Procedure: Immunisation

Purpose
To inform staff of vaccination and immunisation for occupations.

Definitions
Vaccine is an agent that produces specific antibodies when introduced into the body, so conferring immunity against a specific disease.

Immunity is the body's resistance to disease.

Immunisation or vaccination is the processes of introducing a vaccine into the body to produce or enhance immunity.

Budget Unit refers to a College, School, Division, Department, Cost Centre or Unit designated by the Vice-Chancellor as responsible for an activity of the University.

Staff for this document the term ‘staff’ refers to both staff, visitors undertaking research, and student laboratory workers.

Procedure

Introduction
1. The University seeks to minimise the risk to staff, students and visitors in relation to contracting serious infections. Some occupations and activities are acknowledged as having a higher risk of infection than that faced by the general population, including:
   - Travelling interstate or overseas to areas where certain diseases are prevalent
   - First aid attendants
   - Child / adult care workers
   - Gardeners, maintenance staff & cleaners
   - Medical and animal researchers and support staff
2. Receiving and maintaining the appropriate vaccination before exposure to the disease agent can reduce health risks and is seen as one control mechanism to maintain the health and wellbeing of staff.
3. It is a requirement that University management, staff, students, and visitors shall comply with this hazard management procedure throughout all the University designated sites.

Staff ideologically opposed to immunisation

4. Staff identified in occupations requiring vaccinations who refuse immunisation must take responsibility for their decision and have this appropriately documented. These staff must accept that due to licence conditions or an internal risk assessment judgement, vaccinations are a requirement in certain research fields and occupations and to prevent serious illness. Their actions may restrict the work that they can undertake.

Responsibilities

5. The University will:

- Require immunisations to relevant workers through the University Health Service or a medical practitioner, (see Occupation-based Recommendations section)
- Withdraw an offer of appointment if a new staff member chooses not to undertake a required vaccination
- Withdraw from duty a staff member who chooses not to have an immunisation deemed essential for the control of an OHS risk. The staff member will be withdrawn from the specific duty or duties relating to the risk.

6. Budget Unit management shall:

- Undertake a risk assessment of certain occupations and consider the need and benefit of immunisation,
- Clearly notify the staff member (or potential staff members) of any vaccination requirements in employment documentation (including the Pre-Employment Work Environment Report form).
- Advertise jobs and student positions requiring vaccinations as such. Discussion about vaccination should form part of the pre-employment process. If the person is a Visiting Fellow, discussion of vaccination requirements should take place before a position is offered,
- Give serious consideration to not employing a person who is medically contraindicated for a necessary vaccination, or does not wish to receive the vaccination. If the person is a visiting fellow, consideration should be given to not offering the position.
• Offer immunisations to relevant workers (through the University Health Service, their own GP or specialist medical provider),

• Reimburse the cost of the occupation-based recommendations to relevant staff who undertake the required immunisation,

• Some immunisations require a period of time before immunity has been obtained. In areas of moderate or high risk relevant to an immunisation, a person's duties should be restricted until that period has lapsed or serological testing confirms immunity. The OHS Branch can assist with the risk assessment in this situation.

**Vaccination procedure**

7. Life in Australia is associated with a risk of contracting certain serious infections and for some occupations this risk may be higher than for the general population.

8. Receiving and maintaining the appropriate vaccination before exposure to the disease agent can reduce such risks. However there are always some people who will not become immune even after a full set of vaccinations. For this reason vaccination should not be seen as a substitute for good practice, good hygiene or careful choice of lifestyle (e.g. protection against mosquitoes).

9. It is important to remember that many vaccinations require more than one dose, often a set period of time apart. For example, hepatitis B immunisation takes six months for the full set of vaccinations to be completed (or 21 days on a special accelerated schedule). This is particularly relevant to overseas travellers who may need a period of several months to complete the vaccinations required for their area of travel. With this in mind, it is wise to seek consultation with a doctor some time before you actually need the vaccination to take effect.

10. Vaccinations are available through consultation with a medical officer at the University Health Service (North Road, Phone 6125 3598) or from your local doctor, or from a University appointed medical provider. The University Health Service cannot offer vaccinations for TB, Q fever, Japanese encephalitis, Yellow fever or Smallpox. Health Services Australia, Woden or The Travel Doctor TMVC can do most of these vaccinations.

