

Health Care Worker (Pregnant) - Infectious Diseases Risks and Exposure



1. Purpose

The purpose of this guideline is to provide accurate information on the risks to pregnant Health Care Workers (HCWs) in the event of an exposure to a transmissible infectious disease at the Royal Women's Hospital (the Women's)

This guideline should be read in conjunction with [Staff Immunisation](#), [Infection Prevention and Control Standard Precautions](#) and [Infection Prevention and Control Transmission Based Precautions](#)

Persons Affected

All pregnant staff members employed by the Women's

2. Definitions

Standard Precautions: routine practices designed to protect patients and staff from exposure to infectious material regardless of the patient's diagnosis, carrier or infection status.

Transmission Based Precautions: Additional practices that should be used when a patient is known or suspected to have a transmissible infection

3. Responsibilities

It is the responsibility of all staff who have patient contact to familiarise themselves with this guideline and seek appropriate medical advice following an exposure to a potentially contagious infectious agent.

4. Guideline

4.1 General Information

All HCWs are advised to use standard precautions when caring for patients as per hospital guideline: [Infection Control Standard Precautions](#). Adherence to Standard Precautions will protect staff and prevent the acquisition of infection.

This guideline refers to commonly encountered infections which are potentially significant in pregnancy that staff may be exposed to during patient care. It is not a detailed account of all infectious agents that may be of relevance to pregnant women.

Please consult the Infection Prevention and Control (IPC) department or the Infectious Diseases team for more information or information on any diseases/ infections not included in this guideline.

Preventative Interventions

- All staff should ensure their immunisation status is up to date in accordance with the hospital guideline: [Staff Immunisation](#).
- Planning a pregnancy:
- Staff should ensure they have adequate protection against rubella, measles and chickenpox and seek immunisation if they do not.
- During pregnancy, staff should ensure they have the recommended immunisations in accordance with national guidelines including (but not limited to):
- **Influenza vaccine.** An influenza vaccine is recommended for pregnant women during any stage of pregnancy.
- **Pertussis (whooping cough) vaccine.** A pertussis vaccine is recommended during the third trimester of every pregnancy.
- Standard Precautions with all patients, including hand hygiene, and Transmission Based Precautions

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as per hospital procedure: [Infection Control Transmission Based Precautions](#) for those patients who are known to have a transmissible infection.

After exposure to an infectious agent

The pregnant staff member should contact Infection Prevention and Control (IPC).

IPC follow up will include:

- Confirmation of the infection in the 'source' patient. This may require discussion with the patient's medical team.
- A risk assessment, taking into account:
 - The HCW's immunity, where applicable, from previous infection or vaccination
 - The type and length of exposure the HCW had
 - The route of transmission of the infectious disease
 - The infectivity of the agent, and
 - The risk of acquisition by HCW from patient
- The staff member will be referred to the Infectious Diseases (ID) team as appropriate. Consultation with the HCW's treating Obstetrician and the ID team may be required.
- Administration of immunisation, immunoglobulin or other appropriate chemoprophylaxis after consultation with the HCW's treating Obstetrician and Infectious Diseases Physician as required.

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4.2 Potentially significant infections for the Pregnant HCW

Disease	Transmission	Prevention/ management
Blood Borne Viruses Hepatitis B; C and Human Immunodeficiency Virus (HIV)	Exposure to blood borne viruses	As per the RWH Needlestick Injuries and Blood and or Body Fluid Exposures policy
Cytomegalovirus (CMV) Commonly causes an asymptomatic or mild viral illness HCW are not at increased risk of CMV from their workplace.	CMV is found in body secretions – breast milk, urine, blood. Transmission occurs through contact with infectious body fluids or contaminated surfaces and then contact with eyes, nose or mouth. Asymptomatic patients may shed CMV and so exposure may occur at any time.	Standard precautions, and hand hygiene in particular, protects HCWs from CMV acquisition. HCW who are concerned they may have had a significant exposure to CMV at work should contact Infection Prevention and Control or discuss their concerns with their obstetrician.
Herpes Viruses (types 1 and 2) Abbreviated to HSV-1 and HSV-2 respectively. Can cause mucosal lesions- eg) lips/ genital. Can also be implicated in asymptomatic shedding.	Either HSV1 or HSV2 can cause neonatal infection; 20 - 50% of cases are due to HSV1. Perinatal transmission through the maternal genital tract occurs in 70 - 85% of cases, usually presenting between Day 5 and 19. Postnatal acquisition occurs in 10% of cases. Intrauterine or transplacental transmission occurs in 5% of cases and usually presents within 48 hours of birth. <ul style="list-style-type: none"> - Transmission is 10 times more likely to occur with primary than with recurrent infection, both of which may be asymptomatic in women. - A baby's risk of acquiring herpes from an asymptomatic mother with a history of recurrent genital herpes is less than 3%. 	Neonatal outcomes depend on extent of disease: <ul style="list-style-type: none"> - 45% of neonates will exhibit localised skin, eye and/or mouth disease (SEM) disease. - 30-50% develop disseminated disease and/ or central nervous system involvement. Mortality rate can be quite high in these groups.
Parvovirus B19	People are infectious during the incubation period, which is usually about a week before the rash	<ul style="list-style-type: none"> - The risk to unborn babies is low and infection does not cause congenital

