Regional Public Health
Better Health For The Greater Wellington Region

The Public Health Post

Public Health for Primary Care in Wellington, Wairarapa and the Hutt Valley

Also available online at www.rph.org.nz

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Enquiries regarding public health topics are welcome from primary care practitioners. Individual cases or urgent matters should always be discussed directly with the on call Medical Officer of Health.

Heavy medicine?

Lead poisoning might come from an unexpected source.

Small bore shooters and painters and decorators are at high risk for lead poisoning. Small bore shooters may inhale lead fumes from the bullet or the primer and indoor shooting ranges and equipment may become contaminated by lead dust. Painters and decorators can be exposed to lead containing paint dust or lead fumes while preparing old houses, including by sanding or heating the old paint. House paint from before 1965 may contain high levels of lead and house paint from before 1945 is likely to have even higher levels. Lead paint may be present on newer houses as well so if there is any doubt simple kits are available from hardware stores to check if a paint contains lead. Children and babies may be exposed as in the case of a Wellington baby in 2010 who ingested paint chips lying around the windowsill of a house, resulting in moderately high blood lead levels.

Sometimes though, individuals may be exposed to lead via consumption of a medicinal product that they are unaware contains high levels of lead.

In June 2011 a 61 year old Indian woman from Wellington was referred by her general practitioner to haematology with anaemia, abdominal pains, weight loss, vague neurological symptoms and fatigue.

The haematologist investigated a number of possible causes for her presentation until she was found to have a very high blood lead level of 6.1umol/L. This is well above the 'normal' range of 0.00 – 0.35 umol/L. She had been taking an over the counter medication from India up until three months before the testing and this was the suspected source of lead. There were no other obvious sources of exposure. None of the product remained to be available for testing.

The woman received chelation therapy and her blood lead levels decreased over five months to 1.75 umol/L, still well above the normal range. There was some improvement in her symptoms but not full resolution, and management is ongoing.

There have been many case reports of lead poisoning from Indian herbal medicines internationally and in 2005 Roche et al published an analysis of the lead content of samples from Indian herbal medicine products in New Zealand. A number of products were found to have more than 1000 times the NZ regulatory limit for lead in foodstuffs and one small brown tablet had nearly 20000 times the regulatory limit. In December 2011 Medsafe published an alert after seven

Ayurvedic products were tested by ESR in response to a person being hospitalised with lead poisoning in Auckland. All seven products contained lead with two at dangerously high levels[5].

Lead poisoning cases are not infrequently found in New Zealand. In the Wellington region there were 25 cases of lead poisoning in the 12 months to 21/11/2011. Nationally over the same time period there were 236 cases. Of the national cases incidence was highest in the 40-60 age range and the cases were overwhelmingly in males (207 in males vs 29 in females). 162 out of the 236 were of European ethnicity, 16 were Maori and 17 Pacific.

Symptoms of lead poisoning can be very vague, but may include abdominal pains, nausea, loss of appetite, difficulty sleeping, mood disorders, behavioural changes, concentration problems, memory impairment, learning difficulties, constipation, diarrhoea, weight loss or altered sensation in the fingers and hands. In severe cases there may be raised intracranial pressure and convulsions. Especially in chronic occupational exposure, there may be no symptoms at all [2,7].

Raised lead levels are particularly dangerous for a developing fetus. Women who are pregnant or who are planning on becoming pregnant should avoid activities where they may be

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Occupations at risk of lead exposure [1]

High risk
(With a majority of workers having a whole blood lead > 1.5 umol/L)
- Radiator repair
- Smelting
- Muffler repair
- Scrap metal
- Foundry (general)
- Container repair
- Engine reconditioning
- Small bore rifle shooting
- Paint removal (with lead based paints)
- Lead battery manufacture

Medium risk
(With a majority of workers having a whole blood lead > 0.9 < 1.5 umol/L)
- Panel beating
- Metal extrusion
- Metal machining
- Garage mechanic
- Printing
- Pottery/ceramics
- Gas cutting/welding
- Lead casting
- Spray painting
- Plastic production
- Metal polishing

Low risk
(With a majority of workers having a whole blood lead < 0.9 umol/L)
- Plumbing
- Boat building
- Cable jointing
- Bright soldering
- Car assembly
- Petrol pump attendant
- Electroplating
- Exhaust fume exposure

exposed to lead contamination.

