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Background

The Victorian Refugee Health Fellows Program, in conjunction with a state-wide network of refugee health service providers, is a response to the need to build capacity and improve refugee and asylum seeker health in the state through education, clinical services, research and advocacy.

Globally, the number of refugees and asylum seekers is continuing to increase, a reflection of the severity of current conflicts. Prior to arriving in Australia many refugees have experienced severe poverty, poor access to basic human rights such as food, water, shelter and healthcare, as well as psychological and physical trauma and torture. Prolonged periods of detention on arrival in Australia are also taking a toll. Consequently, the health needs of refugees arriving in Australia are complex.

Definitions

A refugee is someone who has been forced to flee his or her country because of persecution, war, or violence. A refugee has a well-founded fear of persecution for reasons of race, religion, nationality, political opinion or membership of a particular social group. War and ethnic, tribal and religious violence are leading causes of refugees fleeing their countries.

An asylum seeker is someone who has sought protection as a refugee, but whose claim for refugee status has not yet been assessed.

Over 90 per cent of ‘irregular maritime arrivals’ (the Australian Government’s term for asylum seekers who arrive by boat) in 2012–2013 were found to be refugees.

This year is the 60th anniversary of Australia’s ratification of the United Nations Convention relating to the Status of Refugees. This document paved the way for refugees to seek asylum during times of persecution.

Did you know?

- 700,000 refugees have arrived in Australia since WWII.
- It is estimated that there are over 51 million forcibly displaced people worldwide. The biggest number since WWII.
- 16.7 million are refugees, 1.2 million are seeking asylum.
- 50 per cent of these are children.
- Frequent countries of origin in 2012–2013: Afghanistan, Iran, Iraq, Burma, Pakistan, Sri Lanka.
- The top host countries who accept refugees are Pakistan (1.6M), Iran (850K), Lebanon (850K), Jordan (640K) and Turkey (600K)

In 2013–14 until March of this year Australia has received over 8600 refugees, which is only 4.6 per cent of permanent migrants during this time. Victoria has received over 2,000 refugees during this time.

Identification of asylum seekers and refugees in the health care system can be very difficult because they may not have Medicare cards and may not know how to self-identify to access health care.

Patients are often not aware of their rights and may be inadvertently billed as private patents, even though the Victorian State Government has stated that asylum seekers should not have to pay for essential health services.

The Victorian Government’s Refugee and Asylum Seeker Health Action Plan 2014–2018 was developed to address the health disparities between refugees and the broader community in the state. The Victorian Refugee Health Fellows Program complements other increased services for refugees including refugee health nurses, mental health counsellors and bi-cultural health workers.

The Victorian Refugee Health Fellows Program commenced in 2008 with two Fellows. It has since expanded to appoint five Refugee Health Fellows with diverse areas of interest and expertise. All five Fellows work collaboratively with the
Victorian Refugee Health Network and are connected with a range of multidisciplinary services including settlement services, refugee health nurses, practitioners at Foundation House, (a specialised service for the victims of torture and trauma), Medicare Locals and tertiary hospitals in their region.

The program aims to build capacity in refugee healthcare by:

- improving clinical services for refugees
- providing education and training for those who work with refugees and asylum seekers
- promoting research in refugee health to inform best practice and service development.

Figure 1: Locations in Victoria of refugee settlement 2010–11 and 2012–13

Accessed July 20, 2014
Clinical services

The Refugee Health Fellows liaise between primary care and tertiary hospitals and also provide specialist care in the community.

In 2014 the Royal Melbourne Hospital (RMH) has two Refugee Health Fellows: Dr Nadia Chaves, an infectious diseases physician, and Dr Joanne Gardiner, a general practitioner. Both also have appointments with cohealth, a community health service in Melbourne’s west. Nadia provides an infectious diseases service at cohealth Kensington to allow access to specialist care for refugees and asylum seekers at their primary health service. Joanne has a primary healthcare service at RMH to allow very newly arrived refugees, who do not yet have a GP, access to primary healthcare while they obtain multidisciplinary specialist care. These services are supported through in person and telehealth consultations to urban, rural and remote areas including Shepparton, Wyndham, Footscray and Mildura, an initiative that was established by Dr Thomas Schulz, a previous RMH Refugee Health Fellow.

Dr Hamish Graham and Dr Shidan Tosif are paediatric refugee health fellows who work within the Immigrant Health Service at the Royal Children’s Hospital in Melbourne. They also provide a tertiary paediatric service at community health centres in Melbourne’s west. Dr Mark Timlin, a general practitioner and refugee health fellow with a special interest in mental health works in Monash Health and at a specialised refugee health centre at Doveton in south-east Melbourne.

Education and advocacy

Fellows provide education services about refugee health issues in person and via teleconference to rural and remote areas, as well as to city general practices and hospitals. Training is also provided to specialist and GP trainees, junior medical staff and medical students, as well as non-medical hospital staff. Fellows also contribute to the development and implementation of health guidelines on relevant health topics.

Fellows act as a point of reference across the state for queries from other health professionals about refugee health issues. Fellows also promote refugee health issues through engagement with the broader community, for example through involvement in regional sports clubs, women’s groups and local cultural diversity events.

