

Antiviral Agents Used for Influenza Treatment and Prevention

According to the Centers for Disease Control and Prevention (CDC), “Early treatment with neuraminidase inhibitor antiviral medications is recommended for patients with severe, complicated, or progressive influenza illness and those at higher risk for influenza complications, including adults aged ≥ 65 years.” Older antiviral medications (i.e., amantadine and rimantadine) are not recommended for use. In October 2018, a new antiviral medication with a unique mechanism of action was approved by the U.S. Food and Drug Administration (FDA). An overview of recommended dosing for the three neuraminidase inhibitors and the first polymerase acidic endonuclease inhibitor is provided below. The final choice of therapy is a decision that should be made by the prescriber based on individual patient characteristics and the clinical situation. Clinical benefit has been demonstrated when antiviral medications for treatment are initiated early (i.e., within 48 hours of onset of symptoms).

Tamiflu (oseltamivir) Capsule or Suspension Dosing

Estimated Renal Function	Treatment Dose for Adults	Post-Exposure Prophylaxis Dose in LTC*
CrCl > 60 mL/min	75 mg twice daily for 5 days	75 mg once daily for at least 14 days
CrCl > 30 to 60 mL/min	30 mg twice daily for 5 days	30 mg once daily for at least 14 days
CrCl > 10 to 30 mL/min	30 mg once daily for 5 days	30 mg every other day for at least 14 days
ESRD on Hemodialysis (CrCl ≤ 10 mL/min)	30 mg immediately then after dialysis for 5 days	30 mg immediately then after alternate dialysis cycles for at least 14 days
ESRD on Continuous Peritoneal Dialysis (CrCl ≤ 10 mL/min)	A single 30 mg dose immediately	30 mg immediately then once weekly after the dialysis exchange for at least 14 days
Oseltamivir is not recommended in ESRD patients not undergoing dialysis treatment		

Relenza (zanamivir) Inhalation Dosing†

Treatment Dose for Adults	Post-Exposure Prophylaxis Dose in LTC**
2 inhalations (10 mg) twice daily for 5 days	2 inhalations (10 mg) once daily for at least 14 days

Rapivab (peramivir) Intravenous (IV) Dosing§

Estimated Renal Function	Treatment Dose for Adults
CrCl ≥ 50 mL/min	600 mg x1 dose
CrCl = 30 to 49 mL/min	200 mg x1 dose
CrCl = 10 to 29 mL/min	100 mg x1 dose
ESRD on Hemodialysis	After dialysis at a dose based on renal function

Xofluza (baloxavir) Tablet¶

Weight	Treatment Dose for Adults
40 kg to less than 80 kg	Single dose of 40 mg
At least 80 kg	Single dose of 80 mg

CrCl = creatinine clearance; ESRD = end stage renal disease

* According to the latest guidance from the CDC, within LTC facilities, the recommended minimum length of therapy for prophylaxis is “a minimum of 2 weeks, and continuing up to 1 week after the last known case was identified”.

† No dosage adjustment is necessary in patients with renal impairment. However, the potential for drug accumulation should be considered.

‡ Although FDA approved, Relenza (zanamivir) has not been proven effective for prophylaxis of influenza in the nursing home setting.

§ Not FDA approved for prophylaxis; should be administered via IV infusion for 15-30 minutes.

¶ Not FDA approved for prophylaxis; was not formally studied in older adults 65 years and older during the approval process. Use in those with a CrCl below 50 mL/min has not been fully evaluated.

References

Additional details are available in the prescribing information for each medication which can be reviewed at: <https://dailymed.nlm.nih.gov/>.
Grohskopf LA et al. Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2018-19 influenza season. MMWR Recomm Rep 2018; 67(3):1-20.