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HUNTER NEW ENGLAND NSW HEALTH

Communicable Diseases Bulletin

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24 hour contact numbers for Hunter New England Population Health

**4924 6477 Newcastle
6767 8630 Tamworth**

**Hunter New England
Health Service**

Measles in Europe, and not going away!

Eurosurveillance (www.eurosurveillance.org) and Promed digest (www.promedmail.org) continue to report high rates of measles cases in European countries. Countries in Asia and SE Asia have also reported ongoing high numbers.

Outbreaks in the above regions have occurred because of low immunisation rates.

The risk of importing cases to Australia by un-immunised or under-immunised infected individuals returning from overseas cannot be over estimated, as has been highlighted recently with cases notified in Sydney, ACT, Victoria, NT and SA. All the primary cases were imported from overseas.

These examples of imported measles cases reinforce the importance of measles immunity in travellers.

Immunity is the best protection

The measles virus is not believed to be currently circulating in Australia. This is in no small part due to the vigilance of immunisation providers in promoting the vaccination program to families, with a reported 95% coverage nationally for the 1st dose of MMR.¹ Young people continue to be most at risk because of more limited uptake of the MMR vaccine in the past.

All travellers should be advised of the risk of measles before travel, and if not immune they should have MMR vaccine (2 doses one month apart). For maximum protection the second MMR dose would need to be given at least 2 weeks prior to travel. Because of the continued risk, MMR vaccine is free to all those who require it.

The MMR vaccine is highly effective with a 95% seroconversion rate following the 1st dose and 99% following the 2nd dose.

Complications of measles

Measles is not an innocuous childhood disease. Complications can include:

- pneumonia,
- encephalitis which can lead to acquired brain injury
- death (recently reported in France)

What to do if suspicious of measles

Should any person present with

- a history of fever and rash, usually with cough, conjunctivitis and coryza, and
- a history of travel overseas or interstate or Sydney (due to current cases in these areas) or

- been in contact with a person with similar symptoms who has recently travelled,

then isolate the case and contact Population Health on 4924 6477 (Newcastle) or 6767 8630 (Tamworth) immediately.

¹ NHMRC (2008) *The Australian Immunisation Handbook (9th edition)* Canberra. p202

Influenza vaccine composition for 2009

The 2009 influenza vaccine for the southern hemisphere contains the following strains:

A/Brisbane/59/2007 –
(as the A/Brisbane/59/2007(H1N1-like strain)

A/Uruguay/716/2007 –
(as the A/Brisbane/10/2007(H3N2)-like strain)

B/Florida/4/2006 –
(as the B/Florida/4/2006-like strain)

GP Notifications

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

Julie Bartlett
Abby Bingham
Guy Fitzgerald
William Holley
Anna Kelly
Susan Paul
Jeff Regnis
Alexander Tonkin
Sunita Ubeja
Margot Woods

New Feature !!!

Question Time - Frequently Asked Questions About

Staff at HNEPH are contacted regularly by general practitioners, practice nurses and the community with questions about a number of communicable disease conditions. On a monthly basis we thought we would share the most commonly asked questions for the month.

Not surprisingly, this month is all about **pertussis!**

What is the infectious period for pertussis?

People with pertussis are considered infectious until after completion of 5 days of a course of appropriate antibiotics OR until the cough is of >3 weeks' duration.

Recommended antibiotics are: Erythromycin, Clarithromycin and Azithromycin. There is insufficient evidence for the use of Roxithromycin.

NOTE: Treatment is given to prevent the spread of infection. Antibiotics do not treat the cough. The cough can be present for a number of weeks and even months.

What is the exclusion period for pertussis?

Infectious cases should be excluded from work, school, preschool, childcare and/or other settings where there are young children until they are no longer infectious (see above).

Why isn't antibiotic prophylaxis given to everyone in the household any more?

There is limited evidence of any benefit of whole-of-household prophylaxis and there is ongoing concern about increasing antibiotic resistance in the community.

Pertussis prophylaxis is therefore targeted to protect young babies who cannot be fully immunised (3 doses) because of their age. The only time all members of a household should be given antibiotics is when there is an infant in the case's household that has NOT had 3 pertussis-containing vaccines and who is not the case.

