


Name of Policy: <u>Creutzfeldt-Jakob Disease (CJD)</u> Policy Number: 3364-109-DIS-204 Department: Infection Control Hospital Administration Medical Staff Approving Officer: Chair, Infection Control Committee Chief Medical Officer Chief of Staff Responsible Agent: Infection Preventionist Scope: The University of Toledo Medical Center and its Medical Staff	 Effective Date: 12/01/2018 Initial Effective Date: 05/18/1981
<input type="checkbox"/> New policy proposal <input checked="" type="checkbox"/> Minor/technical revision of existing policy <input type="checkbox"/> Major revision of existing policy <input type="checkbox"/> Reaffirmation of existing policy	

(A) Policy Statement

Specific protective measures must be instituted to prevent the transmission of Creutzfeldt - Jakob Disease (CJD) from one person to another.

Note: Immediately notify Infection Prevention at ext. 5006 or page through the hospital operator for any patient with suspected or confirmed diagnosis of CJD.

If the 14-3-3 protein in CSF is ordered Infection Prevention must be notified and Infection Prevention and the Environmental Health and Radiation Safety Department will guide the care givers through the safest processes for clinical care.

(B) Purpose of Policy

The purpose of this policy is to rapidly identify persons suspected of having CJD and develop safe processes to protect staff and other persons from exposure to CJD during the course of their job activities, while providing appropriate care to the patient and family.

(C) Procedure

(1) General Information:

- (a) Creutzfeldt-Jakob disease is an infectious, progressive, degenerative neurologic disorder, has a presumably long incubation period but a rapid, fatal course. Brain tissue at autopsy resembles that seen in spongiform encephalopathies.
- (b) Potential infectious body fluids and tissue include:
 - (i) High infectivity: brain and spinal cord and eye tissue
 - (ii) Low infectivity: Cerebral spinal fluid (CSF) lymph glands, kidney, liver, spleen, lung, and lymph node tissues
 - (iii) Noninfectious materials: blood, sweat, tears, urine, saliva and stool

(2) Transmission:

- (a) Mechanisms for transmitting the CJD include use of contaminated neurosurgical instruments, brain electrodes and transplantation of infected tissues, such as corneas or dura matter.
- (b) In order to prevent person to person transmission, it is essential to decontaminate equipment, instruments, and supplies during the surgery, in the pathology lab, and at autopsy. Standard precautions are used in the care of the infected patient with additional methods used for items contaminated with certain body fluids and tissues likely to carry the agent.
- (c) The following measures are taken in addition to standard precautions:
 - (i) Tissue Donation
 - (a) Patients with CJD should not be donors of organs, tissues or blood components or sources of tissue or biological products such as dura matter, hormones, and interferon.
 - (b) Recipients of pituitary hormones should not be donors.
 - (ii) General Precautions
 - (a) Wear disposable gloves for any contact with contaminated materials
 - 1) Thoroughly clean surfaces with full strength bleach for several minutes, followed by a water rinse.
 - (b) Linen contaminated with brain tissue, corneal tissue or spinal fluid from a patient suspected/ known to have CJD should be handled with extreme caution, bagged, clearly marked and taken for incineration.
 - * NOTE: May seek advice from the Infection Prevention and Control Dept. or Environmental Health and Radiation Safety Dept.
 - (c) Other body fluids, including blood, urine, sweat, tears, nasal mucus and feces are considered to not pose a risk of infection.
 - (d) Upon the death of a patient with confirmed or suspected CJD, the removal of the body to be performed using standard precautions.
 - 1) It is recommended that the deceased patient be placed in a sealed body bag prior to moving, in line with normal procedures for bodies where there is a known infection risk.
 - 2) If there is CSF leakage, and sutures do not completely control this leaking, the bag should be lined with materials to absorb any fluid.
 - 3) Counsel the family about considering cremation.

