

Extended Dwell Catheters: Making a Case for Clean Insertion Technique

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Introduction

Since 2014, the Vascular Access Nurse (VAN) team at UPMC Hamot insert extended dwell Powerglide® IV catheters in patients who have difficult access, need frequent blood draws, or otherwise could benefit from this longer catheter. The catheter is designed as a closed system; therefore the inserter does not touch the catheter itself at any point in the insertion¹. Choosing the best catheter for a specific patient situation is best nursing practice and aids in preserving veins². The purpose of this project was to determine the safety and efficacy of an extended dwell catheter using clean, no touch technique.

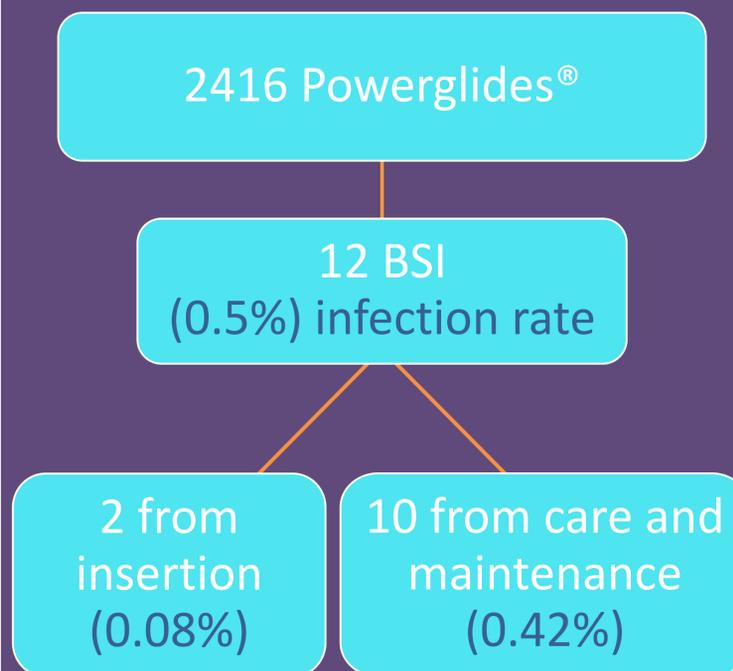
Materials and Methods

- A retrospective medical record review was performed on 2416 patients who underwent insertion of extended dwell Powerglide® peripheral IV catheters using clean technique for the years 2016 and 2017.
- The patients were monitored daily by the VAN staff for signs and symptoms of complications.
- The infection control department notified the VAN when anyone with an extended dwell catheter developed a blood stream infection (BSI).



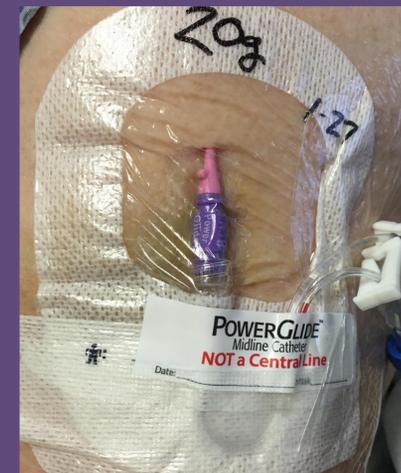
Results

Twelve blood stream infections (0.5%) were identified during this two-year period. Of those 12 infections, only two (0.08%) were potentially from insertion technique. The other 10 were found to have other verified infections with the same bacteria or the infection occurred greater than 5 days after insertion, implying it was likely due to care and maintenance.



Conclusions

- Insertion of Powerglide® catheters under clean, no touch technique proved to be safe, time, and cost saving approach to peripheral IV access.
- UPMC Hamot was able to reduce costs by purchasing single Powerglide® catheters instead of Powerglide® kits, a material cost savings of \$135,296 over a two-year period.
- This project shows that clean technique for Powerglide® insertions can provide excellent patient outcomes when utilized by well-trained team of vascular access nurses.



References

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Bahl, A., Hang, B., Brackney, A., Joseph, S., Karabon, P., Mohammad, A., Nnanabu, I., & Shotkin, P. (2019). Standard long IV catheters versus extended dwell catheters: A randomized comparison of ultrasound guided catheter survival. *American Journal of Emergency Medicine*, 37, 715-721

Image 1. Powerglide® [Online Image]. (n.d.). Retrieved February 16, 2020 from <https://www.bardaccess.com/products/midline/powerglide-pro>