Testing:

Whole blood testing is the best way to assess for lead poisoning[1]. If a high level is found contact the appropriate specialist depending on the age of the patient and consider whether there is a public health concern. A whole blood lead level of greater than 0.48 umol/L from environmental exposure is notifiable to the Medical Officer of Health. Where occupational exposure is suspected the Department of Labour may also need to be notified using the Notifiable Occupational Disease System (NODS) form available at: http://www.osh.govt.nz/order/catalogue/pdf/form-nods-notify.pdf

Even when occupational exposure is the suspected source, it is important to determine if an individual has additional exposures outside of work. It is also important to ensure that occupational exposure does not impact on household contacts for example by overalls contaminated with lead dust being taken home.

If you are not sure if a lead level is significant or if there is any confusion over who to notify then please discuss the case with the local Medical Officer of Health on 5709002.

Sources:
1. www.labnet.co.nz. 2011 [cited 21/11/2011]; Available from: http://www.labnet.co.nz/resources/file/biochemistry-specialist/Bld%20Pb%20interpretation.pdf. Accessed 21/11/11.
2. http://www.labnet.health.nz/resources/file/biochemistry-specialist/lead-wes2010.pdf
3. www.resene.co.nz. 2011 [cited 21/11/2011]; Available from: http://www.resene.co.nz/comn/safety/lead.htm.
4. Roche A, F.C., Walmsley T, Lead poisoning due to ingestion of Indian herbal remedies. The New Zealand Medical Journal, 2005. 118(1219): p. 1587.
5. http://www.medsafe.govt.nz/profs/PUArticles/SafetyOfAyurvedic December2011.htm
6. Episurv. 2011, Environmental Science and Research.
7. http://emedicine.medscape.com/article/1174752-overview Accessed 19/12/2011.
8. Regional Public Health case files 2010, 2011.
9. Lead paint photo: http://preservegreen.files.wordpress.com/2010/02/lead-paint-removal.jpg accessed 12/12/2011

What are you reporting?

Three months of notifiable cases in the Hutt Valley, Wairarapa and Wellington.

	Hutt	Wairarapa	Wellington	Totals
Campylobacteriosis	54	26	132	**212**
Cryptosporidiosis	7	8	9	**24**
Dengue fever	0	0	1	**1**
Gastroenteritis - unknown cause	0	0	3	**3**
Gastroenteritis / foodborne intoxication	16	0	32	**48**
Giardiasis	5	3	40	**48**
Invasive pneumococcal disease	6	1	7	**14**
Lead absorption	0	0	3	**3**
Malaria	0	0	1	**1**
Measles	0	0	9	**9**
Meningococcal disease	3	0	4	**7**
Mumps	0	0	0	**0**
Pertussis	34	0	59	**93**
Rheumatic fever - initial attack	0	0	1	**1**
Salmonellosis	4	0	18	**22**
Shigella	0	0	2	**2**
Tuberculosis - treatment of latent infection	0	0	0	**0**
Tuberculosis disease - new case	0	0	3	**3**
Yersiniosis	13	2	14	**29**
Totals:	**142**	**40**	**338**	**520**

Notes:

Data from the 3 month to 28/11/2011.

1. Table includes confirmed cases only.
2. There has been one additional case of measles, not laboratory confirmed but clinically and epidemiologically meeting the definition of a confirmed case.
3. There were an additional 87 'probable' cases of pertussis in the region for which no confirmatory test is expected.
4. 'Gastroenteritis/food borne intoxication' includes cases of rotavirus.

Note the large proportion of notified cases that were enteric infections and in particular the high proportion of campylobacter cases relative to all other notifiable conditions.

Pertussis and measles case numbers were notably high for this three month period.

Source:

ESR. Episurv database of notifiable diseases, accessed 28/11/11.