Who is antibiotic prophylaxis recommended for?

Apart from households where there is an at-risk infant in the household (see above), prophylaxis is recommended for the following individuals who have been in contact with a case of pertussis whilst still infectious, if the antibiotics can be commenced within 3 weeks of the last contact with the case.

- A woman who is 36/40 weeks or more pregnant regardless of immunisation status who has been in contact with a case within <1 metre and for >1 hour (whilst infectious).
- A child <24 months who has not had 3 pertussis containing vaccines and has been in contact with a case within <1 metre and for >1 hour (whilst infectious).

If the case attends, or works, in childcare, please contact HNEPH on 4924 6477 or 6767 8630.

Why are immunised children still getting the disease?

Pertussis-containing vaccines are not 100% efficacious, however immunised children benefit from the vaccine as even if they are infected, the disease will be less severe when compared to unimmunised children. Hunter New England area has one of the highest immunisation rates in the state.

Immunisation coverage rates by cluster at 30 September 2008

| Cluster | 12-15 month olds Vaccines due 2, 4 & 6 months | 5 year old Vaccines due at 4 years |
|--------------------------|---|--|
| Hunter New England | 93.1% | 91.4% |
| Greater Newcastle | 93.7% | 91.8% |
| Lower Hunter | 94.1% | 91.8% |
| Lower Mid-North Coast | 91.4% | 90.7% |
| McIntyre | 89.0% | 90.2% |
| Mehi | 92.1% | 90.8% |
| Peel | 93.0% | 92.3% |
| Tablelands | 90.0% | 86.3% |
| Upper Hunter | 93.4% | 93.3% |

Are all notified cases of pertussis being followed up by public health?

The high number of pertussis notifications, has resulted in HNEPH communicable diseases staff concentrating their resources on the age group most at risk. Consequently the only cases being actively followed up by HNEPH staff are children <5 years of age who have a positive pertussis PCR result.

If the GP has not already notified the case on suspicion, then HNEPH staff will contact to determine if the family is aware of the result.

Parents are then contacted to determine community contacts fitting the criteria for receiving prophylaxis (see above). If the child attends childcare, HNEPH will liaise with the childcare centre to provide relevant information to other families.

When a positive pertussis PCR result is notified in any other age, the referring doctor will receive a letter with information about management of the case and contacts.

Note: Positive pertussis serology results without a compatible clinical picture that are notified by laboratories are not being considered as cases. This is because serology is an unreliable testing method.

This is in line with international and national recommendations.

**Year to date (YTD) number of diseases notified to Hunter New England Population Health Area –
February 2009**

| | YTD: Number of notifications | | | | | Year Total: Number of notifications | | | | NSW | |
|------------------------------|------------------------------|-------|-------|-------|-------|-------------------------------------|-------|-------|-------|-----|---------|
| | Y2009 | Y2008 | Y2007 | Y2006 | Y2005 | T2008 | T2007 | T2006 | T2005 | YTD | NSW2008 |
| Blood Borne Virus | | | | | | | | | | | |
| AIDS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 3 | 0 | 0 |
| Hepatitis B - newly acquired | 0 | 0 | 2 | 1 | 2 | 5 | 8 | 8 | 3 | 4 | 45 |
| Hepatitis B - unspecified | 5 | 7 | 5 | 10 | 6 | 73 | 61 | 72 | 87 | 203 | 2798 |
| Hepatitis C - newly acquired | 1 | 0 | 2 | 0 | 0 | 6 | 7 | 6 | 4 | 3 | 23 |
| Hepatitis C - unspecified | 41 | 57 | 41 | 54 | 39 | 503 | 415 | 433 | 404 | 367 | 4342 |
| Hepatitis D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 11 |

