



# Policy on Infectious Diseases for Health Professional Students

<b>Category</b>	Academic
<b>Type</b>	Policy
<b>Approved by</b>	Health Sciences Divisional Executive, 28 September 2023
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<b>Sponsor</b>	Pro-Vice Chancellor, Division of Health Sciences
<b>Responsible Officer</b>	Health Sciences Infectious Diseases Advisor
<b>Review Date</b>	2 August 2024

## Purpose

Health care workers, including those in training, have special responsibilities to ensure optimal protection of themselves and their patients against infectious disease risks. This document sets out the steps students who will have patient contact or contact with bodily fluids during their course must take to comply with Health Sciences Divisional requirements for testing and immunisation against infectious diseases.

The University's intent is to fully support students with a view to assisting them complete their programme and be able to enter, and practise safely in, their chosen profession. Students are encouraged to discuss this policy with the Dean or their representative if there are any matters requiring clarification. Compliance with the policy on infectious diseases will only be addressed under programme regulations where issues of risk make that necessary.

## Organisational Scope

This policy applies to all courses offered by the Division **where students have patient contact or contact with bodily fluids.**

## Definitions of pathogens relevant to this Policy

### **Viral Infections – predominantly respiratory spread.**

- Measles
- Mumps
- Rubella
- Polio
- Varicella-Zoster
- Influenza
- SARS-CoV-2

### **Viral Infections – blood borne.**

Included in this group are viruses which circulate in the blood of an infected person and can be transmitted through contact with infected blood.

- Human Immunodeficiency Virus
- Hepatitis B Virus
- Hepatitis C Virus

### **Bacterial Infections – predominantly respiratory spread.**

- Diphtheria (*Corynebacterium diphtheriae*, toxin-producing)
- Whooping cough or Pertussis (*Bordetella pertussis*)
- Tuberculosis (*Mycobacterium tuberculosis*)
- Encapsulated Bacteria: *N. meningitidis*

## **Content**

### **A. Summary**

**All students enrolled in professional health courses in the Division of Health Sciences at the University of Otago, and who will have patient contact or contact with bodily fluids during their course, are expected to comply with specific requirements set out in the Infectious Diseases Policy.**

The University is committed to providing a safe teaching and learning environment for patients, students and staff. There are obligations on the university under occupational health and safety legislation, and on the hospitals/clinics that students visit. Students can expect their training environment to be safe and appropriate protective aids to be provided.

Infectious diseases affect students during their training as Health Care Workers (HCWs) and HCWs in their professional lives with respect to the potential to transfer infectious agents (bacteria, viruses, parasites) from patient to patient. They may also become infected with infectious agents acquired from patients or from the community. HCWs who have symptomatic or in some cases asymptomatic infection, may transmit infectious agents to patients or other HCWs.

The blood-borne viruses Hepatitis B (HBV), hepatitis C (HCV) and human immunodeficiency virus (HIV) are of particular significance in health care settings. Infection may be completely asymptomatic, despite continuing presence of infectious virus in the blood. Although the risk of transmission to patients only arises through exposure to blood or body fluids and with appropriate infection control practices is extremely low, it is important for students entering training to become a registered health practitioner to be aware of their status with respect to HBV, HCV and HIV for personal and professional reasons. The University is not automatically required to report students with HBV, HCV or HIV infection to a registering authority. Registering authorities all have their own requirements related to inability to safely perform functions required for the relevant profession.

Health professional students enrolled in professional health courses, where they will have patient contact or contact with bodily fluids in the Division of Health Sciences are required to be fully compliant with all recommended vaccines listed in Table A1 below, to minimise their risk of acquiring and/or transmitting vaccine preventable diseases during their study and work.

### **B. Student requirements and responsibilities**

1. Throughout their course of study students must learn and practise standard infection control precautions that are relevant to their professional training. They should report blood and body fluid exposures and, prior to any risk of exposure for colleagues or patients, inform their supervisors when ill with respiratory or other symptoms.
2. Students have a responsibility to ensure that they are protected from infection with vaccine-preventable diseases relevant to health care. Any student who has concerns they believe might preclude one or more required vaccines should contact Student Health for further discussion.
3. Students have a responsibility to take measures to prevent transmission of infectious diseases from themselves to others and between patients.
4. Students have a responsibility to know their immune/infectious status for HBV, HCV, HIV, measles, mumps, and varicella. All students who will have patient contact or contact with bodily fluids during their programme must be tested and undergo interventions as described in table A1, before commencing studies. All students have the responsibility to seek advice, after an occupational risk event, including possible exposure to HBV, HCV, HIV, suspected tuberculosis or meningococcal disease. Advice should usually be sought from the member of staff responsible for the student's placement.

