bid ⁵ x 5 d ⁷ 1-12 yrs: 30-75 mg PO bid ⁵ x 5 d ⁷ ≥13 yrs: 75 mg PO bid x 5 d ⁷	<1 yr: 3 mg/kg once/d ⁸ x 7 d ¹⁰ 1-12 yrs: 30-75 mg PO once/d ⁸ x 7 d ¹⁰ ≥13 yrs: 75 mg PO once/d x 7 d ¹⁰	• Osetamivir is preferred for treatment of pregnant women • Alternative to zanamivir for prophylaxis of influenza, especially in women at increased risk of respiratory problems	• Nausea, vomiting, and headache are common • Taking the drug with food may minimize GI adverse effects	• All are recommended options for treatment of outpatients with acute uncomplicated influenza • Osetamivir is preferred for treatment of hospitalized patients and outpatients with severe, complicated, or progressive influenza illness (off-label use). IV peramivir can be considered in those who cannot tolerate or absorb osetamivir (off-label use) because of gastric stasis, malabsorption, or GI bleeding • Osetamivir or zanamivir can be used for prophylaxis • Most effective when started within 48 hours of illness onset • Shortens duration of symptoms by about one day • May reduce the risk of complications in high-risk patients with influenza	\$93.30 152.00
Peramivir ¹³ – Rapivab (BioCryst)	200 mg/20 mL single-use vials	2-12 yrs: 12 mg/kg (max 600 mg) IV once infused over 15-30 minutes ¹⁴ ≥13 yrs: 600 mg IV once infused over 15-30 minutes ¹⁴	Not FDA-approved for prophylaxis	• Limited data are available on use of peramivir in pregnant women	• Diarrhea and neutropenia have occurred	• Neuropsychiatric events have been reported with neuraminidase inhibitors, but a causal relationship has not been established, and neuropsychiatric dysfunction is a complication of influenza illness itself • Osetamivir capsules can be opened and the contents mixed in a thick sweetened liquid (e.g., chocolate syrup, corn syrup, caramel topping, or brown sugar dissolved in water) to mask the bitter taste and consumed immediately	950.00
Zanamivir ¹⁶ – Relenza (GSK)	5 mg/blister of powder for inhalation ¹⁷	≥7 yrs: 2 inhalations bid x 5 d	≥5 yrs: 2 inhalations once/d x 7 d ¹⁰	• Zanamivir appears to be safe for treatment of pregnant women • May be preferred for prophylaxis because of its limited systemic absorption	• Diarrhea, nausea, sinusitis, fever, and arthralgia have been reported • Inhalation of zanamivir can cause bronchospasm; the drug should not be used in patients with underlying respiratory disease such as asthma or COPD • Inhaled zanamivir is contraindicated in patients with a history of milk protein allergy	• During emergency situations and when neither the oral suspension nor the age-appropriate strengths of osetamivir capsules to mix with sweetened liquids are available, an oral suspension using osetamivir capsules can be prepared	59.00

For a more detailed table, [click here](#).

Expand the Table for More Detail

Continued on next page



The Medical Letter®

Continuing Medical Education

Earn up to 52 CME/CE credits per year and ABIM MOC points.
Accredited by ACCME, AAFP, AAPA and ACPE.

Access free CME from the Gateway home page

Wednesday, January 9, 2019 Log Out | Search

The Medical Letter

Because the source matters.

THE MEDICAL LETTER
Current Issue
Previous Issues
Reference Tables
Most Read Articles

ABOUT US
The Medical Letter
In the News

PRODUCTS
Continuing Education
Mobile App
Drugs of Choice
Drug Interactions

CONTACT US

Blog

Epinephrine Injections for Anaphylaxis

Dietary Supplements: When Will They Ever Learn?

No Financial Contamination Here

Treatment of Opioid Withdrawal Symptoms

The Medical Letter

Site License Gateway provided for

Site License trial user zootest

Search

advanced search ▶

Conversation

Follow us Email Alerts

FROM ISSUE 1563 **Tildrakizumab (Ilumya) - Another IL-23 Antagonist for Psoriasis**

Tildrakizumab-asmm (*Ilumya* – Sun), an interleukin (IL)-23 antagonist, has been approved by the FDA for treatment of adults with moderate to severe plaque psoriasis who are candidates for systemic therapy or phototherapy. Tildrakizumab is the second selective IL-23 antagonist to be approved for this indication; guselkumab (*Tremfya*) was the first.

