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# HUNTER NEW ENGLAND NSW HEALTH

## Communicable Diseases Bulletin

March 2009  
 Volume 187

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**24 hour contact numbers for Hunter New England Population Health**

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**Hunter New England Health Service**

### Mosquito borne diseases - the risk with late rain

A large part of Australia has received recent heavy falls of rain. This increases the environmental opportunities for mosquito breeding leading to an increased risk of late season mosquito borne infections.

Ross River virus (RRv) and Barmah Forest virus (BFv) are the most common locally acquired mosquito borne diseases in the Hunter New England area.

Western Australia has identified Murray Valley Encephalitis (MVE) in sentinel chickens in the Pilbara region. The WA Health Department advises that MVE has spread south from the Kimberley (where it caused a death in 2008), to areas of the Pilbara affected by weeks of flooding.

Since 1974 nearly all cases of MVE have occurred in northern Western Australia and the Northern Territory, with occasional cases in Queensland, Central Australia and central regions of Western Australia.

Far North Queensland is experiencing a dengue fever outbreak, with one death reported. Cases have recently been reported in the Atherton Tablelands. This is another area that has experienced heavy rainfall recently.

As this is a common time for people to head north for the winter, it is important to advise them on how to minimise their risk of contracting mosquito-borne diseases.

#### Clinical presentation for RRv and BFv

A travel history should be sought when investigating patients who present with symptoms compatible with RRv and BFv and if necessary a request for a wider range of serological testing should be made.

Occasionally IgM serology can be positive for both BFv and RRv indicating either co-infection or, as RRv IgM can persist for long periods, it could be due to a past infection. Symptoms include:

- Fever, chills, headache
- Myalgia
- Joint swelling and stiffness, particularly in the mornings
- Fatigue and lethargy
- BFv may present with a rash which often subsides after 7-10 days

Both conditions are self limiting; however up to 50% of patients with RRv and 10% of patients with BFv may be symptomatic many months later.

#### Clinical presentation of MVE

Confirmation of MVE is by serology with a significant rise in titre in specimens taken 7-10 days apart

Initial symptoms of the virus include

- fever
- drowsiness
- headache
- stiff neck
- nausea
- dizziness
- seizures
- coma

#### Clinical presentation of dengue fever

There are 4 serotypes of dengue virus. It is possible for a person to be infected more than once with different serotypes, which may increase the risk of Dengue haemorrhagic fever. Confirmation is by serology with identification of the virus in an acute specimen (within 5 days of onset), or detection of antibodies in convalescent phase serum (taken 6 days or more after disease onset).

- sudden onset of fever
- intense headache
- myalgia
- arthralgia
- anorexia, nausea
- erythematous rash
- petechiae, gum bleeding, epistaxis

#### Prevention is the key

Personal preventive measures against mosquito bites are the key to avoiding infection:

- Remove objects containing water from around the home to prevent mosquitoes breeding
- Avoid being outdoors during late afternoon and dusk
- Use an insect repellent that contains diethyltoluamide (DEET) or picardin
- Use an insecticide in sleeping areas
- Have well fitting fly screens to doors, windows and chimneys (when not in use)
- Wear loose fitting, light coloured clothing that covers arms and legs
- Cover water tank openings with fine mesh to prevent mosquitoes laying eggs in the tank
- Use flyscreens on tents and caravans
- Sleep under mosquito nets when camping

## Frequently Asked Questions - What You Need to Know about Crypto!

Cryptosporidiosis has received a great deal of media attention recently leading to a number of questions to Population Health.

### **How is it transmitted?**

Cryptosporidiosis is spread by the faecal-oral route. Asymptomatic infection is common and can be an ongoing source to others. Examples of transmission include:

- person-to person
- from animals (eg poultry, fish, cattle, dogs, cats) to people
- waterborne
- foodborne

It is not uncommon to have more than one family member diagnosed with the disease.

### **Why swimming pools?**

As the oocysts are highly resistant to chemical disinfectants, normal chlorine levels in pools may not be adequate to neutralise oocysts.

In the past a number of outbreaks in NSW have been associated with swimming pools. As summertime increases the use of swimming pools by the community, the risk of contracting the disease from swimming pools also increases.

