

# Preserving the Patients' Lifeline: Reducing Complications by Adopting a Vascular Access Assessment Improvement Process



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## Background

- Preserving the patency of an Arteriovenous Fistula (AVF) and Arteriovenous Graft (AVG) is critical for the patient and the hemodialysis team.
- Lack of diligent pre-dialysis vascular access assessment led to infiltrations, cannulation of clotted access, & delays in AVF maturation.
- Poor cannulation practices affected access function & longevity.
- Inconsistent documentation of monthly access surveillance.
- Vasc-Alert reporting system not consistently utilized to reviewed and report outcomes to Physicians.

## Purpose

- Increase AVF and AVG longevity
- Improve standardized AVF & AVG pre-cannulation assessment
- Prevent access related complications
- Improve documentation
- Consistent use of Vasc-Alert surveillance, reporting, and documentation

## Methods

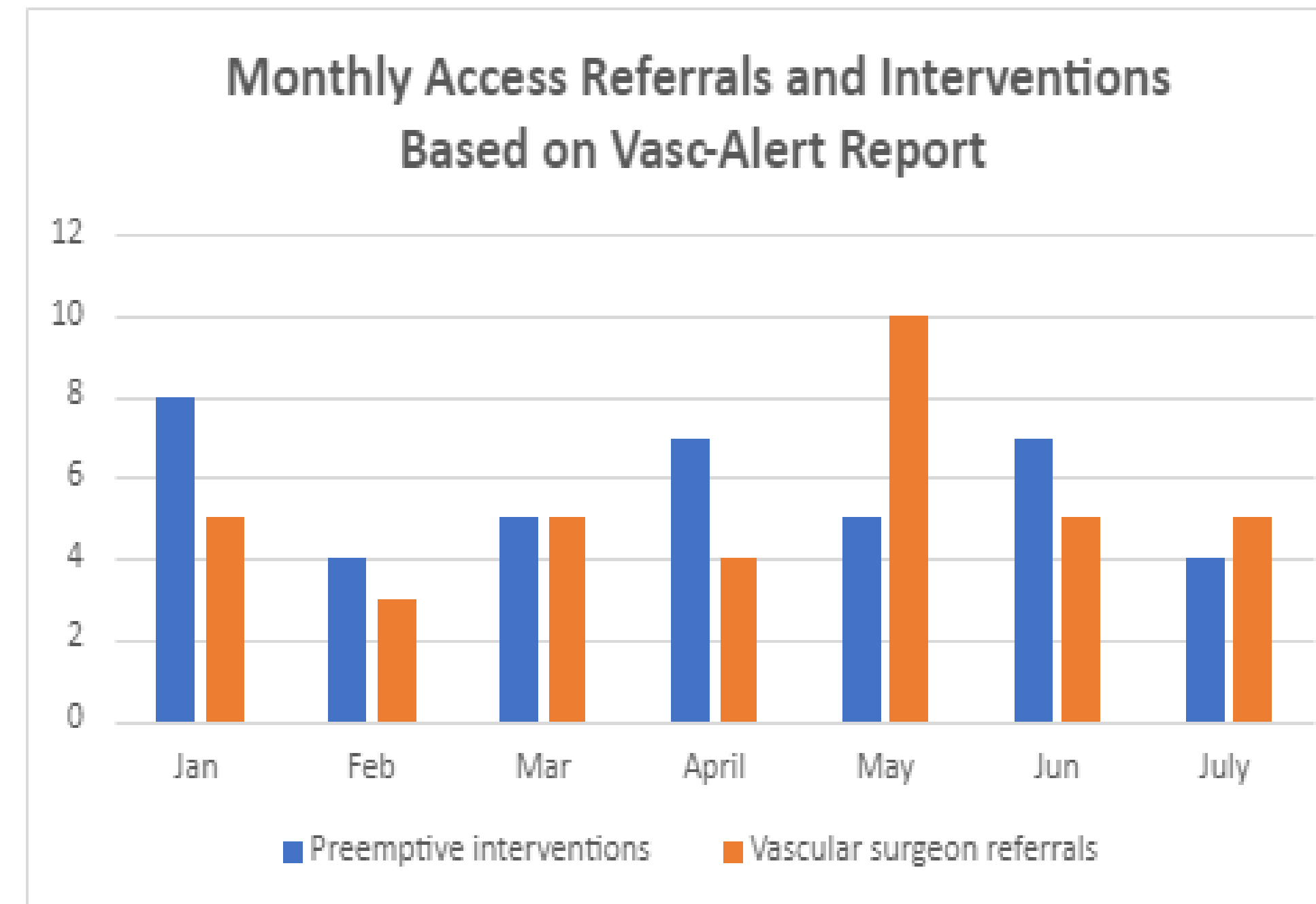
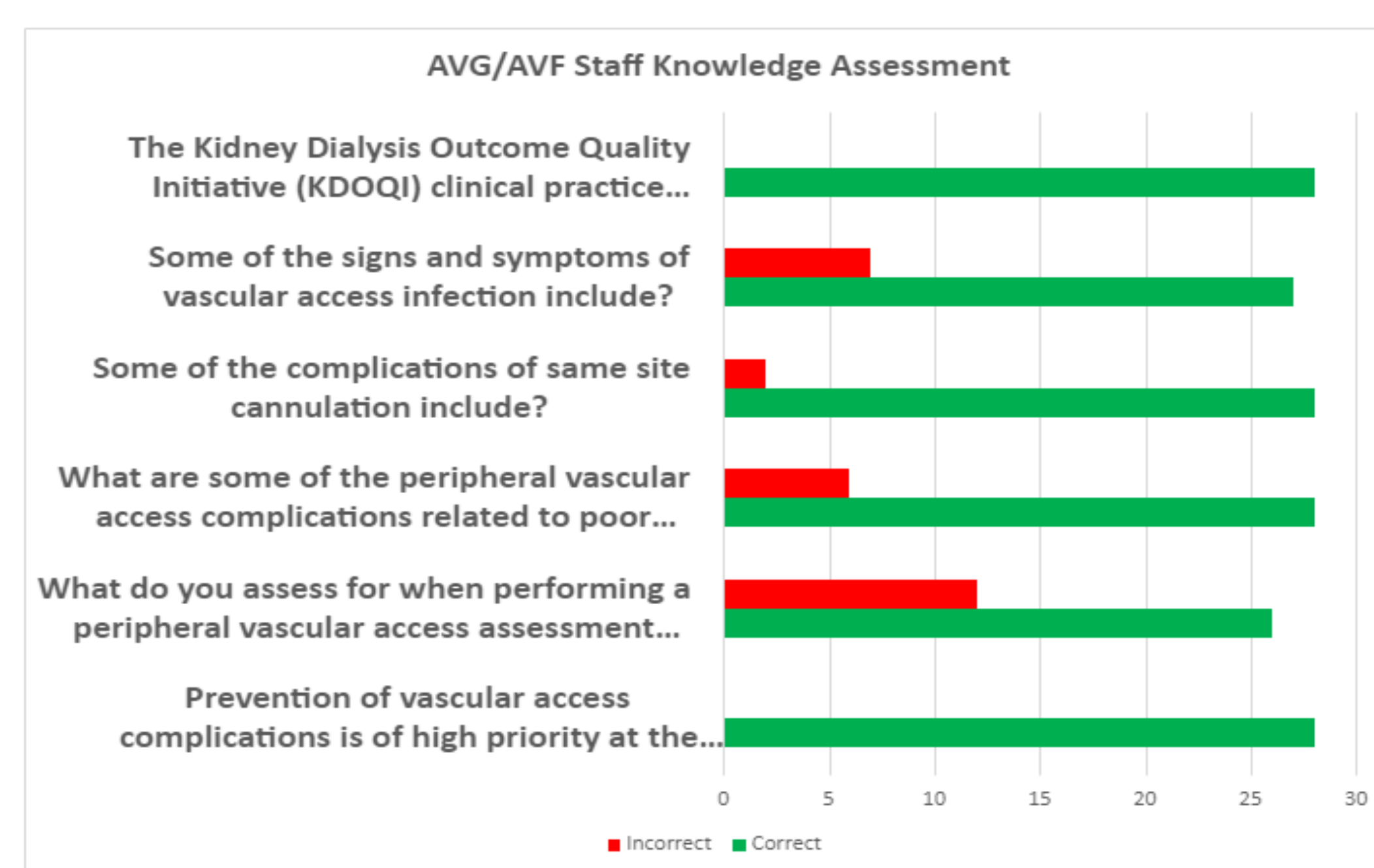
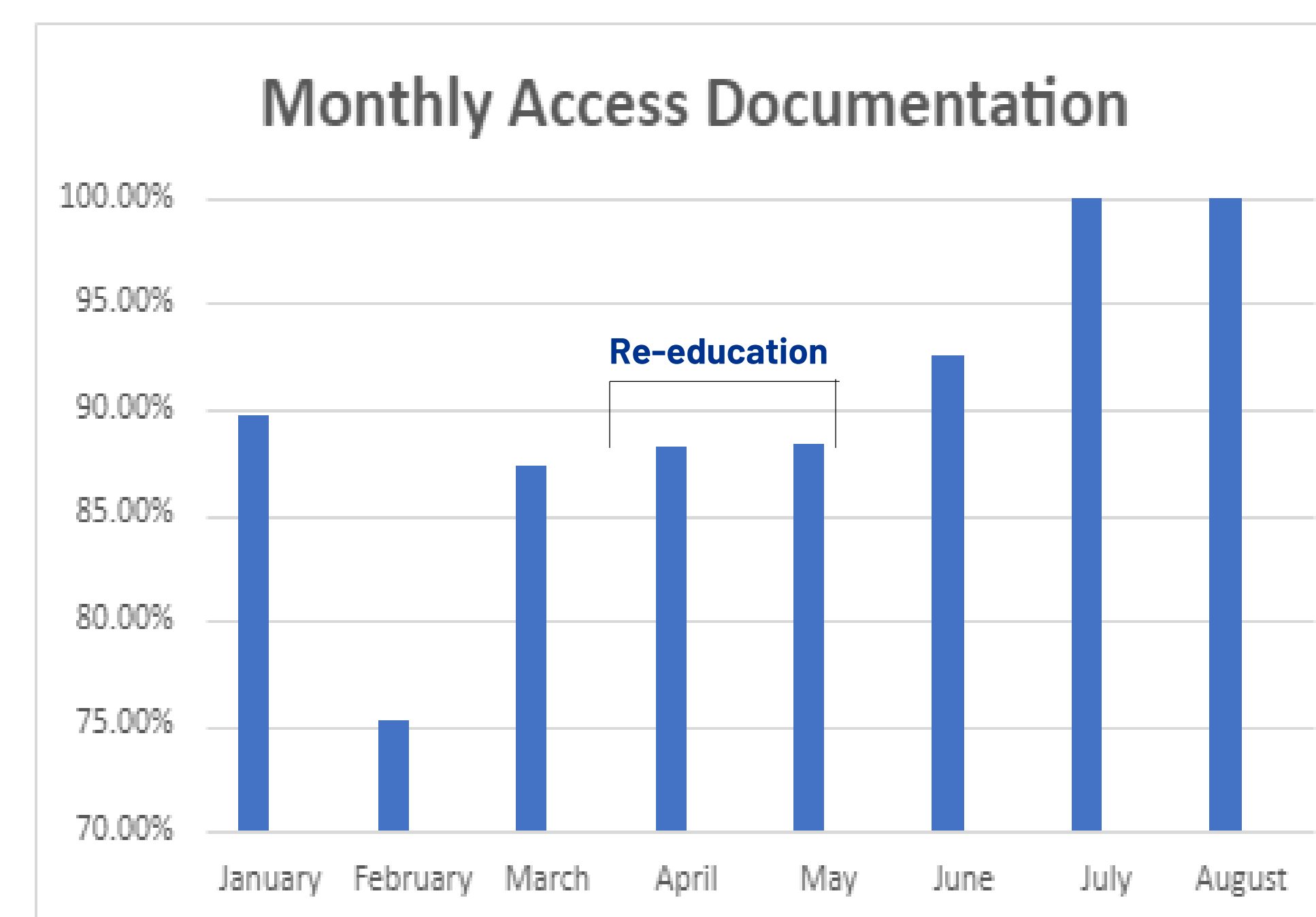
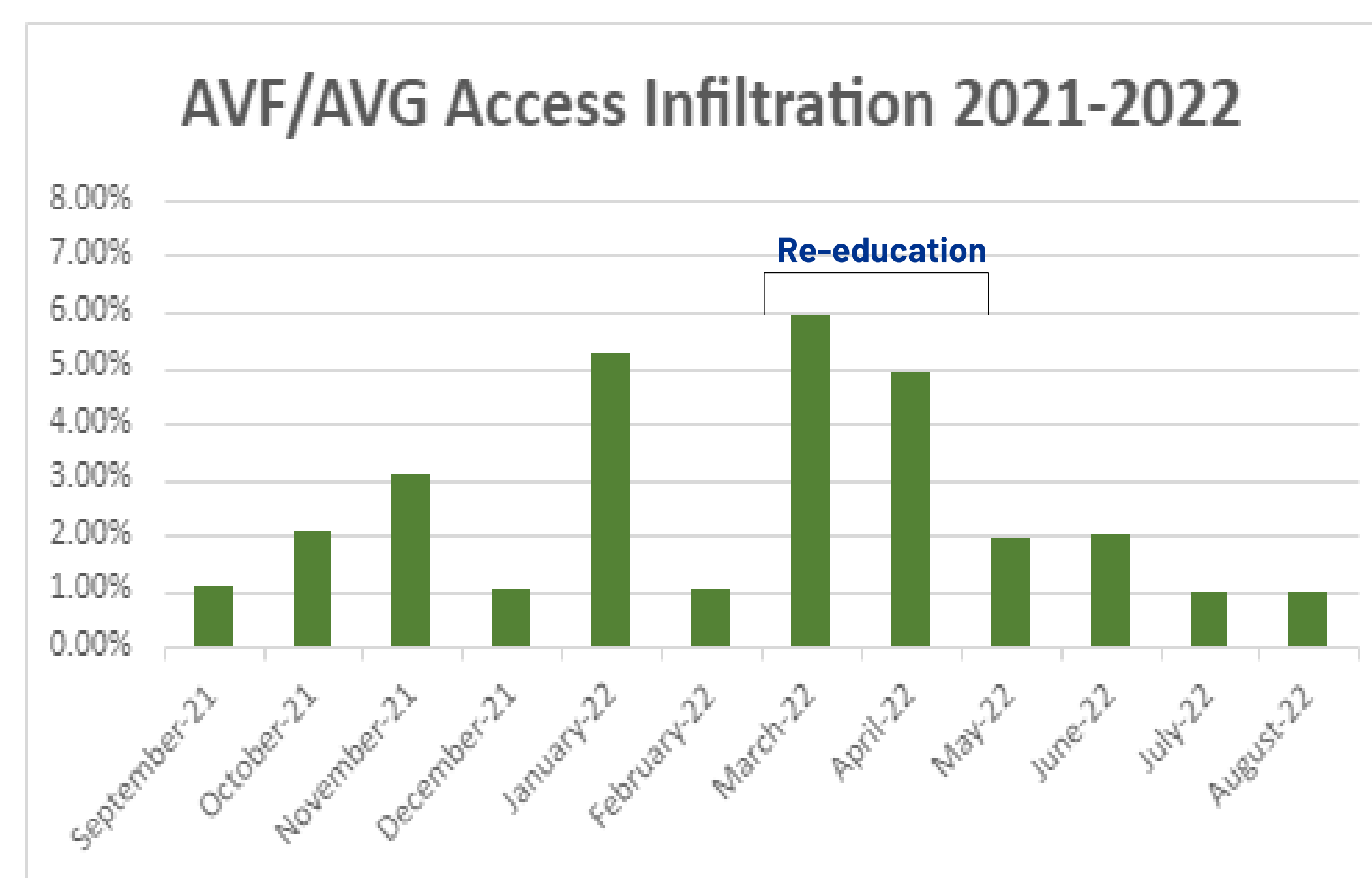
- Design: EBP with quality measures
- Staff knowledge assessment
- Reinforce pre-cannulation assessment
- "Assess Before You Access" poster
- Audit EHR for monthly access documentation
- Audit Vasc-Alert: review, document and report to nephrologist

## Results

- 100% Vascular Access assessment performed prior to cannulation for last two months.
- Zero clotted access cannulation noted during treatment since the implementation of the project.
- Monthly access documentation compliance improved to 100%.

## Discussion

- Clinicians had a good understanding about AVF/AVG access assessment.
- Most infiltrations were noted in patients with frail veins, developing accesses, and inadvertent arm movement during dialysis.
- Preemptive access referrals and interventions vary each month based on the number of patients identified on the Vasc-Alert report system.



## Implications for Practice

- Vasc-Alert report system is an effective tool to evaluate patients at risk of access failure.
- Access longevity: Average 3.57 years, minimum 13 days, and maximum 21.7 years. The lower-than-normal average is attributed to some patients in the sample who were transplanted, died, or transferred to a different unit.

## Acknowledgments

Donna Rowe, IT manager, Anna Roxas, CHT, Francis Nuguid, BSN, RN, CNN, Clinical Coordinator, Rachna Thakur, MSN, RN, CNN