Hospital Authority
Information on the Use of Intravenous Zanamivir in Human Swine Influenza

1. Background

Intravenous neuraminidase inhibitor, namely Zanamivir, is used in clinical trials or as alternatives for the treatment of severe influenza illness in pandemic on a compassionate-use basis such as Human Swine Influenza (HSI). Currently, intravenous Zanamivir is an unregistered drug in Hong Kong. The Task Force on Human Swine Influenza has reviewed the clinical evidence as well as drug insert and came to a consensus on the suggested use of intravenous Zanamivir in HA hospitals. When prescribing this drug, clinicians have to follow current policy on the use of unregistered drugs in HA hospitals, to seek approval from the Chief of Service of the department and to inform hospital pharmacy of the administration.

2. Clinical information of Zanamivir

Evidence showed that Zanamavir might be effective in isolates of influenza A/H1N1 with oseltamivir resistance due to H275Y mutation. However, there is lack of clinical data on its efficacy in young children particular those aged below 6 months.

3. Recommended Indications

As salvage therapy for hospitalized patients with severe or critical conditions due to HSI (e.g. viral pneumonia with respiratory failure), the followings are suggested indications on the use of intravenous Zanamivir for HSI patients:

3.1 Patient not responding to either oral oseltamivir or inhaled zanamivir, or

3.2 Drug delivery by a route other than IV (e.g. enteral oseltamivir or inhaled zanamivir) is not expected to be dependable or is not feasible, or

3.3 The clinician judges IV therapy is appropriate due to other circumstances.

4. Informed Consent

The Task Force recommended obtaining informed consent from patients prior to prescription of intravenous Zanamivir. In case the patient was in altered mental status, signatures of two registered medical practitioners are required. Clinicians are suggested to inform patients or their next-of-kin this is an unregistered drug authorized for use in emergency situations.

5. Regimens

The standard regimen of intravenous Zanamivir for adults with normal renal function is 600mg twice daily. Dosage adjustment is needed for patients with renal impairment and for paediatric patients.

Twice-Daily Dose Regimens of IV Zanamivir for Adults, Children and Individuals with Renal Impairment

Adults and Adolescents	**CrCl (mL/min)**				
	≥ 80	**50 to <80**	**30 to <50**	**15 to <30**	**<15**
	600 mg	400 mg	250 mg	150 mg	60 mg
Pediatrics (≥6 months) Weight Range	**CrCl (mL/min/1.73m^2)**				
	≥ 80	**50 to <80**	**30 to <50**	**15 to <30**	**<15**
19 to 37 kg[1]	16 mg/kg	11 mg/kg	6.5 mg/kg	4 mg/kg	1.5 mg/kg
11 to <19 kg	20 mg/kg	13 mg/kg	8 mg/kg	5 mg/kg	2 mg/kg
<11 kg	24 mg/kg	16 mg/kg	10 mg/kg	6 mg/kg	2.5 mg/kg

[1] Children who are less than 13 years of age but who weigh >37kg should receive the recommended dose for adults and adolescents.

6. Monitoring

Monitor patients clinically for occurrence of adverse events (e.g. allergic reaction) and the laboratory parameters as shown in the following table. Any adverse events should be recorded in detail in medical records.

Laboratory Parameter	Timing
Complete blood picture with differential counts	On initiation, Day 3 of therapy and end of therapy, and during therapy if clinically indicated
Glucose, calcium, serum bicarbonate, renal function tests	On initiation, Day 3 of therapy and end of therapy, and during therapy if clinically indicated
Liver function tests	On initiation and conclusion of therapy, and during therapy if clinically indicated
Urinalysis	On initiation and conclusion of therapy, and during therapy if clinically indicated.
Creatinine clearance (serum creatinine at a minimum)	Completed prior to initiation of dosing and followed carefully throughout dosing as clinically appropriate