### **Why not test the pools?**

In order to identify the oocysts up to 100 litres (!!!) of pool water needs to be collected and transported to a laboratory. Clearly this would be an onerous and costly task.

Public pools have policies in place regarding testing, super chlorination and faecal accident management.

Backyard pools can also be maintained by following the information available at the website below.

Fact sheets can be downloaded from the NSW Health website at:

[http://www.health.nsw.gov.au/PublicHealth/environment/water/water\\_spa.asp](http://www.health.nsw.gov.au/PublicHealth/environment/water/water_spa.asp)

### **How can the risk be reduced?**

As mentioned in the last edition, people with diarrhoea should not swim in a pool until asymptomatic for a period of 2 weeks.

Children's backyard wading pools should be emptied after use.

Proper hand washing technique, with soap and running water, that includes washing between the fingers, the back of hands and the wrists.

Use an alcohol rub when hand washing facilities are not available.

Symptomatic children should be excluded from child care until asymptomatic.

### **Treatment**

Treatment for Cryptosporidiosis is supportive only. Small children can become dehydrated so maintaining fluid intake is important.

### **Who is at risk?**

People who are most likely to become infected with *Cryptosporidium* include:

- people in close contact with others who have cryptosporidiosis
- children who attend day care, including children in nappies
- parents of infected children
- child care workers
- swimmers who swallow even small amounts of swimming pool water
- people who drink untreated water (for example, from rivers or lakes)
- travellers to developing countries
- people who work with animals
- men who have sex with men

People with weakened immune systems are at risk for more serious disease and should see their doctor if symptoms develop

A fact sheet about the disease is available at:

<http://www.health.nsw.gov.au/factsheets/infectious/cryptosporidiosis.html>

## **GP Notifications**

HNEPH staff wish to thank the following GPs for reporting presumptive cases of notifiable diseases during February 2009.

Blair Campbell	Nigel Pain
John Goswell	Keith Power
Philippa Hodgins	Caitlin Raschke
William Holley	Sarabjit Ruba
Robert Hughes	Susan Ryan
Julian Jackel	Alison Todd
Kin Low	Dr Vaughan
Dr Millington	Neil Wearne
Robyn Molloy	Margot Woods
Jane Morgan	Hock Yeoh
Anne Murray	David Young

**Year to date (YTD) number of diseases notified to Population Health for residents of  
Hunter New England Area - March 2009**