STANDARD TREATMENT – Topical corticosteroids are generally recommended for initial treatment of mild to moderate plaque psoriasis. The topical retinoid tazarotene (*Tazorac*, and others) and topical vitamin D analogs such as calcipotriene (*Dovonex*, and others) can also be used, alone or in combination with topical corticosteroids. For patients with moderate to severe disease, systemic ... [Continue reading](#)

CURRENT ISSUE 1563 **January 14, 2019** **Antiviral Drugs for Treatment and Prophylaxis of Seasonal Influenza**

Antiviral drugs can be used for treatment and prophylaxis of seasonal influenza (see Table 1). Frequently updated information on influenza activity, influenza testing, and antiviral resistance is available from the CDC at www.cdc.gov/flu.

ANTIVIRAL DRUGS – The neuraminidase inhibitors oseltamivir (*Tamiflu*, and generics), which is taken orally, and zanamivir (*Relenza*), which is inhaled, are FDA-approved for prophylaxis and treatment of acute uncomplicated influenza. The IV neuraminidase inhibitor peramivir... [Continue reading](#)

More from Issue 1563

- ▶ Tildrakizumab (Ilumya) - Another IL-23 Antagonist for Psoriasis
- ▶ Dupilumab (Dupixent) for Asthma
- ▶ Symfi, Symfi Lo, and Cimduo for HIV (online only)
- ▶ Expanded Table: Antiviral Drugs for Treatment and Prophylaxis of Seasonal Influenza 2018-2019 (online only)

[View Complete Issue](#)

The Medical Letter®

Continuing Medical Education Tip: How to Enroll

The screenshot shows the website interface for 'The Medical Letter' on Wednesday, January 9, 2019. The main heading is 'The Medical Letter' with the tagline 'Because the source matters.' Below this, there is a section titled 'Continuing Medical Education from The Medical Letter for Site License Users'. The text describes a self-study program based on content from the biweekly newsletter, 'The Medical Letter On Drugs and Therapeutics'. It lists two bullet points: 'Accreditation Information and Educational Objectives for Medical Letter Online Series Exams' and 'Frequently Asked Questions'. A prompt asks users to supply their email address in a box below to look up their subscriber status or get enrolled for the first time. Below the prompt is an 'Email address:' label, a text input field, and a 'Submit' button. The left sidebar contains navigation links for 'THE MEDICAL LETTER' (Current Issue, Previous Issues, Reference Tables, Most Read Articles), 'ABOUT US' (The Medical Letter, In the News), 'PRODUCTS' (Continuing Education, Mobile App, Drugs of Choice, Drug Interactions), and 'CONTACT US'. The bottom of the page features a footer with copyright information and various policy links.

Enter your email address and submit to access exams and earn CME



The Medical Letter®

Outline & Table Box

Links Save Time & Take You Directly to the Information You Want

The screenshot displays the website interface for The Medical Letter. The main navigation bar includes the date 'Wednesday, October 23, 2019', and links for 'Renew', 'Donate', and 'Search'. The site title 'The Medical Letter' is prominently displayed, followed by the tagline 'Because the source matters.'.

The left sidebar contains several sections: 'THE MEDICAL LETTER' with links for 'Current Issue', 'Previous Issues', 'Reference Tables', and 'Most Read Articles'; 'ABOUT US' with 'Our Mission' and 'Reader Testimonials'; 'SUBSCRIPTIONS & PRODUCTS' with 'The Medical Letter', 'Continuing Education Exams', 'Drugs of Choice', 'Drug Interactions', 'Institutional Subscriptions', 'Content Licensing', and 'Mobile App'; 'RECOMMEND TO YOUR LIBRARY'; and 'CONTACT US'.

The main content area features a 'The Medical Letter on Drugs and Therapeutics' section for 'September 23, 2019', listing six articles. The first article, '1. Lefamulin (Xenleta) for Community-Acquired Bacterial Pneumonia', is highlighted. Below the list, a 'Download PDF' link is provided for 'US English | Canadian-English | La Lettre Médicale'.

The article preview for 'Lefamulin (Xenleta) for Community-Acquired Bacterial Pneumonia' includes a 'Summary' and a 'Table of Contents' section. The 'Table of Contents' is divided into 'Outline' and 'Tables'.

The 'Outline' section lists the following topics:

- CABP
- Standard Treatment
- Mechanism of Action
- Activity
- Clinical Studies
- Adverse Effects
- Drug Interactions
- Pregnancy and Lactation
- Dosage and Administration
- Conclusion

The 'Tables' section lists the following topics:

- Pharmacology
- Lefamulin Clinical Trial Results
- Lefamulin Drug Interactions
- Some Drugs for Empiric Treatment of CABP

Two orange arrows point from the 'Outline' and 'Tables' sections of the article preview to a larger, semi-transparent box on the right side of the slide, which contains the same lists of topics. A red circle highlights the 'Table of Contents' section in the article preview.

