



EVALUATION OF VASCULAR ACCESS TEAM INITIATIVES THROUGH IN-DEPTH INTERVIEWS: PERSPECTIVES FROM NINE COUNTRIES

Shonda Morrow, JD, MS, RN¹; Erica DeBoer, RN, MA, CCRN-K, CNL²; Christopher Potter, ODP³;
Smeet Gala, MS⁴; Kimberly Alsbrooks, BSN, RN, RT (R), VA-BC⁴

1. Rush University Medical Center, Chicago, IL, USA; 2. Sanford Health Corporate, Sioux Falls, SD, USA; 3. Southmead Hospital, Bristol, UK;
4. Becton, Dickinson and Company, Franklin Lakes, NJ, USA



Disclosures

- This work was funded by Becton, Dickinson, and Company (BD), Franklin Lakes, NJ, USA
- Smeet Gala and Kimberly Alsbrooks are employees of BD and own stock at the company

Implementation of vascular access teams (VATs) may improve clinical and economic outcomes; however, the previous VAT-related research is limited

- Vascular access device (VAD) failure can range between 25% and 69% due to clinical complications and device malfunction.¹⁻⁵
- Specialized training in vascular access (VA) may reduce VAD failure rates.⁶⁻¹⁰
- Establishing VATs with expertise in VAD selection, placement, and management may offer potential clinical and financial benefits through optimized vascular access (VA) practice.^{6,11}
- However, previous VAT-related research lacks sufficient data on a worldwide, multi-institutional scale.



This research aims to examine under-evaluated facets of VAT initiatives through diverse perspectives from VAT members and leaders from around the globe.

VAT members completed in-depth interviews with open- and closed-ended questions based on a targeted literature review highlighting under-researched VAT facets

14

VAT members and leaders from 9 countries
rated the observed outcomes of VATs

6

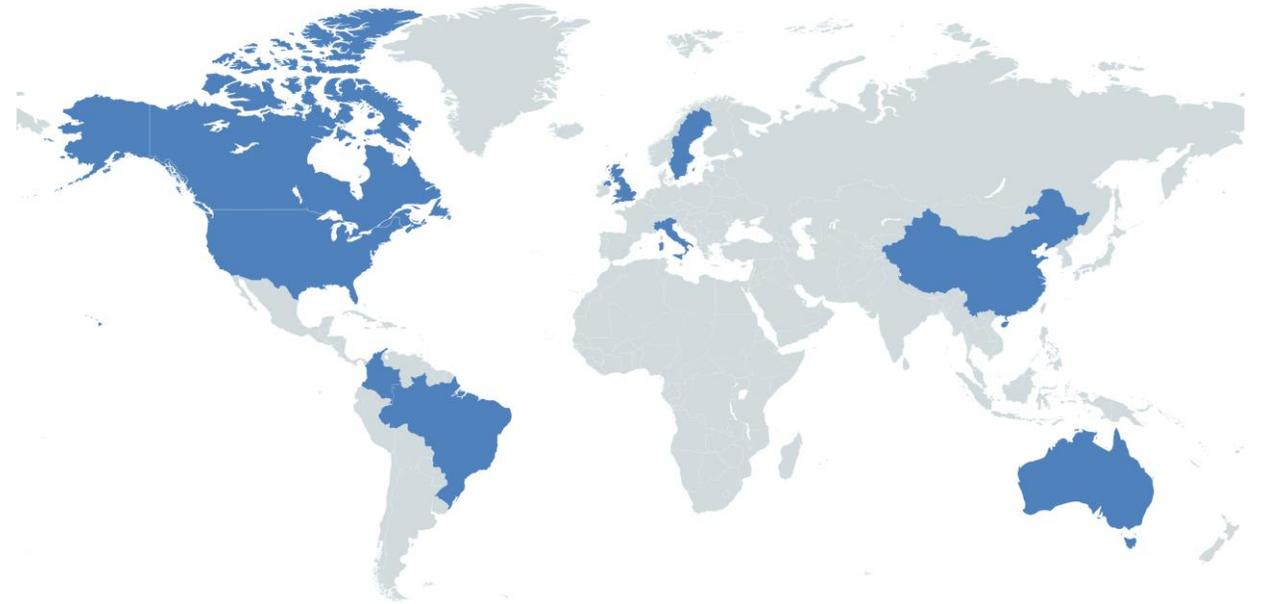
Nurses

3

Specialist VA nurses

5

Physicians



One-hour, semi-structured, in-depth phone interviews were conducted between October 2020 and January 2021, examining various under-researched VAT facets, including:

