

# NWT Clinical Practice Information Notice

Upon receipt, please file this notice in  
**Section C, Clinical Practice Information Binder** for future reference.

The following clinical practice has been approved for use in the Northwest Territories Health and Social Services system, and has been distributed to:

<input checked="" type="checkbox"/>	Hospitals	<input checked="" type="checkbox"/>	Community Health Centers	<input checked="" type="checkbox"/>	Homecare	<input checked="" type="checkbox"/>	LTCF	<input checked="" type="checkbox"/>	Lab Directors
<input checked="" type="checkbox"/>	Doctors' Offices		Social Services Offices	<input checked="" type="checkbox"/>	Public Health Units		Other		
<input checked="" type="checkbox"/>	Policy		Standard		Protocol	<input checked="" type="checkbox"/>	Procedure		Guideline

**Title:** NWT Infection Control Policy and Procedures on:  
 Care of the Deceased with an Infectious Disease

**Effective Date:** September 16, 2008

### Statement of approved Clinical Practice:

The NWT Chief Medical Health Officer based on the advice received from the NWT Infection Control Committee directs all health care facilities and personnel to follow the attached Policy and Procedure on 'Care of the Deceased with an Infectious Disease.'

This policy follows current best practices for ensuring high standards of infection control, while maintaining protection of the health care providers, families, and others involved with handling the remains of persons dying with an infectious disease.


Also included is a fact sheet on preventative infection control measures for families. This fact sheet will assist you in educating and answering questions from families about the preventative measures required to stop the transmission of the infectious disease.

Please include this information in your NWT Infection Control Manual.

**Attachments:** NWT Infection Control Policy on: Care of the Deceased with  
 an Infectious Disease

NWT Infection Control Policy on: Care of the Deceased with  
 an Infectious Disease "Information for Families".

This clinical practice is approved.

 16 September 2008  
 (signature)

Assistant Deputy Minister ☐

Chief Medical Health Officer ☒

Director, Child & Family Services ☐

Director, Adoptions ☐

# Northwest Territories Infection Control Policy and Procedure Regarding the Care of the Deceased with an Infectious Disease

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Exposure to a Communicable Disease agent may occur when handling any deceased body. The risk of transmission increases considerably following the death of an infectious patient. The body and body fluids of the deceased patient may remain contagious and can become more colonized post-mortem. There is a specific concern about potentially harmful microbes of contact nature. Family and community members are particularly at risk if burial practices involves touching and washing the body.

## Sources:

There are four main sources of infection that you need to consider when dealing with human remains:

1. Blood and other body fluids (for example saliva, pleural fluids);
2. Waste products, such as feces and urine;
3. Aerosols of infectious material, such as might be released when moving or opening the body;
4. Skin, direct contact.

## Transmission

In order to become infected the microorganism has to get from the source into the host by some means. Most microorganisms usually have a particular route of entry, but in some cases infection can occur by more than one route.

Infection can occur via:

- Putting contaminated hands and fingers (or pens etc) into the mouth, nose or eyes;
- Breathing in small infectious droplets (aerosols) from the air;
- Splashes of blood and other body fluids into the eye and other mucous membranes such as the nose and the mouth;
- Broken skin if it comes into direct contact with micro-organism (or something contaminated by micro-organisms);
- A skin-penetrating injury, for example via a contaminated needle or sharp.

## Prevention:

- Healthcare workers who have reduced immunity are more susceptible to infections and should be reassigned to less hazardous tasks.
- Healthcare workers who are immune naturally or through vaccination should be assigned to deal with infectious remains that they have documented protection against such as Hepatitis A, B, measles, mumps, rubella, varicella, diphtheria, tetanus, pertussis and polio. However, immunization may not be fully protective. Additional precautions still apply.

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## General Policy and Procedures

The Infection Control Nurse and/or the Medical Officer of Health for the Health Authority should be notified when the death of an infectious patient occurs.

- **Body bags should be used on all deceased infectious patients especially if there is a possibility of leakage of body fluids.**

Handling the remains should be minimized to control the risk of exposure. Keeping the remains cool controls further deterioration by controlling further growth of any bacteria present. If bodies are to be held for less than 48 hours, storage at 6°C or less is appropriate. If bodies are to be stored for greater than 48 hours in a Northwest Territories health care facility it will require the expressed authorization of the environmental health officer and/or medical health officer. The workplace where the remains are stored should be ventilated by a sufficient quantity of fresh or purified air. Clean and contaminated sites need to be delineated.