11. Certain occupational groups may be assessed or immunised through the University's Health Surveillance program.

**Occupation-based recommendations**

12. In addition to the general recommendations, members of certain
Occupations are strongly advised to maintain immunity to the agents listed below. Additional immunisations may be recommended through a specific internal risk assessment process.

13. These recommendations may be modified at any time through changes to the Australian Immunisation recommendations.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Immunisation Recommended</th>
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</thead>
<tbody>
<tr>
<td>Medical / Paramedical / Forensic Laboratory Worker</td>
<td>Tetanus#, hepatitis A &amp; B*, Note 1, 2, 3, 5, 6</td>
</tr>
<tr>
<td>Laboratory Worker</td>
<td>Tetanus#, Note 1, 2, 3 &amp; 6</td>
</tr>
<tr>
<td><strong>First Aid Attendant</strong> / Contact sportsperson / Referee of contact sport</td>
<td>Tetanus#, hepatitis A &amp; B*</td>
</tr>
<tr>
<td>Animal Worker</td>
<td>Tetanus#, Note 2, 3, 5, 6</td>
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<tr>
<td>Field Worker (Australia)</td>
<td>Tetanus#, hepatitis A &amp; B*, Note 3</td>
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<td>Tetanus#, hepatitis A &amp; B*, Note 4</td>
</tr>
<tr>
<td>Work related (overseas) travel</td>
<td>Note 4</td>
</tr>
<tr>
<td>Cleaner / Housekeeper / Security Officers / Laundry staff</td>
<td>Tetanus#, hepatitis A &amp; B*</td>
</tr>
<tr>
<td>Gardener / Horticulturist</td>
<td>Tetanus#, hepatitis A &amp; B*, Polio</td>
</tr>
<tr>
<td>Plumber/Drainer/Building Maintenance</td>
<td>Tetanus#, hepatitis A &amp; B*</td>
</tr>
<tr>
<td>Child care worker / Teacher of children</td>
<td>Tetanus#, varicella, hepatitis A &amp; B*</td>
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<tr>
<td>Medical Student</td>
<td>Tetanus#, hepatitis A &amp; B*, Note 7</td>
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</tbody>
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# Given as ADT (Adult diphtheria and Tetanus) vaccine–Tetanus toxoid vaccine is only to be used if diphtheria toxoid is contraindicated.

* Serological testing following Hepatitis B vaccination (to ensure the worker has a sufficient level of immunity) is required for these occupation groups.

Note 1: Plus other immunisation relevant to the work being undertaken (e.g. rubella, tuberculosis, smallpox, influenza, varicella) as recommended by your medical officer or as according to AS/NZS 2243.3 2002, internal risk assessment or imposed licence condition.

14. Follow-up of immunisation via serological testing to ensure immunity may be necessary in some cases. Consult your health care provider for details.

Note 2: Plus Q-fever vaccination if working with sheep, cattle, goats or kangaroos. Also recommended for laboratory personnel handling specimens from these animals, and veterinary workers. Plus any other vaccinations relevant to the work being undertaken, such as hepatitis A & B if the work involves human blood or body fluids. Follow-up of immunisation via serological testing to ensure immunity may be necessary in some cases (in particular hepatitis B, and Q-fever). Consult your health care provider for details.

Note 3: A rabies vaccination (for protection against Australian Bat Lyssavirus) is recommended for any animal, laboratory, or field worker likely to come into contact with bats.

Note 4: Plus other immunisation relevant to the location of travel or the work being undertaken (e.g. tuberculosis, cholera, typhoid, meningitis, yellow fever, Japanese encephalitis, rabies, malaria prophylaxis) as recommended by your doctor. An alternative source of information for travellers is a traveller's health clinic that provides vaccination and advice specific to your region of travel. For example: http://www.travelclinic.com.au/

15. The University travel advice page is available at: https://services.anu.edu.au/human-resources/business-travel

16. It is also useful to check the Department of Foreign Affairs and Trade

Note 5: Animal workers and researchers who come into contact with non–human primates should be immunised against tetanus, diphtheria, polio, hepatitis A & B and tuberculosis.

Note 6: Any laboratory or animal workers who are involved with research on vaccinia virus shall consult the procedure: Vaccination of Laboratory Staff Working with Vaccinia”.

