Abstract:

Purpose: Catheter obstruction or patency inhibition of the venous access cannula is a frequently experienced problem in patients to whom intravenous (IV) solutions are administered. In this study we assessed the efficacy and safety of Securflux®, a disposable device with a back-check valve to prevent reflux in IV infusion sets.

Methods: A total of 177 adult patients requiring IV medication for at least 24 hours duration were randomized into two groups: with and without the use of Securflux®. Assessments were performed the 10 days after catheter insertion, over three daily visits. The incidence of the onset of reflux (visual/non-visual) and the consequences of reflux for both the patient and healthcare staff were assessed.

Results: There were 4577 follow-up (study) visits (53.4% in patients with Securflux® and 46.6% without Securflux®). Venous reflux was observed in 14.2% of all visits, more frequently without Securflux® (21.3% vs. 8.1%; P<.05). Reflux was mostly visual without Securflux® (7.6% vs. 0.7%) and non-visual with Securflux® (13.6% vs. 7.3%). The onset of venous reflux carried more consequences, such as inhibition of the line and patient discomfort, in the infusions without Securflux® (81.1% vs. 73.5% of the visits; P<.05). There
were no safety concerns related to Securflux®.

Conclusions: Securflux® is effective, safe and useful for the prevention of venous reflux onset in patients administered IV medication.