5. Each Faculty/Clinical School/School or Programme will appoint a staff member who will liaise with the Dean/Associate Dean/Programme Director and the Health Sciences Infectious Diseases Advisor on these matters.
6. Any student who is found by Student Health to have possible infection with a blood-borne virus or tuberculosis (TB) will be advised by Student Health who will arrange medical review within Student Health or with a specialist Infectious Diseases physician if required. The student is required to co-operate with relevant medical consultations, and follow any advice provided regarding the student's ability to undertake clinical and coursework activities within accepted professional standards. In addition, the student must make an appointment to discuss these issues with their Dean or his/her representative within two weeks of their medical consultation. Information shared will be treated with the highest level of confidentiality consistent with the proper management of the issues arising. With modern antiviral treatment, almost all infected practitioners should be able to perform exposure prone procedures:  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/909553/Integrated\\_guidance\\_for\\_management\\_of\\_BBV\\_in\\_HCW.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/909553/Integrated_guidance_for_management_of_BBV_in_HCW.pdf)
  - a. Students found to have hepatitis B surface antigen on serological testing require medical assessment with respect to clearance to perform exposure-prone procedures.
  - b. Students with a positive test for antibody to HCV will require medical assessment with respect to clearance to perform exposure-prone procedures.
  - c. Students with confirmed HIV infection will require medical assessment with respect to clearance to perform exposure-prone procedures.
  - d. Students with a positive Quantiferon Gold (TB) blood test will require clinical review with respect to possible latent tuberculosis.
  - e. Students must undertake further assessment, including specialist referral if required.
7. All students in the Division of Health Sciences, who will have patient contact or contact with bodily fluids, are expected to supply a copy of their personal immunisation record with dates of vaccine receipt or declaration at the time of entry to professional classes.
8. Students are required to have blood samples taken at a designated laboratory at the beginning of the first semester prior to commencement of classes in their professional programme.
9. Students are required to comply with any additional screening requirements of institutions in which they do clinical attachments or work e.g. testing for MRSA colonisation.
10. Students will:
  - a. Provide Student Health or other registered primary care providers with a signed declaration of the required minimum number of previous vaccine doses relevant to the list of diseases under Definitions (Page 1) by the prescribed date for the relevant course of study. The required vaccines include Hepatitis B, Diphtheria-Tetanus-Pertussis, Polio, Measles-Mumps-Rubella and (if non-immune by serology) Varicella. For vaccines given in childhood, the required number of doses to be considered fully immunised as an adult is based on the National Catch-up Schedules and set out in Table 1. Should catch-up doses of childhood vaccines be required, affected students will be advised of individual requirements. With respect to COVID-19 vaccines, students are required to provide documentation of all vaccine doses received with dates of receipt from My COVID Record. If fewer than 3 doses have been received, justification is required (see Table 1). It is important to note that Te Whatu Ora policy (2023) requires students attending their facilities who have received fewer than 3 doses to undergo a risk assessment and be fit-tested for N95 mask-wearing in order to attend a clinical placement, as is required for new employees. Students must undertake serological testing for antibody to measles, mumps and varicella and Hepatitis B surface antibody by the date prescribed by the Division. If any of these antibody results are below protective levels, a single dose of MMR and/or Hepatitis B vaccine and re-testing to confirm protective levels of

Hepatitis B surface antibody and/or measles antibody is required. If varicella antibody levels are low, two doses of varicella vaccine are required but no additional testing (see Tables).

- b. Undertake serological testing to identify chronic infection with HBV, HCV and HIV.
- c. If found to be infected with a blood-borne virus, access to appropriate clinical advice will be provided by Student Health or their registered primary care provider including access to specialist advice about potential therapy and implications for ability to undertake specific clinical activities related to their course within accepted professional standards.
- d. Will provide their consent to the Division to liaise with relevant medical advisors regarding matters outlined in (d) above.
- e. Understand the importance of infection control precautions and agree to ongoing periodic testing if required.

