Vascular Access Clinical Standards Update

In February 2012, revisions were made to the Vascular Access clinical standards using Evidence-Based Clinical practices for pediatric and neonatal communities. Further sub-specialties including hem/onc, infection prevention, vascular access, and pharmacy contributed to revisions. During the past three months, we received feedback from many nurses and care providers. We are appreciative of your dedication to providing expert-based care to our patients!

We have contacted other children’s hospitals and neonatal care communities to inquire about current practices. We reviewed literature again. We listened to clinical providers and their feedback regarding revisions. Your suggestions led to the following revisions and updates.

Please contact team members if you have questions: Wendy Berg, Mary Langevin, Janet Logid, Kristin McCullough, Melissa Steger, Kim Lorence, Denise Rucker, Robin Rosenberg, Keri Rateliff.

Tubing Changes:

- Clarified it is not necessary to use a new tubing set up for each new IV solution, unless clinical consequences are anticipated for the patient.
- Examples of when new IV tubing may be needed: new concentration of vaso-pressors, low infusion rate that would delay delivery of new IV fluids, incompatibility of new and previously infusing solution, expiration of tubing prior to expiration of IV fluid.
- Examples of when the same IV tubing may be used: replacement of empty IV fluid bag, change from one maintenance fluid to another (lactated ringer’s to dextrose 5%).

Cap Changes:

- Eliminated the requirement to scrub threads of catheter hub
- Only required to scrub threads if catheter hub is contaminated or has visible blood or debris. If so hub should be scrubbed with chlorhexidine and allowed to dry.
Cap Changes: continuous infusions

- Change needleless caps every 96 hours.
- Exceptions:
  - If blood cannot be cleared from cap after appropriate volume of sterile normal saline flush has been used.
  - Change caps at 72 hours if the IV fluid infusing requires every 72-hour bag and tubing changes (see continuous infusion hang time grid). For IV fluids that require every 24 or 48 hour bag and tubing change (see continuous infusion hang time grid), change the needleless cap every 96 hours.
  - For complex multi-continuous infusion set ups, change the cap and manifold anytime within 72 to 120 hours (3-5 days) of the previous change, according to clinical judgment.

Antibiotics in Multiple Lumen Devices

- Alternate unused lumens for antibiotic dose administration.
- Do not break “the line” if continuous infusions are running to alternate medication doses.
- Document lumen/port used in EMR.

Ports

- Clarification: Application of chlorhexidine impregnated product (such as Biopatch™) over port needle is required if access is planned for 24 hours or greater.
- No chlorhexidine impregnated product required if planned access is < 24 hours.

Other Key Points

- Table for blood volume ‘waste’ amounts to draw for lab specimens updated.
- Hang time for continuous infusion grid removed and hyperlinked to Nurse Web.