Quarterly report Australian Sentinel Practices Research Network

AUSTRALIAN SENTINEL PRACTICES RESEARCH NETWORK, 1 JULY TO 30 SEPTEMBER 2013

Monique B-N Chilver, Daniel Blakeley, Nigel P Stocks for the Australian Sentinel Practices Research Network

Introduction

The Australian Sentinel Practices Research Network (ASPREN) is a national surveillance system that is funded by the Australian Government Department of Health, owned and operated by the Royal Australian College of General Practitioners and directed through the Discipline of General Practice at the University of Adelaide.

The network consists of general practitioners who report presentations on a number of defined medical conditions each week. ASPREN was established in 1991 to provide a rapid monitoring scheme for infectious diseases that can alert public health officials of epidemics in their early stages as well as play a role in the evaluation of public health campaigns and research of conditions commonly seen in general practice. Electronic, web-based data collection was established in 2006.

In June 2010, ASPREN’s laboratory influenza-like illness (ILI) testing was implemented, allowing for viral testing of 25% of ILI patients for a range of respiratory viruses including influenza A, influenza B and influenza A H1N1(2009).

The list of conditions is reviewed annually by the ASPREN management committee. In 2013, 4 conditions are being monitored. They include ILI, gastroenteritis and varicella infections (chickenpox and shingles). Definitions of these conditions are described in Surveillance systems reported in CDI, published in Commun Dis Intell 2014;38(1):E96.

Results

Sentinel practices contributing to ASPREN were located in all 8 states and territories in Australia. A total of 278 general practitioners contributed data to ASPREN in the 3rd quarter of 2013. Each week an average of 219 general practitioners provided information to ASPREN at an average of 19,752 (range 14,721–21,245) consultations per week and an average of 351 (range 273–490) notifications per week.

ILI rates reported from 1 July to 30 September 2013 averaged 12 cases per 1,000 consultations (range 8–17 cases per 1,000 consultations). This was lower compared with rates in the same reporting period in 2012, which averaged 18 cases per 1,000 consultations (range 8–26 cases per 1,000 consultations, Figure 1).

Figure 1: Consultation rates for influenza-like illness, ASPREN, 2012 and 1 January to 30 September 2013, by week of report

ILI swab testing continued in 2013. The most commonly reported virus during this reporting period was rhinovirus (12.4% of all swabs performed, Figure 2), with the 2nd most common virus being influenza A (untyped) (12% of all swabs performed).

From the beginning of 2013 to the end of week 39, 376 cases of influenza were detected composed of influenza A (untyped) (12% of all swabs performed) and influenza B (6% of all swabs performed) (Figure 2).

During this reporting period, consultation rates for gastroenteritis averaged 5 cases per 1,000 consultations (range 4–6 cases per 1,000, Figure 3). This was higher compared with rates in the same reporting period in 2012 where the average was 4 cases per 1,000 consultations (range 2–5 cases per 1,000).

Varicella infections were reported at a lower rate for the 3rd quarter of 2013 compared with the same period in 2012. From 1 July to 30 September 2013, recorded rates for chickenpox averaged 0.18 cases per 1,000 consultations (range 0.06–0.70 cases per 1,000 consultations, Figure 4).
Figure 2: Influenza-like illness swab testing results, ASPREN, 1 January to 30 September 2013, by week of report

The chart shows the number of positive specimens for various viruses over the course of the year, with a peak in late winter/early spring. The viruses include Influenza A untyped/other, Influenza B, Respiratory syncytial virus, Parainfluenza virus type 1 and 2, Adenovirus, Rhinovirus, Metapneumovirus, Mycoplasma pneumoniae, Bordatella pertussis, and others. The proportion positive for influenza is also plotted.
In the 3rd quarter of 2013, reported rates for shingles averaged 0.93 cases per 1,000 consultations (range 0.41–1.85 cases per 1,000 consultations, Figure 5), which was higher compared with the same reporting period in 2012 where the average shingles rate was 0.69 case per 1,000 consultations (range 0.33–0.91 cases per 1,000 consultations).

Figure 3: Consultation rates for gastroenteritis, ASPREN, 2012 and 1 January to 30 September 2013, by week of report

Figure 4: Consultation rates for chickenpox, ASPREN, 2012 and 1 January to 30 September 2013, by week of report

Figure 5: Consultation rates for shingles, ASPREN, 2012 and 1 January to 30 September 2013, by week of report