Gastrointestinal Disease

| | | | | | | | | | | | |
|-----------------------------|----|----|----|----|----|-----|-----|-----|-----|-----|------|
| Cryptosporidiosis | 29 | 16 | 11 | 25 | 25 | 50 | 107 | 111 | 145 | 205 | 468 |
| Giardiasis | 32 | 23 | 30 | 26 | 23 | 202 | 223 | 213 | 180 | 180 | 1757 |
| Haemolytic uraemic syndrome | 0 | 0 | 1 | 0 | 0 | 2 | 6 | 1 | 2 | 1 | 17 |
| Hepatitis A | 0 | 0 | 0 | 2 | 3 | 1 | 1 | 2 | 6 | 7 | 69 |
| Hepatitis E | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13 |
| Listeriosis | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 8 | 6 | 2 | 32 |
| Salmonellosis | 41 | 41 | 37 | 37 | 28 | 259 | 266 | 247 | 226 | 482 | 2231 |
| Shigellosis | 1 | 0 | 0 | 0 | 2 | 1 | 4 | 3 | 8 | 25 | 108 |
| Typhoid and paratyphoid | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 6 | 42 |
| Verotoxin producing E. coli | 2 | 1 | 1 | 0 | 0 | 7 | 14 | 3 | 10 | 5 | 16 |

Sexually Transmitted Infection

| | | | | | | | | | | | |
|-----------------------------------|-----|-----|-----|-----|-----|------|------|------|------|------|-------|
| Chlamydial infection - genital | 213 | 236 | 225 | 223 | 177 | 2014 | 1744 | 1880 | 1670 | 1401 | 13630 |
| Chlamydial infection - congenital | 0 | 0 | 0 | 1 | 2 | 10 | 2 | 10 | 5 | 8 | 39 |
| Gonococcal infection | 6 | 24 | 11 | 6 | 8 | 108 | 86 | 75 | 106 | 122 | 1300 |
| Syphilis | 3 | 2 | 4 | 3 | 2 | 30 | 32 | 25 | 38 | 111 | 991 |

Vaccine Preventable Disease

| | | | | | | | | | | | |
|---------------------------------------|-----|----|----|----|----|-----|-----|-----|-----|------|------|
| Adverse events following immunisation | 0 | 1 | 0 | 1 | 2 | 19 | 19 | 8 | 22 | 10 | 244 |
| H. influenzae (type b) infection | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 9 |
| Influenza | 7 | 3 | 0 | 1 | 0 | 233 | 298 | 93 | 88 | 90 | 1814 |
| Measles | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 4 | 38 |
| Meningococcal disease - invasive | 2 | 0 | 0 | 1 | 3 | 8 | 12 | 12 | 13 | 9 | 82 |
| Mumps | 0 | 0 | 1 | 0 | 1 | 0 | 6 | 4 | 4 | 2 | 73 |
| Pertussis | 180 | 26 | 33 | 50 | 44 | 574 | 259 | 544 | 555 | 2541 | 8959 |
| Pneumococcal disease - invasive | 1 | 2 | 6 | 5 | 10 | 72 | 82 | 87 | 88 | 21 | 536 |
| Q fever | 1 | 1 | 7 | 9 | 6 | 41 | 65 | 62 | 51 | 15 | 161 |
| Rubella | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 3 | 1 | 18 |

Vectorborne Disease

| | | | | | | | | | | | |
|-----------------------------|----|----|----|----|----|-----|-----|-----|-----|-----|------|
| Arboviral infection | 36 | 85 | 43 | 65 | 30 | 456 | 409 | 457 | 290 | 134 | 1837 |
| Barmah Forest virus disease | 10 | 31 | 21 | 15 | 17 | 135 | 136 | 195 | 120 | 44 | 540 |
| Denque fever virus disease | 1 | 2 | 1 | 0 | 0 | 16 | 4 | 2 | 3 | 27 | 146 |
| Malaria | 1 | 1 | 4 | 3 | 4 | 7 | 17 | 19 | 30 | 12 | 111 |
| Ross River virus disease | 24 | 52 | 21 | 50 | 13 | 305 | 268 | 260 | 167 | 62 | 1144 |

Zoonoses

| | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|----|----|---|----|
| Leptospirosis | 0 | 0 | 1 | 4 | 3 | 5 | 2 | 10 | 11 | 0 | 16 |
| Psittacosis | 1 | 0 | 0 | 3 | 2 | 5 | 6 | 27 | 26 | 3 | 40 |

