

Implementing a Nurse Champion Program to Reduce Peripheral Intravenous Infiltration and Extravasations (PIVIE)



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PURPOSE

The purpose of this scholarly project was to implement a Peripheral Intravenous Infiltration and Extravasation (PIVIE) Nurse Champion Program to achieve a 5% decrease in the baseline PIVIE rate in an acute care pediatric unit.

BACKGROUND

Pediatric inpatients are more susceptible than adult patients to experience harm or an adverse event. More than 80% of patients receive a peripheral intravenous catheter during hospitalization. Complications of the procedure include local subcutaneous fluid infiltrations and extravasations, which can cause swelling, blistering, and pain.

METHODOLOGY

Effectively implementing a PIVIE nurse champion program follows the Institute for Healthcare Improvement's (IHI) Model for Improvement Plan, Do, Study, Act (PDSA) cycles. The project intervention components included nurse champion education, standardized rounding checklists, a PIVIE debrief, and inclusion of this topic in patient safety huddles.

RESULTS

The program interventions positively impacted the PIVIE rate by a reduction of 2%, attesting to the champion program's significance for reducing PIVIEs on the unit. The unit PIVIE rate pre-intervention was 16.1 (cases per 1000 patient days) and the post-intervention level was 15.7, a statistically significant decrease ($t = 0.4$; $p < 0.001$). Compliance with documentation measurement required by hospital policy increased from 42% to 73% over the PIVIE pilot project's 3-month timeframe.

IMPLICATIONS

Implementing the PIVIE Champion program successfully reduced the number of PIVIE events. Reducing the incidence of PIVIEs decreased the chance of patient harm, thus improving the quality of care.