Measles Vaccine Claims Increase

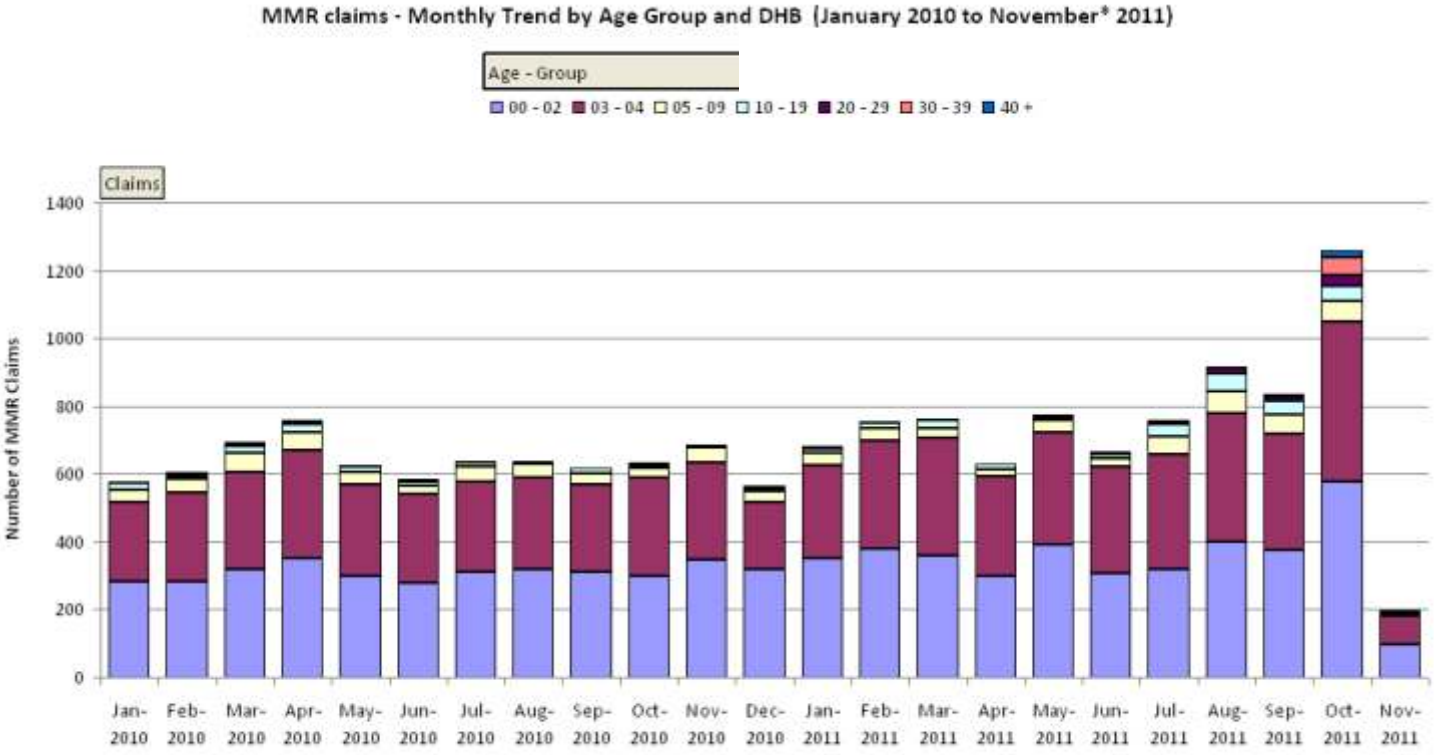

Figure 1 MMR Claims for Regional Public Health (Wellington, Wairarapa, Hutt Valley DHBs)

MMR claims information since January 2010 shows an excellent response to the current outbreak of measles.

National statistics also mirror this trend over the same time period with some other areas also showing a high peak in immunisations for August 2011 as well, following concern about cases in Northland.

Improving measles vaccination rates has been shown to be an effective means of halting a measles outbreak.

Well done to all the primary care services contributing to this positive trend.

Source:

New Zealand Ministry of Health

Data source: MMR Vaccine Claims Data, Sector Services, Ministry of Health

Data extract date: 10 November 2011 (Claims data to 6 November 2011 has been included)

Interpretation notes:

1. DHB is based on PHO contract location, not the domicile of the vaccinee
2. Claims data are currently unable to be linked back to specific GP practices or NHI of the vaccinee
3. There is a time lag between delivery of the vaccine and claims arriving at the Ministry of Health, so claims data may be an underestimate of true uptake
4. Includes all MMR vaccine indications, including 15month, 4year, 'booster'
5. This spreadsheet includes hidden claims data and pivot tables
6. For more information on claims data (including indication codes) please see: http://www.moh.govt.nz/moh.nsf/indexmh/sectorservices-claims-immunisation
7. Auckland Region DHB includes Waitemata, Auckland and Counties Manakau

If you have a query regarding this data, please contact Rayoni Keith – rayoni_keith@moh.govt.nz

Arak Danger - toxic cocktail?

"Recent cases of severe illness, including permanent blindness, have emphasised the need for travellers to Bali, Lombok and other parts of southeast Asia to be careful about drinking arak, a distilled palm wine. Arak is often mixed with fruit juice as part of a cocktail. The illnesses have resulted from contamination of arak with toxic chemicals like methanol. The safest option for travellers would be to avoid drinking arak, or any cocktails which contain it, but if you do choose to drink it, make sure it comes from a sealed bottle from a commercial distillery." – New Zealand Ministry of Foreign Affairs and Trade

This warning follows poisoning reports of substantial concern. A 29 year old New Zealand man who had been living in Australia died in September 2011 after drinking Arak that contained methanol in Bali. More recently, a 25 year old Australian nurse has reportedly become very unwell after drinking a cocktail of Arak and fruit juice in Indonesia in October 2011. She developed poisoning from methanol contaminating the 'Jungle Juice' cocktail, resulting in brain and kidney injury. In 2009, a batch of arak contaminated with methanol and sold in Bali killed 25 people.