Research and innovation

Fellows have the opportunity to be involved in a number of innovative programmes that have been developed through a collaboration of various Victorian healthcare services to improve refugee health. CAReHR is a clinical audit and research electronic health record system. The Refugee Health Clinical Hub links specialist care via CAReHR across four tertiary networks (Melbourne Health, Royal Children’s, Monash Health and Barwon Health) and provides real-time sharing of patient information with GPs via a web-based application (cdmNet). It also provides a facility for ongoing audit of clinical data to enable clinicians to evaluate their practices and to conduct quality improvement research to optimise care for patients of refugee and asylum seeker background.

Infectious diseases in Victorian refugee communities

There are limited data on the prevalence of infectious diseases in refugee and asylum seeker communities in Australia. Evidence from screening of mixed paediatric and adult newly arrived refugee cohorts in Australia is outlined in Table 11.

Diseases such as latent tuberculosis can be acquired during the journey or at the country of origin and prevalence is up to 70 per cent in refugees. Schistosomiasis occurs in up to 24 per cent of those from sub-Saharan Africa but only in 5.4 per cent of those from Burma. Similarly, the prevalence of chronic hepatitis B depends on the country of origin and can be up to 25 per cent depending on the prevalence in the source country.

Health providers looking after refugees and asylum seekers are encouraged to perform a Refugee Health Assessment on all patients. This assessment includes screening for latent infectious diseases such as tuberculosis, hepatitis B and schistosomiasis. The Australasian Society of Infectious Diseases has guidelines for the management of infectious diseases in newly arrived refugees (currently under revision).

The Refugee Health Assessment evaluates vaccination status and provides links to guidelines for catch-up immunisations. Screening is advised for nutritional deficiencies and mental health issues.
Table 1: Prevalence of medical conditions amongst refugee and asylum seekers in Australia

<table>
<thead>
<tr>
<th>Condition</th>
<th>Prevalence</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaemia</td>
<td>10–20 %</td>
<td>Higher prevalence in younger children (&lt;5 years)</td>
</tr>
<tr>
<td>Iron deficiency</td>
<td>11–34 %</td>
<td>Higher prevalence in younger children (&lt;5 years)</td>
</tr>
<tr>
<td>Low vitamin D</td>
<td>60–90%</td>
<td>African</td>
</tr>
<tr>
<td></td>
<td>33–37%</td>
<td>Karen</td>
</tr>
<tr>
<td>Low vitamin A</td>
<td>40%</td>
<td>African</td>
</tr>
<tr>
<td>Chronic Hepatitis B</td>
<td>3–25%</td>
<td>South Asian and African cohorts</td>
</tr>
<tr>
<td>Schistosomiasis</td>
<td>7–24%</td>
<td>African and South Asian cohorts, higher prevalence in African cohorts</td>
</tr>
<tr>
<td>Strongyloides</td>
<td>2–21%</td>
<td>Higher prevalence South Asian cohorts</td>
</tr>
<tr>
<td>Malaria</td>
<td>4–10%</td>
<td>Predominantly African cohorts</td>
</tr>
<tr>
<td>Active TB infection</td>
<td>3.3%</td>
<td>Only one study</td>
</tr>
<tr>
<td>Latent TB infection</td>
<td>20–70%</td>
<td>African, South Asian and Middle Eastern cohorts</td>
</tr>
<tr>
<td>Pathogenic faecal parasites</td>
<td>16–40%</td>
<td>all groups</td>
</tr>
<tr>
<td>Inadequate immunisation</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>STI, syphilis, hepatitis C, HIV</td>
<td>Limited data available</td>
<td></td>
</tr>
</tbody>
</table>

* Table courtesy of Dr Georgie Paxton, all references at http://www.rch.org.au/immigranthealth/research/Research_resources/

Case report

Tara* is a 24-year-old woman referred to the Royal Melbourne Hospital Refugee and Immigrant Health Service by her general practitioner after consultation with a Refugee Health Fellow. She had been exposed to tuberculosis on the boat to Australia and was found to be Mantoux positive. Tara had been in detention centres on Christmas Island and then Darwin for four months prior to discharge into community detention. She was accompanied to the outpatient clinic by an International Health and Medical Services (IHMS) case-worker and seen with the assistance of an interpreter via telephone. She attended with her husband and five-year-old son who were in community detention with her. Her mother and brother had been recently killed in her home country. Her main symptoms were fatigue, abdominal pain, nightmares (which commenced in detention) and insomnia.

Investigation and management

Tara was treated for the following conditions diagnosed according to a Refugee Health Assessment: latent tuberculosis, helicobacter pylori infection, B12 deficiency, vitamin D deficiency, iron deficiency anaemia, strongyloidiasis and schistosomiasis. She was referred to the Victorian Foundation for Survivors of Torture for counselling. A gastroscopy was organised to investigate her chronic abdominal pain. She was then referred to the hepatitis clinic to stage and manage her hepatitis B. The general practice provided catch-up vaccinations as she was found to be non-immune to rubella and measles. Tara was linked in for shared care at Royal Women’s Hospital when she became pregnant during treatment for latent TB.

A referral was organised for Tara’s son to attend an RCH Immigrant Child Health Service for further assessment. Her husband also undertook a Refugee Health Assessment and catch-up vaccinations. Tara was linked back into a community health service with a detailed plan for management and follow-up. The Refugee Health Fellow was able to organise treatment and referral to the different services, help with coordination of care and provide education to the various specialties about ongoing management.

* Name changed to protect privacy.
The current political dialogue about asylum seekers and refugees in Australia at times overlooks the basic human right to receive equitable healthcare, which is especially important in the case of these potentially at risk patients.

