Standard Operating Procedures

Packaging
2.1 UNLOADING MECHANICAL WASHER DISINFECTOR MACHINES

PURPOSE
To ensure Workplace Health & Safety instructions are followed for staff safety and to assist in the prevention of damage to instruments.

WORKPLACE HEALTH AND SAFETY CONSIDERATIONS:
- Equipment will be hot, wear/use operator hand protection
- Do not lift heavy washer disinfector baskets
- May be pooling of hot water in anaesthetic/other tubing
- Use only designated trolley

OPERATING PROCEDURE
- Take care when opening the doors and unloading, as there may be residual heat and moisture in the machine
- Check that the load has not been dislodged and that items are not displaced
- Unload the baskets, avoiding conditions that may damage the equipment/instruments and that may injure staff
- Inspect the load, if excess water is noted the following may need to be checked: the machine temperature, amount of rinse aid going into the machine or the way in which the machine was loaded. If the problem persists report to shift supervisor immediately
- Place instrument baskets into dryer or onto designated work benches if equipment is dry
- If staining appears on the equipment, report to the shift supervisor immediately
- Return any item that appears dirty or badly stained to the cleaning area

Reference: AS/NZ4187 – Sections 2, 7, 8 & 11

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2.2 UNLOADING OF DRYING CABINET

PURPOSE
To ensure that all items prepared for sterilising are dry.

NB. Incorrect drying can lead to rusting, pitting and corrosion and affect the sterilants’ effectiveness.
As per AS 2514 Drying Cabinets should be tested weekly and results recorded.

OPERATING PROCEDURE

☐ Record temperatures and maintenance on a control document – daily
☐ If the dryer temperature is too hot or too cold report this immediately as over or under drying can have a detrimental effect on the equipment
☐ Consider isolating sharps into separate containers for drying type
☐ If the machine is a pass through, only open the door on the clean side when the door on the dirty side is closed
☐ If items are still wet return to the drying cabinet

Reference: AS/NZ4187 – Sections 2, 7 and 8

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2.3 ORGANISATION OF PACKAGING TABLE

PURPOSE
To ensure clean, safe work working area that reduces the risk of equipment damage/loss and unsafe work practices.

OPERATING PROCEDURE
- Wrap and pack items on clean, designated work benches, bench space is to remain uncluttered
  - Height adjustable packing tables are preferable as they can be adjusted for suitable & comfortable height for each employee.
- When sorting items, if unsure what the item is or where it goes, ask for help, as the item may be an integral part of the equipment.
- Utilise the department’s manuals, cards or computer for clear identification of instruments and trays. If information or equipment required is missing, report to the shift supervisor.
- Be responsible for your own workspace and restock equipment as required.

Reference: AS/NZ4187 – Sections 8 & 11

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2.4 Insulation Integrity Testing – Electrosurgical Instruments

OUTCOME
To ensure that patients and staff are protected from hazards associated with insulation failure of electrosurgical instruments.

OPERATING PROCEDURE
- Application of standard precautions
- Insulated instruments tested after every use/clean and prior to sterilization.
- Inspects the equipment for physical damage/missing components
- Manufacturers Instructions for use of insulation testing device are to be followed

For HI POT insulation testing device (this is only an example and must be modified in line with the manufacturers instructions especially to suit other brands and models)
- Checks battery by holding on/off switch down towards off position. Recharges battery if below 70
- Disconnects battery charger and tester battery is charged
- Ensures all instruments are dry prior to testing (Wet instruments can cause shock)
- Sets up clean, dry, insulated work area checking for flammable materials, liquids or gases
- Removes jewellery and dons appropriate gloves
- Attaches 2MΩ in-line resistor (blue wrist strap) to machine and dons wrist strap
- Attaches grounding Wire by placing the clip on the green/yellow lead to steel eg steel bench
- Connects testing black lead by inserting lead into black plug and clipping the diathermy bulldog connector to uninsulated end of instrument
- Connects the probe/brush attachment (grey lead with red end) to the RED HV socket.
- Turns unit to the ON position ensuring voltage meter responds
- Passes the instrument through the wrap electrode testing all sides ensuring not to touch the instrument with the free hand
- In the event the instrument passes the HI POT test process Resets the button to turn off the voltage and removes the instrument.

- Testing bi-polar and monopolar forceps – Follow all steps as above
- Connects the probe/brush attachment to the blue 1kV socket
- Turns unit to the ON position ensuring voltage meter responds
- Moves HV probe brush slightly across all areas of the instrument ensuring not to touch the instrument with the free hand

- Completes documentation which includes: date, item tested, number of items tested and number/type pass or fail
- Training record and work place skills assessment is retained for individual staff performance development
- Insulation testing equipment is regarded as CSD associated equipment and requires an established and documented servicing process annually, or as per manufacturer’s instructions.

Insulation Failure is indicated by:
- Solid tone, ionisation sound from in-built speaker
- Meter deflection (Reading from 300 to 0 ohms indicates significant breakdown and the warning tone becomes constant)
- Arcing.

Failure Actions:
- If break in the insulation is indicated, ensure the voltage meter is at zero and removes instrument from testing device
- Isolate the instrument for repair
- Documents failure
- Reports failure to shift supervisor.
Workplace Health and Safety Considerations:

Operator safety is a priority for staff performing electrosurgical instrument testing and it is a requirement that staff undertake training and assessment for the testing procedure. When an insulation testing device is procured the initial training to the CSD and Biomedical Engineers shall be provided by the distributor. On going training and assessment is to be undertaken annually by the CSD as part of their education and workplace skills assessment.