Dressing, trimming hair, nails etc and embalming can increase risk of infection through exposure to body fluids. Other potential sources can be through contact with contaminated items such as soiled linen, clothing and sharps. Viewing times should be minimized and burial should take place as soon as possible after the body is prepared in the health care facility.

## General infection control measures when handling infectious remains

- Hands (and arms, if necessary) should be washed before eating, drinking, smoking, using the telephone, touching eyes. Hot running water and soap would be sufficient. Hands should be washed even if gloves were worn. If there has been significant contamination with blood or other body fluids, a shower would also be recommended prior to leaving the healthcare facility.
- All existing cuts and grazes should be covered with waterproof dressings and/or gloves before handling remains. If cuts and or grazes occur during work, these should be washed immediately.
- Hand to mouth/nose or hand to eye contact should be avoided.
- Rest breaks and meals breaks should be taken away from the main work area. Healthcare workers should remove any personal protective equipment and contaminated clothing when leaving a dirty work area.
- There should be a clear demarcation between “dirty” and “clean” areas.
- Work areas should be designed to be safe to use and easy to clean and decontaminate.
- All equipment should be easy to clean and decontaminate.
- Appropriate protective clothing should be worn.
- Gloves, gowns and mask should be sufficient.
- If there is a risk of splashing of blood or body fluids into eyes, goggles or a face-visor should be added.

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- Remains should be carefully lowered to avoid aerosolization or splattering of body substances.
- When turning and moving the remains, care should be taken to exert minimal pressure on the abdomen and thorax to prevent expulsion of waste material from oral, nasal and other orifices.
- When washing the remains, the water pressure should be kept low.

## Equipment:

- Clean gloves
- Gowns
- Surgical Masks
- Red garbage bags
- 1:10 bleach solution (available in the morgue, or from housekeeping)
- Surgical Masks with eye protection or goggles
- Contact Isolation Precaution Sign
- Body bag & “Infectious body” tags
- Waterproof aprons

## Religious/ritual preparations:

- Be aware of the family’s cultural practices and religious beliefs. Educate the family regarding the associated risk for family members and others in the community. The family may be involved in preparing the body after a mild to moderate infectious death after they have been educated regarding safe contact infection control practices.
  - For severe infectious deaths, the family or community members should not be involved in the preparation of the body if the situation is deemed high risk to the community by the Medical Health Officer.
- The nurse or a trained undertaker should supervise the family at all times during the preparation or during any viewings by the family of the infectious body to prevent a break in infection control practices. Relatives should be discouraged from touching or kissing the face.
- Throughout preparation of the body, **Contact isolation standards** must be maintained by the family and/or trained personnel:
  - Clean gloves & gown must be worn when handling the body.
  - ***If there is a danger of blood or body fluid splashes then droplet precautions are to be used.***
  - Surgical mask with an eye shield or goggles are recommended & should be worn while preparing the body.
  - Any waste must be disposed into red garbage bags for incineration

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## **If only Contact Isolation is to be utilized:**

1. The nurse prepares the body in supine position with arms at the sides, palms down. Attach an identification tag to the body. It is not required to place a pillow under the head, and moistened cotton on the eyelids.
2. Place the body in a body bag, and attach the outer identification label and zip closed.
3. Transport the body to the Morgue via a stretcher.
4. Ensure the Contact Isolation Precaution sign is attached to the outside of the body bag to clearly identify the body as potentially infectious.
5. Notify Housekeeping that a Terminal Cleaning for the Isolation Room is required.

## **If Additional Isolation Measures and Safe Burial Practices are required:**

***Airborne/Droplet Isolation precautions include wearing gloves, masks, protective eye wear, gowns and waterproof aprons. This is required prior to placing body in body bag.***

1. Prepare the body in supine position with arms at the sides, palms down. Attach an identification tag to the body. It is not required to place a pillow under the head, and moistened cotton on the eyelids. ***Cover face of cadaver with disposable facemask as well as other portals of secretions.***
2. Spray the body and the area around it with 1:10 bleach solution (available in the Morgue, or from Housekeeping staff). Attach an identification tag to the body.
3. Place the body in a body bag, attach the outer identification label and zip the bag closed. Spray the body bag with a 1:10 bleach solution.
4. Transport the body to the Morgue via a morgue stretcher.
5. Ensure the “Contact Precaution” sign is attached to the outside of the body bag to clearly identify the body as potentially infectious.
6. Notify Housekeeping that a Terminal Cleaning for the Isolation Room will be required.