Team composition

VAT components and initiatives

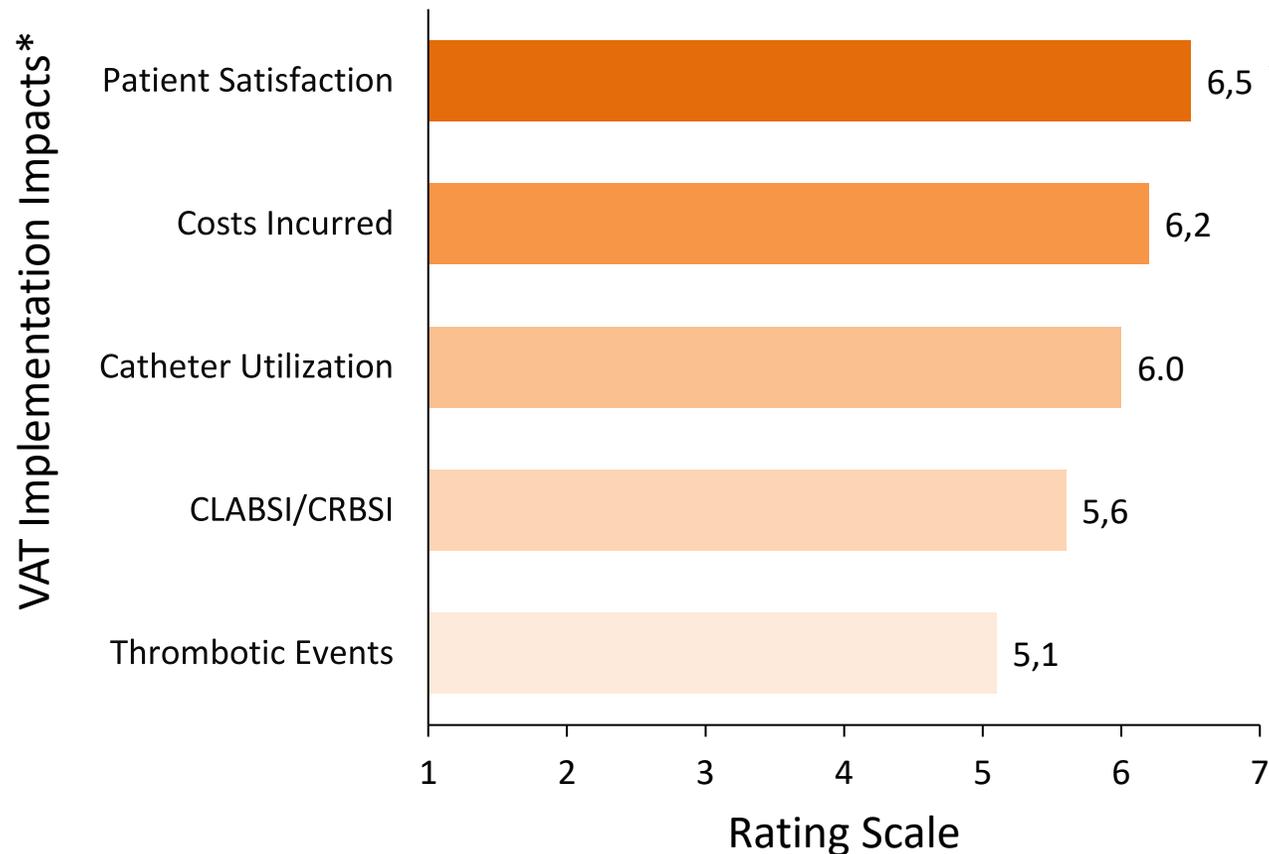
Team responsibilities

Direct and downstream impacts of VAT initiatives

Formation and recruitment processes

Collection and dissemination of VAT-related data

Patient satisfaction and hospital cost savings ranked the highest among observed improvements following VAT implementation by the participants



“For the success of the team, the most important is the decrease of complications and the satisfaction of our patients.” -Physician based in China

