inserted and secured in the same manner as for any IV infusion device, but the hub is occluded with a stopper or injection cap.

The type of device used may vary, and the care and use of the peripheral lock are carried out according to the protocol of the institution or unit. However, the general concept is the same. The catheter remains in place and is flushed with saline after infusion of the medication. See the Translating Evidence into Practice box and Table 20-7 on flushing with normal saline or heparin.

Translating Evidence into Practice

Normal Saline or Heparinized Saline Flush Solution in Pediatric Intravenous Lines

Ask the Question

PICOT Question

Is there a significant difference in the longevity of intravenous (IV) intermittent infusion locks in children when normal saline (NS) is used as a flush instead a heparinized saline (HS) solution?

Search for the Evidence

Search Strategies

Selection criteria included evidence during the years 1992 to 2013 with the following terms: saline versus heparin intermittent flush, children's heparin lock flush, heparin lock patency, peripheral venous catheter in children.

Databases Used

CINAHL, PubMed

Critical Appraisal of the Evidence

- In trials of HS administration versus NS, placebo, or no treatment in neonates, no strong evidence regarding the effectiveness and safety of heparin in prolonging catheter life was found (Shah, Ng, and Sinha, 2005). No differences in patency were established in a double blind prospective randomized study in neonates. Saline flush was deemed preferable to heparin in peripheral intravenous (PIV) locks in neonates, in consideration of