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**Government of South Australia**

**Meningococcal disease**

Media attention focused on meningococcal disease after six deaths in Adelaide in July and August from this infection.

Meningococcal infection is a rare disease - 1.4 cases per 100,000 people per year in SA for the years 1993-97. It may have a very rapid onset and it may be permanently disabling or fatal, especially if untreated. It tends to attack young people, especially children under three years of age but also older adolescents and young adults. Most cases occur in late winter and early spring.

Siblings were notified among these cases. As the onset dates for both cases were very close together, these were thought to represent co-primary cases rather than a case and a secondary case. Otherwise, no epidemiological links were identified between any of the notified cases. Cases since 1 January 1998 have been of 4 different serogroups and many different strains within the serogroups.

The number of cases notified is not unexpected for the period 1 January to 30 September. During this time in South Australia there have been 18 confirmed cases of meningococcal disease. In the 1990s total annual numbers of cases have ranged from 13 to 24. In 1996 and 1997 there were 2 deaths per year.

Meningococcal bacteria are carried harmlessly in the throats of up to 20% of the Australian population. In SA the disease almost always occurs as single, sporadic cases which occur when these bacteria very occasionally cross into the blood and then to the meninges, the coverings of the brain. Shock (a failure of blood supply to vital organs) and meningitis (inflammation of the meninges) may follow. The symptoms of meningococcal disease include fever, headache, rash, neck stiffness, sore joints, increasing drowsiness and discomfort when looking at ordinary light.

Early symptoms, particularly in young children, may not be very specific. Even if a medical practitioner has already been consulted and has diagnosed a common illness such as flu, a second consultation should be sought if symptoms persist or become rapidly worse. Meningococcal disease can kill within hours; early intravenous antibiotics may be life saving.

**Q fever**

There has seen an increase in the number of notified Q fever cases in 1998.

Twelve cases were notified during the first six months of 1998 and another 11 in the following 3 months, giving a total of 23 notifications to 30

September. This is of concern as only 8 cases were reported in 1997 and 4 in 1996.

The SA National Meat Association (NMA), the Australian Meat Industries Employees Union (AMIEU) and CDC Branch conducted a survey to find out whether Q fever vaccination programs were being offered in SA meat processing works.

Sixty-five meat processors provided valuable information about vaccination programs and the issues associated with them. Sixteen of the meat processors offer a Q fever vaccination program to their workers.

Vaccination is the only prevention currently available for people who are at risk of this disease.

Q fever is not only a problem for meat workers, contract workers and other occasional visitors to processors, but also for farm and dairy workers, shearers, wool sorters, animal transporters and livestock buyers.

Both the NMA and AMIEU will take steps to raise awareness and encourage vaccination of Q fever in their 'at risk' target groups.

The Branch will be encouraging the training of doctors and nurses to provide Q fever vaccinations for 'at risk' groups. Pamphlets on Q fever are available from the CDC Branch

**Measles Control Campaign 1998**

The Measles Control Campaign is nearing completion in primary schools across South Australia, thanks to the support of parents, schools, teachers and local immunisation providers.

The mass MMR immunisation of 169,000 South Australian school children began on 3 August. By the end of September 57,847 children had been immunised.

The parents of only 2% of children declined immunisation, the parents of another 7% (11,891) of children chose other immunisation providers and 5% (8,580) had already had the recommended 2 doses of MMR vaccine.

The quality assurance phase of the campaign has begun, with each nurse being professionally appraised and schools asked to give feedback on the quality and impact of the program.

The Measles Control Campaign is due to finish in South Australian schools on 4 December, despite a Commonwealth television advertisement due to go to air mid-November which will announce its completion.

Final campaign statistics at the end of the program will be included in the next issue of the *CDC Bulletin*. For further information, please contact Sarah Dugdale, Coordinator, Measles Control Campaign on (08) 8207-0160.

## Immunisation for indigenous persons

Next year the SA Immunisation Coordination Unit (SAICU) will be delivering 2 new vaccines free of charge to immunisation providers for indigenous South Australians. Assisted by the Commonwealth Government's National Indigenous Pneumococcal and Influenza Immunisation Program, SAICU will add free pneumococcal and influenza vaccine to those already available through the childhood immunisation program. The target groups are all indigenous people over 50 years and indigenous people over 15 years who fall into the NHMRC risk groups (refer to NHMRC *The Australian Immunisation Handbook*, 6<sup>th</sup> Ed).

More specific details will be forwarded to you as soon as available. For further information contact the following people:

- Sarah Dugdale (SAICU, 8226-7177) for information about vaccine ordering, delivery, storage or transport
- Colin Banks (Commonwealth Department of Health and Family Services, Adelaide office, 8237-8221) for more general information about the national Indigenous Pneumococcal and Influenza Immunisation Program.

