

## TITLE

**PRION DISEASE (CREUTZFELDT-JACOB DISEASE) PRECAUTIONS FOR THE SURGICAL PATIENT  
(ADULT OR CHILD)**DOCUMENT #  
PS-03-01INITIAL APPROVAL DATE  
November 1, 2011PARENT DOCUMENT LEVEL  
Level 1INITIAL EFFECTIVE DATE  
November 1, 2011PARENT DOCUMENT TITLE  
Prion Disease (Creutzfeldt-Jacob Disease)  
Precautions for the Surgical Patient (Adult or Child)  
PolicyREVISION EFFECTIVE DATE  
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Patient Safety

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If you have any questions or comments regarding the information in this procedure, please contact the Clinical Policy Department at [clinicalpolicy@albertahealthservices.ca](mailto:clinicalpolicy@albertahealthservices.ca). The Clinical Policy website is the official source of current approved clinical policies, procedures and directives.

**OBJECTIVES**

- To outline the procedures required to prevent transmission of Prion diseases such as Creutzfeldt-Jacob Disease (CJD) which includes sporadic CJD (sCJD), Gerstmann-Straussler-Scheinker syndrome and fatal familial insomnia. All these diseases are classed as Transmissible Spongiform Encephalopathies (TSE).
- To minimize the risk of transmission of Prion diseases from High-Risk Patients (both adults and children) to other patients and/or staff within Alberta Health Services Settings in accordance with the Alberta Health Services *Policy: Prion Disease (Creutzfeldt-Jacob Disease) Precautions for the Surgical Patient*.

**APPLICABILITY**

Compliance with this procedure is required by all Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of Alberta Health Services (including contracted services providers as necessary). This procedure does not limit any legal rights to which you may otherwise be entitled.

## PROCEDURE

### 1. Identification of Patients with Creutzfeldt-Jacob Disease/ Transmissible Spongiform Encephalopathies (CJD/TSE)

1.1 The physician or medical delegate shall complete a patient risk assessment using Alberta Health Services Creutzfeldt-Jacob Disease (CJD) Risk Assessment Tool prior to performing elective or emergent:

a) Surgery, investigations, or procedures involving the:

- brain,
- spinal cord and spinal ganglia,
- dura mater,
- pituitary gland,
- retina or optic nerve,
- trigeminal ganglia;

b) all spine surgeries; and,

c) procedures to access the spinal canal or sample cerebrospinal fluid (CSF).

Exception: Lumbar/spinal tap using disposable instruments.

1.2 If completion of the CJD risk assessment triggers implementation of CJD precautions, the surgeon/medical delegate shall notify relevant stakeholders of the planned surgery/investigation/procedure. Stakeholders include, but are not limited to, the surgical suite manager, the post-anesthesia care unit manager, Laboratory Services, the equipment re-processing department, Infection Prevention and Control, Surgical Bookings Office, Environmental Services, and the receiving nursing unit.

### 2. Clinical Management of High-Risk Patients Undergoing Procedures Involving Risk Tissues -Surgical Suite

2.1 Pre-operative/Pre-procedure:

- a) Surgical suite/nursing staff in charge shall verify with the attending physician/surgeon that all of the relevant stakeholders have been notified of the High-Risk Patient.
- b) When possible, surgery/investigations/procedures for High-Risk Patients will be scheduled for the end of the day. If this is not feasible, allow sufficient time

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after the procedure to allow for the appropriate CJD cleaning protocol to occur.

- c) Order the case cart(s) required for surgery/investigations/procedures for a High-Risk Patient involving Risk Tissues.
- d) Prior to the start of the procedure, remove all equipment and supplies from the theatre/room that are not required for the procedure.
- e) Limit traffic in/out of the theatre/room:
  - assign one staff member to act as a runner for the theatre/room;
  - place “restricted access” signage on all doors to the theatre/room.
- f) Tape the supply cupboards in the theatre/room closed using a low residue tape.
- g) Where possible, utilize single use/disposable equipment and supplies.
- h) Avoid use of power tools, scopes, or stereotactic equipment, as these items cannot withstand the decontamination process that will be required.
- i) Cover all non-critical work surfaces (e.g. surgical tables, counter tops, foot pedals and equipment) with disposable cover sheets made of waterproof materials that can be removed at the end of the procedure and incinerated.
- j) Line biohazard containers to use for disposing of waste.
- k) Place canister express powder in the suction containers to reduce spillage.

