

Influenza Antiviral Agents for 2009-10 (Seasonal and Novel Swine)

	oseltamivir (Tamiflu)	zanamivir (Relenza)	rimantadine (Flumadine)	amantadine (Symmetrel)
Dosage form	30, 45, or 75 mg hard gel capsules, 12 mg/mL powder for susp (25 mL)	5 cartridges with 4 x 5 mg blisters each (dry powder)- diskhaler	100 mg tablets	100 mg tablets, capsules, 50 mg/ 5 mL syrup
Storage	capsules- room temp powder- room temp; reconstituted- refrig	room temp	room temp	tabs, capsules- room temp syrup- room temp
CDC Stockpile	Yes	Yes	No	No
Strain	Influenza A (seasonal H3N2; swine/novel H1N1) and B	Influenza A (seasonal- H1N1 & H3N2; swine/novel H1N1) and B	Influenza A (seasonal H1N1 only)	Influenza A (seasonal H1N1 only)
Adult Prophylaxis	75 mg daily	2 oral inhalations daily	100 mg BID; ≥ 65 yrs: 100 mg daily	100 mg BID; ≥ 65yrs: ≤ 100 mg daily
Pediatric Prophylaxis	≥ 13 yrs: 75 mg daily; 1 to 12 yrs (wt based): ≤ 15 kg 30 mg; >15- 23 kg 45 mg; >23- 40 kg 60 mg; >40 kg 75 mg daily	5 years and older (1-4 yrs- N/A) 2 oral inhalations daily	1-10 yrs: 5 mg/kg (max. 150 mg/day) daily- divided BID; >10 yrs- adult dose	1-10 yrs: 5 mg/kg (max. 150 mg) daily- divided BID; >10 yrs- adult dose
Duration	Begin at exposure (high-risk pt: sustained community activity onset; within 14 days of vaccination); continue 5-7 days after last known exposure			
Adult Treatment	75 mg BID (≥ 13 years of age)	2 oral inhalations BID	100 mg BID; ≥ 65 yrs: 100 mg daily	100 mg BID; ≥ 65 yrs: ≤ 100 mg daily
Pediatric Treatment	age ≥ 1 year (wt based): ≤ 15 kg 30 mg; >15- 23 kg 45 mg; >23- 40 kg 60 mg; >40 kg 75 mg BID	7 years and older (1-6 yrs- N/A) 2 oral inhalations BID	1-9 yrs: 6.6 mg/kg (max. 150 mg/day) daily- divided BID; ≥ 10 yrs- adult dose	1-9 yrs: 5 mg/kg (max. 150 mg) daily- divided BID; >10 yrs: 100 mg BID
Duration	Within 48 hours of signs and symptoms of influenza for a total of 5 days			
Timing	with or without food food may ↓ nausea	if used with other inhalers, use inhaler first, then dose Relenza	with or without food	with or without food
Renal	adjust dose for CrCl 10-30 mL/min: ↓ txment- daily; prophylaxis- q other day	no adjustment	adjust dose (CrCl ≤ 10 mL/min)	adjust dose (CrCl ≤ 50 mL/min)
Hepatic	no adjustment mild/mod; severe- unknown	no adjustment	↓ adult dose to 100 mg daily	no adjustment
Side Effects	nausea, vomiting, insomnia, vertigo, neuropsych	cough, bronchospasm, sinusitis, dizziness	insomnia, HA, N/V, anxiety, CNS, anorexia	same as rimantadine, yet more CNS, EPS
Precautions	renal failure- use cautiously; hereditary fructose intolerance- suspension	COPD, asthma; lactose intolerance (hypersensitivity- contraindication)	seizure Hx, CNS effects, ↓ liver fxn, ↓ kidney fxn	CHF, edema, orthostatic hypotension, liver disease
Preg/Lactation	Preg- C; use with caution during lactation	Preg- C; caution- lactation	C; not recommended- lactation	C; not recommend- lactation
Drug Intxns	none anticipated	none anticipated	ASA, APAP, cimetidine	anticholinergics, HCTZ, triamterene, others...

References

1. WHO Guidelines for pharmacological management of pandemic (H1N1) 2009 influenza and other influenza viruses. 20 Aug 2009. Available: http://www.who.int/csr/resources/publications/swineflu/h1n1_guidelines_pharmaceutical_mngt.pdf
2. Recommended daily dosage of seasonal influenza antiviral medications for treatment and chemoprophylaxis for the 2008-09 season- United States. Available at: <http://www.cdc.gov/flu/professionals/antivirals/dosagetable.htm#table>
3. IDSA Seasonal Influenza Guidelines. CID; 2009;48:1003-32. Available at: <http://www.journals.uchicago.edu/doi/pdf/10.1086/598513>.