The Medical Letter®

Summary Box

What You Need to Know At a Glance

The screenshot shows the website interface for 'The Medical Letter' on Wednesday, October 23, 2019. The main title is 'The Medical Letter' with the tagline 'Because the source matters.' Below this, there are navigation links for 'THE MEDICAL LETTER' (Current Issue, Previous Issues, Reference Tables, Most Read Articles), 'ABOUT US' (Our Mission, Reader Testimonials), 'SUBSCRIPTIONS & PRODUCTS' (The Medical Letter, Continuing Education, Exams, Drugs of Choice, Drug Interactions, Institutional Subscriptions, Content Licensing, Mobile App), 'RECOMMEND TO YOUR LIBRARY', and 'CONTACT US'.

The featured article is 'The Medical Letter on Drugs and Therapeutics' dated October 7, 2019, titled 'Advice for Travelers'. It includes a 'FROM ISSUE 1582' badge and a 'Download PDF' link for 'US English | Canadian-English'. The article ID is 'Med Lett Drugs Ther. 2019 Oct 7;61(1582):153-60'.

The 'Summary: Advice for Travelers' section is circled in orange and contains the following text:

Travelers' Diarrhea (TD)

- TD is common in travelers to Asia, the Middle East, Africa, Mexico, and Central and South America.
- Loperamide (*Imodium A-D*, and others) can relieve symptoms of mild TD.
- Azithromycin (in addition to loperamide) is recommended for empiric treatment of moderate or severe TD.
- The minimally absorbed antibiotics rifamycin and rifaximin are effective for self-treatment of TD caused by noninvasive pathogens.
- Antibiotic prophylaxis of TD is generally not recommended.

Malaria

- Travelers should use protective measures against mosquito bites (e.g., insect repellents and insecticide-treated bed nets).
- Atovaquone/proguanil has been highly effective for prophylaxis of malaria, and it is well tolerated. Alternatives for prophylaxis in most areas include doxycycline, mefloquine, and tafenoquine.
- Primaquine or tafenoquine can be used to prevent relapses of *P. vivax* malaria.
- Chloroquine and mefloquine are considered safe for use during pregnancy.

Some Other Infections

- Protection against mosquito bites is the primary way to

The 'Outline' section on the right lists various topics: Travelers' Diarrhea, Treatment, Prophylaxis, Insect Bites, Malaria, Atovaquone/Proguanil, Chloroquine, Doxycycline, Mefloquine, Primaquine, Tafenoquine, Choice of Drugs for Prophylaxis, Pregnancy, Some Other Infections, Dengue, Zika, and Chikungunya, Leptospirosis, Noninfectious Risks of Travel, Acute Altitude Illness, Venous Thromboembolism, Jet Lag, Motion Sickness, and Sunburn.

The Medical Letter®

Conclusions

Evidence-based, peer-reviewed evaluations and recommendations reached by a consensus of experts

Providing healthcare professionals with unbiased, time-saving recommendations to improve prescribing for better outcomes.

Table 2. Dupilumab Clinical Trial Results

	Overall Population*		Blood Eosinophils >300 cells/mL	
	Annual Asthma Exacerbation Rate (n) ^{1,2}	FEV ₁ (L) Change from Baseline at WK 12 ^{3,4}	Annual Asthma Exacerbation Rate (n) ^{1,2}	FEV ₁ (L) Change from Baseline at WK 12 ^{3,4}
Trial 1 (≤18 yrs old, 24 wks) ⁵				
Dupilumab 200 mg q2 wks ⁶	0.27 (150)	0.31	0.30 (65)	0.43
Dupilumab 300 mg q2 wks ⁶	0.27 (157)	0.28	0.20 (64)	0.39
Placebo	0.90 (158)	0.12	1.04 (68)	0.18
Trial 2 (≥12 yrs old, 52 wks) ⁵				
Dupilumab 200 mg q2 wks ⁶	0.46 (631)	0.32	0.37 (264)	0.43
Placebo	0.87 (317)	0.18	1.08 (148)	0.21
Dupilumab 300 mg q2 wks ⁶	0.52 (633)	0.34	0.40 (277)	0.47
Placebo	0.97 (321)	0.21	1.24 (142)	0.22

