PERIPHERAL INTRAVENOUS LINE IN THE NEONATAL POPULATION: INSERTION, MONITORING AND DOCUMENTATION

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BACKGROUND

Infants are extremely vulnerable and fragile, therefore , the ability to safely place and monitor a peripheral intravenous (PIV) is a critical nursing role. Increased incidence of PIV infiltration in the NICU demands an investigation on various factors causing PIV infiltration. It is necessary to discuss methods in dressing, securing and maintaining PIV. It is also important to recognize signs and symptoms of PIV phlebitis -vs- infiltrates. As part of process improvement, it is vital to establish systems of reporting and documentation in the event an incident occurs.

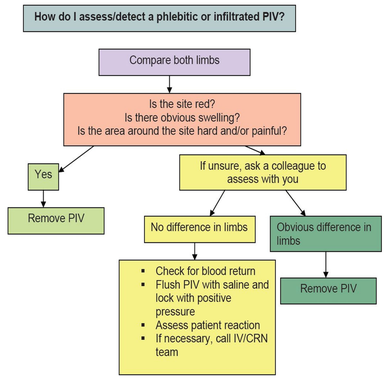
INSERTION

- Physician order.
- Gather supplies.
- Handwashing and hand sanitizer.
- Don gloves.
- Locate area where veins are visible for PIV placement, a transilluminator may be used.
- Apply tourniquet as necessary, near or above insertion site.
- Note: be mindful when to remove tourniquet.
- Clean skin with antiseptic solution (alcohol swab) and insert catheter at 15-30 degree angle.

METHODS

PIV Placement, Monitoring and Documentation

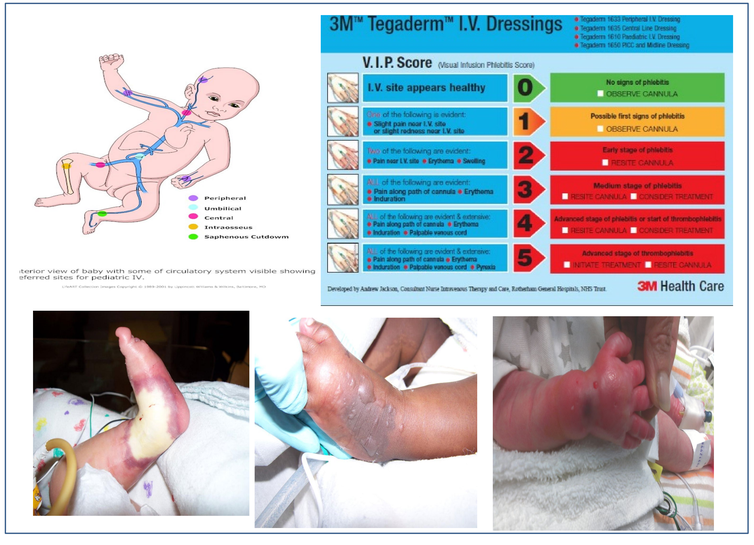
- IV monitoring is the bedside nurse's responsibility
- Assess IV site hourly for swelling, redness and pain
- Document assessment hourly in the flowsheet
- Protect the IV from dislodgment whenever the infant is moved
- Saline Lock- an MD/NP order for a (1-3cc) 0.9% normal saline flush to assess patency of PIV at least once per shift.
- Chart it in patient's I and O flowsheet



Differentiating Infiltration VS Phlebitis

Infiltration occurs when a PIV catheter is improperly placed or becomes dislodged. It is caused when an IV medication or IV fluids leak into the surrounding area of the IV site. Cool skin, blanching, swelling and tightness are the most common signs.

Phlebitis is usually associated with high osmolality solution, prolonged used of same IV site or use of an inappropriate IV catheter. Redness or tenderness at the tip of the catheter or along the pathway of the vein shows signs of an inflamed vein.



RESULTS

Process: IV infiltration Discovery

- Assess that your patient is stable, remove PIV and dressing STAT
- Notify charge nurse, MD, NP
- Fill out IV infiltrate data collection sheet
- Tag infusion pump or medication pump, and bring them to the manager; (Manager will inform Biomed to investigate if pump has malfunctioned)
- Document in Safety Intelligence Event Report and write PIV infiltrate

CONCLUSIONS

In conclusion, as part of our nursing roles it is important to know the proper steps of inserting a peripheral IV as well as how to assess the PIV site for any complications.

Maintaining the skills of proper IV insertions an hourly IV assessments for signs of infiltration or phlebitis are very important in sustaining our infants health during their hospitalization. Making sure they get the proper fluid, nutrition and medications they need.

REFERENCES

- Beall V, Hall B, Mulholland J, Gephart S. Neonatal Extravasation: An Overview and Algorithm for Evidence-based Treatment. Newborn and Infant Nurs Rev. 2013;13(4):189–195. [Google Scholar]
- Park SM, Jeong IS, Kim KL, Park KJ, Jung MJ, Jun SS. The Effect of Intravenous Infiltration Management Program for Hospitalized Children. J Pediatr Nurs. 2016;31(2):172–178. doi: 10.1016/j.pedn.2015.10.013. [PubMed] [CrossRef] [Google Scholar]
- Children's Hospitals' Solutions for Patient Safety National Children's Network website. [Accessed March 2018];Operational Definitions. http://www.solutionsforpatientsafety.org/wp-content/uploads/sps-operating-definitions.pdf. Published March 2018.