### **Related Policies, Procedures and Forms**

See Appendix A for additional information including strategies to minimise infectious disease risks, programme requirements, standard and additional precautions.

### **Contact for further information about this Policy**

If you have any queries regarding the content of this policy, procedure or guideline or need further clarification, contact Student Health or their registered primary care provider who will liaise with the Health Sciences Infectious Diseases Advisor as required.

### **Keywords**

Health Sciences Professional Programme Health and Conduct procedure.

### **Consultation**

Policy developed by the Working Group on Infectious Diseases Screening and Immunisation Policy, Division of Health Sciences. This working group has the following members in October 2023:

Chair: Health Sciences Infectious Diseases Advisor ( Professor Peter McIntyre)

Members:

Assoc Professor Michael Maze (Respiratory and Infectious Disease Physician, UoC)

Prof James Ussher (Microbiologist, Southern Community Laboratories)

Dr Brendan Arnold (Senior Lecturer and Infectious Diseases Physician Te Whatu Ora Southern)

Dr Prue Orchiston (General Practitioner, Student Health Services)

Administrative support: EA to Pro Vice Chancellor Health Sciences

Additional consultation undertaken with Health Sciences Divisional Executive, Health Sciences Professional Programmes Admissions Deans/Programme Directors, and Student Health Services.

Revisions will be in consultation with Health Sciences Infectious Diseases Advisor, Student Health Services, Masters of Nursing Science and the Health Sciences Divisional Academic Board

## Implementation Process

*All Policies, Procedures, Guidelines and Codes of Practice must include an implementation plan, which should respond to each of the following headings:*

<b>Person responsible</b>	<i>Health Sciences Infectious Diseases Advisor</i>
<b>Communication strategy</b>	
<b>Other Actions/tasks</b>	
<b>Resources</b>	
<b>Completion Date</b>	

## **Appendix A: Additional Information**

### **Strategies to Minimise Infectious Disease Risks**

#### **Infection Control Strategies**

Early in their studies students will be taught infection control strategies. These include assessing the risk posed by persons with particular infections and clinical syndromes, hand washing, aseptic technique, disposal of sharps and clinical waste, use of single-use only equipment, aspects of sterilisation and disinfection of re-useable equipment, the use of personal protective equipment (such as gloves, gowns, masks and eye protection), and managing patients in various forms of isolation. Competent performance of these precautions is a key professional skill.

#### **Transmission of Blood-borne Viruses**

The risk of transmitting a blood-borne virus from an infectious HCW to a patient (or an infectious patient to a HCW) depends on several factors, including the virus, the viral load in the blood of the infected person and the nature of procedure being performed by the HCW. An exposure-prone procedure is any situation where there is a potential risk of transmitting a blood-borne virus between a HCW and a patient. In particular, exposure-prone medical or dental procedures pose a risk for direct contact between the skin (usually finger or thumb) of the HCW and sharp surgical instruments, needles, or sharp tissues (broken bone or teeth) in poorly seen or confined body sites (including the mouth) of the patient. There is evidence to suggest that incidents are more likely to occur when the procedure is being undertaken by an inexperienced clinician. It is important to note that with currently available antiviral drugs, hepatitis C virus infection can be cleared, and infection with hepatitis B or HIV virus suppressed, such that ability to perform exposure prone procedures is not affected.

#### **Vaccination**

Vaccination provides protection against many of the infectious hazards of health care settings. The vaccines relevant to this document (measles, mumps and rubella (MMR), varicella and Hepatitis B and COVID-19) are highly effective. However, for MMR, Hepatitis B and varicella vaccines, rarely individuals do not respond to the initial doses or, more commonly, antibody levels wane below levels deemed protective if the last dose of vaccine was given 15 or more years ago. For COVID vaccines the aim is to protect against severe illness and in otherwise healthy adults less than 50 years current evidence indicates that this protection is retained after 3 doses for at least 2 years. The required and recommended vaccinations for students in the Division of Health Sciences are shown in the Tables below, modified from those in the NZ Immunisation Handbook (<https://www.health.govt.nz/publication/immunisation-handbook-2020>).