*Unrestricted by minimum baseline blood eosinophil count; FEV₁ = forced expiratory volume in 1 second
 1. p < 0.05 for all comparisons vs placebo.
 2. Annualized rate of severe exacerbation events during 24 weeks (Trial 1) or 52 weeks (Trial 2) of treatment (in Trial 1, primary endpoint in patients with blood eosinophils >300 cells/mL and a secondary endpoint in the overall population; in Trial 2, primary endpoint in the overall population and a secondary endpoint in patients with blood eosinophils >300 cells/mL). A severe asthma exacerbation was defined as a deterioration of asthma leading to treatment for >3 days with systemic glucocorticoids or hospitalization or an emergency department visit leading to treatment with systemic glucocorticoids.
 3. Mean change from baseline in pre-bronchodilator FEV₁ (in Trial 1, primary endpoint in patients with blood eosinophils >300 cells/mL, and a secondary endpoint in the overall population; in Trial 2, primary endpoint in the overall population and a secondary endpoint in patients with blood eosinophils >300 cells/mL).
 4. S Wenzel et al. Lancet 2016; 388:31.
 5. Following a loading dose of 400 mg (in those receiving a maintenance dose of 200 mg q2 wks) or 600 mg (in those receiving a maintenance dose of 300 mg q2 wks).
 6. M Castro et al. N Engl J Med 2018; 378:2486.

observed in the offspring of pregnant monkeys who received up to 10 times the maximum recommended human dose of another antibody against the IL-4 receptor alpha subunit.

Whether dupilumab is present in human breast milk is unknown, but human IgG is secreted in breast milk. There are no data on the effects of the drug on the breastfed infant or milk production.

ADMINISTRATION — Dupilumab is injected subcutaneously into the thigh, abdomen, or upper arm. Parents or caregivers can be trained to administer the drug at home.

CONCLUSION — Add-on maintenance treatment with dupilumab (*Dupixent*) can improve lung function and reduce severe exacerbations and oral corticosteroid use in patients ≥12 years old with moderate to severe asthma, particularly those with an eosinophilic phenotype. How dupilumab compares to the other monoclonal antibodies that are approved for treatment of eosinophilic asthma remains to be determined, and its long-term safety is unknown. ■

- Dupilumab (*Dupixent*) for moderate to severe atopic dermatitis. Med Lett Drugs Ther 2017; 59:64.
- S Wenzel et al. Dupilumab in persistent asthma with elevated eosinophil levels. N Engl J Med 2013; 368:2455.
- Benralizumab (*Fasenra*) for severe eosinophilic asthma. Med Lett Drugs Ther 2016; 58:11.
- Mepolizumab (*Nucala*) for severe eosinophilic asthma. Med Lett Drugs Ther 2016; 58:11.

- Drugs for asthma. Med Lett Drugs Ther 2017; 59:139.
- S Wenzel et al. Dupilumab efficacy and safety in adults with uncontrolled persistent asthma despite use of medium-to-high-dose inhaled corticosteroids plus a long-acting β₂ agonist: a randomised double-blind placebo-controlled pivotal phase 2b dose-ranging trial. Lancet 2016; 388:31.
- M Castro et al. Dupilumab efficacy and safety in moderate-to-severe uncontrolled asthma. N Engl J Med 2018; 378:2486.
- KF Rabe et al. Efficacy and safety of dupilumab in glucocorticoid-dependent severe asthma. N Engl J Med 2018; 378:2475.

Additional Content Available Online
 Symfi, Symfi Lo, and Cimduo for HIV
<http://medicalletter.org/TML-article-1563d>

2018 Year-End Index
 For an electronic copy of the 2018 index, go to:
www.medicalletter.org/downloads/tmlindex2018.pdf
 If you would like a printed copy of the index, please email us your request at: custserv@medicalletter.org.

We Want to Know
 Are there topics you would like us to review in an upcoming issue? We welcome your suggestions at: articles@medicalletter.org

The Medical Letter Site License
 Shouldn't everyone in your institution have access to all The Medical Letter has to offer?
 ▶ Online searchable access to current and past issues
 ▶ Detailed drug comparison tables
 ▶ Free CME/CE/ABIM MOC credits
 ▶ A mobile app for iOS and Android to read issues and take CME exams
 ▶ A Medical Letter Site License enables commercial resellers to

The Medical Letter®

Mobile App

24/7 Access. Anytime...Anywhere.



2 Easy Steps:

1. Download the app from:



2. Register on your site's Gateway Home Page

The Medical Letter®

Drug Interactions

(Optional online access if your site subscription includes it)

Search and find potentially life-threatening interactions between prescription drugs, over-the-counter drugs, herbs, supplements, and lifestyle factors.



The Medical Letter®

Rely on It for Peer-reviewed Content

Unique Editorial Process – ensures that the information we provide represents an unbiased consensus of medical experts.

- Articles are reviewed by anonymous experts in their field. The anonymity empowers them to give honest comments and criticisms.
- Manufacturer as well as competing manufacturers review drafts and submit input. This ensures a balanced representation of a drug's benefits and shortcomings.
- All articles are reviewed by the FDA.

CME – free of any pharma influence

Nonprofit – no commercial support, subscriber funded