

In Oncology Patients, Does the Type and Size of PICC Affect the Risk of Thrombosis?

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Problem: MD Anderson's Infusion Therapy Clinic inserts over 2000 Peripherally inserted central catheters (PICC) a year for oncology patients receiving chemotherapy to treat their cancer. This institution utilizes several different types and sizes of PICCs. A common risk factor of having a PICC is deep venous thrombosis. Thrombosis causes a decrease in blood circulation which can cause a painful and swollen extremity. It is necessary to determine if the size and type of the PICC increase the risk of venous thrombosis in order to improve patient outcomes.

Evidence: Infusion therapy has been conducting a literature review by researching articles using Pubmed and Ovid. Infusion therapy is determining if type and size of PICC increases the risk of deep venous thrombosis.

Strategy: Infusion therapy has established a monthly journal club in which research articles are being critiqued. This also provides an open forum to discuss the issues.

Practice Change: Currently, Infusion therapy has not established a practice change.

Evaluation: Infusion therapy is evaluating the size and type of PICCs used in oncology patients and how it affects the rate of deep venous thrombosis. Deep venous thrombosis will be evidenced by swollen extremities, pain, redness and presence of collateral venous distention.

Results: Oncology patients with a PICC and receiving chemotherapy have a higher risk of developing deep venous thrombosis compared to patients with PICCs receiving different treatments. There is a conflict between the articles reviewed in regards to PICC catheter size being a factor in causing deep venous thrombosis. No evidence of research to be found on the type of PICC affecting deep venous thrombosis.

Recommendations: Before recommendations can be made, more research needs to be done on the type and size of PICCs and how it affects developing deep venous thrombosis.

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