PUBLIC HEALTH ALERT

Government of South Australia
SA Health

**COMMUNICABLE DISEASE CONTROL BRANCH**

**- Please immediately bring to the attention of all doctors -**

Date: 12 September 2008 Contact telephone number: **8226-7177 (24 hours/7 days)**

# INCREASE IN NOTIFICATIONS OF PERTUSSIS IN SA

The CDCB has been notified of a higher than usual number of pertussis cases across SA in the last few months, consistent with observed patterns of epidemics every 4-5 years. To assist in reducing infections, an update on new features of pertussis investigation and control is outlined below.

**Recommendations for pertussis vaccination:**
Since introduction of the vaccine, the epidemiology of pertussis infection has undergone a change, with an increasing number of diagnoses in adults. This is likely to reflect waning immunity in older age groups, leading to increased susceptibility to infection. Immunity from both vaccination and natural infection is not lifelong.

Vaccination remains the most effective intervention to reduce the burden of pertussis in the community. Consequently, in addition to ensuring childhood immunisation is up to date, a booster dose for adults is now recommended. The Australian Immunisation Handbook, 9th edition, recommends the following groups be offered an adult booster dose of diphtheria-tetanus-pertussis vaccine (dTpa):

- those planning a pregnancy (women and men),
- those who work with young children,
- health care workers
- and any adult expressing an interest in receiving a diphtheria tetanus booster (for example at 50 years of age).

**Recommendations for testing suspected cases of pertussis:**

- The preferred test for *B. pertussis* is nucleic acid testing (PCR) on a nasopharyngeal aspirate, nasopharyngeal swab or throat swab (dacron swab, sent dry, not in transport medium). Superficial nasal swabs are not suitable.
- Culture can be performed on a nasopharyngeal aspirate, sputum specimen or nasopharyngeal swab (left in the nasopharynx for 10 seconds) sent in Amies transport medium. The sensitivity of culture is low unless the sample can be plated out in the laboratory within 4 hours.
- Serology may be an appropriate test if the possible case has presented late in the course of the illness (>21 days since onset of cough), when the other detection methods have a reduced sensitivity. Note: a single high IgA may reflect a past history of pertussis vaccination or acute infection with other respiratory pathogens, rather than a true acute pertussis infection.

**Management of a case of pertussis infection:**
All diagnosed cases of pertussis (or those with a presentation suspicious of pertussis pending definitive laboratory diagnosis) should be excluded from work, school or childcare until 5 days of appropriate antibiotics have been completed, or until 21 days after the onset of cough. Urgent notification (by telephone) to CDCB is required if the case has had close contact with a person from a high risk group (children <24 months of age who have not had three doses if pertussis vaccine, women in the last month of pregnancy, children who attend child care and health care staff working in a maternity hospital or neonatal nursery), to enable public health control efforts to be instituted.

**Dr Ann Koehler - Director, Communicable Disease Control Branch**

*Information contained within this advice should be treated as confidential and is for the intended recipient only.*