



Intravenous literature: Franzetti, F., Borghi, B., Raimondi, F. and Rosenthal, V.D. (2009) Impact on rates and time to first central vascular-associated bloodstream infection when switching from open to closed intravenous infusion containers in a hospital setting. *Epidemiology & Infection*. 137(7), p.1041-8.

#### Abstract:

**SUMMARY:** An open-label, prospective cohort, active healthcare-associated infection surveillance sequential study was conducted in four Italian intensive-care units. The aim was to determine the effect of switching from open (glass) to closed fully collapsible plastic intravenous (i.v.) infusion containers (Viaflo(R)) on rate and time to onset of central venous catheter-associated bloodstream infections (CVC-BSI). A total of 1173 adult patients were enrolled. The CVC-BSI rate during the open container period was significantly higher than during the closed container period (8.2 vs. 3.5 BSI/1000 CVC days, relative risk 0.43, 95% confidence interval 0.22-0.84,  $P=0.01$ ). The probability of developing a CVC-BSI was assessed over time comparing open and closed i.v. infusion containers. In the closed container period, it remained fairly constant (0.8% at days 1-3 to 1.4% at days 7-9) whereas during the open container period it increased (2% at days 1-3 to 5.8% at days 7-9). Overall, the chance of acquiring a CVC-BSI significantly decreased by 61% in the closed container period (Cox proportional hazard ratio 0.39,  $P=0.004$ ).

Did you find this item useful? Don't miss other updates. [Click here](#) to request IVTEAM email updates.



More IV news at IVTEAM

