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HUNTER NEW ENGLAND
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Communicable Diseases Bulletin

Index

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High Incidence of Notifications of Gastroenteritis in Institutions in 2007

HNEPH received one hundred and eleven (111) notifications of institutional gastroenteritis during 2007.

These included:

- 60 notifications from aged care facilities (ACFs) or residential care facilities (RCFs),
- 30 notifications from child care facilities (CCFs) and
- 21 notifications from hospitals.

A number of institutions notified on more than one occasion during the year.

Under the *Public Health Act 1991,* 'gastroenteritis among people of any age, in an institution' is a notifiable condition by general practitioners. Institutions can include those mentioned above as well as schools and camps.

Section 68(e) of the Act mandates executive officers of ACFs, or their delegate, to notify of an outbreak.

Both Norovirus and Rotavirus have been detected from several institutional outbreaks. NSW Health has developed gastroenteritis guidelines for residential care facilities to minimise the impact. These include:

- closure to new admissions/transfers
- visitor restriction
- cohorting affected residents
- enhanced cleaning
- maintaining a register of all affected residents /staff
- affected staff exclusion until 48 hours symptom free

These guidelines are available at:

http://www.health.nsw.gov.au/infect/facts.html

Three to four specimens per outbreak per facility are usually sufficient for identification of the causative agent. It would be appreciated if a copy of the result is sent to HNEPH.

Pathology requests should include microscopy, culture and norovirus testing for affected patients in ACFs and RCFs.

We encourage doctors to collect stool specimens for symptomatic children attending a CCF and request testing as described above. CCFs notifying a gastroenteritis outbreak receive information and support from HNEPH to minimise the spread of infection.

Recommended control measures include:

- exclusion of affected children/staff until symptom-free for 48 hours
- enhanced cleaning
- maintaining a register of all affected staff/children

The table below summarises the available data and highlights the impact of the gastroenteritis outbreaks in institutions for 2007.

In the affected facilities, approximately 41% of residents/children/patients and 6% of staff members were symptomatic.

HNEPH is aware that not all outbreaks are notified, so the table is only an indication of the extent of the problem; however, we would encourage all general practitioners to notify HNEPH of any outbreak in an institution.

Summary of gastroenteritis outbreaks notified to HNEPH for 2007

Total number of notifications received	111
Total number of residents, patients, children affected /total number at risk	1392/3388
Total number of staff affected /total number at risk	322/5802
Pathogens identified/no. of facilities where testing was performed	
Norovirus	31/77
Rotavirus	5/77
Giardiasis	4/77

Creutzfeldt-Jakob disease (CJD)

Below is a letter from one of the organisers of the CJD Support Group network to all general practitioners and other health professionals in our area.

My name is Suzanne and I am just one of thousands around the world living with the knowledge that I am at increased risk of developing Creutzfeldt-Jakob disease (CJD), a rare and fatal neurological disease. We are known as the 'worried well'.

In the mid 70's I was on an infertility program and for three years received regular injections of human pituitary hormones. I was reassured that the product I was receiving was safe as it was natural, but in the early 90's I became aware of my risk of CJD status. I was also told by my treating doctor that one of the batches I had received was contaminated and had contributed to other women dying from CJD. That day my life changed.

I understand how thousands of other 'at risk of CJD' patients feel. To find out that you may develop a disease that you have never heard of before and to discover that there is no test, no treatment and no cure, is like living a nightmare.

We now know that about 200 young people have died around the world of iatrogenic CJD as a result of receiving human growth hormone; four Australian women have died who received human pituitary hormones on a fertility program that ceased in 1985 and another 200 deaths worldwide are contributed to the use of contaminated dura mater during neurosurgery prior to 1990.

More people are learning of their increased risk status following look backs after surgery on high infectivity tissue of a patient who went onto develop CJD. To learn that this is a transmissible disease and to suffer discrimination when seeking health care, due to lack of adequate knowledge of the infection control issues, leaves many of us feeling like modern day lepers.