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## VIEWING OF BODY BY FAMILY:

- Trained personnel arrange specific times with the family for a viewing of the infectious body.
- While following contact precautions, the body is prepared by undoing the bag and tucking around underneath the body and covering the bag with a sheet and the body with a flannel or blanket. The viewing may take place in the viewing room.
- Before allowing the family to view the body, the health care professional must review the infection control policies and potential risk to family and community. Personal protective equipment, such as gowns and gloves are available for family members who wish to touch the body.
- Trained personnel must supervise viewing of the body at all times to prevent a break in infection control practices.
- The body is returned to the morgue following the same procedure for safe burial practices as listed above depending on the severity of the infection.
- The Medical Health Officer may not allow viewings of the body depending on the severity of the infection and the causative organism.

## CARE AND TRANSPORTATION OF THE BODY:

- If the body is to be removed from the hospital by a Funeral Director, hospital personnel must notify the Funeral Director that this is an Infectious Death.
- If body is prepared and taken from the hospital by the family/community the body is enclosed in a coffin of safe construction for transport. If the body has a severe infection the Medical Health Officer ***may require the body to be placed in a sealed coffin with a metal liner to prevent leaking of body fluids***. This will be evaluated on a case-by-case basis. Cardboard coffins are not appropriate burial caskets for infectious deaths.
- Notify Housekeeping that a “Terminal Clean” of the morgue and stretcher is necessary once the body has been removed from the hospital.
- The “NWT Guidelines for Management of Deceased persons”, July, 1999 covers the safe transportation and burial of a body in the NWT if further reference is needed.



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## **Disease Classification:**

### **Very High Risk**

- Body bag must be used.
- Viewing and touching prohibited\*.
- No embalming.
- Hygienic preparation banned.
- Airborne precautions.
- Cover face of cadaver with facemask as well as other portals for secretions.

Applies to:

- Anthrax.
- Lassa, Ebola, Marburg and other viral hemorrhagic fevers.
- Yellow fever.
- Plague.
- Rabies.
- SARS (Health Canada Guidelines state that family may view the body if they wear personal protective equipment and keep a distance of 2 meters away from the remains).
- Septicemia due to invasive Group A streptococcal infection, if patient had less than 24 hours of appropriate antibiotic therapy.
- Smallpox.

### **High Risk**

- Body bag must be used for CJD and other transmissible spongiform encephalopathies and considered for the others if there is leakage of body fluids.
- Advised that embalming should not be done.
- The bereaved should be warned of the potential infection risk. If they wish to carry out ritual washing or preparation of the body this should be done under supervision with advice about the use of standard precautions.
- Droplet precautions.
- Cover face of cadaver with facemask as well as other portals for secretions.

Applies to:

- CJD and other transmissible spongiform encephalopathies (TSEs).
- Typhus.

And for the following diseases only if there is seepage of body fluids:

- Hepatitis B.
- Hepatitis C.
- Hepatitis D.
- HIV/AIDS.

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Bodies infected with HIV may be infected with other diseases, such as tuberculosis that may be potentially more infectious than the HIV infection itself.

## **Medium Risk:**

- Body bag is advised to prevent leakage of body fluids.
- Hygienic preparation of the body is permitted ***with appropriate precautions.***
- Viewing and touching is allowed ***as appropriate precautions.***
- Embalming may be carried out.
- Contact precautions still need to be taken, ***if there are excess secretions should adopt droplet precautions to protect against inadvertent splashes, aerosols and particles.***
- Cover face of cadaver with facemask as well as other portals for secretions.