Note 7: It is recommended that students in the medical school be considered medical workers under this policy. Students from the medical school seeking clinical placement should also consult: https://policies.anu.edu.au/ppl/document/ANUP_000420

Occupational Vaccination Considerations

17. The vaccination process for new staff may be commenced as soon as practical after the employment contract is signed/accepted.

18. There will be some situations in which staff are unwilling or unable to be vaccinated for one of a variety of reasons. For staff ideologically opposed to vaccinations, information is presented above. For current staff who are medically advised against a specific vaccine;

- Consideration should be given to restricting those staff from duties relevant to the vaccination.
- Consideration should be given to not accepting any person as a first aid officer who is medically contraindicated, or who does not wish to receive the recommended immunisations.

Regulatory obligations

19. The Gene Technology Act and associated Regulations may impose licence conditions upon researchers, including the need for certain vaccinations (as recommended by the AS/NZS2243.3). In this situation, staff are required to be immunised or be restricted from duties relevant to the vaccination.

20. In the specific case of vaccination against vaccinia virus, the document 'Vaccination of Laboratory Staff Working with Vaccinia' must be consulted, and becomes part of this procedure.

Record keeping

21. Records of staff vaccinations should be maintained on personnel files.
22. A form outlining vaccination history, immunisation status, medical contraindication and conscientious objection is available and may be used to record/document immunisation. A copy of vaccinations certificates or a letter from a medical officer may be satisfactory.

23. The completed form should be forwarded to your local HR section, which will forward to Records for filing. The supervisor of the person should be made aware that the person has or has not received the required vaccination(s) (as a simple yes/no response).

History

24. These Immunisation Hazard Management Procedures were prepared by the OHS Branch, reviewed by management, recommended by representatives of employees and management at the OHS Policy Committee and approved by the Director, Human Resources on 22 September 2003. Several amendments and additions were introduced to the OHS Policy Committee in November 2004 and August 2008.

25. This procedure should be read in conjunction with the University’s Occupational Health and Safety Policy and other relevant policies and procedures of the University.

Appendices

A. General Immunisation Recommendations

26. All adults in the Australian community are advised to maintain their immunity to tetanus, diphtheria, pertussis (whooping cough), polio, measles and mumps.

27. Adult Diphtheria and Tetanus (ADT) vaccination is recommended at age 15 to 16 years and then not again until 50 years of age unless travelling or injured with a tetanus prone wound i.e. compound fractures, deep penetrating wounds, wounds containing foreign bodies (especially wood splinters), contusions (bruises), abrasions (grazes), burns, superficial wound obviously contaminated with soil, dust or horse manure—especially if washing and cleaning of the skin is delayed more than four hours).

28. Influenza vaccination and pneumococcal vaccination is recommended, and free, to all adults over 65 years of age, and Indigenous people over 50 years of age

29. Rubella is more common in males than females therefore adolescent and young adult males as well as females should receive MMR vaccine both for their
own protection and to prevent transmission of the disease in the community. The Commonwealth MMR (measles, mumps and rubella) program, targeting people born between 1966 and 1983 (inclusive), has been extended. For those people falling into this age group free vaccination is available. As this is a live vaccine, any females receiving Rubella vaccination or MMR vaccination must avoid falling pregnant for two months after vaccination.

B. Common Diseases Controlled by Vaccination

Diphtheria.

30. An acute, infectious disease caused by toxigenic Corynebacterium diphtheriae, which primarily affects the upper respiratory tract. The death rate following infection is about 10%. A completed course of vaccination provides total protection for many years.

Hepatitis A.

31. An acute liver infection, which does not result in chronic liver damage. Hepatitis A Virus (HAV) is quite persistent in the environment and can survive on hands and food for relatively long periods. In young children it is usually a mild or asymptomatic illness, symptoms become more severe in older adolescents and adults. HAV is the leading vaccine-preventable disease among travellers to endemic areas. The disease is endemic in some indigenous communities in Australia. It is also the leading vaccine-preventable disease among childcare and preschool workers and vaccination of these workers should be mandatory. Any workers such as plumbers or maintenance workers who may come into contact with sewerage are at increased risk and should be vaccinated. Hepatitis A vaccine can be administered in conjunction with hepatitis B vaccine where necessary.