The CJD Support Group Network in Australia is producing an education and awareness DVD 'Understanding CJD' and we hope to share this with many of you in 2008 so that together we can work towards a better understanding of this devastating disease. We hope our DVD will assist health professionals when dealing with a patient who is 'at risk of CJD', and by working together we can create an environment where these patients feel comfortable and confident of receiving equity of care when disclosing their at risk status.

The CJD Support Group Network – Toll free number 1800 052466

GP Notifications

HNEPH staff wish to thank the following GPs for reporting presumptive cases of notifiable diseases during December 2007.

Hilary Butt

Di Coote

Heather Stephenson

Unusual Arboviral Infection Now a Possibility in Symptomatic Returning Travellers

A recent article in the *Medical Journal of Australia* on reported cases of Chikungunya virus infection in travellers to Australia[1] highlights the need for an accurate travel history taking in patients who present with symptoms of arboviral disease after returning from an affected area; these are similar to dengue fever and malaria symptoms.

Symptoms
- fevers for 5-7 days
- rigors
- headache
- arthralgia in small joints
- polyarthrits
- conjunctivitis
- maculo-papular rash is a possibility
- cervical lymphadenopathy

Incubation period: 2-12 days

Diagnosis
By serology for antibody and/or PCR (alphavirus)

Treatment
Supportive therapy only

Areas of most common occurrence
Africa, S E Asia, India, Philippines

An outbreak has been reported in Italy recently *http://www.eurosurveillance.org/ew/2007/071122.asp#2*

As highlighted in the MJA article, the mosquito vectors for transmission of this disease are present in Australia so the possibility of Chikungunya fever being transmitted in Australia is a real possibility.

[1] *Johnson DJ, Druce JD et al, Chikungunya virus infection in travellers to Australia. MJA Vol 188: 1 7 January 2008*

Recent Cluster of Pertussis in Immunised Primary School Age Children

Late in 2007 HNEPH received a number of pertussis notifications in primary school age children. All the children were appropriately tested by PCR using naso-pharyngeal aspirate/swab.

Further investigation showed the children were vaccinated and had a link with a particular school.

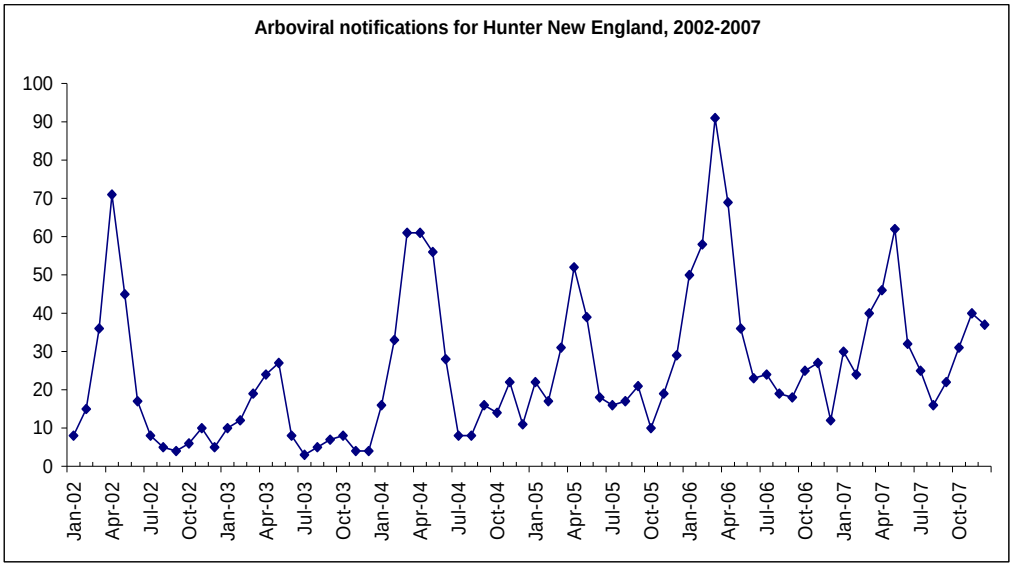
HNEPH sent two letters to parents via the school over a 2 week period to alert parents to be vigilant for symptoms and seek medical assessment as soon as possible, as well as ensuring children's immunisation was up to date.