For more information, please visit:
www.rch.org.au/immigranthealth/
To access Refugee health: a desktop guide, go to:

References

11. All references for this table courtesy of Dr Georgie Paxton http://www.rch.org.au/immigranthealth/research/Research_by_subject_areas_P_Z/ (accessed 13 August 2014)

Screen – Consider:
Stool: Faecal C/O/P for intestinal parasites, H.Pylori, faecal antigen (if symptoms); TB screen: Chest xray and Mantoux or quantiferon
Other Tests: FPU for gonorrhoea and chlamydia.
Consider need for dental care, vaccinations and screen for non-communicable diseases and vitamin deficiencies (eg Vit D, iron).

Screen – Consider Social Issues: housing, financial security, education/training, social supports.
Family/community: overseas/here; well-being and functioning; Mental health (PTSD, depression, substance abuse)

Kindness
“Every clinical encounter can be an opportunity for healing”

For more information go to the Victorian Refugee Health Network http://refugeehealthnetwork.org.au/

ASK
What country are you from?
How did you arrive in Australia?
What is your preferred language?
Would you like an interpreter?

TIS 1300131450

SCREEN
Consider:
Stool: Faeces C/O/P for intestinal parasites, H.Pylori, faecal antigen (if symptoms);
TB screen: Chest xray and Mantoux or quantiferon
Other Tests: FPU for gonorrhoea and chlamydia.
Consider need for dental care, vaccinations and screen for non-communicable diseases and vitamin deficiencies (eg Vit D, iron).

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What is your preferred language?
Would you like an interpreter?

TIS 1300131450
Acute disseminated encephalomyelitis and routine childhood immunisations

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6. Department of Paediatrics, Monash Health, Victoria

Acute disseminated encephalomyelitis (ADEM) is a severe, neurological condition generally thought to be of autoimmune aetiology. It has been reported in temporal association with immunisation but it is not known if a causal relationship exists. Without robust evidence investigating this association, vaccination coverage rates are at risk should allegations of causality occur. Coincidentally, in June 2014, Channel 9 reported the case of a Western Australian man with ADEM after administration of a diphtheria, tetanus, acellular pertussis vaccination (DTaP) (Figure 1)1. Any impact this story may have had on vaccination rates is not known. We describe how a retrospective study utilising the self-controlled case series (SCCS) methodology can be used to explore the relationship between routine childhood immunisations and ADEM

Introduction

Acute disseminated encephalomyelitis (ADEM)

ADEM is an uncommon, immune-mediated condition characterised by demyelination of the central nervous system (CNS)2,3. It is categorised in the same group of demyelinating conditions as multiple sclerosis and tends to affect the paediatric population4.

Clinical features of ADEM are similar to infectious encephalitis or an episode of multiple sclerosis and studies have reported significant mortality and morbidity rates4–6. ADEM has been described following antecedent immunologic challenge such as an infection or immunisation. Recent case-series have found 62–93 per cent of patients experience a preceding infection (typically a non-specific urinary tract infection or gastrointestinal illness), five to 15 per cent prior vaccination and the rest are cryptogenic (Table 2)7–11. The advent of MRI has aided diagnosis, which can be made according to criteria defined by the Brighton Collaboration (Figure 2 and Table 1)12.

Figure 1: Channel 9 media coverage of alleged case of ADEM post DTaP immunisation, Channel 91
Figure 2: MRI of patient with ADEM

Axial T2 FLAIR MRI images (A and B) through medulla demonstrating patchy areas of increased signal. Sagittal T2-weighted image (C) demonstrating diffuse hyperintensity throughout the length of the cervical cord with associated spinal cord expansion.

Table 1: ADEM Brighton Collaboration (BC) case definition Level 1\textsuperscript{12}

a. Demonstration of diffuse or multifocal areas of demyelination by histopathology

OR

b. Focal or multifocal findings referable to the central nervous system, including one or more of the following:
   1. Encephalopathy (see case definition for encephalitis for specification of encephalopathy),
   2. Focal cortical signs (including but not limited to: aphasia, alexia, agraphia, cortical blindness),
   3. Cranial nerve abnormality/abnormalities,
   4. Visual field defect/defects,
   5. Presence of primitive reflexes (Babinski’s sign, glabellar reflex, snout/sucking reflex),
   6. Motor weakness (either diffuse or focal; more often focal),
   7. Sensory abnormalities (either positive or negative; sensory level),
   8. Altered deep tendon reflexes (hypo- or hyperreflexia, asymmetry of reflexes), or
   9. Cerebellar dysfunction, including ataxia, dysmetria, cerebellar nystagmus,

AND

c. Magnetic resonance imaging (MRI) findings displaying diffuse or multifocal white matter lesions on T2-weighted, diffusion-weighted (DWI), or fluid-attenuated inversion recovery (FLAIR) sequences (± gadolinium enhancement on T1 sequences),

AND

d. Monophasic pattern to illness (i.e., absence of relapse within a minimum of 3 months of symptomatic nadir).
The pathogenesis of ADEM is not well understood. It is believed to be an autoimmune disorder, with the main theory being one of molecular mimicry (immune response to self-antigens precipitated by the presence of foreign epitopes with molecular similarities)\(^4,10,13\). Alternate theories suggest the development of an aberrant immune response, for instance infection leading to the release of sequestered CNS peptides into the circulation, resulting in a loss of self-tolerance\(^4,13\). Triggering of an autoimmune response following live, attenuated vaccines has also been hypothesised\(^4\).

