Abstract:

Existing practice guidelines designed to minimize invasive catheter infections and insertion-related complications in general intensive care unit patients are difficult to apply to the burn population. Burn-specific guidelines for optimal frequency for catheter exchange do not exist, and great variation exists among institutions. Previously, the practice was to follow a new site insertion at 48 hours by an exchange over a guidewire, which was followed 48 hours later by a second guidewire exchange (48h group). As a performance improvement initiative, the authors attempted to determine whether there would be any advantage or disadvantage to extending these intervals to 72 hours (72h). All patients with centrally placed intravascular catheters from October 2007 to August 2008 were included in the 48h group, and all patients with catheters placed from September 2008 to December 2009 comprised the 72h group. Catheter infection rates were determined using the National Healthcare Safety Network definition for central line-associated bloodstream infections (CLABSI) and calculated as CLABSI/1000 catheter days. The two groups were not significantly different for age, sex, cause of burn, total burn size, or percent third-degree burn. There were 3.1 CLABSI/1000 catheter days for the 48h group and 2.8 CLABSI/1000 catheter days for the 72h group (NS). The authors conclude that increasing the central catheter change interval from 48 to 72
hours did not result in any increase in their CLABSI rate. Implementation of this change in practice is expected to decrease supply costs by $28,000 annually in addition to reducing clinical support services needed to perform these procedures.

Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).

Guide for intravenous chemotherapy and associated vascular access devices from Macmillan. An example of peripheral cannulation OSCE from OSCE Skills.