Pertussis vaccine efficacy has been estimated to be between 80-84% in trials.[1]

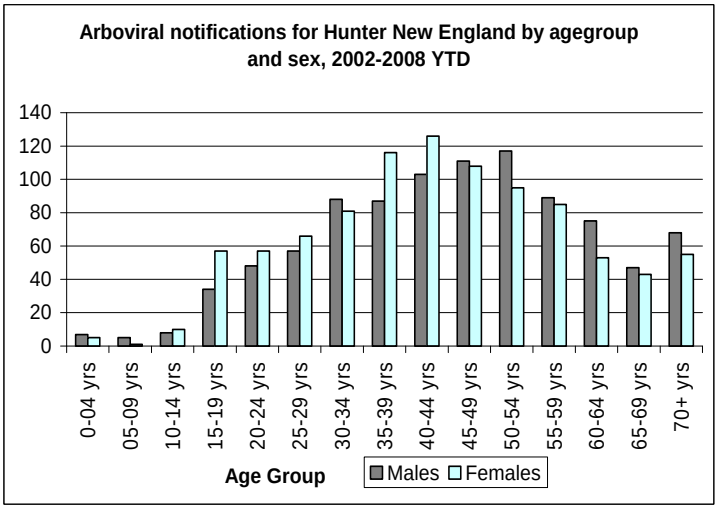
Pertussis in school age children has reduced markedly in HNE over the last few years, however as this cluster illustrates it remains a possible diagnosis when the clinical picture is suggestive.

[1]*Salmaso S, Mastrantonio P, Tozzi AE, et al. Sustained efficacy during the first 6 years of life of 3-component acellular pertussis vaccines administered in infancy: the Italian experience. Pediatrics 2001;108:e81.*
http://www.pediatrics.org/cgi/content/full/108/5/e81

Arboviral



Arboviral Notifications			
LGA in clusters	**2008 Year to date**	**2007 total**	**2006 Total**
Mehi Cluster			
Moree Plains	5	18	25
Narrabri	4	7	15
Peel cluster			
Barraba	0	4	2
Gunnedah	0	4	3
Manilla	0	0	1
Nundle	0	0	1
Parry	0	2	3
Tamworth	5	8	13
Walcha	0	1	0
Upper Hunter cluster			
Merriwa	0	3	1
Murrurundi	0	1	0
Muswellbrook	0	3	2
Scone	0	3	5
Quirindi	0	3	2
Lower Hunter cluster			
Cessnock	3	33	27
Dungog	2	1	4
Maitland	4	16	26
Singleton	2	7	11
Lower Mid North Coast cluster			
Gloucester	0	1	2
Great Lakes	2	64	44
Greater Taree	3	55	44
McIntyre cluster			
Bingara	1	2	4
Inverell	1	3	5
Yallaroi	2	0	6
Tablelands cluster			
Armidale Dumaresq	0	6	10
Glen Innes	0	3	5
Guyra	0	0	3
Severn	1	1	0
Tenterfield	0	3	3
Uralla	0	4	0
Greater Newcastle cluster			
Lake Macquarie	7	65	70
Newcastle	6	49	49
Port Stephens	6	35	66
Grand Total	**54**	**405**	**452**



The two most common arthropod-borne viruses (arboviruses) acquired in HNE are Ross River Virus (RRv) and Barmah Forest virus (BFv).

Multiple mosquito species, inhabiting a range of urban and wetland habitats, have been implicated in transmission with some travelling and biting many kilometres from their breeding sites. Notifications peak following optimal environmental conditions for mosquito breeding over the summer months.

Common symptoms following RRv and BFv infection include low grade fever, joint swelling and stiffness, muscle tiredness, fatigue and rash. The incubation period is typically 7-10 days and symptoms can last from weeks to months. Treatment is supportive. Asymptomatic infection is common and prior infection confers some immunity.

Suspected infection should be confirmed with serology, ideally seroconversion on paired acute and convalescent samples. A single IgM has low specificity and false positives are common. Infection is notifiable by laboratories only.

