

## Influenza in Children: The Facts

### What are the symptoms of influenza in children?

- Influenza symptoms include fever, headaches, muscle aches and pains.<sup>1</sup>
- In children symptoms may also include nausea, vomiting and diarrhoea.<sup>2</sup>

### How serious is seasonal influenza for children?

- Influenza causes substantial illness in children every year.<sup>3</sup>
- Of all vaccine preventable diseases, influenza is the leading cause of hospitalisation among Australian children under five years of age.<sup>4</sup>
- Children are much more likely to contract influenza in any given season (20-50% compared with 10-30% in adults), with up to 70% of children contracting the virus during pandemic years.<sup>5</sup>
- Not only are influenza infection rates generally highest among children, children also contribute greatly to transmission of influenza in the community.<sup>6,7</sup>
- Healthy children under five years are more likely than any other age group to be hospitalised for influenza complications.<sup>3,6</sup> Nearly 1,500\* Australian children are admitted to hospital for laboratory confirmed influenza each year.<sup>8</sup>

### How can you reduce a child's risk of catching influenza?

- Vaccination is the single most effective way of protecting against influenza infection.
- Hand washing and personal hygiene, such as trying not to touch your mouth or nose are also important preventative measures, however, these are less likely to be practised by children.
- Where possible, avoid crowds when influenza is prevalent; again this is unlikely to be achieved with children attending day care, kindergarten or school.

*Note:* In controlled clinical trials remedies such as vitamin C and Echinacea have failed to show any benefit in preventing influenza.

### Which children should be vaccinated against influenza?<sup>2</sup>

- Current Australian immunisation guidelines recommend annual influenza vaccination for anyone who wishes to protect themselves, which includes children aged  $\geq$  six months.
- It is critical that children at particular risk of severe complications from influenza are vaccinated, including those with:
  - Heart conditions
  - Asthma and other lung conditions
  - Diabetes (type 1 and type 2)
  - Kidney problems
  - Impaired immunity
- Pregnant women should also get vaccinated against influenza, including those in the first trimester at the time of vaccination and there is evidence that this may provide some protection for the new-born infant.<sup>9</sup>
- People who care for or are in close contact with at-risk individuals, are also advised to protect themselves against influenza to avoid passing on the disease.
- Many other parents of healthy children aged  $\geq$  6 months may also wish to get their children vaccinated – this is within National Health and Medical Research Council (NHMRC) guidelines

### What is the dosing and schedule for childhood influenza vaccination?

- Children under nine years of age who have not been vaccinated previously are recommended to receive two doses at least one month apart, for the first year they get vaccinated (refer to Table 1).<sup>2</sup> In subsequent years, they only require one dose.<sup>2</sup>
- Some influenza vaccines available in Australia are packed in syringes for the paediatric dose (i.e. 0.25 mL pre-filled syringe ready for use)

\* Based on population data that 105.8 per 100,000 Australians aged  $\leq$  five years are hospitalised due to influenza and the current population figure for that group is 1,371,051 (ABS accessed 5 March 2009)

**Table 1: Recommended doses of influenza vaccine**

| Age               | Dose    | Number of doses<br>(first vaccination) | Number of doses†<br>(subsequent years) |
|-------------------|---------|--|--|
| 6 months—<3 years | 0.25 mL | 2†                                     | 1                                      |
| 3–9 years         | 0.5 mL  | 2†                                     | 1                                      |
| >9 years          | 0.5 mL  | 1                                      | 1                                      |

Source: NHMRC. *The Australian Immunisation Handbook 9<sup>th</sup> Edition*

† If a child six months to ≤nine years of age receiving influenza vaccine for the first time inadvertently does not receive the second dose within the same year, he/she should have two doses administered the following year.

‡ Two doses at least one month apart are recommended for children aged ≤nine years who are receiving influenza vaccine for the first time. The same vial should not be re-used for the two doses.

### How effective is influenza vaccination in the six month – five year age group?

- No vaccine is 100% effective. However, clinical trials have shown that influenza vaccination is very effective in protecting against the severe consequences of infection, including among children.<sup>10</sup>
- A two-year randomised study of children aged 6-24 months determined that >89% of children seroconverted to all three vaccine strains during both years,<sup>11</sup> and in another study inactivated influenza vaccine was shown to be 77-91% effective<sup>12</sup> against influenza respiratory illness.<sup>10</sup>
- Mathematical modelling has shown that vaccinating children under five years could decrease the incidence of influenza in the total population by 22-38%.<sup>13</sup>

### What can parents do if their child falls ill with influenza?

- Influenza is highly contagious and can be spread for up to a day before symptoms appear and for five days afterwards<sup>2</sup> – potentially even longer among young children. Ways to avoid spreading influenza include:
  - Wash hands regularly
  - Cover nose and mouth when coughing or sneezing
  - Avoid physical contact with others
  - Avoid mixing with other people, particularly those in a high-risk category, while contagious
  - Don't return children to child care early, as they could still be contagious
- Antiviral medications (including paediatric formulations) that can limit the progression of influenza if they are taken early after onset of symptoms (within the first two days of the illness) are available on prescription.

For further information on influenza please visit [www.influenzaspecialistgroup.org.au](http://www.influenzaspecialistgroup.org.au)

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