**ADEM and immunisation**

Almost all current vaccinations have been temporally associated with ADEM in a case report or case-series (Table 2). Figure 3 demonstrates absolute numbers of ADEM cases associated with specific vaccines reported to American/European passive surveillance systems. However, the only pathologically and epidemiologically proven vaccinations to cause ADEM are neural-containing rabies vaccines (Semple or Pasteur vaccinations)\(^3,15,16\).

No studies methodologically capable of confirming or rejecting a causal association between currently used immunisations and ADEM have been conducted to date. In the absence of such studies, allegations of causal associations of ADEM with immunisation could result in a substantial negative impact on vaccination rates. This gap in the literature thus represents a potential threat to public health and should be addressed.

<table>
<thead>
<tr>
<th>Country</th>
<th>Cases</th>
<th>Mean age (years)</th>
<th>Post-immunisation (%)</th>
<th>Post-infection (%)</th>
<th>Risk interval (RI)</th>
<th>ADEM incidence</th>
<th>Author, year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>26</td>
<td>5.7</td>
<td>4 (15%)</td>
<td>19 (73%)</td>
<td>1 month</td>
<td>0.64/100,000 person-years</td>
<td>Torisu et al, 2010(^11)</td>
</tr>
<tr>
<td>Germany</td>
<td>28</td>
<td>6.6</td>
<td>Not reported</td>
<td>Not reported</td>
<td>Not reported</td>
<td>0.07/100,000 person years</td>
<td>Pohl et al, 2007(^9)</td>
</tr>
<tr>
<td>USA</td>
<td>42</td>
<td>6.5</td>
<td>2 (5%)</td>
<td>39 (93%)</td>
<td>1–2 months</td>
<td>0.4/100,000 person years</td>
<td>Leake et al, 2004(^10)</td>
</tr>
<tr>
<td>Argentina</td>
<td>84</td>
<td>5.3</td>
<td>10 (12%)</td>
<td>52 (62%)</td>
<td>Upper range 30 days</td>
<td>Not reported</td>
<td>Tenembaum et al, 2002(^9)</td>
</tr>
<tr>
<td>Australia</td>
<td>31</td>
<td>5.9</td>
<td>2 (6%)</td>
<td>22 (71%)</td>
<td>1–42 days</td>
<td>Not reported</td>
<td>Hynson et al, 2001(^7)</td>
</tr>
</tbody>
</table>

**Table 2: Summary of select population-based studies focusing on ADEM from a range of geographical locations**

**Figure 3: Most common ADEM associated vaccines in the Vaccine Adverse Event Reporting System (VAERS) and EudraVigilance post-authorisation module (EVPM) databases\(^17\)**
Study methodology

We propose to conduct a retrospective study utilising the self-controlled case series (SCCS) methodology to explore the relationship between routine childhood immunisations and ADEM.

Aims
1. To investigate the existence of a causal association between immunisations and ADEM;
2. To inform future research, including adequately powered studies, in this area;
3. To detect signals, should they exist, from specific immunisations;

Self-controlled case series (SCCS)

The SCCS technique is a case-only model of a cohort study developed primarily for AEFI research to assess associations between a time-varying exposure and an outcome. The event incidence is compared during the risk interval, representing a period of temporarily increased risk after the exposure, and control interval, equivalent to the underlying age-specific risk for that event (Figure 4). Key advantages are high efficiency and implicit control for confounding due to time-independent variables such as sex or ethnicity.

Case ascertainment

Cases will comprise patients aged less than seven years old with ICD-10-AM discharge codes consistent with ADEM, that were admitted to Monash Medical Centre (MMC) or the Royal Children’s Hospital (RCH) from the years 2000–2013. Case-note validation will be conducted using the Brighton Collaboration criteria and immunisation status verified from the Australian Children’s Immunisation Register (ACIR).

Analysis

Using SCCS analysis, the relative incidence of ADEM post-immunisation will be determined. Analysis will be stratified by diagnostic certainty (BC criteria) and risk interval.

Ethics and informed consent

Ethical approval for the study was granted by Monash Health (Ref: 13421L), Royal Children’s Hospital (Ref: 33258A), and Monash University (Ref: CF14/314 – 2014000065) human research ethics committees.

Expected outcomes

This will be the first observational study to specifically explore the potential causal association between immunisation and ADEM. The findings will guide future research in the area and will help address this important vaccine safety issue.

References


In Victoria over the last decade the population rate of HIV diagnoses has remained stable (ranging between four and five cases per 100,000 population) however in 2013 this increased to a rate of 5.5 per 100,000 population. In 2013 there were 307 new HIV diagnoses notified in Victoria representing a 17 per cent increase in case numbers compared to 2012 (Figure 1). Nationally the number of new HIV diagnoses has steadily increased over the last decade. It is now estimated that there are a total of 6,885 people living with HIV in Victoria as at 31 December 2013.

In 2013, 89 per cent of cases were males and 11 per cent were females. The increase in the number of new HIV diagnoses between 2012 and 2013 occurred in both males and females; 274 males in 2013 compared to 243 males in 2012 (13 per cent increase); and 33 females in 2013 compared to 19 females in 2012 (74 per cent increase). However it was the increase in males, specifically men who reported sex with men (MSM), that was statistically different and the driver of increased notifications in 2013.

A third of the total infections in 2013 were in the age range 30–39 years (n=101) and two thirds were under 40 years of age. The median age for males and females was 35 and 30 years respectively.