Applies to:

- Cholera
- Diphtheria
- Dysentery (amoebic or bacillary)
- Meningococcal disease (untreated)
- MRSA
- Typhoid and Paratyphoid fever
- Relapsing fever
- Scarlet fever
- Tuberculosis
- Brucellosis
- Salmonellosis
- VRE

## **Low Risk:**

- Body bag not required.
- Hygienic preparation of the body is permitted.
- Body can be handled – viewing and touching is allowed
- Embalming may be carried out.
- Even if the presence of infectious agents is not suspected, notably hepatitis B and C, HIV/AIDS and tuberculosis, it is still important that standard precautions be followed for handling all bodies, such as the use of appropriate protective clothing and the washing of hands.



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## **Specific Disease Descriptions:**

### **Septicaemia (unless untreated Meningococcal or Group A Streptococcal)**

Only the septicaemias caused by meningococcal or Group A streptococcal pose a risk, (unless they have been treated with appropriate antibiotic therapy for at least 24 hours) and these should be handled with care. The blood and other body fluids are infectious and can infect those who handle the body or clean up contaminated surfaces, even through apparently trivial injuries or other breaks in the skin surface. Any accidents or tears in gloves must therefore be reported to Infection Control and, if necessary, the Medical Health Officer should be consulted.

### **Intestinal Infections**

Leakage of feces from bodies is common and all who handle them should use contact precautions. Cleaning up of all leakages and careful washing of hands is important. These infections include the dysenteries, salmonellosis and cryptosporidiosis.

### **Blood-borne infections:**

#### **Hepatitis B**

Hepatitis B is a blood-borne virus and is extremely infectious if it gains entry into the body through skin penetration such as needlestick injuries. If there is leakage of body fluids, bodies suspected of being infected should be handled with great care by workers wearing full protective clothing and who are well trained in how to avoid infection. The bereaved should be warned of the potential risk of infection and advised on precautions that should be taken if they wish to touch the body. If they wish to carry out any ritual washing, they should be supervised and advised on the use of contact precautions. Healthcare workers, embalmers and mortuary staff should be vaccinated routinely against hepatitis B and shown to be immune. Those who are not immune should be counseled and advised of continuing risk of infection and to seek occupational health advice.

#### **Hepatitis C and D**

The same routes transmit hepatitis C as hepatitis B. No vaccine is yet available. Full precautions should be taken as for hepatitis B. Hepatitis D does not occur without hepatitis B.

#### **HIV/AIDS**

In undertaker's premises and in mortuaries, HIV/AIDS would be transmitted by similar routes as hepatitis B, but is considerably less infectious. Contact protection should be adequate to prevent transmission. Other infections may also be present in these bodies and, in particular, tuberculosis must be considered.

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## Respiratory Infections

### Tuberculosis

In patients with respiratory tuberculosis it is recommended that ***the face of the cadaver be covered with a disposable facemask when being handled to prevent any aerosol formation as air is expelled from the lungs.***

## Contact infections

### MRSA

Contact precautions will be required as well as mask to prevent self-inoculation. Methicillin-Resistant Staphylococcus aureus (MRSA) are strains of the bacterium Staphylococcus aureus (SA) that are resistant to some (not all) commonly used antibiotics.. Certain vulnerable or debilitated individuals can get more serious infections that, although much less common, may cause life-threatening conditions. If the SA in these cases is also one of the CA-MRSA strains, its significance is that it has potential increased virulence.

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KEY INFECTIONS					
Infection	Causative agent	Is a body bag needed?	Can the body be viewed? (with appropriate precautions)	Can hygienic preparation be carried out?	Can embalming be carried out?
<b>Intestinal infections: Transmitted by hand-to-mouth contact with fecal material or fecally contaminated objects.</b>					
Dysentery (bacillary)	Bacterium – <i>Shigella dysenteriae</i>	Advised	Yes	Supervised	Yes
Hepatitis A	Hepatitis A virus	Advised	Yes	Supervised	Yes
Typhoid/paratyphoid fever	Bacterium – <i>Salmonella typhi/paratyphi</i>	Advised	Yes	Supervised	No
<b>Blood-borne infections: Transmitted by contact with blood (and other body fluids which may be contaminated with blood) via a skin-penetrating injury or via broken skin. Through splashes of blood (and other body fluids which may be contaminated with blood) to eyes, nose and mouth.</b>					
HIV	Human Immunodeficiency Virus	Yes	Yes	Yes	No
Hepatitis B, C and D	Hepatitis B, C and D viruses	Yes	Yes	Yes	No
<b>Respiratory infections: Transmitted by breathing in infectious respiratory discharges</b>					
Tuberculosis	Bacterium – <i>Mycobacterium tuberculosis</i>	Advised	Yes	Supervised	Yes
Meningococcal meningitis (with or without septicemia)	Bacterium – <i>Neisseria meningitidis</i>	Advised	Yes	Supervised	Yes
Non-meningococcal meningitis	Various bacteria including <i>Haemophilus influenzae</i> and also viruses	Advised	Yes	Yes	Yes
Diphtheria	Bacterium – <i>Corynebacterium diphtheriae</i>	Advised	Yes	Supervised	Yes