## 2.2 Intra-operative/Intra-procedure:

- a) Surgical suite/nursing staff involved in the procedure shall wear appropriate single use personal protective equipment.
- b) Maintain a one-way flow of instruments for the procedure. Pass sharps using a “hands free technique” (e.g., in a kidney basin or other indirect transfer method).
- c) Avoid aerosolizing and splashing of contaminants.
- d) All instruments exposed to Risk Tissues will be separated and quarantined.
- e) Place tissue specimens in a sealed container labelled with the patient’s identification and mark the container with an indelible marker as “Biohazard CJD Precautions”. On the specimen requisition, include the remarks “Rule Out CJD” and “Copy of report to Infection Prevention and Control”.

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- f) Transport specimens immediately to the laboratory in a second protective container.
- g) The circulating nurse notifies the laboratory by telephone that the specimen is en route.
- h) Report any occupational exposures, such as accidental contamination of unbroken skin, accidental needle stick injury or laceration, or splashing from Risk Tissues from a High-Risk Patient, to Workplace Health and Safety. Immediate treatment shall include washing the affected area with soap and water, as per Public Health Agency of Canada guidelines.

### 2.3 Post-operative/Post-procedure:

- a) All disposable material and wastes are sent for incineration.
- b) Instruments shall remain in quarantine in the biohazard container until direction is obtained from Infection Prevention and Control.
- c) The scrub nurse will ensure that all non-disposable instruments that have come into contact with potential infectious tissue are wiped clean of any visible contaminants and kept moist by spraying with enzymatic foam.
- d) Place all non-disposable instruments, basins and equipment into biohazard containers. Secure the lid of the biohazard container and label with "CJD Precautions". The operating room registered nurse shall complete and sign the CJD Instrument Tracking Record (*Operating Room*). Labelled biohazard container(s) will be sealed and sent to the re-processing department for quarantine. Notify the equipment re-processing department that this cart is being delivered.
- e) Label the case cart with "CJD Precautions". The case cart shall be sent to the equipment re-processing department for chemical cleaning. The sealed biohazard containers encasing the instruments shall be placed under quarantine by the re-processing department.
- f) Contain all waste in lined, biohazard containers and discard in accordance with disposal of biohazard waste procedures. This includes all drapes, linens, personal protective equipment, surgical equipment/instruments, and anesthesia equipment that cannot withstand the decontamination processes.
- g) Anesthesia monitoring equipment including blood pressure cuffs and cables, ECG monitor cables, and oxygen saturation monitor cables, shall be cleaned, placed in a biohazard container, and sent for cleaning as per facility procedure.
- h) Contain, solidify and seal all liquid waste prior to placing in lined, biohazard containers.

- i) Place all sharps in a rigid sharps container, and place into biohazard containers.
- j) Chemically disinfect the floor with undiluted sodium hypochlorite (household bleach), let stand for one (1) hour, then mop up and rinse with water.
- k) Chemically disinfect all surfaces not protected by temporary covers that have been potentially contaminated, with undiluted sodium hypochlorite (household bleach), let stand for one (1) hour, then wipe up and rinse with water.
- l) After the chemical disinfection is complete, terminally clean the theatre/room using established routines.
- m) Items from the cupboards are not to be removed until the chemical disinfection process is complete.

#### 2.4 Post Anesthesia Care Unit:

The patient shall be treated as per routine Post Anesthesia Care Unit protocols.