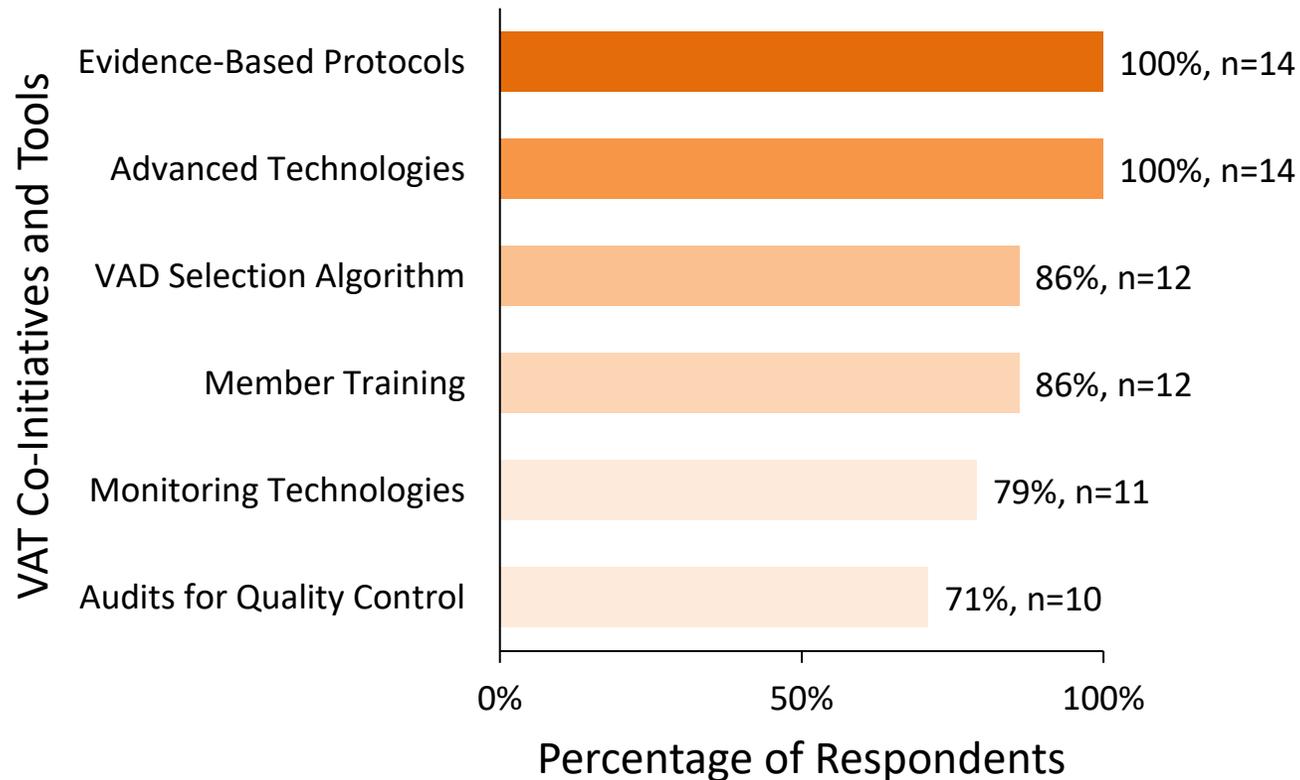
“I look at the time from request of the access device to the time of insertion. . . For the [peripherally inserted central catheter (PICC)] lines and midlines we place, we do them within the first 24 hours of receiving the request.” -Specialist VA nurse based in the UK

- Interviewees noted **efficiency enhancements** (e.g., the amount of time between the request and VAD insertions).
- Observed impacts on **CLABSI rates** and **thrombotic events** were relatively modest, with average scores of 5.6 and 5.1, respectively.

CLABSI, central line-associated blood system infection; CRBSI, catheter-related bloodstream infections

* Impacts were observed on a Likert scale from 1-7 (1 = no improvement at all, 7 = significant improvement).

All teams utilized evidence-based protocols and advanced technologies, and acknowledged data collection and dissemination as significant challenges



Under-researched challenges of VAT impact

- Although most institutions (n=9) did not collect VAT-related data, all participants (n=14) emphasized the **importance of data collection and dissemination** to demonstrate VAT initiative impacts.
- **Time constraints** (n=8) and **challenges to continuous data collection/ simplifying data analyses** (n=4) were also reported as major deterrents to data circulation.

According to most participants (n=9), the **COVID-19 pandemic** was associated with **increased demands for VAT services**.

“I think it [COVID-19] increased the need for the team... patients are more, and also treatments. . . kind of VAD [demand] become more and more, need to choose more, and do more.”
– Physician based in China

“We are not able to review things properly because of the workload. . .” –Specialist VA nurse based in Australia

Key Conclusions

- Respondents with diverse backgrounds and roles from multiple geographies overwhelmingly endorsed the benefits of VAT initiatives.
- Data collection and dissemination were unanimously agreed upon as essential factors in demonstrating VAT impact.
- The formation of dedicated VATs, combined with the use of evidence-based practices and advanced technologies, can significantly improve clinical, economic, efficiency, and patient satisfaction outcomes.

References

1. Takahashi T, et al. *Sci Rep*. 2020;10(1):1550. doi:10.1038/s41598-019-56873-2.
2. Chan RJ, et al. *Trials*. 2017;18(1):458. doi:10.1186/s13063-017-2207-x.
3. Marsh N, et al. *J Hosp Med*. 2018;13(2):83–89. doi:10.12788/jhm.2867.
4. Schults J, et al. *BMJ Qual Saf*. 2020;30(0):722–730. doi:10.1136/bmjqs-2020-011274.
5. Takashima M, et al. *Crit Care Med*. 2018;46(12):1998–2009. doi:10.1097/CCM.0000000000003370.
6. Moureau NL, Carr PJ. *Br J Nurs*. 2018;27(8):S28–S35. doi:10.12968/bjon.2018.27.8.S28.
7. Morrell E. *J Infus Nurs*. 2020;43(4):222–228. doi:10.1097/NAN.0000000000000377.
8. Robinson WP, et al. *J Vasc Surg*. 2017;65(3):907–915. doi:10.1016/j.jvs.2016.12.065.
9. Schmidt GA, et al. *Intensive Care Med*. 2019;45(4):434–446. doi:10.1007/s00134-019-05564-7.
10. Platt V, Osenkarski S. *J Infus Nurs*. 2018;41(6):375–382. doi:10.1097/NAN.0000000000000304.
11. Moureau N. *Infection Control Today*. 2020;24(4):30–33.