



What do we know about vascular access infections?

Results from a National survey of physicians and nurses

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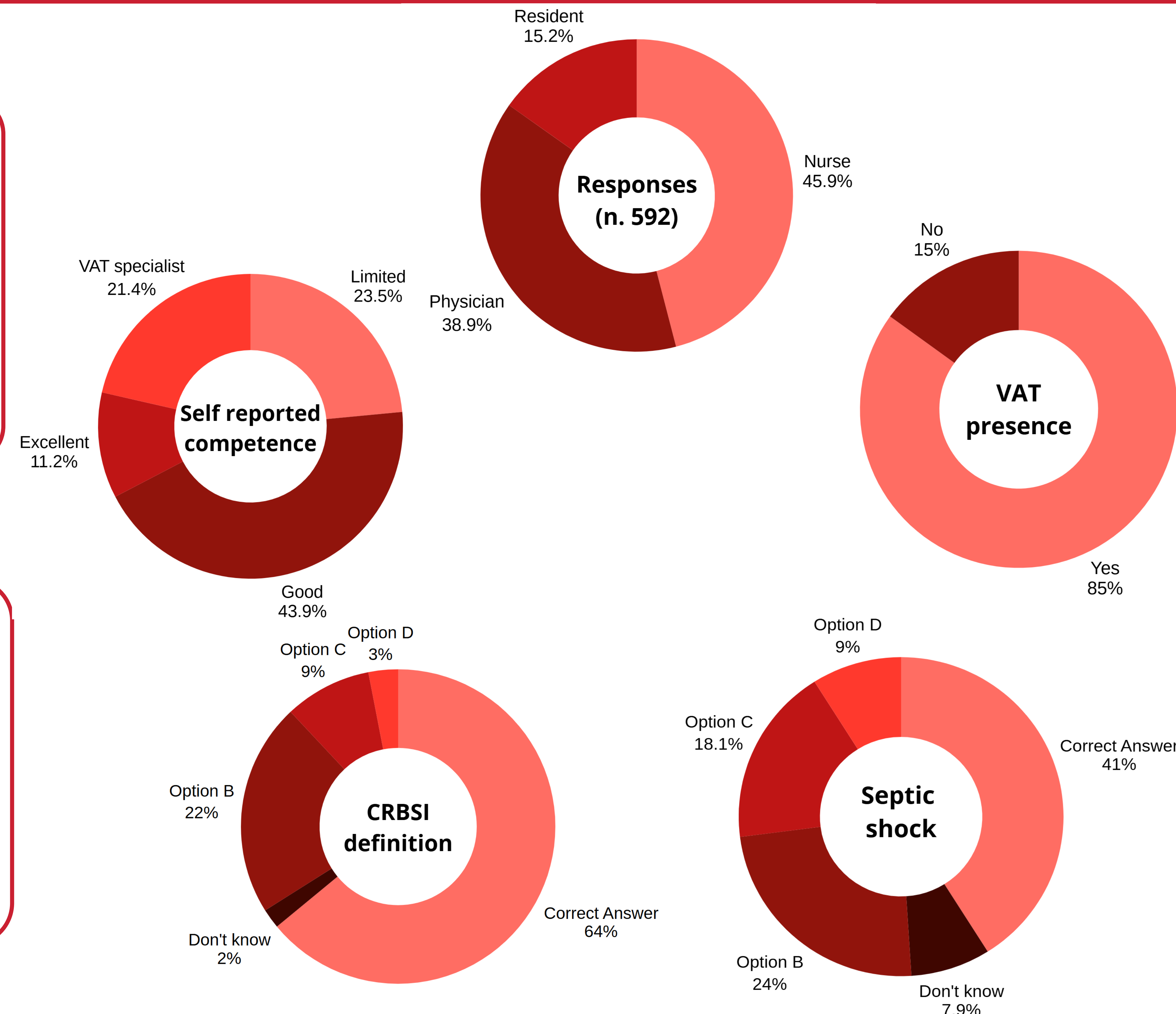
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BACKGROUND

Catheter-related infections represent a relevant clinical concern due to growing use of vascular access devices (VADs) and given their potential impact on morbidity, mortality, and healthcare resource. Adequate knowledge of diagnosis and management of vascular access infections is essential to ensure early recognition, appropriate treatment, and effective prevention strategies. This study aimed to evaluate physicians' and nurses' knowledge regarding the identification and management of VAD infections through a national survey

METHODS

A 22-item questionnaire was developed: 7 general background questions and 15 items assessing knowledge and clinical practice. Content validity was evaluated by a panel of four physicians and four nurses with vascular access expertise, while clarity and comprehensibility were tested with 15 healthcare professionals without specific VAD experience. The final questionnaire was deployed via Google Forms and distributed through the official communication channels of relevant scientific societies. Data collection occurred from April to October 2025.



RESULTS

592 responses were collected: 320 from physicians (54.1%) and 272 nurses (45.9%). Among physicians, 71.8% were specialists. 85% of respondents reported the presence of a vascular access team (VAT) in their institution. Self-reported competence was described as limited by 23% of participants, good by 44.9%, and excellent by 11.1%, while 20.9% identified as vascular access specialists. Knowledge questions covered four domains: definitions of catheter-associated bloodstream infections (CLABSI) and catheter-related bloodstream infections (CRBSI), diagnosis and management of infections, indications for VAD removal, and infection prevention practices. Only 55% of respondents correctly defined CLABSI, and 64% correctly defined CRBSI. Regarding catheter removal and infection management, correct responses ranged between 40% and 50%, with similar results among physicians and nurses. Even among self-identified experts, more than 25% of answers were incorrect.

CONCLUSIONS

The survey highlights limited knowledge regarding VAD-related infections. These findings support the need for continuous educational initiatives, awareness campaigns, and shared clinical protocols to improve the definition, diagnosis, and management of CRBSI and CLABSI.