

### Influenza –Antiviral Medicines (oseltamivir or zanamivir) for Treatment in Primary Care

\*\*If clinicians in primary care have seriously ill patients, whom they suspect to have influenza but it is not during the period of confirmed influenza circulating in the community, please seek specialist advice\*\*

**Has the Chief Medical Officer written to say that influenza is circulating in the community?**

NO

YES

**Do not prescribe antiviral medication (oseltamivir or zanamivir)**

To do so would contravene the NICE guidance<sup>1</sup> and/or the product licence<sup>2,3,4</sup>.

Amantadine is not recommended for the treatment of influenza<sup>1</sup>

NO

NO

Is the patient:

- Pregnant (including up to two weeks post-partum)?
- Aged 65 years or older?
- Diagnosed with a neurological, hepatic, renal, pulmonary or chronic cardiac disease; diabetes mellitus
- Severely immunosuppressed
- Under 6 months old
- Morbidly obesity (BMI ≥40)
- Not in an at-risk group but is at serious risk of developing complications<sup>5</sup>? Apply clinical judgement.

YES

Is the patient presenting with influenza like illness symptoms **AND** able to start treatment (if no contra-indications) within **48 hours** of onset of symptoms?

**NB:** Treatment after 48 hours is an off-label use of oseltamivir and zanamivir (or 36 hours if using zanamivir in children) and clinical judgement should be exercised<sup>6</sup>

YES

Prescribe treatment as advised below

**Children less than 1 year:**

Consider specialist paediatric advice

**Children over 1 year and less than 5 years:** Prescribe **Oseltamivir (Tamiflu®)**. (See below for weight- adjusted dosing)

(See below for weight- adjusted dosing)

**Children 5 - 12 years:** Prescribe **Oseltamivir (Tamiflu®)**

(See below for weight- adjusted dosing)

**Adults and children 13 years and over:**

Prescribe **Oseltamivir (Tamiflu®)** (75mg twice daily for 5 days)<sup>2</sup>. **For adults <40kg:** Use weight-adjusted child doses.

*Pregnancy - see Table 4*

**Oseltamivir (Tamiflu®) – weight-adjusted doses for children (over 1 year only)<sup>2</sup>**

Body weight:

10-15kg: 30mg twice daily for 5 days

>15-23kg: 45mg twice daily for 5 days

>23-40kg: 60mg twice daily for 5 days

>40kg: dose as per adults

Note: Oseltamivir (Tamiflu®) 30 mg, 45 mg and 75mg capsules and oral suspension are available however oral suspension should be reserved for those aged <1yr (off label but supported by BNFC<sup>5</sup>) to ensure demand can be met. Other patients with swallowing difficulties or for administration via enteral tubes, should open the capsules and mix them into an appropriately sweetened liquid (as oseltamivir has a bitter taste)<sup>6</sup>.

➤ **Uncomplicated influenza** – presents with fever, coryza, generalised symptoms (headache, malaise, myalgia, arthralgia) and sometimes gastrointestinal symptoms, but without any features of complicated influenza. **Dose as above.**

➤ **Complicated influenza** - requires hospital admission **and/or** with symptoms and signs of lower respiratory tract infection (hypoxaemia, dyspnoea, lung infiltrate), central nervous system involvement and/or a significant exacerbation of an underlying medical condition. **Dose as in complicated influenza in table 2.**

➤ See **Table 1** for selection of **antiviral treatments in severely immunosuppressed patients**

➤ See **Table 2** for oseltamivir doses in **renal impairment**

**Please remember:**

➤ A history of influenza immunisation does not exclude influenza as a possible diagnosis.

➤ The duration of therapy depends on clinical response.

➤ Test for antiviral resistance in patients who do not respond after five days of treatment<sup>6</sup>

For recommendations on the use of COVID-19 and influenza diagnostic tests when considering prescribing treatment in at-risk patients see [Table 1](#) in the UKHSA guidance document

For further information, please contact your Primary Care Pharmacist

**Table 1: Selection of antivirals for severely immunosuppressed patients<sup>6</sup>**

**N.B. Oseltamivir and zanamivir- commence therapy within 48 hours (36 hours for zanamivir in children) of onset (or later at clinical discretion)**