## Free flu vaccination for 65+ years

Influenza vaccine will be also available free of charge to non-indigenous Australians aged 65 years and over in 1999 (this is a change from 70+ years target group in 1998). Vaccine for this target group will only be available to private providers (GPs, specialists and nursing homes). Any public provider with a client seeking the free vaccine for the 65+ age group will need to refer them to a private provider.

## Communicable disease summary

### Malaria

There were 6 cases (one male and five females, age range 5 to 50 years) of malaria notified during this period. All reported recent overseas travel in endemic countries, such as Thailand and Papua New Guinea. Of these, 4 cases reported taking no anti-malarial prophylaxis.

### Pertussis

There were 108 cases notified during this period. Of these, 11 (10 per cent) were in the 0 to 5 age group. In total, 502 cases of pertussis have been notified to the end of September, 1998. A downward trend in cases of pertussis infection has been observed since November 1997.

### Measles

There were 2 cases of measles notified during this period. A further 19 cases notified to the Communicable Disease Control Branch did not meet the clinical or laboratory diagnostic criteria.

In total, 4 cases of measles have been notified during 1998. This compares to 28 cases notified during 1997.

### Hepatitis A

There were 21 cases (15 males and 6 females) of hepatitis A notified during this period. In males, 10 (48 per cent) were notified in the 25 to 44 age group. In total, 73 cases have been notified in 1998.

A cluster of cases of hepatitis A apparently associated with illicit drug use is currently being investigated by Communicable Disease Control staff.

### Invasive meningococcal infection

There were 13 cases of invasive meningococcal infection notified during this period and 6 cases died. In total, 18 cases of invasive meningococcal infection have been notified to the end of September, 1998.

A total of 642 people who had apparently been in contact with the cases were interviewed and provided with health advice. Of these, approximately 361 contacts were advised to seek medical assessment and antibiotic chemoprophylaxis.

### Campylobacter infection

There were 648 cases of *Campylobacter* infection (348 males and 300 females) notified during this period, compared to 684 cases for the first half of 1998. Of these, 179 (27 per cent) were notified in the 0 to 9 age group. In total, 1332 cases of *Campylobacter* infection have been notified in 1998.

An increased rate of *Campylobacter* infection has been observed in several urban and rural local government areas.

No common reservoir to explain the apparent seasonal increase in *Campylobacter* infection has been identified.

### Legionella longbeachae infection

There were 14 cases (11 males and 3 females) of *Legionella longbeachae* infections notified during this period, compared to 21 cases for the first half of 1998. Of these, 10 (71 per cent) were aged over 50 years.

Interim results from a case-control study investigating environmental sources for the organism are expected next month.

Number of notified cases by disease \*

Disease	Onset in July-Sept. 1997	Onset in Jan-Sept. 1997	1997 total	Onset in July-Sept. 1998	Onset in Jan-Sept. 1998
arboviral infection	2	625	640	4	26
atypical mycobacterial infection.	14	26	29	3	19
campylobacter	464	1447	1925	648	1332
food poisoning	8	39	81	20	83
hepatitis A	13	68	93	21	73
hepatitis (viral)	0	2	2	0	0
hydatid disease	0	0	0	0	3
legionella infection	6	23	35	14	44
leprosy	1	1	1	0	0
leptospirosis	1	2	2	0	1
malaria	7	19	22	6	15
meningococcal infection	8	16	22	13	18
ornithosis	0	3	4	0	1
paratyphoid fever	0	2	2	0	1
pertussis	407	1107	1673	108	502
Q fever	5	7	8	10	22
rubella	61	131	183	4	14
salmonella infection	77	465	567	71	415
shigella infection	15	78	106	14	55
trachoma	1	3	3	0	0
tuberculosis	24	44	54	12	51
typhoid fever (S. typhi)	1	1	3	0	1
yersinia infection	7	34	39	8	23
measles	6	24	28	2	4
listeria infection	1	3	6	0	1
H. influenzae type b	1	2	2	1	1
cryptosporidiosis	17	59	74	17	60
H. influenzae (non-b)	0	3	4	0	0
mumps	12	23	26	3	7
aeromonas infection	25	97	120	10	61
HUS/TTP/SLTEC (non-HUS)	3	14	21	2	17
botulism	0	0	0	0	1

\* as at 2-11-98.

Ross River virus infection

Ross River virus infection is numerically the most important arbovirus in South Australia although small numbers of Barmah Forest virus infection contribute to the numbers of cases of epidemic polyarthritis.

