

NICU CENTRAL LINE BUNDLE

CENTRAL LINE INSERTION BUNDLE ELEMENTS:

1. Identify an extremity that will be saved for potential PICC placement on admission with a purple sign at the bedside.
2. Maximum sterile barriers will be observed during central line placement.
3. To hasten line placement, the bedside RN will only check heel stick POC glucose and if low, treat and place PIV. If not, the umbilical venous or arterial catheter should be placed immediately and laboratory studies should be obtained once the line is in place.
4. Consent for PICCs will be obtained by the inserter prior to PICC placement and indications, benefits, risks and central line care will be reviewed with parents.
5. A Sterile Procedure in Progress with STOP sign will be placed on the closed door and observers in the room will wear a cap and mask during a sterile procedure. Parents will be asked to step out during this time.
6. A designated PICC RN team member will place peripherally inserted central catheters (PICC) under sterile conditions. Attendings and Neonatal-Perinatal Medicine (NPM) fellows after established competency will also place PICCs. A central line sticker will be placed on tubing to identify the central line.
7. Attendings, NPM fellows, and pediatric residents with supervision will place umbilical arterial catheters and umbilical venous catheters under sterile conditions.
8. A central line observation checklist and procedure note will be completed by the bedside RN and inserter, respectively for every central line insertion.
9. Central line observation checklist and procedure note compliance for every central line placed (PICC, UVC, UAC) will be monitored monthly through surveillance by the PICC RN team.

CENTRAL LINE MAINTENANCE BUNDLE ELEMENTS:

1. Use Peripheral IV (PIV) Algorithm to minimize PIV attempts and decrease risk for infection.
2. The area above the infant's waist is considered the clean zone and the area below the waist is the dirty zone. All line changes should be done in the clean zone and the central line should be located in the clean zone.
3. Central line dressing changes will be performed by a PICC RN or NPM fellows, if a PICC RN is not available per protocol under sterile conditions.
4. A dedicated, closed medication administration line should be set-up for each central line.
5. Sterile gloves, mask, and hat should be used for tubing line changes. Tubing line changes will be discussed during the morning nursing huddle.
6. Minimize entries into the central line, connectors leading to central line and scrub the hub for 15 seconds when entering the line and allow drying for 30 seconds.
7. A daily central line maintenance checklist should be filled out every shift by the bedside RN and brought to morning rounds by the bedside RN to address daily necessity of the central line.
8. Remove central lines when 100 ml/kg/day of enteral feeds are reached or the central line is no longer needed.
9. A daily central line maintenance checklist for every central line (PICC, UVC, UAC, and surgically placed lines) will be completed and monitored monthly through surveillance by the PICC RN team.

INFECTION CONTROL PREVENTION BUNDLE ELEMENTS:

1. Bare arms to the elbows without jewelry at all times.
2. An initial 3-minute hand scrub will be done at the beginning of the shift or before any sterile procedure.
3. Root cause analysis is performed for every central line-associated bloodstream infection (CLABSI).
4. There will be a monthly review of quality metrics such as CLABSI rate, hand hygiene observations, and MRSA colonization rate. Staff will receive regular feedback and updates.