Peripheral intravenous catheters (PIVCs) are used in one of the most frequently performed invasive procedures for: 1

- Intravenous therapy
- Medications
- Hydration
- Transfusions

Central vascular access devices (CVADs) are used for necessary clinical interventions and are indicated for: 2

- Poor peripheral venous access
- Intravenous therapy
- Extended and repeated access
- Administration of irritant drugs

**The Challenges of Vascular Access**

Peripheral intravenous catheters (PIVCs) are used in one of the most frequently performed invasive procedures for: 1

- Inappropriate device selection and placement 7
- Variation in policy, practice, and training 7
- Variation in patients (>30% may be difficult intravenous access) 9

Central vascular access devices (CVADs) are used for necessary clinical interventions and are indicated for: 2

- On average, up to 82 patients acquire a CLABSI everyday 11
- Up to 72% of CLABSIs occur more than 5 days after insertion 10
- Up to 36% of long-term central venous catheters are antimicrobial resistant in acute care settings 6
- More than 4 million CVADs are sold in the US each year 3

Peripheral intravenous catheters (PIVCs)

Up to 50% of catheters require replacement before the completion of therapy 1

- More than 400 million PIVCs are sold in the US each year 3
- Up to 90% of hospitalized patients receive a PIVC 1

Central vascular access devices (CVADs)

Up to 25% of central lines need to be removed prior to completion of therapy in pediatric patients 4

- More than 4 million CVADs are sold in the US each year 3
- Up to 1 in 4 patients who acquire a CLABSI will die 5

Contributing factors to complications...

- Variation in policy, practice and training 7
- Inappropriate device selection and placement 7
- Variation in patients (>30% may be difficult intravenous access) 9

Vascular access complications cause substantial burdens

**Economic**

- CLABSIs are estimated to cost the U.S. healthcare system $45,814 per occurrence or ~$1.9 billion every year 12
- Unnecessary PIV restarts can cost a 200 bed hospital more than $980,000 annually 8

**Patient**

- Multiple insertion attempts increase pain to the patient 13

**Clinical**

- CLABSI patients have been associated with 2.27x greater risk of mortality than non-CLABSI patients 14
- Treatment of CRBSIs can extend a patient’s length of stay 12

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

- Education and training of healthcare workers 15
- Products that support and align to industry best practices 15
- Surveillance and feedback 16

Care and maintenance of catheters should be the focus of performance improvement and quality assurance 16
References


