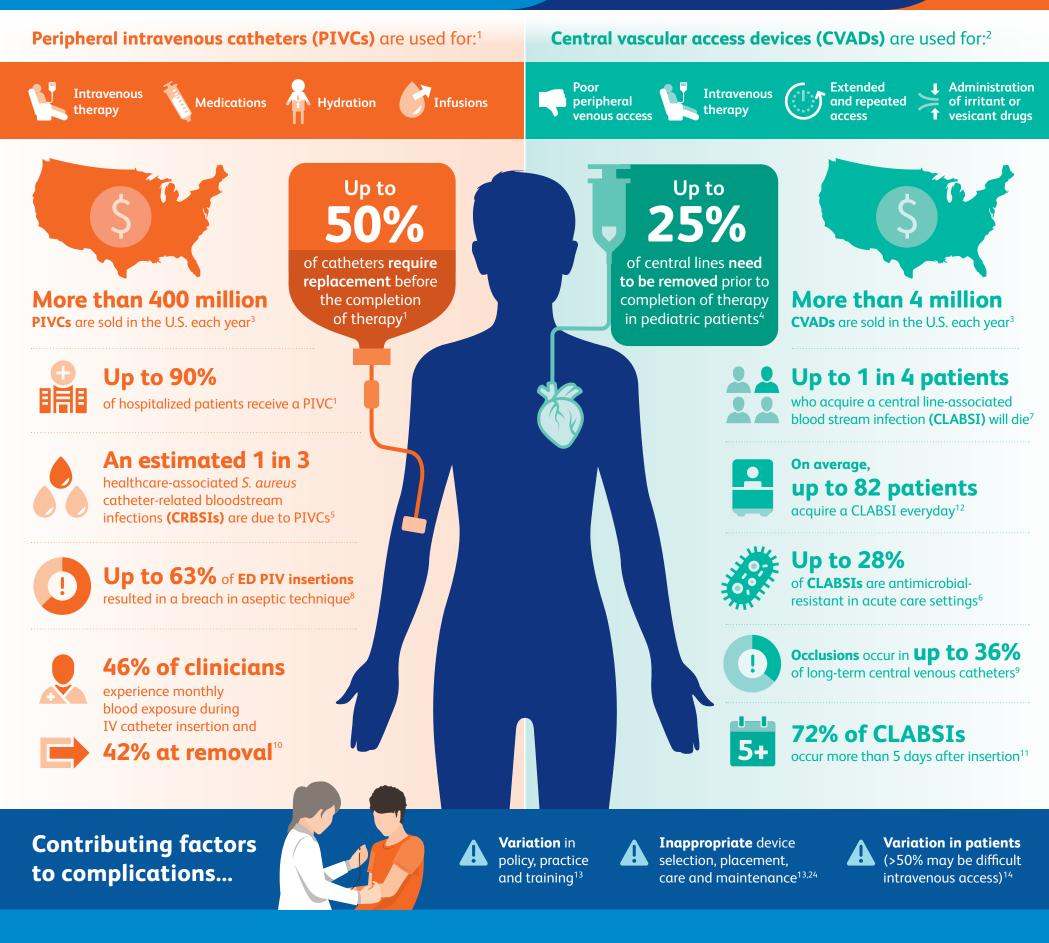
The Challenges of Vascular Access

Vascular access device insertion is one of the most frequently performed invasive procedures¹



Vascular access complications cause substantial burdens...



Economic outcomes

Patient experience

Clinical outcomes

- Unnecessary PIV restarts can cost a 200-bed hospital more than **\$980,000** annually.¹
- CLABSIs are estimated to cost the U.S. healthcare system **\$45,814** per occurrence or ~**\$1.9 billion** every year.¹⁶
- Bloodstream infections (BSIs) not associated with a central line captured as hospital onset bacteremia (HOBs) cost \$23,998 per occurrence.15
- Treatment of CRBSIs can extend a patient's length of stay.¹⁶
- Multiple insertion attempts increase pain to the patient.¹⁸
- Needlesticks are a fear in **1 of 4** adults and **1 of 3** children.¹⁷
- CLABSI patients have been associated with 2.27x greater risk of mortality than non-CLABSI patients.²⁰
- In the ICU setting HOBs represent **up to 17x** the occurrence rate of CLABSIs alone.22
- The overall median rate of HOB is up to 0.124 per 100 admissions.¹⁹
- In a systematic review of disinfection practices, 33% to 45% of needleless connectors were contaminated with a **10%** compliance rate to decontamination.²¹



Quality assurance and performance improvement plans should include multidisciplinary functions and an integrated multimodal approach such as:

- Education and training of healthcare workers²³
- Products that support and align to industry best practices²³
- Surveillance and feedback²⁴

Care and maintenance of catheters should be the focus of performance improvement and quality assurance²⁴



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Glossary

BSI: Bloodstream infection

CLABSI: Central line associated bloodstream infection

CRBSI: Catheter-related bloodstream infections

CVAD: Central vascular access device

HOB: Hospital-onset bacteremia

ICU: Intensive Care Unit

PIVC: Peripheral intravenous catheter



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