Transmission of HIV in Victoria continued to occur primarily through sex between men. In 2013, 75 per cent of the HIV diagnoses occurred among MSM (n=231). This included 13 MSM who also reported injecting drug use (IDU). This number was significantly higher compared to previous years where on average four cases reported MSM and IDU as their exposure to HIV. In addition, 18 per cent of the cases in 2013 were
attributed to heterosexual sex, two per cent reported IDU as the only exposure and exposure was unknown for six per cent of the cases.

In 2013, 35 per cent of HIV diagnoses were newly acquired infections classified by evidence of infection in the 12 months prior to diagnosis. This was lower than the 41 per cent average in the previous five years 2008–2012. MSM accounted for 94 per cent of newly acquired HIV infections. This earlier detection of HIV in these men could be attributed to the increased testing seen in this population (Figure 2).

It is important to recognise that there are several factors that can impact the number of HIV notifications. These include but are not limited to: HIV prevalence; rate of HIV testing; risk practices; other STIs; and community viral load. These are discussed briefly below.

**HIV prevalence:** With PLWH living longer and healthier lives and remaining sexually active for longer, the risk of infection at a population level has increased.

**Increased testing:** There have been a number of interventions introduced over recent years aimed at increasing HIV testing which, include state-wide health promotion campaigns, interventions such as opt-out contact tracing; GP prompts and SMS reminders for STI testing at clinics; and introduction of rapid testing.

**Risk practices:** In Australia MSM is the population most affected by HIV and there are several known risk behaviours that influence HIV transmission. Unprotected anal intercourse (UAI) with casual or anonymous partners is the most commonly reported exposure to HIV and behavioural surveillance data show that UAI with casual/anonymous partners has increased in Victoria in recent years.

**Increased STIs:** The number of diagnoses of all notifiable sexually transmissible infections has increased over recent years, particularly among MSM. It is well documented that these and other bacterial and/or ulcerative infections can facilitate HIV transmission.

**Community viral load:** Treatment of HIV positive individuals as early as possible can reduce their viral load to an undetectable level and possibly reduce the risk of onward transmission of HIV to their partner.

**Reference**

Risk of HIV infection in people who inject drugs

Office of the Chief Health Officer, Department of Health & Human Services, Victoria

Current at 6 October 2014

Key messages

- People who inject drugs are at increased risk of HIV infection
- Screen people who inject drugs for HIV opportunistically (and at least annually).
- Link all new cases into HIV care and support.
- Ensure that all possible attempts are made to contact injecting drug use and sexual contacts of all HIV cases at the time of diagnosis.
- Educate all people who inject drugs about HIV transmission and prevention, safe sex and harm reduction.

Australia’s prompt and effective response to the HIV epidemic has resulted in a sustained low HIV prevalence among people who inject drugs (PWID). However, PWID remain at increased risk of HIV infection compared with the general population.

The prevalence of HIV among PWID is approximately one to two per cent, compared to 0.1 per cent in the general Australian population. Approximately six per cent of new HIV diagnoses notified nationally between 2003–2013 were in people reporting a history of injecting drug use.

In Victoria there were 307 new HIV diagnoses in 2013. Newly diagnosed individuals who reported injecting drug use as possible exposure for HIV made up seven per cent of cases. Two per cent of cases reported injecting drug use as the only exposure for HIV.

HIV can be transmitted through sharing needles, syringes and other injecting equipment. In addition, drug and alcohol use can increase sexual risk behaviours. Methamphetamine (ice, crystal meth, meth or shabu), in particular, can enhance sexual arousal and reduce inhibitions, thus increasing the likelihood of sexual risk behaviours, for example, unprotected sex and multiple partners.

Clinicians play a vital role in HIV control and prevention through early diagnosis, management of cases, partner notification and patient education.

What action is required?

Any individual using illicit drugs or synthetic drug products, including synthetic cannabis, is at serious risk of harm. These drugs are untested and unregulated and may therefore include a range of undisclosed chemicals that cause serious health and safety issues.

Screening

Screen all PWID opportunistically, and at least annually, for HIV and other blood-borne viruses (hepatitis B, C).

Management of HIV cases

Ensure appropriate management of newly diagnosed HIV cases through:

- Referral to and retention into HIV care and treatment.
- Referral to other services where appropriate (i.e. drug & alcohol, mental health, social support).

Notify all new HIV diagnoses to the Department of Health & Human Services


Partner notification

Ensure that all possible attempts are made to contact injecting drug use and sexual contacts of patients diagnosed with HIV at the time of diagnosis.

The partner notification officers (PNOs) from the Department of Health & Human Services are available to assist with partner notification. The PNOs can contact the sexual and injecting drug use contacts of a person diagnosed with HIV, provide advice and referral to testing. Any identifying information about your patients is kept confidential. The PNOs can be contacted on 9096 3367.

Patient education

Provide education about HIV transmission, prevention and treatment, safe sex and harm reduction to all PWID. Patient resources available online are listed on the next page (under Patient information).

