

EMPIRIC CHOICE

- 🔸 Oseltamivir
- Note: Screening of patients with <u>fever and cough</u> who have a high likelihood of influenza is performed during influenza season. Symptomatic hospitalized patients who have laboratory-confirmed influenza should generally be treated with oseltamivir. Full criteria for oseltamivir use can be found <u>here</u>.
- In-high-risk patients without respiratory symptoms/with mild symptoms who have tested positive for influenza, treatment benefit is unclear but may reduce duration of symptoms, disease progression and/or transmission. This should be weighed against the risk of oseltamivir-induced neuropsychiatric events, nausea and vomiting.

ROUTE

Enteral (PO/NG/OG)

DOSE

Creatinine clearance	Dose and Frequency
>60 mL/min	75 mg twice daily
30-60 mL/min	30 mg twice daily
10-29 mL/min	30 mg once daily
<10 mL/min	Single 75 mg dose ONCE (see Duration below)
Patients receiving dialysis	Sustained low-efficiency dialysis (SLED): 75 mg after each dialysis session (consider 75 mg PO BID in continuous/24 hour SLED, limited data available)
	Hemodialysis (HD) (high-flux): 75 mg after each dialysis session
	Peritoneal Dialysis (PD): Single 75 mg dose ONCE (see Duration below)
	Continuous Renal Replacement Therapy (CRRT) (high-flux): 75 mg once daily

DURATION

- ✤ 5 days (or as specified above for patients with CrCl<10 ml/min or receiving PD)</p>
- Patients with CrCl < 10 ml/min or those receiving PD, a single 75 mg dose provides sufficient exposure to be approximately equal to 5 days of therapy)</p>

ALTERNATIVES FOR ALLERGIES

Allergy to oseltamivir is uncommon. If present, consultation should be obtained from Infectious Diseases (ID)

COMMON ORGANISMS

Influenza A and B

CURRENT RESISTANCE ISSUES

Drug resistance is rare but, if considered, consultation should be obtained from Infectious Diseases (ID)

IMMUNOCOMPROMISED HOST CONSIDERATION

- Immunocompromised hosts (e.g. solid-organ transplant, hematopoietic stem cell transplant, leukemia) need to be regarded as especially vulnerable. Early signs of influenza may not be apparent; maintain a high index of suspicion in such patients.
- Duration of therapy should be determined in conjunction with the appropriate Infectious Diseases consultation service (e.g. Transplant ID or Oncology ID) but is generally 5 days.

ADDITIONAL DIAGNOSTIC AND THERAPEUTIC COMMENTS

- In patients with severe suspected influenza (e.g. managed in the intensive care unit) and a negative nasopharyngeal swab, bronchoscopy should be considered to confirm the diagnosis.
- Because influenza PCR testing detects both live and dead virus, the test remains positive for at least a week regardless of treatment, so there is generally no value in repeating testing to document disease improvement
- Co-existent SARS-CoV-2 infection or other respiratory or bacterial infection should be considered.
- While both baloxavir marboxil and peramivir are newly available in Canada, clinical use criteria are not yet available and neither drug is on formulary at Sinai Health or University Health Network

Disclaimer: This document is intended for internal use at Sinai Health System and University Health Network. Recommendations herein are based on existing literature and clinical practice and are subject to change at any time. Please refer to the Terms and Conditions for more details.





REFERENCES

- 1. Aoki, F.Y., et al., *Use of antiviral drugs for seasonal influenza: Foundation document for practitioners-Update 2019.* J Assoc Med Microbiol Infect Dis Can, 2019. **4**(2): p. 60-82.
- Uyeki, T.M., et al., Clinical Practice Guidelines by the Infectious Diseases Society of America: 2018 Update on Diagnosis, Treatment, Chemoprophylaxis, and Institutional Outbreak Management of Seasonal Influenzaa. Clin Infect Dis, 2019. 68(6): p. 895-902.
- 3. Aoki, F.Y., et al., 2021-2022 AMMI Canada guidance on the use of antiviral drugs for influenza in the COVID-19 pandemic setting in Canada. J Assoc Med Microbiol Infect Dis Can, 2022. **7**(1): p. 1-7.
- 4. Patel, K., et al., *Pharmacokinetics and safety of oseltamivir in patients with end-stage renal disease treated with automated peritoneal dialysis.* Br J Clin Pharmacol, 2015. **79**(4): p. 624-35.\
- 5. Tamiflu® (oseltamivir) [Product Monograph] Mississauga, Ontario Canada. Hoffman-Laroche Ltd. 2022.
- 6. Lexi-Drugs/Oseltamivir. Lexicomp app. Accessed January 9, 2022.
- 7. Oseltamivir, in The Renal Drug Handbook, A. C, Editor. 2019, CRC Press, Taylor and Francis Group: Boca Raton, FL. p. 747-748.
- 8. Kang, H.-R., et al., Risk of neuropsychiatric adverse events associated with the use of oseltamivir: a nationwide population-based case-crossover study. Journal of Antimicrobial Chemotherapy, 2018. 74(2): p. 453-461.



