ASEPTIC TECHNIQUE IN THE NICU

Although the principles of aseptic technique are applied to all invasive procedures the level of practice changes depending on a risk assessment. A risk assessment is required to:

- Identify the key part (the part of equipment that must remain sterile and must not contact other key parts or key sites)
- Identify the key site (the area on the patient that must be protected from microorganisms)
- Determine the type of aseptic technique to use - either Standard or Surgical (refer to Infection Control Manual - Framework for Aseptic Technique (Table 1))
- Determine the type of aseptic field to use - either General or Critical

In the NCCU aseptic technique is a minimum 2 person procedure.

SKIN CLEANING FOR STANDARD ASEPTIC TECHNIQUE

> 27 weeks - use BD persist swabs (1% chlorhexidine / 75% alcohol). Allow to dry for 30 secs. Wash off excess solution after the procedure with sterile water or saline to prevent chemical burns.

< 27 weeks - use Povidine - iodine 10% solution swab. Allow to dry for 1 min then wash off all solution with sterile water or saline before the procedure. It is still necessary to wash excess povidine - iodine 10% solution off as iodine can be absorbed through their immature non keratinised skin.

Standard Precautions:

- performing hand hygiene (5 moments for HH)
- the use of personal protective equipment
- the use of aseptic non-touch technique
- the use of sterile equipment
- the safe use and disposal of sharps
- routine environmental cleaning. Decontaminate the working surface area with 70% alcohol solution prior to equipment set-up.
- reprocessing of re-useable medical equipment and instruments
- correct waste disposal
PROCEDURES FOR ASEPTIC TECHNIQUE

SURGICAL
- Insertion of central lines – UAC, UVC, Longlines, short CVC.
- Intercostal catheter insertion.
- Ventricular tap.

STANDARD
- Line management of central lines – i.e. Fluid/line changes, administration of medications.
- Lumbar puncture.
- IDC insertion.
- Wound dressings/changing drainage devices
- Peripheral line insertion
- Removal of central lines and drains
- Tracheostomy care
- Peritoneal dialysis (see PMH Renal Unit Protocols)
- Administering a blood transfusion
- Sampling from all lines

CLEAN PROCEDURES (SOME PROCEDURES WILL REQUIRE A SECOND PERSON)

>27 weeks – use Chlorhexidine 1% / alcohol 70% swab and allow to dry for 30 secs.

<27 weeks – use Povidine - iodine 10% swab and allow to dry for 30 secs. Wash off excess after the procedure. Once an Infant < 27 weeks gestation reaches 2 weeks of age, Chlorhexidine 1%/ alcohol 70% swab may be used for IVI insertion if skin integrity has been maintained.

Standard Precautions:
• performing hand hygiene (5 moments for HH)
• the use of personal protective equipment
• the use of aseptic non-touch technique
• the use of sterile equipment
• the safe use and disposal of sharps
• routine environmental cleaning. Decontaminate the working surface area with 70% alcohol solution prior to equipment set-up.
• reprocessing of re-useable medical equipment and instruments
• correct waste disposal

Clean Procedures
Venipuncture and heel sampling (>27 weeks – use Chlorhexidine 1% / alcohol 70% swab and allow to dry for 30 secs, <27 weeks – use Povidine - iodine 10% swab and allow to dry for 1 minute. Wash off excess after the procedure. Once an Infant < 27 weeks gestation reaches 2 weeks of age, Chlorhexidine 1%/ alcohol 70% swab may be used if skin integrity has been maintained.

FURTHER READING (WNHS INFECTION CONTROL)
Hand Hygiene
Cleaning, disinfectant and sterilisation
Occupational exposure to blood and body fluids