More information

Clinical information

- The Victorian HIV/AIDS Service
- Melbourne Sexual Health Centre
- National HIV, Hepatitis C and Hepatitis B testing policies
- Australasian Contact Tracing Manual

Factsheets on blood-borne viruses, safe sex, drugs, drug dependency services
- Better Health Channel

Blood-borne viruses information, clinical and support services:
- Melbourne Sexual Health Centre
- Wulumperi Aboriginal and Torres Strait Islander Sexual Health Unit
- Victorian Aboriginal Health Service
- Multicultural Health and Support Service
- Victorian AIDS Council
- Living Positive Victoria
- Positive Women
- Hepatitis Victoria

AOD information, counselling and support services:
- Department of Health & Human Services information
- Needle and Syringe Program
- DirectLine Tel: 1800 888 236
- DrugInfo Tel: 1300 85 85 84

Harm Reduction Victoria
Multidrug-resistant tuberculosis in Victoria, 1996–2013

EeLaine Tay
Communicable Disease Epidemiology and Surveillance, Department of Health & Human Services, Victoria

Background

Tuberculosis (TB) is an acute or chronic infection caused by the tubercle bacillus Mycobacterium tuberculosis, and rarely by M. bovis or M. africanum. The initial pulmonary infection usually goes unnoticed with lesions healing, sometimes leaving traces of calcified scar tissue. The infection may however progress to pulmonary tuberculosis, or through blood or lymphatic spread produce miliary, meningeal or other extrapulmonary involvement.

Common symptoms include:
- a chronic cough sometimes accompanied by haemoptysis
- fevers and night sweats
- loss of weight
- feeling generally unwell.

TB is transmitted mainly by inhalation of infectious droplets produced by persons with pulmonary or laryngeal tuberculosis during coughing, laughing, shouting or sneezing. Invasion may occur through mucous membranes or damaged skin.

BCG vaccination has limited application in developed countries where the incidence of TB is low. It is an effective vaccine in reducing TB meningitis and death in babies and children less than five years in countries of high TB prevalence. It is not recommended for general use in the Australian community but should be considered for specific high-risk groups such as infants and young children travelling for extended periods to countries with a high incidence of TB. (Refer to The Australian Immunisation Handbook).

Adequate anti-TB chemotherapy for an appropriate period of time will result in almost 100 per cent cure rate. Short treatment regimens have been in use for some years. Resistance to at least isoniazid and rifampicin (whether or not it is also resistant to other drugs) is classified as multi-drug resistant.

Multi-drug resistant Tuberculosis (MDR-TB)

During 1995–2013, a total of 68 cases of multidrug resistant tuberculosis (MDR TB), defined as resistance to at least isoniazid and rifampicin, were notified to the Department of Health & Human Services. The number and proportion of MDR TB have gradually increased over time; however these consist of less than 2.5 per cent of total TB notifications (Figure 1).

Of the 65 cases with a case classification, 80 per cent (n=52) were classified as new, that is, a patient who has never been treated for TB or a patient that was previously treated for less than one month. Of the 13 cases with relapse, two relapsed following full treatment in Australia, one following partial treatment in Australia and 10 following full or partial treatment overseas.

The median age of cases was 29 years (interquartile range (IQR) 24.5–34; range 11–82) and 50 per cent were males. The majority (n=63; 93 per cent) were born overseas from 18 countries, the most common country of birth being India (n=17; 27 per cent), Vietnam (n=10; 15.9 per cent), China (n=6; 9.5 per cent) and the Philippines (n=5; 7.9 per cent). Pulmonary disease accounted for 69 per cent (n=47) of all MDR TB cases and of these, 51 per cent (n=24) were sputum smear positive. Of the
remaining 21 cases (31 per cent) with extra-pulmonary tuberculosis, the most common sites were lymph nodes (n=14), pleural (n=5), and one each of peritoneal, meningeal and bone/joint TB. Co-infection with HIV was unknown, as this is not reported in Victoria.

Treatment outcomes were evaluated for cases notified during 1995–2011. Among 39 cases who completed treatment or having recorded as being cured of TB, the median duration of treatment was 22 months (IQR 20–25). For the remaining 17 cases, eight were transferred interstate or overseas, one defaulted treatment, one died from another cause during treatment, one is still undergoing treatment and five have unrecorded outcomes.

The Victorian TB Program

In June 2014, the Victorian Tuberculosis (TB) Program relocated from the Department of Health to Melbourne Health, located at the Peter Doherty Institute for Infection and Immunity. The relocated program continues the statewide support of all Victorian patients with active TB and conducts contact tracing and screening to minimize public health risk.

The Victorian TB Program continues to provide health professionals with information about TB, Purified Protein Derivative (PPD – Tubersol®) and the Bacille Calmette-Guerin (BCG) vaccine. People can access information via telephone (03 9342 9478), email (vtpadmin@mh.org.au) or in person at Victorian Tuberculosis Program, Peter Doherty Institute for Infection and Immunity, 792 Elizabeth Street, Melbourne 3000.

References

Immunisation program, Victoria, June 2014

Helen Pitcher, Immunisation Program, Department of Health & Human Services, Victoria

Immunisation coverage data cited in this report are based on the Australian Childhood Immunisation Register (ACIR) coverage report. Table 1 presents quarterly immunisation coverage at 31 December 2013 for children aged 12–<15 months, 24–<27 months and 60–<63 months of age. These data were processed at 31 March 2014. Only those immunisation services a child has received up to 12 months, 24 months and 63 months of age are included in this table. For a copy of the ACIR report listing immunisation coverage against individual antigens for each local government area (LGA), email the Immunisation Section, Department of Health & Human Services <immunisation@health.vic.gov.au>.

The ACIR report measures antigen coverage for diphtheria, tetanus, pertussis, poliomyelitis, hepatitis B, *Haemophilus influenzae* type b (Hib), measles, mumps, and rubella. For the first time the ACIR report includes coverage data for the pneumococcal antigen. This will be included from now on in the ACIR report for children aged 12–<15 months.