Other Conditions

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|----|----|----|----|----|-----|
| Creutzfeldt-Jakob disease | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 2 | 1 | 0 | 5 |
| Elevated blood lead level | 0 | 3 | 1 | 5 | 6 | 39 | 23 | 41 | 56 | 13 | 240 |
| Legionnaires disease | 0 | 2 | 0 | 0 | 2 | 12 | 9 | 10 | 4 | 3 | 89 |
| Tetanus | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Tuberculosis | 0 | 1 | 3 | 0 | 5 | 12 | 18 | 14 | 15 | 7 | 435 |

To the Point

'Flu season is just around the corner!

Influenza vaccine is available for GPs from 2 March 2009

GPs and Aged Care Facilities - Have you ordered your flu vaccine from State Vaccine Centre?

- Order forms are available on NSW Health website for GPs:
http://www.health.nsw.gov.au/resources/publichealth/immunisation/flu_order_form.asp
- Do NOT over order. Better to order more frequently than overstock your vaccine fridge.
- Aged care facilities should have a registered nurse who is authorised to immunise to facilitate vaccination of residents and staff and to ensure that the vaccine cold chain is appropriately managed.

Free influenza vaccine program

- Free for clients aged ≥ 65 years or Aboriginal clients aged ≥ 50 years and Aboriginal people aged ≥ 15 years with underlying conditions.

Who else needs influenza vaccine?

The vaccine is recommended (but not free) specifically for:

- Individuals aged ≥ 6 months with chronic conditions or impaired immunity
- Those in contact with or visiting aged care facilities, hospitals, or childcare facilities
- Pregnant women, and partners/parents/children of pregnant mums or those planning a pregnancy
- Healthcare workers, childcare staff and teachers
- Individuals involved in the poultry industry
- Individuals providing essential services
- ANYONE who wants to beat the flu! You could be in bed for a week or more!

Why pregnant women need the influenza vaccine

- Reduces hospitalisation due to influenza complications
- Reduces the risk of miscarriage or intrauterine death
- New research shows evidence of protection for infants for up to 6 months when the mother was vaccinated in pregnancy (*N Eng J Med 359;15 www.nejm.org October 9, 2008*)

What about children?

- Aged ≥ 6 months to 9 years – in the first year that influenza vaccine is given, give x2 doses at least 1 month apart
- If not given x2 doses in first year, should have x2 doses in the 2nd year
- For children aged 6 months to 3 years use half the adult dose
- For children aged >3 years use the full adult dose
- Especially recommended if a child attends a childcare facility

Frequently asked questions about influenza vaccine

- *Does 'flu vaccine cause flu?* **No**, it is not a "live" vaccine so cannot cause disease!
- *Is the 'flu vaccine safe?* **Yes**, the vaccine occasionally causes pain at the injection site or mild cold-like symptoms for a couple of days. Allergic reactions are rare and can be treated with adrenaline if severe.
- *Why are 'flu vaccines needed every year?* Because the strains of circulating virus change slightly every year and each year the vaccine is made to include strains that are expected to cause severe illness in the coming season.
- *How long before the 'flu vaccine starts protecting?* About two weeks; until then the individual can get influenza; the vaccine will not provide full protection against influenza strains not included in the vaccine.

Do Not Forget Pertussis Vaccine for Adults!

- Pertussis risk continues; adults and young people not vaccinated should have a dose of Boostrix™ or Adacel™ vaccine (the vaccine has only been available since 2004).
- Vaccine or disease protection is not life long, so even those with past pertussis infection need to be vaccinated.
- Give at same time as influenza vaccine or pneumococcal vaccine or any other vaccine.
- To facilitate easy access to adult pertussis boosters, it is suggested GP practices buy vaccine through their drug supplier and cost-recover from clients after the vaccination. It is important to separate this private stock from public stock (see below) in the vaccine fridge.
- Free adult pertussis vaccine is available from HNEPH only for the 15 year old booster dose when not administered through the school based program (If in Yr10 it will be given at school).