(3) Procedures/Endoscopy:

- (a) Those normally carried out at the bedside (e.g. lumbar puncture, bone marrow biopsy) may be performed at the bedside.
 - *NOTE: Private room required.
- (b) Notify Lab that specimen is to be collected.
- (c) If lumbar puncture is to be done by Interventional Radiology schedule at the end of the day.

- (d) Only essential personnel in room.
 - (e) Use disposable equipment and disposable pads on bed.
 - (f) Wear personal protective equipment (hats, masks, eyewear, gowns, gloves, shoe covers).
 - (g) Clearly mark specimen as biohazard and as being from a suspected CJD patient.
 - (h) Place in special container obtained from lab, then in biohazard bag.
 - (i) Room decontamination will be completed following routine procedure. If a spill of CSF occurs, then thoroughly disinfect room with full strength bleach solution.
 - (j) Endoscopy (Use Standard Precautions)
 - i. Bronchoscopes, endoscopes, colonoscopes, sigmoidoscopes, cystoscopes may all be cleaned post procedure according to manufacturer's instructions for use
 - ii. It is not necessary to sequester or discard these instruments/equipment as they have no contact with CJD identified infectious body fluids and/or tissue
- (4) Prior to surgical procedures on brain or spine, notify Infection Prevention and Control Dept.
- (a) Infection Prevention and Control Dept. will notify the following:
 - i. Sterile Processing Department
 - ii. Anatomical Pathology Department
 - iii. Environmental Health and Radiation Safety Department
 - iv. Environmental Services Department
- (5) Operating & Autopsy Rooms
- (a) Only essential procedures should be completed and scheduled at the end of day, if possible.
 - (b) Restrict traffic to those individuals required only.
 - (c) Remove all unnecessary equipment and supplies from the room.
 - (d) Items should be disposable when possible.
 - (e) Use disposable cover sheets on work surfaces.
 - (f) If unable to use disposable equipment, do not use any supplies that can only be sterilized with ethylene oxide.
 - (g) Wear personal protective equipment (hats, masks, eyewear, gowns, gloves, shoe covers).
 - (h) Staff scrubbed in during surgery and autopsy should wear double gloves.
 - (i) Use manual saws in place of electric saws, if possible.

- (j) If electric/power equipment is used, a disposable suction canister must be used to collect debris and particles from the procedure.
 - (k) Label tissue or specimens sent to the pathology laboratory as biohazard clearly as coming from a patient with CJD tissue should be processed fresh, not fixed in formalin
 - (l) Retain all liquids for decontamination.
- (6) Cleaning of Operating Rooms:
- (a) May contact Environmental Health and Radiation Safety for assistance.
 - (b) Where possible, all cleaning tools such as brushes, toweling, and scouring pads, used should be disposable.
 - (c) Wear protective clothing, gloves, mask and visor or goggles.
 - (d) For surfaces, flood with undiluted sodium hypochlorite (bleach - 8.25%) let stand 1 hour; mop up and rinse with warm water.
 - (e) Upon completion of the cleaning procedure, all disposable cleaning materials should be collected and discarded. Incineration is highly recommended.
- (7) Post Exposure Treatment:
- (a) Rinse skin with detergent and warm water for several minutes, and then thoroughly rinse with water. A short rinse with a 1:10 dilution of bleach) can be considered for maximum safety.
 - (b) Follow UTMC policy for reporting exposures within two hours to the Emergency Department or to the Administrative coordinator on call through the hospital operator.
 - (c) For exposure to blood and body fluids from patient with CJD, follow UTMC policy for exposure to blood and body fluids.

References:

- Guidelines for Environmental Infection Control in Health-Care Facilities, Recommendations of CDC and Health care Infection Control Practices Advisory Committee (HICPAC), MMWR June 6, 2003
- Rutala, W. Guideline for Disinfection and Sterilization of Prion-Contaminated Medical Instruments: SHEA Guideline, Infection Control and Hospital Epidemiology. Feb 2010, Vol 31. No 2. 107-117
- WHO Infection Control Guidelines for Transmissible Spongiform Encephalopathies; Report of a WHO Consultation, Geneva, Switzerland, 23-26 March 1999

