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Peripheral IV Infiltration

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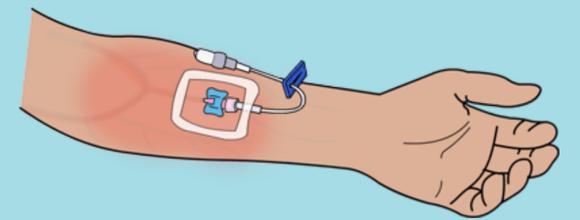
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Current state

Children's Medical Center has been utilizing "ACT" for PIV assessments, which consists of assessing the PIV site for any abnormalities and changes, comparing it to the other extremity for any differences, and touching to detect any temperature changes. In addition to "ACT", we added an additional assessment of measuring the site to detect changes in size early during treatment. By implementing this fourth assessment technique when evaluating PIVs, we were hopeful in having a further decrease in infiltrates.

Background

- Our study focused on measuring the circumference above and below the PIV insertion site, specifically at the edges of the tegaderm dressing with each hourly assessment
- The intention of this was to detect changes in the size of the extremity early, allowing for either interventions to be made to prevent the site from infiltrating or discontinuing the site entirely to prevent moderate to severe infiltrates from occurring

PICOT Question

Does implementing the practice of measuring above and below PIV sites during assessments in patients with a peripheral IV line receiving continuous fluids decrease infiltration occurrences compared to the current practice of assessing PIV sites using only the "Assess, Compare, Touch" technique?

Literature Review

- The use of measuring the circumference of the edema present assists with grading the level of infiltration/extravasation. (Desarno et al., 2018)
- When assessing PIV sites it is important to measure both limbs to get a good comparison. (Watterson et al., 2018)
- -With IV insertion, having a baseline measurement right above and below IV dressing on PIV.
- Each continuous fluid infusion PIV assessment, using baseline measurement.
- Consistency with each IV assessment, remeasuring and comparing to previous IV measurements.
- Using measurement along with ACT acronym to decrease infiltration occurrences.

Interventions

Our pilot of measuring the circumference of the extremity above and below the PIV site with every hourly assessment didn't detect any size changes. One patient's assessment did show a slight increase in size (less than 1 cm) but resulted in the PIV continuing to be used. This was beneficial though because it encouraged the RN to continue to watch the PIV closely for further changes. Overall, we did not see any infiltrates with our pilot. However, if an infiltrate were to occur, this assessment tactic likely would have caught it early to prevent it from reaching a moderate to severe infiltrate.



Next steps

- Add the assessment of measuring circumference above and below the PIV insertion site to current practices.
- Make sure there are measurement tapes on all units
- Educate RNs on how to properly assess the circumference.