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<p>Known as “slapped cheek disease”</p> <p>50 – 60% of women are immune to parvovirus by the time they are of childbearing age.</p>	<p>appears. Once the characteristic rash has appeared, the person is no longer contagious.</p>	<p>abnormalities.</p> <ul style="list-style-type: none"> - If a non-immune pregnant woman is infected, one-third of babies will develop infection. - In rare cases infection in the first 20 weeks of pregnancy may cause foetal anaemia with fetal hydrops. Foetal death occurs in less than 10% of these cases. - Specialist obstetric advice should be sought by pregnant women who may have been in contact with parvovirus infection so that testing can be performed to determine immune status.
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<p>Rubella</p> <p>Is a vaccine preventable disease</p> <p>Commonly causes an asymptomatic or mild disease with a red, raised rash that commonly starts on the face and then spreads to the body over 24 hours, lasting 3 - 5 days.</p> <p>HCW are not at increased risk of Rubella from their workplace</p>	<p>Rubella is transmitted by droplet or direct contact with infected respiratory secretions.</p>	<p>Immunity occurs through vaccination or previous exposure to the disease.</p> <p>Routine antenatal testing includes Rubella IgG which confirms immunity to Rubella.</p> <p>Staff who do not have immunity to Rubella should be immunised prior to pregnancy or following delivery.</p> <p>Pregnant staff who do not have immunity to Rubella and who have contact with a patient known to have Rubella should contact IPC for follow up.</p>
<p>Varicella</p> <p>Is a vaccine preventable disease</p> <p>Primary varicella (chickenpox) commonly causes a red, raised rash, that becomes blistered and then crusts over after about 5 days. The rash often starts on the trunk before spreading.</p> <p>Please note that primary varicella is a different disease process compared to shingles, which is reactivation of varicella-zoster virus.</p> <p>HCW are not at increased risk of Varicella from their workplace</p>	<p>Primary chickenpox- varicella is transmitted by airborne and droplet spread of infected respiratory secretions, and then by contact with vesicle fluid</p>	<p>Immunity occurs through vaccination or previous exposure to the disease.</p> <p>Varicella IgG confirms immunity. This is not routinely included in antenatal testing.</p> <p>Staff who do not have immunity to Varicella should be immunised prior to pregnancy.</p> <p>Pregnant staff who do not have immunity to Varicella and who have contact with a patient known to have Varicella should contact IPC for follow up.</p>

5. Evaluation, monitoring and reporting of compliance to this guideline

Compliance to this guideline will be monitored and evaluated through staff reporting and the incident reporting system (VHIMs).

6. References

1. American Academy of Paediatrics, Committee on Infectious Diseases. 2015 Red Book: Report of the Committee on Infectious Diseases. 30th Ed. Elk Grove Village, IL. USA.
2. Australian Guidelines for the Prevention and Control of Infection in Healthcare. Australian Commission on Safety and Quality in Health care 2010. <https://www.nhmrc.gov.au/guidelines-publications/cd33> Accessed August 2018

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3. Australasian Society for Infectious Diseases, 2014. Management of Perinatal Infections 2014. <https://www.asid.net.au/documents/item/368> Accessed August 2018
4. National Health and Medical Research Council, 2013. The Australian Immunisation Handbook 10th Edition. <http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home> Accessed August 2018
5. Siegel J. 1996 Risks & Exposures for the Pregnant Health Care Worker. In: APIC: Infection Control & Hospital Epidemiology, Principles & Practice. Mosby, Missouri, USA.
6. Tan MP. Chicken pox in pregnancy: revisited. *Reprod Toxicol* 2006;21:410-20
7. Disease information and advice (formerly known as The Blue Book) - Department of Health and Human Services, Victoria <https://www2.health.vic.gov.au/public-health/infectious-diseases/disease-information-advice> Accessed August 2018

7. Legislation/Regulations related to this guideline

Not applicable.

8. Appendices

Not applicable.

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