

Viability of Ultrasound Guided Peripheral IV Insertion Characteristics of Patients and Outcomes

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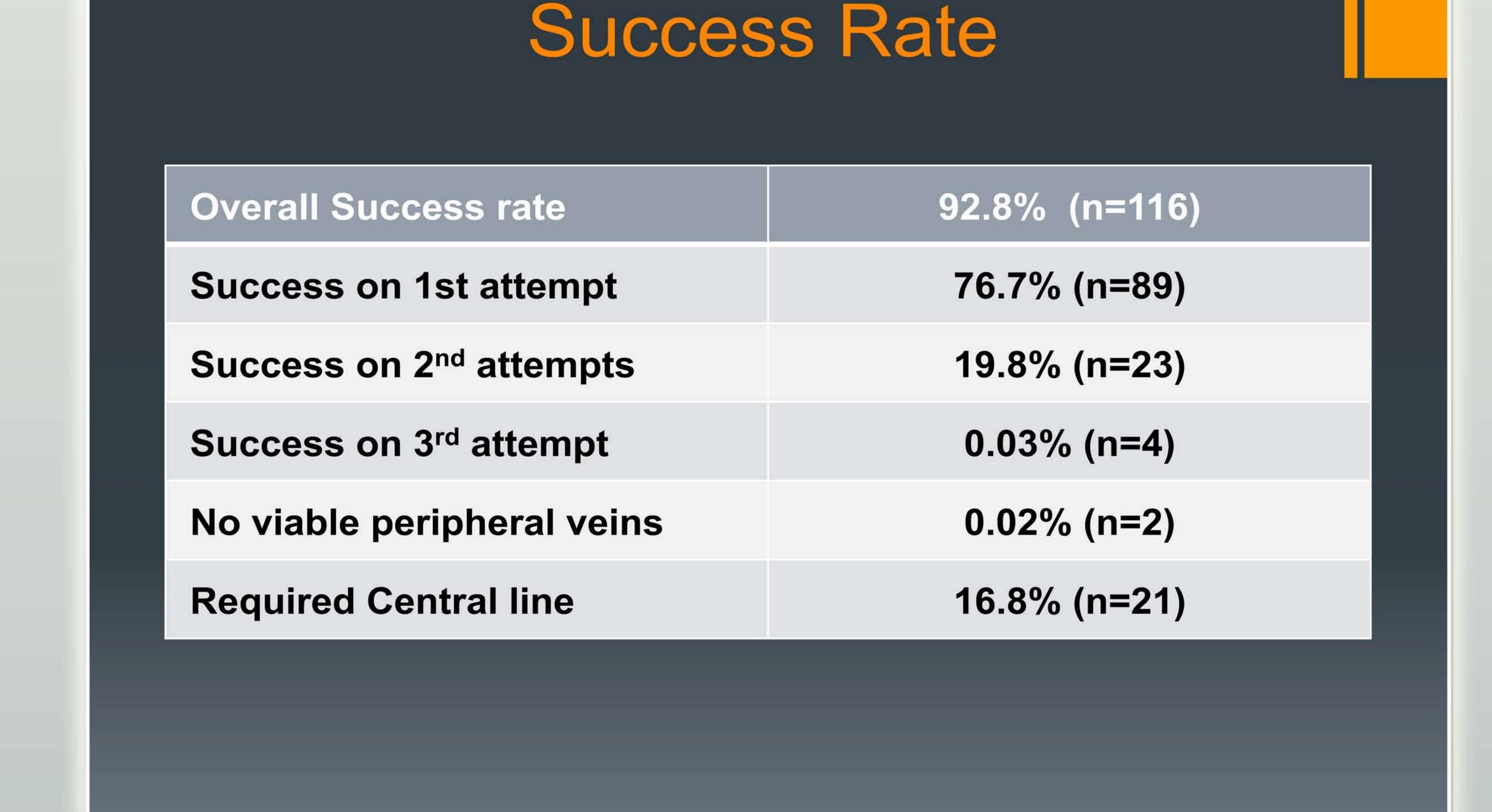
PURPOSE