The rates of human infection are determined primarily by exposure to infected mosquitoes. The total number of mosquitoes is dependent on weather conditions that influence mosquito breeding. The two most recent outbreaks followed heavy rainfall and spread from the west to the east of the State in 1992-93, and from the north to the south in 1996-97.

A normal seasonal increase of cases begins in January and lasts until April. In epidemic seasons, cases begin as early as November. Most cases will have been infected at sites along the River Murray.

GPs should have an understanding of the seasonal likelihood of local mosquito breeding and virus transmission.

Ross River virus infection should be considered in differential diagnosis of patients presenting with joint pains especially with fever and/or rubelliform rash in the next few months.

A history of travel or exposure to mosquito bites in the fortnight prior to the onset of the illness is important and Ross River virus serology should be included in a diagnostic workup. Antibody rises may be slow as with most viral serology, so a second sample taken two weeks after the first may prove invaluable.

Personal protection measures, the reduction of household breeding sites and the screening of windows and doors should be promoted.

## Vaccination coverage

The Australian Childhood Immunisation Register provides information on coverage and is designed to form the basis of a recall scheme which reminds parents when immunisations are due or past due.

### Percentage of children vaccinated with the highest level appropriate for age

31 August 1998, Health Insurance Commission

Age group 12 to 15 months	SA	Australia
Number	4,619	63,219
% DT	83	82.7
% P	82.8	82.4
% DTP	82.7	82.4
% OPV	82.9	82.5
% Hib	80.8	82.1
% Fully immunised	79.3	80.2

### Vaccination safety

The SA Immunisation Coordination Unit (SAICU) is responsible for collecting data regarding vaccine safety and reporting this information to the National Adverse Events Reporting Scheme. A paediatrician and nurse follow up every reported adverse event in SA.

Contact SAICU on (08) 8226-7194.

### Summary of reports of adverse events following immunisation

1 July to 30 September, 1998

Suspected vaccine	All reports	Reports meeting national criteria
DTPa*	4	2
DTPw*	1	0
MMR*	13	4
Typhoid	1	0
Total	19	6

\*DTPa – Diphtheria-tetanus-pertussis acellular

DTPw – Diphtheria-tetanus-pertussis whole cell

MMR – Measles-mumps-rubella

Pamphlets about adverse vaccine reactions are being distributed through Regional and Local Immunisation Coordinators to be given to parents and caregivers at the time of a vaccination. Immunisation providers and GPs will be provided with information on reporting adverse vaccine reactions. Contact Maggie Osbourn on 8226-7194.

## Summer food safety

With the summer months fast approaching it's the perfect time to enjoy more outdoor dining, barbecues, picnics and portable festive feasts.

Summer is also perfect for pathogens to breed on your picnic platter, so take extra care.

### Top tips for food safety

- Cook food thoroughly

- Keep hot food **HOT** (over 60°C) and cold food **COLD** (under 5°C).
- Stored cooked foods need extra care (the harmless spoilage bugs found on raw food that normally out-compete introduced pathogens are destroyed by cooking).
- Beware of cross contamination.
- Keep equipment clean.

### Information & enquiries

Tel: (08) 8226-7100

E-mail: ehb@health.sa.gov.au

### Posters available

5 steps to clean hands and Avoid food poisoning posters are available in Arabic, Chinese, Greek, Italian, Khmer and Vietnamese. Avoid food poisoning is also available in English.

Posters can be obtained from the CDC Branch.

### Web links

Websites on food safety issues

For health and community workers:

<http://www.dfst.csiro.au/fshlist.htm>

For consumer pamphlets:

<http://leaky.rock.tap.csiro.au/amlc/amlc.html>

### Investigating outbreaks of foodborne disease

Coordinated efforts are vital in the epidemiological investigation of food borne illness. The Communicable Disease Control Branch relies on timely communication and reporting from GPs and Local Government Environmental Health Officers.

Samples of any remaining implicated foods and faecal specimens from cases can provide the crucial links to determine a cause and prevent further illness.

## Resources

### You've got what?

The new edition of *You've got what?* is a vital reference and resource for health and education professionals and for anyone interested in gaining a basic understanding of the ways infectious diseases are spread. It provides simple, practical advice for the prevention of these diseases in the home and community.

The price is \$28 for individual purchasers and \$50 for large organisations, plus postage.

South Australian purchasers get a 20% discount up until 29 January 1999. Order forms are available from Foundation Studios, 45 Kermode Street, North Adelaide, SA 5006.

Ph: (08) 8204-7339. Fax: (08) 8204-6699.

**DISCLAIMER:** The articles published in this bulletin reflect the views of the authors and not necessarily those of the SA Health Commission.