Dietitian Collaboration with Vascular Access Nurses Prior to PICC Placement for Parenteral Nutrition: A Partnership that Can Prevent Unnecessary Central Lines

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Background
Peripherally inserted central catheters (PICCs) are essential in the delivery of life saving Parenteral Nutrition (PN); however, central lines carry a high risk of infection leading to increased mortality, length of stay and associated costs [1,2]

Historically in this institution, the physician ordered a PICC to be placed by the Vascular Access Nursing Team and PN was initiated before the Registered Dietitian (RD) could assess the patient.

Ideally, the nutrition consult should occur prior to PICC placement as the RD is best equipped to apply best-practice guidelines [3-5] to determine if PN is indicated.

Methods
PICC line placement was ordered by the physician RN. A nutrition consult was ordered and alerted the RD via dedicated pager if needed.

RD assessed appropriateness of PN within four hours of time consult was received.

If RD determined PN was not appropriate, a call was placed to referring physician to discuss alternative nutrition recommendations.

RD communicated recommendations to the RN via return phone call.

A full nutrition assessment with appropriate recommendations was completed by RD.

The decision to proceed with PICC line and initiation of PN was then left to the physician.

Results (continued)

The most common indication for PN was intestinal obstruction and the most common reason PN not indicated was functioning GI tract.

PN use was considered indicated or not indicated based on American Society for Parenteral and Enteral Nutrition (ASPEN) guidelines [3-5].

Practice Changes
PN was not initiated and PICC line was not placed in six out of seven patients deemed inappropriate by RD (a PICC was placed in the seventh patient on following day when the indication was changed to include IV antibiotics).

Next Steps
Continue to collaborate with Vascular Access RNs to assure appropriateness of PN prior to PICC insertion.

Ongoing physician education regarding valid indications for PN.

Expand data collection to pediatric population.

Continue data collection to assess length of time on PN, co-morbidity factors (diabetes, pressure ulcers, malnutrition), central line-associated blood stream infection (CLABSI) rate, hospital length of stay and patient disposition.

References

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