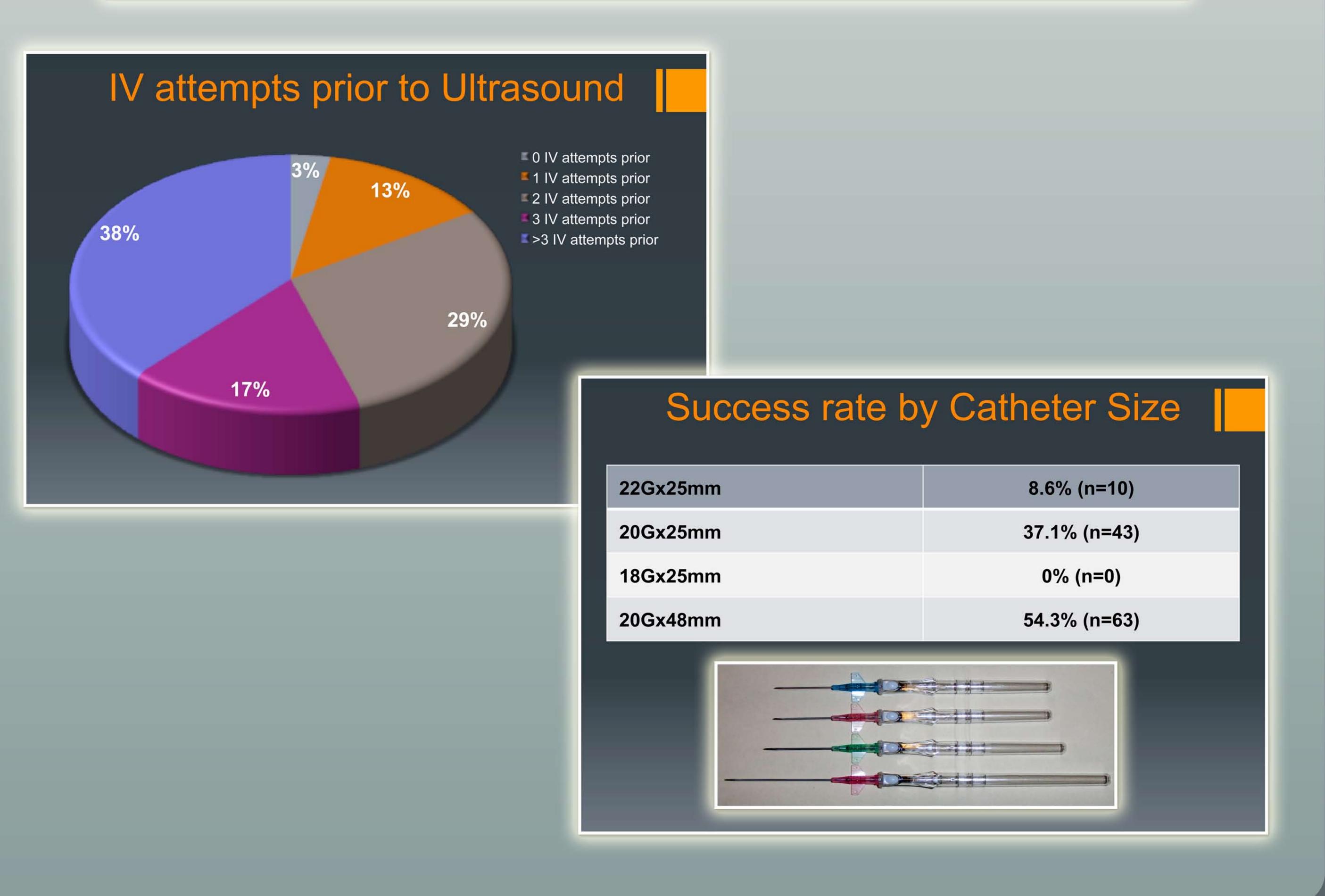
- Determine characteristic of difficult IV access patients such as: age and BMI.
- Collect the success rate of IV catheter insertion with ultrasound assistance.
- Determine average number of IV attempts before successful insertion.
- Determine how long inserted IV catheters remain functional up to 96 hours.
- Determine the percentage of patients requiring central line after ultrasound guided IV attempt.
- Prevent central line insertion.
- Increase efficiency of peripheral IV insertion and increase patient comfort.

