Australian Paediatric Surveillance Unit
STUDY INFORMATION SHEET
Severe Complications of Influenza in children <16 years admitted to hospital
(1st May 2024 to 30th September 2024)

In 2007 Department of Health requested that the APSU conduct seasonal surveillance for severe complications of laboratory confirmed influenza in children aged <16 years who are admitted to hospital. This surveillance will improve our understanding of severe influenza disease in children and inform management and vaccination policy.

Severe Complications of Influenza has been added to the routine monthly APSU report card. ***We ask that you report children that meet the case definition criteria as soon as possible by completing an online version of the case report form or by filling out the printable case report form and returning it to the APSU by e-mail.***

AIM
To document, in children admitted to hospital with severe complications of influenza: the type of complication, clinical features, medical and vaccination history, treatment, outcomes and co-infection.

CASE DEFINITION
Any child aged <16 years with laboratory confirmed influenza **AND** is admitted to hospital **AND** has at least one of the following complications:

- Pneumonia (confirmed radiologically and/or microbiology)
- Acute Respiratory Distress Syndrome (ARDS)
- Laboratory proven viral co-infection including COVID-19
- Laboratory proven bacterial co-infection including bacteraemia; septicaemia
- Encephalitis / encephalopathy / meningoencephalitis
- Cerebrovascular accident
- Seizure (including simple febrile seizure, prolonged or focal seizure or status epilepticus)
- Transverse myelitis / polyneuritis / mononeuritis
- Acute kidney injury (see below)*
- Guillain-Barré syndrome / acute disseminated encephalomyelitis
- Reye Syndrome
- Myocarditis / pericarditis / cardiomyopathy / cardiac failure
- Rhabdomyolysis
- Purpura fulminans / disseminated intravascular coagulopathy
- Hepatitis / pancreatitis / liver failure
- Shock (requiring IV fluid resuscitation)
- Death, including at presentation to hospital
- Oxygen therapy / non-invasive ventilation, (e.g. CPAP) / invasive ventilation / extracorporeal membrane oxygenation (ECMO)

Please do not report children who are hospitalised for influenza but do not have severe complications.

*** Staging of acute kidney injury in children: Kidney Disease Improving Global Outcomes (KDIGO) criteria**

Stage	SCr	Urine output
1	Increase to 1.5 to 1.9 times baseline, **or** increase of ≥0.3 mg/dL (≥26.5 mcmol/L)	<0.5 mL/kg per hour for 6 to 12 hours
2	Increase to 2 to 2.9 times baseline	<0.5 mL/kg per hour for ≥12 hours
3	Increase greater than 3 times baseline, **or** SCr ≥4 mg/dL (≥353.6 mcmol/L), **or** Initiation of kidney replacement therapy, **or** eGFR <35 mL/min per 1.73 m^2 (<18 years)	<0.3 mL/kg per hour for ≥24 hours, **or** Anuria for ≥12 hours

The time frames for the increases in SCr are:

- Increase of SCr ≥0.3 mg/dL (≥26.5 mcmol/L) within 48 hours
- Increase in SCr >1.5 times the baseline within the prior 7 days

eGFR: estimated glomerular filtration rate; SCr: serum creatinine.

PRINCIPAL INVESTIGATOR

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FURTHER INFORMATION

For further information related to this study or assistance completing the Case Report Form, please contact the APSU by email: SCHN-APSU@health.nsw.gov.au

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All research in Australia involving humans is reviewed by an independent group of people called a Human Research Ethics Committee (HREC).
This study has been approved by the Sydney Children's Hospitals Network (SCHN) HREC (approval number: **2020/ETH03310**).

If you have any concerns or complaints about any aspect of the project or the way it is being conducted, you may contact the Executive Officer of the SCHN HREC on (02) 7825 1253 or SCHN-Ethics@health.nsw.gov.au.