Creutzfeldt-Jacob Disease (CJD) Transmission During High Risk Surgical Procedures

Traceability of instruments and instrument trays

Issue
General surgical instruments are routinely included in surgical instrument trays that are used for procedures where there is contact with high risk tissue for Creutzfeldt-Jacob Disease (CJD) transmission. These instruments may subsequently be disseminated to any unspecified surgical instrument tray during reprocessing.

Surgical procedures involving high risk tissue for CJD transmission include:
- Neurosurgery that exposes brain, dura mater, pituitary gland, spinal cord, dorsal root ganglia, trigeminal ganglia
- Ophthalmic surgery that exposes the retina, optic nerve, posterior chamber
- Ear, nose and throat surgery that exposes olfactory epithelium and other high risk tissue.

The risk of exposure to CJD via contaminated surgical instruments can be minimised and lookback processes can be streamlined if surgical instruments used for procedures involving high risk tissue for CJD transmission are easily identified and their use is restricted to those procedures.

Options for a tracking system
The critical step to prevent transmission of CJD via general surgical instruments is the establishment of a tracking system for surgical instruments and for surgical instrument trays.

Two options for the establishment of a tracking system are:

1. Simple Procedural Tracking
   - Routine separation of general surgical instruments used in high risk surgery from surgical instruments used in low risk surgery to avoid cross contamination and to avoid routine assignment of high risk general surgical instruments to a low risk surgical instrument tray.
   - Keeping high risk surgical instruments in a dedicated container for transportation to the sterilising department for reprocessing.
   - Segregating high risk surgical instruments from other surgical instruments during all stages of reprocessing.

2. Electronic Tracking

Readings
NSW Health, Infection Control Policy PD2005_247
ACHS, EQuIP 4 – Safety Standard 1.5, Criterion 1.5.2
AS/Nzs 4187:2003 Cleaning, disinfecting and sterilising reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities

Suggested actions by Area Health Services
1. Introduce a tracking system for instruments and equipment that come in contact with high risk tissue for Creutzfeldt-Jacob Disease (CJD) transmission.
2. Permanently assign the general instruments used for high risk surgery to high risk surgical instrument trays eg neuro-shunt trays, retina trays.

Revised 20 March 2007: Second paragraph, first dot point "dorsal route ganglia" misspelt, amended to "dorsal root ganglia"