

CLINICAL EVIDENCE

Decreased Costs/Improved Outcomes With Standardized Intravenous Equipment

Elayne Penney-Timmons, RN, BGS, CRNI

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Abstract

Presented is a study of phlebitis and infiltration rates within an institution following the conversion to a standard intravenous (IV) start kit that included chlorhexidine gluconate with isopropyl alcohol, a new site dressing, and IV securement cushions. Included are cost comparisons and support rationale used in the purchase of the kit. The total number of intravenous sites examined was 1,345. Using current nursing staff; peripheral IV phlebitis and infiltration rates were virtually eliminated and dwell times were extended from 72 to 96 hr.

Summary

This 700 bed facility in the Midwest engaged in a product trial as evidence for a change in the products and process for inserting a peripheral IV catheter.

The trial was based on Centurion Medical Products single-use IV start kit. The facilities objectives were to: standardize IV start materials and procedures, reduce phlebitis rates, and to do all of this with existing staff.

Data was collected over six month intervals with the goal of approximately 250 random assessments per period from 2002-2004.

By using a standardized carefully constructed kit with VersaDerm dressing the complication rate decreased, unscheduled restarts decreased, and an annual cost savings was realized.

Key Points

- 1,345 assessments were performed
- The infiltration rate was ZERO
- The phlebitis rate was nearly eliminated - started in 2002 at 3.79% down to 0.4%
- Nursing time was reduced from 25 down to 15 minutes per procedure
- Because of these improvements, the dwell time was extended from 72 to 96 hours
- Patients had fewer site complications and unscheduled restarts
- This led to an annual cost savings of \$188,640