Central venous lines (CVLs), although prone to infection, are used when the less risky peripheral catheters cannot be used. An infected CVL can cause catheter-related bloodstream infections (CRBSIs). For every 1000 CVL-days, there are 5 CRBSIs. [1] Eighty thousand CRBSIs [2] occur yearly in the United States with costs of between $4000 and $29,000 each, and alarmingly, between 2400 and 20,000 deaths yearly. [2] Many of these deaths are preventable. [3,4]

Pronovost and colleagues [4] showed that an evidence-based, process-centered system of CVL use decreases CRBSIs. They used these good practices: [3] hand hygiene, 2% chlorhexidine for skin preparation, full-barrier precautions during CVL insertion, subclavian vein as the preferred site, and removing unnecessary CVLs. They also used a properly stocked central-line supply cart, a checklist of best practices, daily consideration of catheter removal, and feedback regarding the monthly CRBSI number and rates.

After 18 months, and with constant monthly CVL-days, CRBSI rates decreased by 82%, from a baseline mean of 7.7 per 1000 catheter-days (median, 2.7) to 1.4 (with a median of 0).

These huge improvements agree with other published results in adult and pediatric patients, [5] in which best practices were used with progressive decreases of CRBSIs. [6]

The CDC suggests use of a “high-tech” catheter if it is to be in place longer than 5 days in a setting of likely high infection rates. [3] It is unclear which antimicrobial/antiseptic catheter to use. One study found lower colonization rates but no differences in CRBSI rates in minocycline/rifampin impregnated, as compared to silver-platinum-carbon, catheters. [7]

We can and should approach a zero CRBSI rate by using relatively low-technology techniques, with antimicrobial/antiseptic catheters utilized as needed. The status quo is unacceptable.

That’s my opinion. I’m Dr. A.J. Layon, Professor of Anesthesiology, Surgery, and Medicine and Chief of the Division of Critical Care Medicine at the University of Florida College of Medicine.