

We Can Improve the Safety of PICC Lines

We need a reliable mechanism to tell when the catheter tip has moved.

Anyone who has worked with peripherally inserted central catheters (PICCs) knows how difficult their original measurements are to maintain. The smooth, spaghetti-sized catheters can move in and out of the vessel with ease. The majority of PICCs are put in place at the bedside without the benefit of fluoroscopy to guide the tip into perfect position. Lack of this imaging technique often results in various lengths of catheter external to the vein, an inconsistency that leaves the door open to poor catheter management and patient safety issues.

The time has come to eliminate the guessing game about external PICC length. PICCs have an inherent characteristic of instability related to their original tip position in the superior vena cava. An anchor device stabilizes the extension leg or legs of the PICC, but the actual catheter is held in place only by a sticky occlusive clear dressing.

Generally, there are centimeter increments of catheter external to the vein resting on the upper arm, often configured in an upward loop to avoid the bend in the arm. This loop of catheter allows a degree of play to the PICC tip's original and correct position in the vein. Manipulation during dressing changes, a patient's movements, perspiration, and accidental tugging on the line are a few of the many factors that can cause movement of the catheter.

When the catheter moves, the tip of the PICC is retracted or advanced, thus changing its unique, correct position. Recognizing this change in tip position is imperative to safe maintenance of a central line and reflects the quality of nursing care. Current practice doesn't require that a label be placed on the PICC line itself in order to identify centimeters external to the vein; instead, external length is often noted in the paper chart or in a computer document. Lack of this vital piece of information creates discrepancies in assessments of PICC tip location, leading to line dysfunction and unsafe practice.

Every PICC policy stipulates the need for assessment of the PICC insertion site and external catheter length at least once a shift. With the countless

activities surrounding each patient, many sets of eyes view the PICC numerous times a day. Shifts change, units change, and patients are transferred to different settings and organizations. Their PICCs can remain in place for weeks or months. Assessments are made without knowledge of where the PICC tip was originally placed and should remain.

Obtaining critical details of a PICC's original tip placement in centimeters can be very daunting. Nurses spend valuable time away from the bedside

searching in a patient's permanent record for the PICC insertion document. Too often the original measurements are nowhere to be found. Charts get thinned, computers are inaccessible, or information isn't in close proximity to the patient.

A tube residing at the entrance to one's heart requires more confirmation of safe and

proper placement than a sticky, clear dressing. A permanent label attachment to the extension leg of the PICC would give direct care nurses immediate information regarding the internal PICC tip's position. This small label, costing little, could eliminate an obvious flaw in our system.

What can nurses do about this? We should insist that manufacturers of PICC line products provide a design that allows for safe maintenance. We must voice our concerns to infusion team specialists, clinical managers, and educators; join committees responsible for product requests; and advocate at nursing conferences. Dialogue can also be initiated through social media sites and nursing forums. We can network with colleagues and key opinion leaders to exchange stories, ideas, and strategies for enhancing safe practice of PICC lines with the mandatory addition of a permanent label.

A PICC without a visual cue indicating safe position is the proverbial elephant in the room, threatening the safety of many unsuspecting patients. ▼



It's time to eliminate the guessing game about external PICC length.

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