Personal measures to prevent mosquito bites are the key to avoiding infection:
- Remove objects containing water from around the home to prevent mosquitoes breeding
- Cover water tank openings with fine mesh to prevent mosquitoes laying eggs in the tank
- Avoid being outdoors during late afternoon, dusk and dawn
- Use an insect repellent that contains diethyl toluamide (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
- Use flyscreens on tents and caravans and sleep under mosquito nets when camping

Further information is available at
http://www1.hnehealth.nsw.gov.au/hneph/LivingWithMosquitoes/LivingWithMosquitoes.htm

To the Point

(HNEPH immunisation website:http://www1.hnehealth.gov.au/hneph/immunisation/immunisation)

Reminder to follow the current vaccination schedule

Some infants have missed doses of Rotarix™ vaccine or it has been given later than the recommended age. It is important that all infants be given the vaccine at 2 and 4 months as it is not licensed in Australia for infants >25 weeks old.

For those who are infrequent immunisers, we recommend a copy of the new schedule be placed in a prominent place, eg clinic room wall or fridge. These schedules (lime green) were distributed in 2007. Further copies are available from HNEPH. Contact numbers: 6767 8630/4924 6477.

Annual Immunisation Education Updates for 2008 for Authorised Nurse Immunisers

Due to a delay in the release of the 9th edition of *The Australian Immunisation Handbook,* the February and March sessions of the immunisation education updates have been cancelled. Sessions for April-June are unchanged. Additional sessions from July to October 2008 will be listed on HNEPH website as soon as venues are confirmed.

Dates and registration forms for annual updates are available on our website. Please complete and fax to 4924 6490.

It is the individual Authorised Nurse Immuniser's responsibility to comply with the authority to practice. You are required to attend one 4-hour session each calendar year.

School-based Adolescent Vaccination Program 2008

2008 Schedule

Year 7 (all students) - Hepatitis B (2 dose course) and varicella vaccine
Years 7, 8, 9 and 10 female students - HPV vaccine

Influenza Vaccine - Lead by example!

The vaccine is available from March 2008.

NHMRC recommendations *(Australian Immunisation Handbook 8th edition* p171-173) are:

It is particularly recommended and should be actively promoted to:

- Indigenous people 50 years and over, and 15-49 years who have risk factors (p223-224)
- Non-indigenous individuals 65 years and older
- Health care workers
- Individuals in contact with infants, very young children and the elderly, and pregnant women
- Women who will be in the 2nd or 3rd trimester of pregnancy during the influenza season. Influenza vaccine can be safely administered in the 1st trimester of pregnancy
- Any individual who wishes to reduce his/her likelihood of contracting influenza

Other recommended groups are listed in the *Australian Immunisation Handbook (NHMRC, 2003:171-3).*

The 2008 order form is available through the website at:

http://www.health.nsw.gov.au/living/immunisation/immunise_prog/pdf/GP2008_flu_orderform.pdf

Pneumococcal Vaccination Program (Pneumovax 23)

This is not a seasonal program and should be promoted all year. It can be given simultaneously with other vaccines, including the influenza vaccine. (See *Australian Immunisation Handbook 8th edition* p222-224 for recommended recipients)

Tetanus Prone Wounds-boosting pertussis immunity

Any child younger than 8 years with a tetanus-prone wound should be given Infanrix™ (diphtheria, tetanus and acellular pertussis) vaccine instead of an ADT™(adult diphtheria, tetanus) vaccine if he/she has not received a tetanus-containing vaccine in the last five years. (See table 3.24.1 *Australian Immunisation Handbook 8th edition* p265 for guidance).

Children over 8 years and adults should be offered Boostrix™ vaccine rather than ADT™ vccine . Although it is not free, it is better to receive the booster for pertussis. Many practices stock this vaccine for patients to purchase instead of them needing to purchase it through a pharmacy - this often means the difference between the patient choosing the pertussis-containing vaccine.

For accuracy of documentation, vaccine providers should specify the vaccine given, rather than simply "tetanus vaccine" in any clinical and patient held record (personal health record/vaccination card).