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HUNTER NEW ENGLAND NSW HEALTH

Communicable Diseases Bulletin

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Return of Communicable Diseases Bulletin

The Communicable Diseases Bulletin is back in production following a forced recess due to the H1N1 '09 influenza outbreak.

HNEPH would like to take this opportunity to thank general practitioners and other health care professionals for their continued professionalism and patience in light of the ever changing scenario.

Changes to publication of HNEPH Communicable Diseases Bulletin

The HNEPH Communicable Diseases Bulletin will be published bi-monthly. If there are urgent issues identified, these will be communicated to you through the Divisions of General Practice

Overseas travellers need to consider Hepatitis A vaccination

Whilst there has been a marked decline in the number of local cases of hepatitis A since the last large outbreak (Wallis Lake oysters 1997), people travelling to endemic areas still need to be immunised against the disease. For Australian travellers this includes:

- Asia
- South America
- Africa
- Parts of Oceania

For those in travel medicine, hepatitis A is one of the biggest imports!

All of the most recent cases of hepatitis A notified to HNE have been in people travelling overseas for holidays and consuming local foods or drinks.

Who needs to be immunised before travelling?

Not all travellers need vaccination. The following groups should be screened

prior to travel avoid unnecessary vaccination:

- People born before 1950 (because of the prevalence of the disease at that time, a large proportion are immune)
- People who spent their early childhood in endemic areas

A person with total hepatitis A antibodies or anti-HAV IgG is immune and does not require further vaccination.

Vaccine options¹

A single dose of monovalent vaccine provides protection for one year. The second dose, given 6-12 months later, gives protection for ~10 years.

Combined hepatitis A/hepatitis B vaccine is more appropriate for people visiting long term, or going to live in, endemic areas.

Combined hepatitis A/typhoid vaccine is recommended for those who are already immunised against hepatitis B and can be given for people ≥16 years old.

Changes to recommendations for prophylaxis of close contacts of hepatitis A IgM positive cases

As false positive hepatitis A IgM is possible, it is important to have a clinical picture or epidemiological link to hepatitis A to be considered as a case.

Nationally, Hepatitis A vaccine is now recommended as the preferred prophylaxis and provides good protection to close contacts of a case provided it is given within 2 weeks of exposure.

Alternatively, Normal human immunoglobulin (NHIG) may be indicated for some close contacts. Contact HNEPH to discuss prophylaxis for close contacts.

¹National Health and Medical Research Council. *The Australian Immunisation Handbook* 9th ed. 2008. section 3.5 (Canberra, ACT: Department of Health and Ageing)

24 hour contact numbers for Hunter New England Population Health

4924 6477 Newcastle
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Protecting those at risk of Q fever

Up to late August, there have been 25 cases of acute Q fever notified to HNEPH during 2009. All cases have been in at risk people including abattoir workers, farmers, hobby farmers and contract workers working on rural properties.

A vaccine against Q fever is available and should be discussed with all those who identify an at risk occupation or at risk of exposure through other activities eg recreational feral goat shooter, living on a rural property. However, it is not currently recommended for those < 15 years old.

The disease

Q fever can be acute or chronic and can lead to long term sequelae. It is caused by the bacteria *Coxiella burnetii*. Symptoms include rapid onset of high fever, rigors, profuse sweating, headache, photophobia, raised LFTs, sometimes with obvious jaundice. Pneumonia can also occur.

One of the most common reported chronic manifestations is sub acute endocarditis. Post Q fever fatigue syndrome has also been identified in 10-15% of patients with acute Q fever.

Diagnosis

Diagnosis of the disease is complex and requires convalescent serology for confirmation, as bloods taken in the acute stage of illness will probably be negative for Q fever (see lead article in Vol175 March 2008 written by Dr Stephen Graves).

Pre vaccination screening for Q fever

A pre vaccination screening is required prior to vaccination, as there is potential for a hypersensitivity reaction if the person has been previously exposed.

