From the Director’s desk

This month’s Disease WAthch contains articles on recently notified diseases that are less common. A case of psittacosis was diagnosed in a man with a lawn mowing business in the south of Western Australia. Mowing lawns without grass catchers was identified as a risk factor in the psittacosis outbreak described in the Blue Mountains recently, presumably linked to disease in native birds in the area. With the notional arrival of spring bringing an increase in outdoor activity, psittacosis should be considered in unusual community-acquired pneumonia cases. Most cases however, are still associated with more direct contact with birds. There is also an article reminding people about mumps after a number of clusters in the north of the state and isolated cases also being notified in the metropolitan area. As with measles, two doses of MMR vaccine are required to give sustained immunity and vaccination failures are possible. Information is provided on mechanisms to confirm the diagnosis as most cases are IgM negative on serology.

The CDCD Expert Advisory Group met this month to look at the messages learnt from this year’s Winter Sentinel Surveillance Program for Influenza, Rotavirus and Varicella. A number of enhancements to surveillance have been proposed including a decision to commence carriage studies and to look at streptococcal disease in more detail. This latter work will help with decisions about pneumococcal vaccine purchase as vaccines with greater coverage become available. A more detailed review of the Expert Advisory Group discussions and the new surveillance plan will be provided in the next Disease WAthch.

Paul Van Buynder, October 2007

Consultation with Young People on Sexual Health Education

The proposal to conduct a consultation with young people about their sexual health education was raised at a meeting between the Director(s) General of Education and Health and endorsed by the WA Committee on HIV/AIDS and STIs. In 2006, CDCD commissioned the Youth Affairs Council of Western Australia to conduct the consultation and the final Report was recently published.

The project aimed to investigate the views of a diverse range of young people about their experiences of sexual health information and education as well as their views about how best to deliver this education. Approximately 88 young people aged 15 to 20 participated in a state-wide series of arts-based inquiry methodology workshops.

Much insightful feedback was extracted and examples of key recommendations include:

- Enhancing support and resources for parents and out-of-school agencies which provide sexual health education and services to young people, and
- Supporting initiatives addressing sexual health and ‘rites of passage events’ (leaver’s week, school balls and managing the effects of alcohol).

The recommendations from the consultation will be used to inform future sexual health education and promotion initiatives for youth.

For a copy of the full report, call the Sexual Health and Blood-borne Virus Program (08) 9388 4841.
Mumps

Communicable Disease Control has received notification of small clusters of mumps cases amongst mainly Indigenous people in the Kimberley. Many of these cases, some of whom had been immunised, have been linked to other confirmed cases in students attending a boarding school in Northern Territory. The age group most affected are 14 — 30 year olds. Serology and throat swabs were taken but results varied. The majority of cases were IgG positive but IgM negative. Despite being IgM negative most fit the clinical picture of mumps presenting with unilateral or bilateral swelling of the parotid or other salivary glands lasting two or more days without any other apparent cause. This scenario leads one to question if there is waning immunity from this particular vaccine or a new strain of the virus.

Clinical Picture
Mumps is a paramyxovirus transmitted via respiratory aerosols. It causes an acute febrile illness, characterised by swelling and tenderness of one or more salivary glands, usually the parotid and occasionally the sublingual or submaxillary glands. Other manifestations include respiratory symptoms, epididymo-orchitis and oophoritis. Many infections are subclinical. Complications such as sterility, sensorineural deafness and encephalitis are very rare.

The incubation period for mumps ranges from 14 — 25 days and is communicable from about six days prior to, and nine days after, the appearance of symptoms.

Confirming diagnosis
If mumps is suspected, it is important to confirm the diagnosis with the following:

1. **Serology:** mumps specific IgG seroconversion; or significant rise in antibody level; or presence of mumps specific IgM. However, interpretation can be difficult when the patient has been vaccinated against mumps.

2. **Mumps PCR:** use an orange topped PCR swab on the buccal mucosa preferably taken on the day of presentation. Swabs may also be taken from the nose and throat. This is the most sensitive and important diagnostic test as PCR and viral culture are most sensitive in the early days of symptoms.

3. **Viral culture:** swab inside of buccal cavity similar to PCR, using viral transport medium (available from PathWest or your pathology laboratory). This is to attempt to isolate the serotype and assist with epidemiological investigation and control, especially in patients who have been fully immunised against mumps. Vaccination status if known should be included on the request form to aid interpretation in the laboratory.

Investigation of vaccination status
Two doses of MMR vaccine is the recommended schedule for those born since 1966 and given at least four weeks apart. Some adults may not be fully immunised against mumps and should receive a catch up dose if in doubt. If in doubt about vaccination status check HCARe and ACIR.

