Decreasing Hospital Phlebitis Rates: A Multidisciplinary Approach Proves Positive
St. Joseph Medical Center

Program/Project Description.
Any delay in obtaining appropriate vascular access can have a direct correlation to patient care delivery ranging from delays in treatment, delays in positive patient outcomes, increased length of stay and significant costs associated with uncompensated care.

In early 2009, the Vascular Access Department at St. Joseph Medical Center noted an increase in the volume of calls to restart IV’s related to patient complaints of burning, irritation and soreness. In August of 2009, the department implemented an initiative to determine the rate of phlebitis within the hospital and compare the findings to the recommendations set forth by the Infusion Nurses Society (INS). The initial rate was documented at 17%, a rate greater than 3 times the rate deemed acceptable by the INS. A Performance Initiative was developed and is ongoing, with reduction methods introduced systematically and results evaluated monthly. The result, as of October 2010, is an improvement in the hospital wide rate of phlebitis to 4.7%.

GOAL: A hospital wide phlebitis rate of 5% or less as recognized by the Phlebitis Prevalence Survey.

Process.
The INS “Phlebitis Scale” is the assessment tool chosen to obtain our statistics.
One day per month, the Phlebitis Prevalence Survey is conducted by the Vascular Access Department. This involves assessing the I.V. site(s) of every patient within the organization, excluding CSU, NICU, Psych, and the ED, based on pre-determined clinical criteria. With the initial phlebitis rate unacceptably high, we began researching current evidence based practice published in peer review journals to help determine potential cause and effect relationships. As our team systematically implemented practice improvements and education initiatives we realized reaching our goal could only be achieved through a multidisciplinary approach with all applicable hospital staff sharing our vision. Although our phlebitis rates are now within the acceptable range, we will continue to investigate more cause and effect relationships.

Solution.
Phlebitis reduction measures were implemented by our multidisciplinary team, lead by the Vascular Access Department. These measures included process changes, education, communication and product changes. The initiation of reduction measures began in August 2009, with additional measures rolled out monthly based on the Prevalence Survey results. The reduction measures include the following:

- Standardized Vancomycin infusion rates, infusion rates placed on IV bags, infusion rates posted on laminated cards in every medication room and sized so that they will fit into RN's pocket
- Diligent I.V. tubing care that includes:
  - Tubings without labels, sterile caps or outdated are discarded immediately
  - Use of colored labels on all IV tubings
  - “Scrub the hub” initiative
  - Sterile blue caps implemented to cover IV tubing when not in use

- Early Assessment for Appropriate Vascular Access implemented with support of interim CMO, Director of Case management and Director of Patient Safety
- Phlebitis Prevalence Survey data and educational presentations to Nursing leadership, CPIC and Nursing Grand Rounds
- Poster display for IV Nurse’s Day
- Close collaboration with Infection Prevention and Control on practice improvement standards
- IV securement device implementation
- Improve compliance with early removal of large bore IV catheters
- Participation in Clinical competency days for all RNs
- Monthly results posted on the Share Drive for managers to monitor floor performance and council staff as needed.

Measurable Outcomes.
See chart.

Sustainability.
Maintain measures implemented above which will continue to be evaluated on monthly basis through the phlebitis prevalence survey.
Role of Collaboration and Leadership.
Although lead by the Vascular Access Department, results could not have been achieved without the support and collaboration of the following multidisciplinary groups: Pharmacy, Supply Chain, Leadership Counsel, interested physicians, Nursing Practice Committee, staff RN's, Infection Prevention, Clinical Excellence Leaders, Patient Safety Committee, CPIC, Value Analysis.
Support received from Value Analysis for implementation for securement device. Support from Assistant Vice President of Nursing for improvement of patient care practices and outcomes. Leadership support was encouraged through the attendance and presentation of data at leadership meetings, as well as educational opportunities in an effort to engage other departments to share in our vision.

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SJMC I.V.PHLEBITIS RATE

![Phlebitis Target Graph]