

Oseltamivir:

Class: Antiviral Agent.

Indications:

Treatment of uncomplicated acute illness due to influenza (A or B) infection in children ≥ 2 weeks and adults who have been symptomatic for no more than 2 days; prophylaxis against influenza (A or B) infection in children ≥ 1 year of age and adults.

Available dosage form in the hospital: 75 MG /5ML SUSPENSION, 75 MG CAP.

Dosage:

-Influenza prophylaxis: Oral: 75 mg once daily; initiate prophylaxis within 48 hours of contact with an infected individual; duration of prophylaxis: 10 days (manufacturer recommendation) or alternatively 7 days (CDC, 2012). During community outbreaks, duration of protection lasts for length of dosing period; safety and efficacy have been demonstrated for use up to 6 weeks in immunocompetent patients and safety has been demonstrated for use up to 12 weeks in patients who are immunocompromised.

-Prophylaxis (institutional outbreak; CDC, 2012): Continue for ≥ 2 weeks and until ~ 7 days after identification of illness onset in the last patient

-Influenza treatment: Oral: 75 mg twice daily initiated within 48 hours of onset of symptoms; duration of treatment: 5 days.

Renal Impairment:

-U.S. labeling: Cl_{cr} 10-30 mL/minute: 75 mg once daily for 5 days

-Canadian labeling:

- $Cl_{cr} >30-60$ mL/minute: 30 mg twice daily for 5 days
- Cl_{cr} 10-30 mL/minute: 30 mg once daily for 5 days

-High-dose treatment (unlabeled [eg, severely-ill hospitalized patients with 2009 H1N1 influenza]): Currently no data are available; consider 150 mg once daily

-Prophylaxis:

-U.S. labeling: Cl_{cr} 10-30 mL/minute: 75 mg every other day or 30 mg once daily

-Canadian labeling:

- $Cl_{cr} >30-60$ mL/minute: 30 mg once daily for 10-14 days
- Cl_{cr} 10-30 mL/minute: 30 mg every other day for 10-14 days

-CAPD:

-Unlabeled dose: 30 mg once weekly (Robson, 2006)

-*Canadian labeling* (not in U.S. labeling):

-Treatment: 30 mg prior to start of dialysis

-Prophylaxis: 30 mg prior to start of dialysis, then 30 mg every 7 days for 10-14 days

-Continuous veno-venous hemodialysis (CVVHD): Adults: **Note:** Limited information available; optimal dosing has not been established: 150 mg twice daily administered via nasogastric or postpyloric feeding tube demonstrated supratherapeutic oseltamivir carboxylate concentrations at effluent rates of 3300 ± 919 mL/hour; the authors determined that the manufacturer recommended dosage of 75 mg once daily for patients with Cl_{cr} 10-30 mL/minute will likely achieve concentrations necessary to inhibit viral neuraminidase activity at these effluent rates; however, doses greater than 75 mg once daily may be required when using higher effluent rates (Eyler, 2012).

-*CVVHD and concurrent use of ECMO:* Lower oseltamivir carboxylate concentrations (~981 ng/mL) were observed as compared to those with the use of CVVHD alone (~2760 ng/mL) when patients were administered 150 mg twice daily (n=4; Eyler, 2012).

-Intermittent hemodialysis:

-Unlabeled dose: 30 mg after every other session (Robson, 2006) **or** 75 mg every 48 hours (Ariano, 2010)

-*Canadian labeling* (not in U.S. labeling):

-Treatment: 30 mg prior to dialysis; if symptomatic between dialysis sessions, then administer 30 mg after each dialysis session over period of 5 days

-Prophylaxis: 30 mg prior to dialysis, then 30 mg after every other dialysis session for period of 10-14 days

Common side effect:

Gastrointestinal: Vomiting , Nausea , abdominal pain , diarrhea.

Pregnancy Risk Factor: C