

Reporting of communicable disease conditions under surveillance by the APSU, 1 January to 30 September 2003

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Background

The Australian Paediatric Surveillance Unit (APSU) was established in 1993 and is a unit of the Division of Paediatrics and Child Health, Royal Australasian College of Physicians. The activities of the APSU are funded in part by the Australian Government Department of Health and Ageing through the communicable diseases program. The APSU is a founding member of the International Network of Paediatric Surveillance Units (INoPSU). INoPSU now has 14 member units who employ a similar methodology.

The APSU conducts national active surveillance of rare diseases of childhood, including infectious and vaccine preventable diseases, genetic disorders, childhood injuries and mental health conditions. Surveillance through the APSU provides the only available method of national data collection for most of the childhood conditions studied.

The primary aim of the APSU is to document the epidemiology of the conditions under surveillance, their clinical features, current management and short-term outcome. The APSU's secondary aims are to provide a mechanism for national collaborative research and to disseminate data acquired by the Unit to inform best practice, appropriate prevention strategies and optimal health resource allocation.

Contributors to the APSU are clinicians known to be working in paediatrics and child health in Australia. In 2002 over 1,050 clinicians participated in the monthly surveillance of 14 conditions, with an overall response rate of 96 per cent.

As 100 per cent case ascertainment is unlikely to be achieved by any one surveillance scheme, rates reported below represent estimates of minimum incidence in the relevant population. Where available, additional data sources are used to supplement or verify case finding through the APSU. For further information please contact the APSU by telephone on +61 2 9845 2200 or by email to: apsu@chw.edu.au

The Table shows the confirmed cases of communicable diseases reported to the APSU between 1 January and 30 September 2003.

Acute flaccid paralysis

Heath Kelly, Bruce Thorley, Kerri Anne Brussen, Jayne Antony, Elizabeth Elliott, Anne Morris

Acute flaccid paralysis (AFP) surveillance in children under 15 years of age was initiated in 1995 to help meet the World Health Organization certification standards for poliomyelitis eradication. To the end of 2002 there were 262 confirmed cases of non-polio AFP. Based on these data, the reported incidence

Table. Confirmed cases of communicable diseases reported to the Australian Paediatric Surveillance Unit between 1 January and 30 September 2003*

| Condition | Previous reporting period January to December 2002 | Current reporting period January to September 2003* |
|---|---|--|
| Acute flaccid paralysis | 30 | 11 |
| Congenital cytomegalovirus | | |
| confirmed (< 3 weeks of age) | 9 | 6 |
| suspected (3 – 52 weeks of age) | 8 | 3 |
| Congenital rubella | 3 [†] | 2 |
| Perinatal exposure to HIV | 25 | 10 |
| Neonatal herpes simplex virus infection | 11 | 6 |
| Hepatitis C virus infection | Commenced 2003 | 8 |

* Surveillance data are provisional and subject to revision.

† There were two imported cases in children born to mothers who had rubella in Indonesia. One child was born in Indonesia and one child was born in Australia. The third infant was born in Victoria in 2001, but was not notified to the APSU until 2002. The parents were Fijian, it is not known where the mother acquired her infection.

of non-polio AFP is 0.86 (95% CI 0.76–0.97) per 100,000 children under 15 years. In 2002, the reporting of AFP was down on the preceding year with non-polio AFP 0.75 (95% CI 0.51–1.08) per 100,000 children. As noted previously, Guillain-Barré syndrome was the most common cause of AFP (27% of confirmed cases), followed by transverse myelitis (17%) and trauma (13%).

Congenital cytomegalovirus infection

William Rawlinson, Daniel Trincado, Gillian Scott, Sian Munro, Pamela Palasanthiran, Mark Ferson, David Smith, Geoff Higgins, Michael Catton, Alistair McGregor, Dominic Dwyer, Alisson Kesson

Congenital cytomegalovirus infection (CMV) surveillance in children up to 12 months of age commenced through the APSU in 1999. Between January 1999 and December 2001 there were 25 confirmed cases of CMV, that is, with CMV being isolated in blood, urine, saliva or tissue in the first three weeks of life. The estimated incidence of congenital CMV is 2.61 (95% CI 1.71–3.83) per 100,000 live births. An additional eight cases of suspected CMV infection, in which the diagnosis was made between three weeks and 12 months of age, were identified in 2002.

Congenital rubella

Margaret Burgess, Jill Forrest, Cheryl Anne Jones, Peter McIntyre

Surveillance of newly diagnosed congenital rubella in children and adolescents under 16 years commenced in 1993. Forty-five children with congenital rubella were identified through the APSU between May 1993 and December 2002. Twenty-nine of these children were born in Australia and 22 of these infants had defects attributable to congenital rubella. Several of these children had mothers who were born overseas and were not vaccinated. The estimated incidence of congenital rubella in children born in Australia is 1.20 (95% CI 0.80–1.73) per 100,000 live births. The incidence of congenital rubella with defects is estimated to be 0.91 (95% CI 0.57–1.38) per 100,000 live births. There have been two recent reports of congenital rubella infection in children born to Australian-born mothers in Queensland in 2003. These are the first such cases reported since 1999.

HIV infection, AIDS and perinatal exposure to HIV

Ann McDonald, John Kaldor, Michelle Good, John Ziegler

This study monitors new cases of HIV/AIDS infection in children under 16 years and perinatal exposure to HIV. Perinatal exposure to HIV is now the most frequently reported source of HIV infection

in Australian children. Between January 1997 and December 2002, 122 children with perinatal exposure to HIV were reported through the APSU and/or the National HIV/AIDS surveillance program. The estimated incidence of perinatal HIV exposure is 8.16 (95% CI 6.78–9.75) per 100,000 live births. HIV transmission during the perinatal period may be reduced from 25 per cent to less than 2 per cent among women whose HIV infection is diagnosed prior to delivery, through the use of antiretroviral therapy, elective Caesarean delivery, and the avoidance of breast feeding.

Neonatal herpes simplex virus infection

Cheryl Anne Jones, David Isaacs, Peter McIntyre, Tony Cunningham, Suzanne Garland

Surveillance of herpes simplex virus (HSV) infection in children aged up to 28 days commenced in 1997. There were 54 confirmed cases of neonatal HSV infection in infants up to 28 days of age between January 1997 and December 2002. The estimated incidence is 3.61 (95% CI 2.71– 4.71) per 100,000 live births. Herpes simplex type 1 remains the predominant isolate causing neonatal disease in Australia.

Hepatitis C virus infection

John Kaldor, Cheryl Anne Jones, Elizabeth Elliott, Winita Hardikar, Alisson Kesson, Susan Polis, Catherine Mews

Surveillance of hepatitis C infection in children commenced in January 2003. APSU contributors are asked to report any child less than 15 years of age with:

- at least one confirmed positive anti-HCV antibody test performed at age greater than or equal to 18 months; OR
- a positive anti-HCV antibody test on a single occasion AND a positive test for HCV RNA (PCR or RT-PCR) on single occasion at any age greater than one month of age; OR
- a positive HCV RNA test (PCR or RT-PCR) on two separate occasions.

Eight cases of hepatitis C virus infection were confirmed between January and September 2003.