The Indonesian Department of Foreign Affairs and Trade advice is:

Since 2009, a number of tourist deaths in Indonesia, including an Irish citizen, have been linked to the consumption of

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locally-brewed rice wine "arak" which has been contaminated with methanol. We advise all travelers, especially in Bali, Lombok and Gili Islands, to reconsider their need to consume this drink, to take local advice about reputable bars in their area, and to ensure that drinks are prepared in their sight.

Travellers should take care to listen to these consistent warnings and doctors advising people before they travel can take the opportunity to highlight the possible danger.

Sources:

New Zealand Ministry of Foreign Affairs and Trade: http://www.safetravel.govt.nz/news/index.shtml accessed 14/11/11

Otago Daily Times 1/12/2011. Accessed 5/12/2011

http://www.odt.co.nz/news/dunedin/188908/warning-balis-killer-arak-cocktail

Indonesia Department of Foreign Affairs and Trade: http://dfa.ie/home/index.aspx?id=8501 accessed 14/11/11

International Business Times – Anne Witter http://m.ibtimes.com/bali-arak-poison-methanol-travel-tragedy-229282.html accessed 14/11/11

Global Post - Freya Petersen http://www.globalpost.com/dispatches/news/regions/asia-pacific/bali-drugs-lombok-indonesia-australia-toxic-cocktail accessed 14/11/11

Tortured History

Torture or Trauma is a hidden contributor to somatic complaints in a surprisingly large number of people from a refugee background.

Over the last five years Regional Public Health has helped with the arrival of 864 quota refugees who have settled in the Wellington region, and another 228 relatives of refugees who have migrated to New Zealand[1]. In the last few years this has included significant numbers of people from Burma and Colombia. It is estimated that around 40% of refugees have experienced some form of trauma and torture as part of their refugee experience[2].

Public Health Nurses facilitate the transfer of clinical notes and laboratory results from the Mangere Refugee Resettlement Centre to general practices and to hospitals or other secondary services. Regional Public Health provides free tuberculosis screening even if people are not official quota refugees. We also coordinate other public health initiatives for refugees and educational opportunities for health care providers.

The mental health of people arriving with a refugee background is often initially left for family members and general practices to manage, unless a specific problem has been identified at the Mangere Refugee Resettlement Centre and a referral already made to Wellington Refugees As Survivors.

People from a refugee background with trauma and torture experiences may present with a range of somatic symptoms, avoidance behaviours, physical and emotional symptoms. These could indicate more serious mental health issues such as severe depression and post traumatic stress disorder (PTSD).

The Wellington region is fortunate to have a specialised mental health service that clients can be referred to for short or long term trauma counselling.

Wellington Refugees As Survivors Trust (RAS) is a regional specialist mental health service for refugees who have experienced trauma and torture. The service was established in 1997 and is contracted to provide services to Capital and Coast DHB and Hutt Valley DHB.

Referrals

RAS accepts referrals from a range of services including primary and secondary health care, social services, education and also accepts self referrals. The usual criteria for being taken on by RAS are that a person comes from a refugee background, has a history of trauma and torture, and has other signs or symptoms of mental health concerns including resettlement difficulties. All accepted referrals are prioritised according to the severity of the presenting issues and concerns.

The RAS team

RAS has a very experienced multidisciplinary clinical team of psychotherapists, psychologists, counsellors and a visiting psychiatrist. RAS provides a comprehensive service working with children, adults and families.

How to make a referral to RAS?

If you would like to refer a person to RAS a referral form is available on the RAS website http://www.wnras.org.nz/ or you can contact Ranka Margetic-Sosa, Clinical Manager, on 04 8050 353 or Joy Wilson, Programmes and Services Coordinator, on 04 8050 358.

More detailed information about RAS can be found at http://www.wnras.org.nz/

If you are interested please check this site for details regarding 'Culturally and Linguistically Diverse' (CALD) training that will be held in 2012.

Source:

1. Regional Public Health records.
2. Wellington Refugees As Survivors

Ordering Pamphlets and Posters:

To order any Ministry of Health resources, please contact the Health Information Centre on 04 570 9691 or email laurina.francis@huttvalleydhb.org.nz

For enquires regarding The Public Health Post, please contact Dr Jonathan Kennedy. Medical Officer, Regional Public Health by emailing jonathan.kennedy@huttvalleydhb.org.nz or by phone 04 570 9002. Alternatively contact one of the regional Medical Officers of Health: Dr Jill McKenzie, Dr Margot McLean, Dr Annette Nesdale and Dr Stephen Palmer.

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