

# PERIPHERALLY INSERTED CENTRAL CATHETER DOCUMENTATION

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## **Purpose and PICO Question**

Neonates in the ICN have routine blood draws via peripheral and arterial punctures. These frequent labs draws often require repeated attempts to obtain even the smallest amount of blood needed for the laboratory tests. Many infants have peripherally inserted central catheters, PICC lines. In the pediatric population it is standard practice to draw from these PICC lines but, in the neonatal intensive care unit (NICU) population, is it safe to draw blood from PICC lines?

## **Background and Evidence Review**

Currently there is little evidence to support or reject the practice of drawing blood from the smallest (1.9 and 2.3Fr) PICC lines. There is evidence to support the safety of drawing from 3Fr and larger PICC lines. PICC line manufacturers were contacted and unable to support or reject the safety of drawing blood from 1.9 and 2.3 Fr PICC lines. Many hospitals, including a VON benchmark hospital, utilize this size PICC for drawing blood as standard practice. The policies and procedures at UCSF state how to draw from these lines but is not part of the unit practice. NANN's position statement concludes that more research is needed in this area. In order to consider a test of change it was important to know our baseline data. There were inconsistencies and gaps in the documentation of PICC lines.

## **Purpose and PICO Question**

In the Intensive Care Nursery at UCSF, chest x-rays are taken every Monday morning to verify PICC line placement. Previously, these x-rays were only followed up on if these lines had moved to a dangerous place, and even then the information would sometimes get lost. PICC line data is kept in a number of different locations, one of which is not a legal document and does not stay in the patient's chart. Currently all PICC insertion information is being inserted by the NNPs into the computerized UCare charting system and there is no documentation of the weekly follow up chest x-rays checking placement. Currently, line days and infection rates are the only data being kept. There is no standard for documentation of PICC line complications, such as occlusion or malfunction. Will educating healthcare professionals caring for patients in the NICU with PICC lines, about our standardized documentation tool, increase PICC line documentation?

## Methods

This small test of change started with the Patient safety meeting which brought together a number of different groups of healthcare providers. Next, the Neonatal Nurse Practitioners, who place PICC lines and document initial insertion information, were contacted. In the ICN there is currently no ongoing documentation mechanism to follow the PICC line location and complications. Initial nurse knowledge of PICC line documentation was assessed by way of a paper survey that was given to every nurse. Following the survey, a personal investigation into current documentation practice was conducted. Once the need for education was determined, a power point presentation was given at a monthly staff meeting. This presentation was also given as a handout on pink paper, displayed on a big screen, copied and pasted onto a poster board in pink and placed in all PICC line binders on the floor. Friendly weekly reminders were given on Monday mornings about where to find the information. Following the implementation of the small test of change, every Monday was spent following up individually with nurses caring for PICC line patients to ensure documentation.

## Results

When reminded and individually shown where and how to properly document PICC line placement, this small test of change was successful. For several weeks there was steady increase in compliance for documenting with limited complications. Throughout the assessments, it was found that nurses knew where and how to document but, nurses were unable to comply due to time constraints. Following education, all PICC line locations and complications are now being documented uniformly. Now that baseline data is documented consistently, a research project can be considered to evaluate the safety of drawing from small PICC lines in the NICU.

## Discussion

One of the primary challenges that was discovered was the difficulty in changing a unit's culture. During this small test of change, the unit was also in the process of changing from paper to electronic documentation. This change involves collaboration of all members of the healthcare team. Ongoing education is required in a teaching hospital environment as residents rotate through the nursery every month. With this an interdisciplinary collaboration, I look forward to taking the next step.

## Selected References

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