Disease	YTD: Number of notifications					Year Total: Number of notifications				NSW	
	Y2009	Y2008	Y2007	Y2006	Y2005	T2008	T2007	T2006	T2005	YTD	NSW2008
<b>Blood Borne Virus</b>											
Hepatitis B - newly acquired	1	0	2	3	2	5	8	8	3	7	47
Hepatitis B - unspecified	18	19	15	21	21	77	61	72	87	639	3024
Hepatitis C - newly acquired	2	2	4	0	1	6	7	6	4	8	25
Hepatitis C - unspecified	119	122	102	106	94	528	416	433	404	1152	4562
Hepatitis D	0	0	0	0	1	0	0	0	2	2	11
<b>Gastrointestinal Disease</b>											
Cryptosporidiosis	84	22	15	45	34	51	107	111	145	848	473
Giardiasis	88	50	77	52	57	203	223	213	180	534	1759
Haemolytic uraemic syndrome	0	0	2	0	0	2	6	1	2	1	17
Hepatitis A	0	1	0	2	3	1	1	2	6	18	69
Hepatitis E	0	0	0	0	0	0	0	0	0	8	13
Listeriosis	2	0	1	1	3	0	4	8	6	7	32
Salmonellosis	94	75	95	81	61	259	266	247	226	1030	2234
Shigellosis	3	1	0	0	2	1	4	3	8	51	108
Typhoid and paratyphoid	0	0	0	0	0	0	1	0	0	14	42
Verotoxin producing E. coli	5	1	2	1	1	8	14	3	10	8	18
<b>Sexually Transmitted Infection</b>											
Chlamydial infection - genital	499	478	462	475	359	2014	1744	1880	1670	3114	13642
Chlamydial infection - congenital	0	1	0	2	3	10	2	10	5	12	39
Gonococcal infection	13	37	16	15	20	108	86	75	106	358	1300
Syphilis	15	7	11	5	9	32	32	25	38	290	1020
<b>Vaccine Preventable Disease</b>											
Adverse events following immunisation	3	9	0	2	8	19	19	8	22	30	246
H. influenzae (type b) infection	0	1	0	0	0	1	1	1	2	4	9
Influenza	10	7	3	1	1	233	298	93	88	192	1816
Measles	0	0	1	0	0	0	1	1	0	6	38
Meningococcal disease - invasive	3	0	0	3	5	8	12	12	13	14	82
Mumps	0	0	1	0	1	0	6	4	4	7	73
Pertussis	437	46	51	85	96	577	259	544	555	4973	8972
Pneumococcal disease - invasive	7	6	11	11	14	72	82	87	88	52	545
Q fever	13	2	11	12	12	41	65	62	51	41	162
Rubella	0	0	1	0	0	0	1	1	3	1	18
<b>Vectorborne Disease</b>											
Arboviral infection	76	188	89	185	63	456	409	457	290	299	1840
Barmah Forest virus disease	27	51	43	69	37	135	136	195	120	105	540
Dengue fever virus disease	2	2	1	1	0	16	4	2	3	48	146
Malaria	4	1	7	3	23	7	17	19	30	22	111
Ross River virus disease	47	135	45	115	26	305	268	260	167	144	1147
<b>Zoonoses</b>											
Leptospirosis	1	1	2	4	4	5	2	10	11	3	16
Psittacosis	2	0	2	8	2	5	6	27	26	5	40
<b>Other Conditions</b>											
Creutzfeldt-Jakob disease	1	0	0	1	1	2	1	2	1	2	5
Elevated blood lead level	16	5	11	14	17	39	23	41	56	45	240
Legionnaires disease	1	2	1	1	2	12	9	10	4	7	89
Tetanus	1	0	0	0	0	0	0	0	0	2	1
Tuberculosis	1	4	4	2	9	14	18	14	15	21	461

# To the Point

## Free Pertussis Vaccine for New Parents

### Free Program through General Practice

The pertussis epidemic continues in NSW

- Passive protection from mother's breast-milk is not transferred to baby – all babies born are vulnerable to pertussis
- Babies who are too young to be fully vaccinated are most at risk, i.e. those <6 months of age
- Unvaccinated infants are at the highest risk of infection and are also at the highest risk of complications
- As immunity wanes over time, many adults are susceptible to infection and can be the source of infections in infants

**For a limited time, FREE dTpa vaccine will be available for all new parents, grandparents and any other adults who regularly care for infants less than 12 months of age.**

### Who is eligible for the free dTpa vaccine?

- Couples who are planning a pregnancy (both parents)
- New parents – (mothers should be vaccinated as soon as possible after childbirth)
- Grandparents and other adults who regularly care for infants and very young children

### GP's should:

- Check the immunisation status of new parents and other children in the household and provide catch-up immunisation as required.
- Offer free dTpa vaccine to new parents, grandparents and any other adults who regularly care for infants.
- Offer babies the first immunisation at 6 weeks of age. Infanrix-hexa, Prevenar and Rotarix are all licensed for use in infants from 6 weeks of age (*9th ed Immunisation Handbook p 30*). The next scheduled vaccines should be given at 4 months and 6 months of age.

### How to Order ?

- Download the order form from NSW Health [http://www.health.nsw.gov.au/living/immunisation/immunise\\_prog/index.html](http://www.health.nsw.gov.au/living/immunisation/immunise_prog/index.html)
- Fax the completed form to NSW Vaccine Centre on 1800 041 528

### dTpa and Tetanus prone wounds?

- dTpa is appropriate to offer to those with tetanus prone wounds who require a tetanus booster.
- Best practice is to encourage people with tetanus prone wounds to fill a script for dTpa vaccine in preference to free dT (ADT) from the doctor's bag. Some practices facilitate this by pre-purchasing dTpa vaccine from their medical supplier and on-selling this to patients.
- 15 year olds with a tetanus prone wound can have free Boostrix in lieu of their school immunisation but need to be made aware that this is what they have been given.