### 3. Decontamination/Quarantining of Instruments

- 3.1 Remove the labelled "CJD Precautions" sealed biohazard container(s) from the case cart and place into quarantine.
- 3.2 Clean all anesthesia blood pressure cuffs and cables, ECG monitor cables, oxygen saturation monitor cables from the case cart, in accordance with equipment re-processing department guideline(s).
- 3.3 The re-processing department shall confirm ongoing quarantine of instruments on a daily basis on the Creutzfeldt-Jacob Disease (CJD) Medical Device Reprocessing Daily Monitoring Sheet (*Instruments under Quarantine*).
- 3.4 If diagnosis is negative for CJD, Infection Prevention and Control shall authorize the release of the sealed biohazard container. The container is retrieved from quarantine and decontaminated in accordance with equipment re-processing department guideline(s). Completion of the Medical Device Reprocessing Tracking Record (*Creutzfeldt-Jacob Disease (CJD) Instruments under Quarantine*) shall be required to release instruments from quarantine.
- 3.5 One copy of the completed Medical Device Reprocessing Tracking Record (*Creutzfeldt-Jacob Disease (CJD) Instruments under Quarantine*), will be held by the Reprocessing Manager; the Reprocessing Manager will forward the duplicate copy to the site Infection Prevention and Control Department.

- 3.6 If the diagnosis of the patient is positive for CJD, the re-processing department shall, pending an executive decision related to risk, be advised by Infection Prevention and Control to either:
- clean, decontaminate and sterilize the instruments/equipment as per local CJD decontamination of instruments/equipment procedure(s), or
  - contact Environmental Services for disposal of the sealed biohazard container.

## DEFINITIONS

### **Creutzfeldt-Jacob Disease/ Transmissible Spongiform Encephalopathies (CJD/TSE)**

means a rare neuro-degenerative disease caused by an abnormal Prion protein that causes surrounding proteins to change their shape resulting in pre-senile dementia, myoclonus and progressive motor dysfunction.

**High-risk patient(s)** means an individual with a confirmed, probable or familial CJD, or with clinically suspected CJD, or is an asymptomatic carrier, but meets one or more of the following criteria :

- the person has been confirmed by genetic testing to carry a genetic mutation causative of familial CJD, GSS, or FFI;
- the person has at least one first-degree relative who has been confirmed by genetic testing to carry such a mutation, with or without pathologic confirmation of TSE; and/or
- the person has two or more first-degree relatives who have been diagnosed with either confirmed or probable TSE, with or without confirmation by genetic testing.

**Prion** means an abnormal form of a normal cellular protein that is the causative agent of CJD and other associated diseases. These non-cellular structures are hardy and resist all routine inactivation procedures commonly used by health care facilities to reprocess instrumentation between patients.

**Risk tissues** means the following:

- brain,
- spinal cord and spinal ganglia,
- dura mater,
- pituitary gland,
- retina or optic nerve,
- trigeminal ganglia, and
- cerebrospinal fluid (CSF)

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## REFERENCES

- Alberta Health Services *Policy: Prion Disease (Creutzfeldt-Jacob Disease) Precautions For The Surgical Patient (Adult or Child)*
- Alberta Health & Wellness. *Standards for Cleaning, Disinfection and Sterilization of Reusable Medical Devices for all Health Care Facilities and Settings* (2008)
- Public Health Agency of Canada. *Infection Control Guidelines: Classic Creutzfeldt-Jacob Disease in Canada, Quick Reference Guide* (2007)
- Alberta Health Services [Creutzfeldt-Jacob Disease \(CJD\) Restricted Access Signage](#)
- Alberta Health Services [Creutzfeldt-Jacob Disease \(CJD\) Instrument Tracking Record \(Operating Room\)](#)
- Alberta Health Services [Creutzfeldt-Jacob Disease \(CJD\) Risk Assessment Tool](#)
- Alberta Health Services [Medical Device Reprocessing Tracking Record \(Creutzfeldt-Jacob Disease \(CJD\) Instruments under Quarantine\)](#)
- Alberta Health Services [Creutzfeldt-Jacob Disease \(CJD\) Medical Device Reprocessing Daily Monitoring Sheet \(Instruments under Quarantine\)](#)

## REVISIONS

N/A