Hepatitis B.

32. The hepatitis-B virus is endemic worldwide. The infection has a long incubation time (up to 5 months) and exerts chronic and serious effects on the liver, with death rates up to 20%. Hepatitis-B requires direct transmission from contaminated blood or body fluid to the blood or body fluid of the recipient (e.g. by transfusion of contaminated blood, by use of contaminated syringes, by sexual transmission, or by contact of blood with broken skin).

Influenza.

33. An acute respiratory disease with other associated symptoms. Secondary complications of pneumonia can occur. The elderly and people with chronic disease are at particular risk of mortality associated with influenza. The vaccine
should be given routinely to those aged 65 and over, and to those aged 50 and over of Aboriginal or Torres Strait Island descent. The vaccine is available for all groups of people who wish to have it, and other groups such as carers should also receive the vaccination. See your doctor for further recommendations.

**Measles.**

34. An acute illness due to a morbilli virus invasion via the respiratory tract. Measles is highly infectious with an incubation period of about 10 days. Measles is often a severe disease with complications of bronchopneumonia (4% of cases), otitis media (2.5%), and encephalitis (0.05%). The last complication often produces permanent brain damage.

**Mumps.**

35. An acute illness caused by infection by a paramyxovirus. Orchitis occurs in 20% of clinical mumps cases in post-pubertal males, but it is usually unilateral and sterility is rare. Another rare complication is nerve deafness.

**Polio.**

36. An acute illness resulting from the invasion of the gastro-intestinal tract by poliovirus. The infection may lead to paralysis. Polio remains endemic in many developing countries. In Australia the last case of wild polio was in 1978, since then there have been two vaccine-associated cases. The small risk of vaccine-associated polio does not outweigh the benefits of vaccination.

**Q fever.**

37. An acute illness lasting 1 to 3 weeks, possibly including symptoms of hepatitis and pneumonia, and potentially resulting in substantial weight loss. There may be chronic effects of the infection including a prolonged fatigue syndrome. Up to 600 infections are reported in Australia each year. Infection may be transmitted through infected (apparently healthy) animals – both domestic and wild. Exposure occurs through inhalation of infected aerosols, often dust, and the organism can be found in the milk, excreta and placenta of infected animals. According to the Australian Immunisation Handbook veterinarians, laboratory workers and others exposed to cattle, sheep, goats and kangaroos and their products or specimens should be vaccinated.

**Rubella.**

38. The rubella virus generally produces only a mild disease in the adult or child, often only causing a transient skin rash. However, the disease during
pregnancy may produce serious congenital defects in the unborn baby. Infection during the first trimester is the period of greatest risk for the foetus but there is also a small risk of hearing defects and delayed development following maternal infection up to the 20th week. Rubella is spread by droplet infection and the incubation period is 14–21 days.

**Tetanus.**

39. An acute disease (10% fatality rate in Australia) caused by the toxin produced by Clostridium tetani, which grows anaerobically at an injury site. Penetrating wounds containing foreign bodies, wounds associated with soil, dirt or manure, and burns are the greatest risk, but tetanus can follow trivial, even unnoticed wounds. Active immunisation is the best protection against tetanus. Only 52% of adults aged over 50 in Australia are immune, and the majority of cases result from people aged over 55. A completed course of vaccinations provides total protection for many years; consult your doctor for the recommended course of vaccination.

**Tuberculosis.**

40. Usually manifests in the form of a lung disease. About 1000 cases a year occur in Australia, however most of these are from migrants. The vaccine is rarely used in Australia, although it may be necessary for some travellers or health care workers. Consult your doctor or travellers health clinic for detailed information on individual situations.

**Varicella (Chickenpox).**

41. A highly contagious illness which is usually mild and of short duration in healthy children. Severity and mortality are increased in adults and immuno-compromised people. Mortality rate in children is 0.1–0.4%, however in the immuno-compromised this rises to 7–10%. Most people are exposed during childhood (75%) however some adults and adolescents remain susceptible. The vaccine is highly recommended for non-immune people who work with children, are health care workers, women prior to pregnancy and parents.

**Vaccinia.**

42. When indicated by research licence conditions or an internal risk assessment, vaccination against vaccinia virus is a requirement. The document 'Vaccination of Laboratory Staff Working with Vaccinia' must be consulted.