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<b>Contact: Transmitted by direct skin contact or contact with contaminated objects</b>					
<b>Invasive Streptococcal infection</b>	Bacterium – <i>Streptococcus pyogenes</i> (Group A)	Yes	Yes	No	No
<b>MRSA</b>	Bacterium – methicillin resistant <i>Staphylococcus aureus</i>	Advised	Yes	Supervised	Yes
<b>Other Infections</b>					
<b>Viral haemorrhagic fevers</b> (transmitted by contact with blood)	Various viruses, e.g. Lassa fever virus, Ebola virus	Yes	No	No	No
<b>Transmissible spongiform encephalopathies</b> (transmitted by puncture wounds “sharps” injuries or contamination of broken skin, by splashing of the mucous membranes)	Various prions, e.g. Creutzfeldt Jacob disease/variant CJD	Yes	Yes	Supervised	No

### References:

1. *Infection Control Guidance for handling of Human Remains of Severe Acute Respiratory Syndrome (SARS) Decedents*. Health Canada, June 5, 2003.
2. Infection control for viral haemorrhagic fevers in the African health care setting. Geneva, World Health Organization, 1998.
3. *NWT Infection Control Manual*, NWT Department of Health & Social Services, May, 2004, [http://www.hlthss.gov.nt.ca/english/publications/manual\\_results.asp?ID=72](http://www.hlthss.gov.nt.ca/english/publications/manual_results.asp?ID=72)
4. *NWT Guidelines for Management of Deceased Persons*. July, 1999
5. Health & Safety Executive (Draft) 2004, “Infection at Work: Controlling the Risks from Human Remains – A Guide for those in the Funeral Profession, including Embalmers and those involved in Exhumation
6. Health Protection Agency North West. “The infectious hazards of human cadavers.” Guidelines of those who have died with a known or suspected infection. October 2004

## **Information for Families**

When a loved one dies with an infectious disease (a disease that can be transferred from one person to another) it is very important that the family, friends and community members are protected from contracting the infection. The nature and seriousness of the disease will determine the specific infection control measures required while preparing the body for burial and the level of family involvement that can safely occur.

### **Infection Control Measures**

- Infection control measures required to handle the deceased person depend on the type of infection the person had before they died.
- Infections are classified as being of high, medium or low risk of transmission. This indicates the risk of other people becoming infected with the disease causing organism.
- Precautionary measures may vary as each death is evaluated on a case-by-case basis. A healthcare professional will inform the family of the infection control measures that must be taken.
- These measures may include the use of protective equipment such as gloves, gowns and masks.

### **Transmission**

Diseases can be transmitted from the deceased to others by contact with bodily fluids, skin to skin contact and breathing in small infectious droplets from the air.

### **Ritual/Religious Preparation**

- When a person dies with a high-risk disease, viewing, touching and preparation of the body by the family will normally not be allowed.
- If it is determined the risk of transmission of infection is medium to low risk, family preparation of the body may be permitted, under the supervision of a healthcare provider.

### **Viewing & Transportation**

- Viewing of the body by family will be arranged by trained personnel and may take place in a viewing room.
- In some cases of high risk infectious diseases viewing may be further restricted, as determined by the Chief Medical Health Officer or delegate..
- The duration of viewing may be minimized. Personal protective equipment will be available for family members who wish to touch the body.
- Depending on the case, transportation of the body from the hospital may be done by a funeral director or the family. A coffin of safe construction for transportation will be used. In the case of severely infectious disease a sealed coffin may be required.
- Burial should take place as soon as possible to minimize the risk of spreading the infection.

If you or your family have any questions or concerns do not hesitate to contact the health care practitioners in your community.