	Dominant circulating strain has a lower risk of oseltamivir resistance, e.g. A(H3N2), influenza B *	Dominant circulating strain has a higher risk of oseltamivir resistance, e.g. A(H1N1) *
Uncomplicated influenza	<b>oseltamivir PO (see dosing schedule above)</b> and clinical follow up.	<b>zanamivir INH (Diskhaler® ) 10mg (2 inhalations) twice daily for 5 days (unlicensed in children &lt;5yrs)</b> OR if unable to take inhaled preparation use <b>oseltamivir PO</b> and clinical follow up.
Complicated influenza  <i>(Treatment mainly carried out in hospital)</i>	<b>1st line: oseltamivir PO/NG (see dosing schedule above)</b> <b>2nd line:</b> <b>zanamivir INH 10mg (2 inhalations) twice daily for 5 days (unlicensed in children &lt;5yrs) via the Diskhaler if:</b> <ul style="list-style-type: none"> <li>poor clinical response to oseltamivir</li> <li>evidence of gastrointestinal dysfunction**</li> <li>subtype testing confirms a strain with potential oseltamivir resistance, e.g. A(H1N1) pdm09</li> </ul> <b>OR consider referring to hospital for further management with zanamivir IV if patients:</b> <ul style="list-style-type: none"> <li>Are unable to self-administer inhaled zanamivir (due to underlying respiratory disease or inability to use the Diskhaler)</li> <li>Have severe complicated illness such as multi-organ failure</li> <li>Note: treatment should be commenced as soon as possible and usually within 6 days.</li> </ul>	<b>zanamivir INH 10mg (2 inhalations) twice daily for 5 days (unlicensed in children &lt;5yrs) via the Diskhaler</b> OR <b>consider referring to hospital for further management with zanamivir IV if patients:</b> <ul style="list-style-type: none"> <li>Are unable to self-administer inhaled zanamivir (due to underlying respiratory disease or inability to use the Diskhaler)</li> <li>Have severe complicated illness such as multi-organ failure</li> <li>Note: treatment should be commenced as soon as possible and usually within 6 days.</li> </ul>

\* = (also applicable if this is the strain known to be infecting patient; treatment however, should not be delayed while waiting for test results).

\*\* = Examples of gastrointestinal dysfunction include known gastroparesis, clinical evidence of malabsorption, uncontrollable vomiting, and gastrointestinal bleeding.

**Table 2: Recommended dosage of oseltamivir in patients with renal dysfunction (adults aged 13 or over)<sup>6</sup>**

<b>Creatinine Clearance</b> (eGFR may be used if CrCl is not available)	<b>Oseltamivir PO (Treatment – 5 days)</b>
Moderate impairment (CrCl 31-60mL/min)	30mg BD
Severe impairment (CrCl 11-30mL/min)	30mg OD
Established renal failure (CrCl ≤10mL/min)	30mg ONCE based on expert opinion

**NB:** For further information and prescribing guidance (based on expert opinion) for haemodialysis see section 2.3.2 [here](#)  
There is NO dose adjustment for **inhaled** zanamivir in renal impairment<sup>3</sup>.

There is NO dose adjustment for oseltamivir and zanamivir in hepatic impairment<sup>2,3</sup>.

**Table 3: Advice for use in pregnancy<sup>6</sup>**

Antivirals are recommended for pregnant women due to the adverse clinical outcomes that have been observed for influenza infection in this group.

<b>Oseltamivir</b>	First line option for the vast majority of pregnant women with influenza. Discuss with patient regarding risks and benefits
<b>Zanamivir</b>	For pregnant women who meet additional criteria for zanamivir first line, further rapid diagnostics and treatment should be discussed with a local infection specialist

**For use while breastfeeding:**

- **For Infants born full term and healthy**, both oseltamivir and zanamivir are considered acceptable for use in breastfeeding mothers. If the mother is receiving oseltamivir or zanamivir and the breastfed infant also needs direct treatment or prophylaxis, the recommended dose of oseltamivir or zanamivir for infants should be given to the infant.
- **If an infant is unwell, premature, or the mother is taking multiple medicines**, then an individual risk assessment will need to be made.

**References**

1. NICE technology appraisal guidance 168 – Amantadine, oseltamivir and zanamivir for the treatment of influenza (Feb 2009). Click [here](#)
2. Summary of Product Characteristic – Tamiflu® (Oseltamivir); accessed 2/12/21. Click [here](#)
3. Summary of Product Characteristics – Relenza® (Zanamivir); accessed 2/12/21. Click [here](#)
4. Summary of Product Characteristics – Dectova® (IV Zanamivir); accessed 2/12/21. Click [here](#)
5. BNFC online; accessed 2/12/21. Click [here](#)
6. UKHSA guidance on use of antiviral agents for the treatment and prevention of seasonal influenza – November 2021. Click [here](#)
7. SPS medicines Q&A – Oseltamivir or zanamivir – Can mothers breastfeed after treatment for influenza? accessed 2/12/21 Click [here](#)