If a patient has a history of previous vaccination, then boosters are **not** required.

The pre vaccination screening consists of 3 components

- A skin test to detect cellular immunity to *C. burnetii*. The skin test is read 7 days post inoculation.
- Serological tests to detect humoral immunity to *C. burnetii* (by CFT or IF)
- A detailed history to determine any potential past exposure to the infection or as previously mentioned, vaccination.

The following table of pre screening results indicate who requires vaccination¹

Serology	Skin test	Interpretation
Positive	Induration present	Sensitised. Vaccination NOT required
Equivocal	No induration	Indeterminate
Negative	Induration present	Sensitised. Vaccination NOT required
Negative	Induration just palpable	Indeterminate
Negative	No induration	Non-immune. Vaccinate

What to do with “indeterminate” results²

Indeterminate results occur in a small proportion of people and may be due to past infection with Q fever. It can also indicate the cross reactive antibody from other bacterial species, eg *Legionella spp.*

Possible actions are:

- Repeat the skin test and collect blood for serology 2-3 weeks later to ascertain a rise in titre levels –usually 4 fold rise in titre of paired sera indicates a previous infection. Vaccination is then contraindicated,
OR
- Vaccinate with a reduced dose (0.1ml rather than 0.5 ml). If no adverse effects occur within 48 hours (severe induration of vaccine site, or severe systemic effects accompanied by fever) then the remainder of the dose (0.4ml) needs to be administered within 2-3 weeks. This time period is important as this is prior to development of cell mediated immunity from the reduced dose.

For further advice please contact your closest infectious diseases physician.

¹ Q fever: *Your questions answered* (1999) CSL Limited. Victoria

² National Health and Medical Research Council *The Australian Immunisation Handbook* 9th ed. 2008 section 3.17.(Canberra, ACT: Department of Health and Ageing)

GP Notifications

HNEPH staff wish to thank the following GPs for reporting presumptive cases of notifiable diseases other than H1N1 '09 during May to September.

Chris Boyle	Rajiv Joshi
June Chung	Paul Kennedy
Kaye Cussen	Barbara Maddock
Phillipa Hodgins	Bruce Proctor
Tony Isaac	Margot Woods

Also many thanks to all general practitioners and their staff who notified us of suspected H1N1 '09 influenza and other influenza cases.

Year to date (YTD) number of diseases notified to Population Health for residents of Hunter New England – September 2009