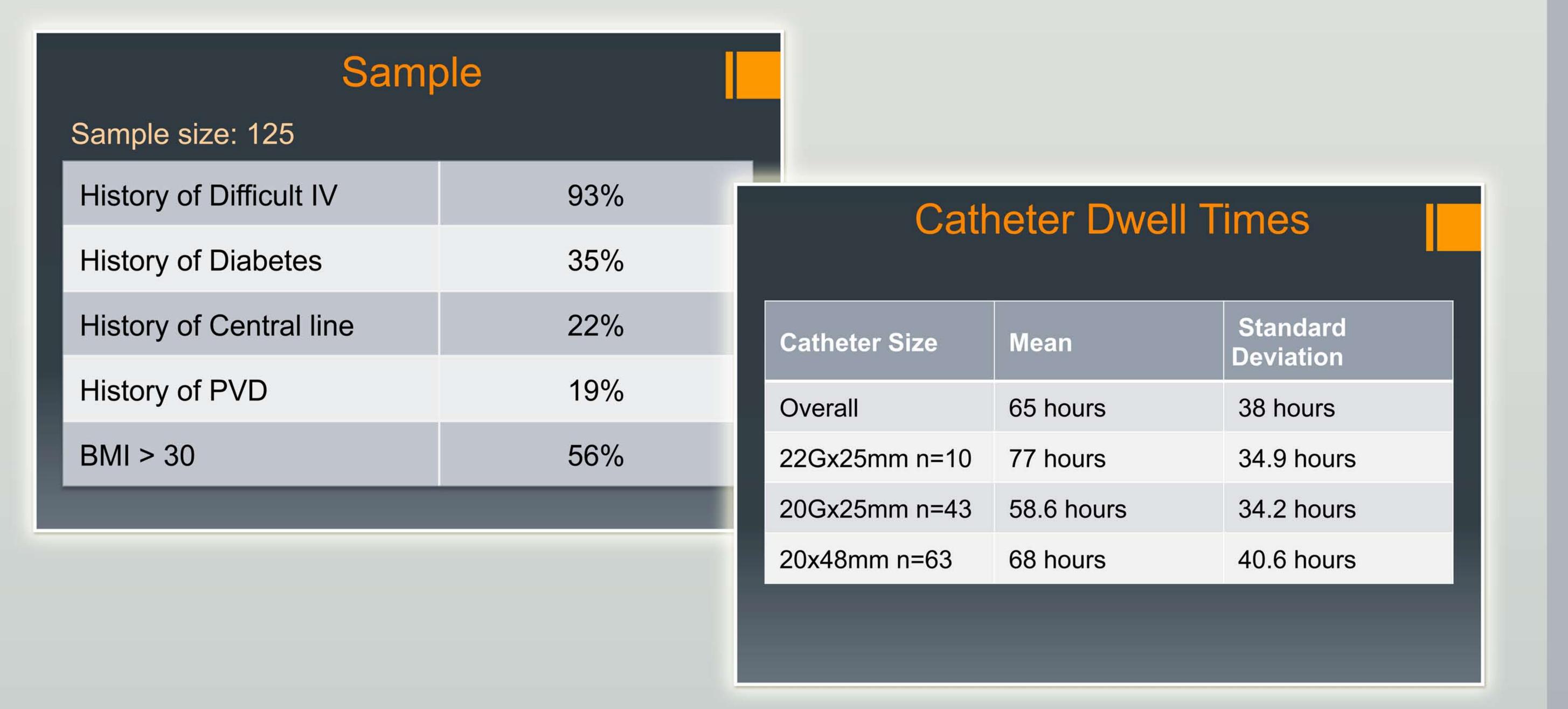
METHODS

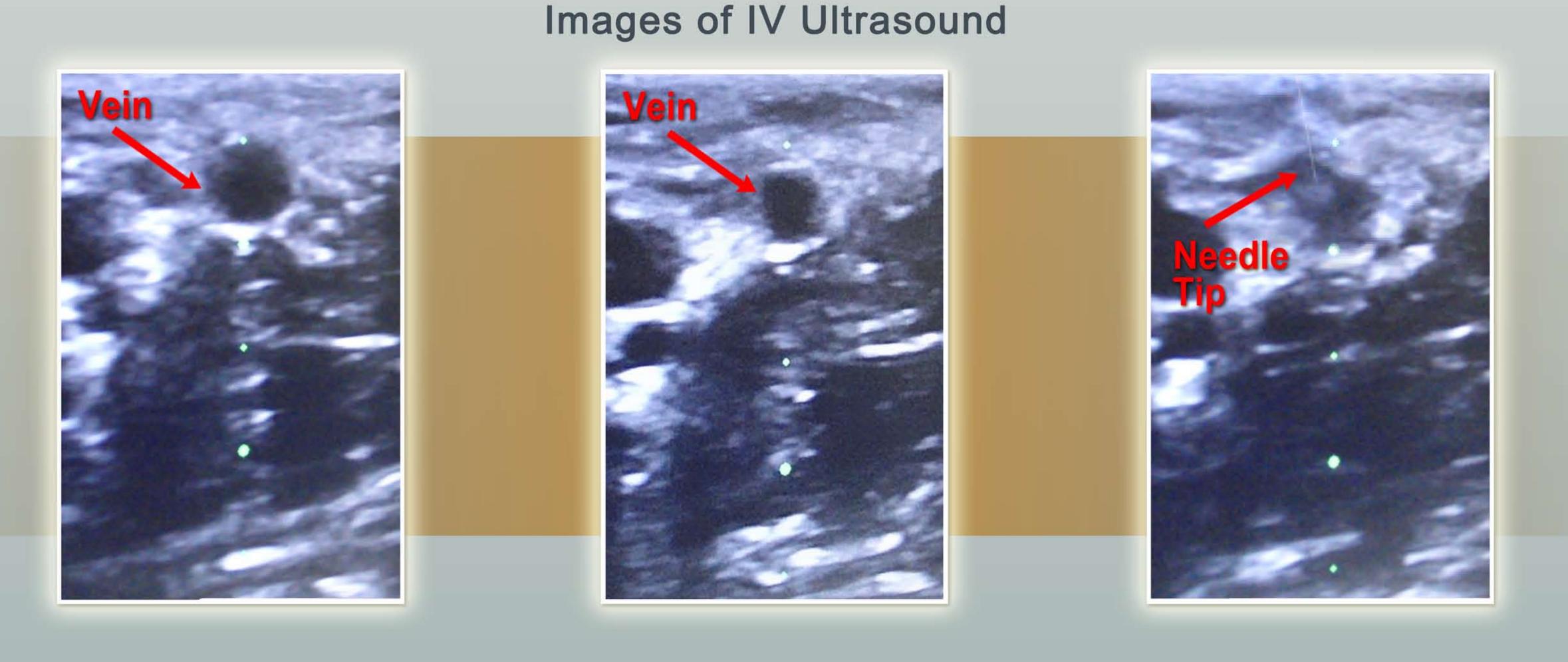
- IRB approved for a quantitative quasi-experimental study.
- Key personnel (4 RNs) were educated on the use of an ultrasound machine to assess peripheral vasculature and how to use it to visualize peripheral IV insertion.
- Hospital wide email was sent to all nursing staff making them aware of services.
- Study subjects were referred by direct care RN.
- Data collection tool was completed minimum of 4 days after IV insertion to determine catheter dwell time.
- Data was collected over 2 year period.

RESULTS









CLINICAL IMPLICATIONS FOR FUTURE

- Ultrasound increasing applications at the bedside.
- Improvement in technology and cost reduction will increase access.
- Development of formal training to increase number of nurses trained to insert ultrasound guided IV.
- Needle guide for ultrasound to increase accuracy and facilitate technique.