Children aged 12–<15 months (cohort one) have received their third vaccination for diphtheria, tetanus, pertussis, poliomyelitis, hepatitis B, Hib and pneumococcal, all prior to the age of one year. It is assumed that all previous vaccine doses were received.

Children aged 24–<27 months (cohort two) have received their third vaccination for diphtheria, tetanus, pertussis, poliomyelitis, hepatitis B and their fourth dose of Hib and their first vaccination for measles, mumps and rubella, all prior to the age of two years. It is assumed that all previous vaccine doses were received.

Children aged 60–<63 months (cohort three) have received their fourth vaccination for diphtheria, tetanus, pertussis, poliomyelitis and their second vaccination for measles, mumps and rubella, all prior to the age of five years. It is assumed that all previous vaccine doses were received.

This report does not measure vaccine coverage for:
- hepatitis B vaccine scheduled at birth
- rotavirus vaccine scheduled at two, four and six months of age
- meningococcal C vaccine scheduled at 12 months of age
- varicella (chickenpox) vaccine scheduled at 18 months of age.

In cohort one, 53 per cent (42 of 79) of LGAs achieved immunisation coverage greater than or equal to 90 per cent. Victoria achieved 89.80 per cent coverage in cohort one compared to the Australian coverage of 89.70 per cent. Victoria ranked fourth behind ACT (92.7 per cent) and QLD and NT (equal 90.7 per cent) in the coverage rate for this age group. This was the first time since March 2000 that Victoria’s coverage for cohort one has fallen below 90 per cent.

In cohort two, 88 per cent (70 of 79) of LGAs achieved immunisation coverage greater than or equal to 90 per cent. Victoria achieved 89.80 per cent coverage in cohort one compared to the Australian coverage of 89.70 per cent. Victoria ranked fourth behind ACT (92.7 per cent) and QLD and NT (equal 90.7 per cent) in the coverage rate for this age group. This was the first time since March 2000 that Victoria’s coverage for cohort one has fallen below 90 per cent. Bass Coast, Glenelg, Hepburn, Mount Alexander, Queenscliffe, Surf Coast and Swan Hill LGAs reported a coverage rate between 80 to less than 85 per cent in age cohort two.

In cohort three, 85 per cent (67 of 79) of LGAs achieved immunisation coverage greater than or equal to 90 per cent. Victoria ranked equal second with Tasmania (92.6 per cent) behind QLD (92.8 per cent) in the coverage rate for this age group. Melbourne LGA reported a coverage rate of 75 to less than 80 per cent and Mansfield LGA reported a coverage rate of 70 to less than 75 per cent in age cohort three.
Table 1: Immunisation coverage by Local Government Area (LGA) and age cohort, Victoria, Oct–Dec 2013

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<tr>
<th>Age group</th>
<th>% fully immunised</th>
<th>Local Government Area (LGA)</th>
<th>Total LGAs (%LGAs)</th>
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<td>12–&lt;15 months</td>
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<td>West Wimmera, Yarriambiack</td>
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<td>95+</td>
<td>Benalla, Gannawarra, Golden Plains, Indigo, Latrobe, Moyne, Southern Grampians, Warrnambool, Wodonga</td>
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<td>90–&lt;95</td>
<td>Alpine, Ballarat, Banyule, Bass Coast, Bayside, Buloke, Cardinia, Central Goldfields, Colac-Otway, Corangamite, Frankston, Glen Eira, Greater Geelong, Hobsons Bay, Horsham, Kingston, Macedon Ranges, Maroondah, Mildura, Mitchell, Moonee Valley, Moreland, Mornington Peninsula, Northern Grampians, Pyrenees, South Gippsland, Towong, Wangaratta, Whitehorse, Whittlesea, Yarra</td>
<td>31 (39)</td>
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<tr>
<td>85–&lt;90</td>
<td>Ararat, Boroondara, Brimbank, Campaspe, Casey, Darebin, East Gippsland, Greater Bendigo, Greater Dandenong, Greater Shepparton, Hindmarsh, Hume, Knox, Loddon, Manningham, Mansfield, Maribyrnong, Melbourne, Melton, Moira, Monash, Moorabool, Murrindindi, Nilumbik, Port Phillip, Stonnington, Strathbogie, Wellington, Wyndham, Yarra Ranges</td>
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<td>80–&lt;85</td>
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<td>Buloke, Golden Plains, Hindmarsh, Horsham, Queenscliffe, Towong, West Wimmera</td>
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<td>Central Goldfields, Hindmarsh, Southern Grampians, Towong, West Wimmera, Yarriambiack</td>
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<td>Alpine, Hobsons Bay, Horsham, Indigo, Loddon, Moira, Warrnambool, Wodonga</td>
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Vaccination program update

The trivalent influenza vaccine components for the 2014 influenza are:

- A (H1N1) – an A/California/7/2009 (H1N1)-like virus, 15 µg HA per dose
- A (H3N2) – an A/Texas/50/2012 (H3N2)-like virus, 15 µg HA per dose
- B – a B/Massachusetts/02/2012-like virus, 15 µg HA per dose.

A/Texas/50/2012 is an A(H3N2) virus that, following adaptation to growth in eggs, has maintained antigenic properties similar to the majority of recently circulating cell-propagated A(H3N2) viruses, including A/Victoria/361/2011. The Australian Influenza Vaccine Committee (AIVC) made the recommendations and the Therapeutic Goods Administration accepted the recommendations of the AIVC.