Disease	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	4	2	0	0	4	3	0	0
Hepatitis B - newly acquired	8	5	7	5	3	5	8	8	3	37	44
Hepatitis B - unspecified	68	50	44	52	71	67	60	72	87	2491	2492
Hepatitis C - newly acquired	8	5	7	5	4	6	7	6	4	22	19
Hepatitis C - unspecified	424	288	323	329	320	387	410	433	404	4084	3243
Hepatitis D	0	0	0	0	2	0	0	0	2	4	11
Gastrointestinal Disease											
Cryptosporidiosis	138	34	32	79	60	51	107	111	145	1345	474
Giardiasis	217	161	179	161	133	203	223	213	180	1622	1757
Haemolytic uraemic syndrome	1	1	3	0	1	2	6	1	2	3	17
Hepatitis A	5	1	0	2	6	1	1	2	6	65	69
Hepatitis E	0	0	0	0	0	0	0	0	0	14	13
Listeriosis	3	0	2	4	5	0	4	8	6	22	32
Salmonellosis	211	178	194	172	158	258	266	247	226	1986	2235
Shigellosis	5	1	4	1	8	1	4	3	8	128	108
Typhoid and paratyphoid	1	0	1	0	0	0	1	0	0	30	42
Verotoxin producing E. coli	9	3	4	1	4	8	14	3	10	14	18
Sexually Transmitted Infection											
Chlamydial infection - genital	1640	1596	1330	1380	1276	2006	1744	1881	1670	11102	13588
Chlamydial infection - congenital	2	9	1	7	4	10	2	10	5	42	39
Gonococcal infection	56	94	47	62	62	108	86	75	106	1173	1289
Syphilis	40	21	25	17	29	31	32	25	38	901	1008
Vaccine Preventable Disease											
Adverse events following immunisation	11	17	19	7	21	20	19	8	22	98	252
H. influenzae (type b) infection	2	1	1	1	1	1	1	1	2	6	9
Influenza	240	207	294	92	79	233	298	93	88	1565	1806
Measles	1	0	1	1	0	0	1	1	0	12	38
Meningococcal disease - invasive	14	7	7	11	11	8	12	12	13	77	82
Mumps	1	0	3	3	4	0	6	4	4	28	73
Pertussis	1168	274	201	494	417	578	259	544	555	10620	8877
Pneumococcal disease - invasive	62	58	68	70	70	73	82	87	88	374	546
Q fever	27	24	44	42	34	41	65	62	51	105	164
Rubella	1	0	1	1	2	0	1	1	3	7	17
Vectorborne Disease											
Arboviral infection	365	369	308	393	235	456	409	457	290	1203	1818
Barmah Forest virus disease	85	108	105	174	98	135	136	195	120	294	526
Dengue fever virus disease	9	10	3	2	1	16	4	2	3	110	148
Malaria	8	6	13	13	25	7	17	19	30	78	109
Ross River virus disease	271	251	200	217	136	305	268	260	167	794	1137
Zoonoses											
Leptospirosis	5	5	2	9	9	5	2	10	11	17	16
Psittacosis	2	5	5	23	17	5	6	27	26	19	40
Other Conditions											
Creutzfeldt-Jakob disease	3	0	1	2	1	2	1	2	1	8	6
Elevated blood lead level	42	31	16	38	43	40	23	41	56	162	261
Legionnaires disease	11	7	7	6	4	12	9	10	4	73	89
Tetanus	1	0	0	0	0	0	0	0	0	2	1
Tuberculosis	9	12	15	11	12	14	18	14	15	232	480

Please note: Influenza figures are incomplete for YTD. Data does not include Influenza A H1N1 09. Complete influenza data will be reported at a later date.

To the Point

Panvax® vaccine for H1N109 (pandemic) influenza

There is comprehensive information and slide shows for general practice on the NSW Health website

http://www.emergency.health.nsw.gov.au/swineflu/vaccination/swine_flu_latest_data.asp

- Panvax® is free for all people 10 years of age and over.
- People in at risk groups in particular, should be offered Panvax®.
- There is no upper age limit.
- Dose is 0.5 ml for 10 years of age and over.
- Supplied syringes may contain latex.

Is it necessary to offer people Panvax® at this time of year?

- There are places in Australia with current H1N109 outbreaks.
- Hospital admissions from H1N109 continue
- The H1N109 pandemic is continuing in the northern hemisphere and could return to Australia with travellers.
- Pandemic influenza is not predicable and outbreaks may occur in Australia over summer months.
- There have been 185 deaths in Australia from H1N109
- Offering it to the entire population is the best strategy for protecting the vulnerable members of the community.

Use good technique with multi dose vials

- Wash your hands thoroughly
- Swab top of vial and wait 30 seconds
- Use a new drawing up needle for each dose
- Use smaller drawing up needles to maintain vial bung integrity - 23g needles are recommended but many practices have 25g needles spare from other vaccine programs that can be used for drawing up the vaccine.
- Never leave a drawing up needle in the bung - it can vent bacteria into the vial.
- Mark the time and date vaccine vials are opened and discard after 24 hours.
- Offer vaccine opportunistically to reduce wasted vaccine

For specific H1N109 clinics using the multidose vial

- The supplied vaccine pack 19g drawing up needles can 'core' the bung and are only recommended if withdrawing all vaccine from the vial at the one time for a clinic.
- If you have prepared syringes not being used immediately, store between 2-8° C in a suitably sized, clean container which is protected from light and clearly labelled - if the vaccine is unused, dispose of after 4 hours.