Notification

Management
Treatment is symptomatic only.

Patients should be excluded from school or workplace until fully recovered — at least nine days after the onset of symptoms. Contacts do not need to be excluded. Local PHU staff will follow up contacts to determine their vaccination status and recommend MMR vaccine where appropriate.
Psittacosis

Following a recently diagnosed case of psittacosis in Western Australia, it is important to be aware of this treatable life threatening pneumonia, when investigating unusual respiratory illnesses. Psittacosis (also known as parrot diseases, parrot fever and ornithosis) is caused by the bacteria *Chlamydothilia psittaci* (formerly *Chlamydia psittaci*). It is contracted from many types of birds, including parrots, such as macaws, cockatiels and budgerigars, as well as from pigeons, sparrows, ducks, chickens, sea gulls and many other species of birds.

*C. psittaci* can be present in high concentrations in the droppings of infected birds and dust contaminated by infected droppings.\(^1,2\) Psittacosis is spread by exudates, secretions, and dried faecal matter or via direct contact with aerosols.\(^1,2\) The organisms can remain viable in the environment for long periods of time. Bird owners, pet shop employees and veterinarians are at risk of the infection\(^2\). Other exposures include gardening, where for example, mowing or using a whipper snipper may aerosolise bird products and lead to psittacosis.

In humans, after an incubation period of 5 — 14 days, the natural history ranges from unapparent illness to systemic illness with severe pneumonia. Initially, features can include high fevers, arthralgias, diarrhoea, conjunctivitis, epistaxis and leukopenia. The second week of symptoms is similar to acute bacterial pneumococcal pneumonia with continuous high fevers, cough and dyspnoea. Fatal cases have been reported.\(^2,3\)

Exposure history and serological testing are important in diagnosis. Differential diagnoses include typhus, typhoid and atypical pneumonia by *Mycoplasma, Legionella* or *Q* fever.\(^4\)

Both probable and confirmed cases of psittacosis are nationally notifiable, for the case definition please refer to the Department of Health and Ageing website.\(^6\) In Australia, there are over 200 ornithosis infections notified each year (1.2 cases per 100,000 population). The majority of cases are attributed to vocational or recreational exposure to birds. Men are approximately twice as likely to be affected with psittacosis as women and the main group affected are adults over 40 years of age during the spring and summer months\(^5\).

Whilst empirical treatment for community acquired pneumonia as recommended in the Therapeutic Guidelines: Antibiotic covers psittacosis, for more specific treatment consider testing patients who are in high risk groups.

### References

Infectious Disease Notification Update

The Communicable Disease Control Directorate (CDCD) reviewed Western Australia’s notifiable infectious diseases list using the Communicable Disease Network of Australia and New Zealand’s criteria for determining if a disease should be notifiable. The following five diseases did not warrant being notifiable and were removed from the notifiable infectious diseases list of the Health Act 1911 on Wednesday 22 August 2007:

- amoebic meningitis (Naegleria fowleri)
- amoebiasis (Entamoeba histolytica)
- giardiasis (Giardia lamblia)
- hydatid disease (Echinococcus granulosus)
- trachoma (ocular Chlamydia trachomatis).

The fact that these diseases are no longer notifiable does not mean that surveillance and public health intervention will cease. For example, laboratories/microbiologists would inform CDCD if an unusual infection such as amoebic meningitis occurred (last notification in 1985); trachoma surveillance and control are conducted in accordance with national guidelines.

Please remember that since amendments to the Health Act 1911 in 2006, infectious disease notification (except HIV/AIDS) requires the patient’s full name to be provided to CDCD. When a State law requires patient-identified notifications to the Department of Health, these are not in breach of the Privacy Act (Clth) 1988 (National Privacy Principle 2.1 (g)). Notified information is held securely and kept strictly confidential. For more information see http://www.notifications.health.wa.gov.au/

New notifications pads reflecting changes in the notifiable infectious diseases list will be provided in the near future.

References

New resources for young people

The Department of Health has recently updated its information resources for young people about puberty, relationships and sex. The three new publications - Puberty and Boys, Puberty and Girls and Sex, Relationships and Other Stuff were developed after a lengthy process of consultation and focus testing. They replace an earlier series developed some 20 years ago and are suitable for educating children aged between 10 and 15. Historically, about 10,000 copies of each of the older pamphlets were regularly ordered each year, primarily by school health nurses and teachers, with GPs, counsellors and other professionals requesting smaller numbers. The new booklets were launched in August and two weeks after they were made available stocks were exhausted so a second print run is now underway. The three resources are available free of charge through the Department’s resource telephone ordering system on 1300 135 030.

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