The following groups are eligible for free government-supplied seasonal influenza vaccine:

- people aged 65 years and older
- pregnant women, at any time during their pregnancy
- Aboriginal and Torres Strait Islander people aged 15 years and older
- residents of nursing homes and other long-term care facilities
- any person over six months of age with a condition predisposing them to severe influenza illness requiring regular medical follow-up or hospitalisation, including children aged six months to 10 years undergoing long-term aspirin therapy
- people with
  - cardiac disease
  - chronic respiratory conditions
  - immunocompromising conditions
  - diabetes and other metabolic disorders
  - chronic neurological conditions
  - renal disease
  - haematological disorders
  - Down syndrome and fall under one of the above categories
  - obesity (BMI ≥ 30 kg/m²) and fall under one of the above categories
  - alcoholism requiring regular medical follow-up or hospitalisation in the preceding year and fall under one of the above categories.

Influenza vaccine recommendations for children aged from six months to less than five years are as follows:

1. Children aged from six months to less than five years should not receive bioCSL Fluvax® vaccine. BioCSL Fluvax® is not registered for use in this age group.
2. Children aged from six months to less than five years are recommended to receive either influenza vaccine available for paediatric use (Vaxigrip® or Fluarix®).

Recommendations for children aged from five years to less than 10 years

1. There is a strong preference for the use of either Vaxigrip® or Fluarix® in children aged from five years to less than 10 years.
2. BioCSL Fluvax® may still be used in children aged from five years to less than 10 years when no alternative vaccine is available. If bioCSL Fluvax® is administered, inform parents that there is a potential increased risk of fever but that febrile convulsions are rare in this age group.
The Victorian Government Department of Health & Human Services (the Department) conducts surveillance for infectious diseases to identify outbreaks and prevent the spread of infection. Surveillance for notifiable conditions occurs under the authority of the Public Health and Wellbeing Regulations 2009. The Regulations require medical practitioners and pathology laboratories to notify the Department when they diagnose certain infectious diseases and other conditions of concern.

The Communicable Disease Epidemiology and Surveillance section (CDES) of the Health Protection Branch in the DH are responsible for the surveillance and analysis of notifiable conditions to ensure best available data for public health action.

The table provided overleaf reports the historical comparisons of selected communicable diseases in Victoria for the period 01 January to 31 March 2014, at both state and regional levels. The data provided are current at date of extraction from the CDES surveillance system and are subject to revision as further information becomes available.

We encourage use of the data available on the CDES website. Daily updates of data are available at: http://ideas.health.vic.gov.au/surveillance.asp.

CDES website reports contain data related to notifications processed by the Department up to the close of business on the dates specified. While the reports are updated on a daily basis there may be a lag between receipt and recording of notification for some conditions, particularly those with large numbers of notifications such as chlamydia and campylobacter infection. Please note that the accompanying explanatory commentary is updated on a weekly basis.

CDES website reports include:
- tabulated daily summaries of notified cases of infectious diseases in Victoria for the past four weeks;
- total and rate for the previous 12 months; the year to date for the current and previous three years; and
- annual total for the previous three years.

Reports also include:
- age and sex distribution tabulated summaries;
- area reports by regions and local government areas; and
- summaries of disease groups, for example salmonellosis summaries, and vaccine preventable disease summaries.

CDES recognises that not all needs for data are met by the online reports and constantly revise and improve website reports. For release of data not available on the website, a request can be made by submitting a “Release of data on notifiable conditions in Victoria” application form, which can be found at: http://docs.health.vic.gov.au/docs/doc/Release-of-data-on-notifiable-conditions-in-Victoria-Policy-and-Application-Form. Applicants must ensure they have familiarised themselves with the requirements of the data release policy.

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<th>Notifiable condition</th>
<th>Barwon South West</th>
<th>Eastern Metropolitan</th>
<th>Gippsland</th>
<th>Grampians</th>
<th>Hume</th>
<th>Loddon Mallee</th>
<th>Northern And Western Metropolitan</th>
<th>Southern Metropolitan</th>
<th>Unknown or Non-Victorian</th>
<th>Victoria</th>
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<td>80</td>
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<td><strong>Botulism</strong></td>
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**Table 1: Notified cases by health region, 1 January to 31 March 2014 (as at 31 March 2014).**

Tabulated summary of cases of infectious diseases and other conditions notifiable in Victoria by Department of Health & Human Services Regions including totals for the year to date and previous year.

Citation guide: Communicable Disease Epidemiology and Surveillance, Health Protection Branch, Victorian Government Department of Health & Human Services.

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Tabulated data presented in this publication (1) relate to notifications received by the Department and do not necessarily reflect the true incidence of the disease; (2) are presented by health region; (3) are subject to change without notice. Please contact Communicable Disease Epidemiology and Surveillance, Health Protection, on 1300 851 183 for further information.
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Contributions are invited on any topic dealing with the control of infectious diseases. These may be in the form of articles, short reports or letters. Lead articles will be subject to peer review. As a guide, lead articles should be no more than 2500 words with a 200 word abstract, non-peer reviewed articles 2000 words and short reports and letters 800 words. Submissions should be in Microsoft Word IBM-compatible format with Vancouver-style references. We encourage submissions in electronic format. Original data from which graphs and figures have been prepared should be included. Submissions will be edited to conform with the style of the bulletin.

The editors recognise and thank the individuals and organisations who contribute to the surveillance and management of infectious diseases. We remind authors of their responsibility to cite appropriate persons as authors and to acknowledge separately those whose work contributed significantly but did not justify authorship.

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