Important:
- NEVER touch instrument while voltage meter is registering. Always check the meter.
- Ensure instruments are dry prior to testing.
- Jewellery must be removed prior to testing.
- It is recommended that personnel with pacemakers do not use the high voltage insulation tester

Reference: AS/NZ4187

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Comments:
2.5 EQUIPMENT SET UPS

PURPOSE
To ensure consistent patterns/protocols for assembling trays of instruments and other equipment prior to wrapping and sterilising enables efficiency and accuracy of surgical procedures.

OPERATING PROCEDURE

- Check that equipment / instruments are clean, rust and stain free and without damage
- Damaged instruments are to be removed from circulation and reported to shift supervisor
- Prepare equipment for sterilisation:
  - Check multi-part equipment / instruments are assembled and functioning and are then disassembled or loosely assembled for sterilisation
  - Hinged or ratchet instruments are opened and unlocked
- Follow the predetermined list or packaging order
- Select the appropriate size tray to assemble instruments giving consideration to size, mass and contents of tray
- When packaging hollowware sets:
  - Openings are to face in the same direction,
  - Hollowware should not be able to move, and
  - If hollowware is nestled insert separators
- Remove all spilt or cracked plastic hollow-ware
- If metal hollow-ware is dented in any way, report to shift supervisor
- Ensure individual packs do not include combinations of hollowware, instruments, dressings, drapes or tubing

Reference: AS/NZ4187 – Sections 2, 3, & 13

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2.6 WRAPPING / PACKAGING / LABELING

PURPOSE
To provide a protective barrier against sources of potential contamination. Wrapping/packaging methods must allow aseptic removal of contents.

OPERATING PROCEDURE
- The common methods of wrapping are envelope fold or square fold technique
- Check wrapping material to ensure that it is not damaged before use
- The type and method of wrapping and packaging is facility specific and in consultation, the Manager of Sterilising Services and the Manager of Operating Theatres decide the type and method of wraps to be used
- The density and size of the pack is determined at each facility during performance qualification testing
- Sharp objects shall be protected with tip protectors
- Assembly of packs shall allow sterilant contact with all surfaces of the pack contents; all hinged instruments are to be opened
- Internal chemical indicators can be used in wrapped items. This is determined by each facility
- Writing on wrapping could damage the integrity of the material
- The tape used for sealing will be specific to the mode of sterilisation (pressure sensitive, non-toxic and adhere to clean surface);
- Specific indicator tape must be used when sealing wrapped items
- Ensure tape is adhered to wrapping/packaging material
- Flexible packaging materials
  - Correct size pouch for contents (do not over-fill. As a guide, filling of pouches should not exceed ¾ of the length of the pouch)
  - Hollowware openings are against non-laminate surface
  - Only write on the outer parameter of the flexible packaging material.

Labelling of packs:
- Prior to sterilising process
  - Use a non-toxic solvent based felt tip pen
  - Pre-printed labels
  - Rubber stamps using similar ink
  - Batch labels (piggyback)
  - Pre-printed tape
  - Write on tape

- Labelling is clear and precise for easy identification and recall if required
  - Labelling shall include name of item, signature of person wrapping the item, date item wrapped

Reference: AS/NZ4187 – Section 3

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2.7 OPERATION OF THE HEAT SEALER

PURPOSE
To ensure correct sealing of the flexible laminated packaging material so that items when sterilised and stored they are protected against contamination. Correct heat sealing must allow aseptic removal of package contents.

TESTING PROCEDURE
- Apply standard precautions
- Test in accordance with manufacturers instructions
- Clean external parts of the heat sealer with a non-linting cloth
- Turn the power source to on
- Check the temperature switch on the machine is at the correct setting as per manufacturer instructions
  - Run laminate/paper pouches/bags through the machine Test each type of laminate/paper pouches/bags sealing daily and examine for strength and integrity of seal prior to and following the sterilising process
- Record results on the control document
- Inspect for a good closure, continuous, even pressure ensuring no gaps in seal line, report sealing failure to shift supervisor
- When not operating leave machine switched on in stand-by mode (varies with machines)

OPERATING PROCEDURE
- Engage roller operation as per manufacturer instructions
- Insert unsealed end into machine and seal laminate to non-laminate with a continuous adhesive seal of 3 to 15mm
- When using flexible packaging cut to size from a roll, check the ‘opening’ end, indicated by an icon on the sealed sides of the roll, and leave sufficient tabs beyond the seal to the cut edge to enable aseptic removal of contents
- Support item on the way through roller.
- When finished place item in a basket to be transported to the sterilising area.
- When not operating leave machine switched on in stand-by mode (varies with machines)

MONITORING PROCEDURE
- Monitor temperature of heat sealer

Every 6-12 months the heat sealer is to undergo preventative maintenance, including temperature calibration.

Reference: AS/NZ4187 – Section 3, 7 & Appendix F

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2.8 REPLACEMENT OF STOCK

PURPOSE

To improve efficiency in work practice.

OPERATING PROCEDURE ✓

☐ Check your stock levels at the beginning of a shift to reduce delays in production. Daily replenishment of stock is required by all shifts
☐ If you use the last of the stock in a production area, it is your responsibility to replace the stock
☐ Know where your bulk storage is located
☐ If stock in the storeroom is low inform the shift supervisor
☐ Storage containers / shelves that hold stock are required to be cleaned at regular intervals. Check the department's environmental cleaning plan
☐ Identification of stock and stock numbers shall be available
☐ Uphold stock rotation when removing required stock from a shelf

Reference: AS/NZ4187 – Section 9

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