INTRODUCTION

Infiltrations are the most commonly identified complication of peripheral intravenous (PIV) therapy with an incidence ranging from 23%-78%. Injury can range from slight redness to functional impairment and residual cosmetic defects. Often, the extent of injury may depend on how quickly a potential infiltration is assessed and treated. The perioperative setting may create unique challenges for assessment like patient positioning, tucking of the arms, draping/covering the patient during surgery, and even darkness during the procedure. Thus, it is important to assess PIV sites frequently (e.g., hourly) in an effort to reduce the severity and potential harm to the patient.

AIM

The overall goal of this patient safety initiative is to reduce the number of PIV infiltrations and potential harm to patients. Specifically, the smart goal is to reduce the severity (i.e., Grade ≥2) of PIV infiltrations by 50% by March 2013.

METHODS

This is patient safety initiative is in the process of implementing several tests of change in an effort to reduce the severity, and potential harm to patients, from PIV infiltrations. The performance improvement goals are: 1) reduce the number and severity of PIV infiltrations in the perioperative period; 2) achieve >95% compliance with assessment and documentation of hourly PIV site assessments throughout the perioperative arena; 3) educate perioperative staff on the importance of the initiatives; and 4) develop a treatment algorithm for PIV infiltrations.

RESULTS

The number and severity of PIV infiltrations will be displayed using Pareto and run charts. Initial analysis indicates that the majority of infiltrations (e.g., 80%) are not severe (i.e., Grade <2). Changes to the anesthesia and PACU records which facilitate hourly PIV site assessments will be shown. In addition, compliance rates with these hourly assessments in the perioperative arena (OR, PACU, ambulatory surgery) will be provided. Currently, overall compliance with hourly assessments in the operating room by the anesthesia providers is approximately 75-80%, compared to about 95% in the PACU. Finally, the development process of a hospital-wide PIV infiltration treatment algorithm will be discussed.

DISCUSSION

Prevention, or at least reduction, of PIV infiltrations is multifactorial, but hourly site assessments are an important component. This patient safety initiative will show that the use of interventions can result in sustained improvement and reduction in the number and severity of PIV infiltrations; thereby reducing potential harm to patients.

REFERENCES