### **Programme Requirements**

#### **Student Immunisation**

**The Division requires all health professional students who will have patient contact or contact with bodily fluids during their training** to take the tests, immunisations and services as per the Tables below.

**The Division requires all students** who have results indicating possible infection with TB or blood-borne viruses to take steps for further assessment and management as advised by Student Health or their registered primary care provider.

**Table A1: Required vaccination history and immunity assessment plus further action required.**

Which Students?	Testing and vaccination history	Results held by primary health care provider	Further Action /Comment
<p><b>Required for:</b> All students enrolled in professional health courses in the Division of Health Sciences at the University of Otago, and who will have patient contact or contact with bodily fluids during their course.</p>	<b>Varicella zoster virus antibody</b>	Above threshold	none
		not detected	Two doses of varicella vaccine
	<b>Measles/Mumps antibodies</b>	Both above threshold	None
		Either below threshold	Single dose of MMR vaccine <sup>1</sup>
	<b>Hepatitis &amp; HIV</b>		
	Hepatitis B S antibody & Hepatitis B surface antigen	Hepatitis B antibody below threshold and surface Ag not detected	Single dose of Hepatitis B vaccine <sup>2</sup> . If Hepatitis B surface antibody remains < 10IU two doses and re-testing required
	Hepatitis B surface antigen	Positive	Refer for management as needed
	Hepatitis C antibody	Positive	Refer for management as needed
	HIV antibody	Positive	Refer for management as needed
	<b>TB testing</b> All students have a Quantiferon Gold TB test	Quantiferon Gold positive	Follow up as per National TB guidelines with referral for further management as needed
<b>Diphtheria, Tetanus, Pertussis (DTP), and Polio</b> Complete childhood immunisation usually consists of four or more doses of each of these 4 antigens. If this documentation is not available requirement for booster doses as an adult is shown under further action		If less than 3 doses of DTP or polio have been received, catch-up vaccinations are required. An appropriate schedule of catch-up doses will be advised by Student Health or your registered primary care provider <sup>3</sup> Irrespective of childhood doses received or catch-up to deliver at least 3 doses as an adult, all students require one additional dose of adult-formulated diphtheria-tetanus-pertussis vaccine (Tdap) in the last 2 years	
<b>COVID-19</b> Students are required to provide documentation of all COVID-19 vaccine doses including date of receipt.		Te Whatu Ora policy expects that all students attending health facilities for clinical placement have received at least 3 doses of COVID-19 vaccine. <sup>4</sup>	

<sup>1</sup> Serological testing at 28 days post MMR vaccine for measles antibody

<sup>2</sup> Serological testing at 28 days to demonstrate >10IU of Hepatitis B surface antibody

<sup>3</sup> National Catch-up schedules adults: <https://www.health.govt.nz/our-work/immunisation-handbook-2020/appendix-2-planning-immunisation-catch-ups#a2-3>

<sup>4</sup> Te Whatu Ora COVID-19 pre-employment policy <https://www.tewhatauora.govt.nz/assets/About-us/Jobs/Pre-employment-COVID-19-Vaccination-Policy.pdf>

**Table A2: Other generally recommended immunisations and those used in special situations**

<b>Which Students?</b>	<b>Vaccination</b>	<b>Further Action</b>	<b>Comment</b>
<b>All students annually</b>	Seasonal influenza vaccine is available at student health	Vaccination recommended	Recommended annually to recommended protect themselves, patients and reduce community spread.
<b>All Students</b>	Meningococcal ACWY and B vaccines	Vaccination recommended	Students newly entering residential colleges are eligible for funded Meningitis ACWY and Meningitis B vaccines
<b>All Students</b>	Hepatitis A	Vaccination recommended	Recommended for health care workers and particularly if undertaking elective in developing country
<b>Overseas electives</b>	Other vaccinations may be recommended in particular circumstances e.g. on electives. Students undertaking overseas electives, particularly clinical electives, need to be aware of potential risks and of ways to minimise them. This should be discussed with the Elective Co-ordinator and a specialist travel clinic at least 2 months prior to travel (this service is provided through Student Health or registered primary care providers).		

### **Standard Precautions & Additional Precautions**

Students should follow the policies of individual health care providers/facilities where they are placed.