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Retrospective Observational Study of Antimicrobial and Antithrombogenic Coated Peripherally-Inserted Central Catheters in the Pediatric Population

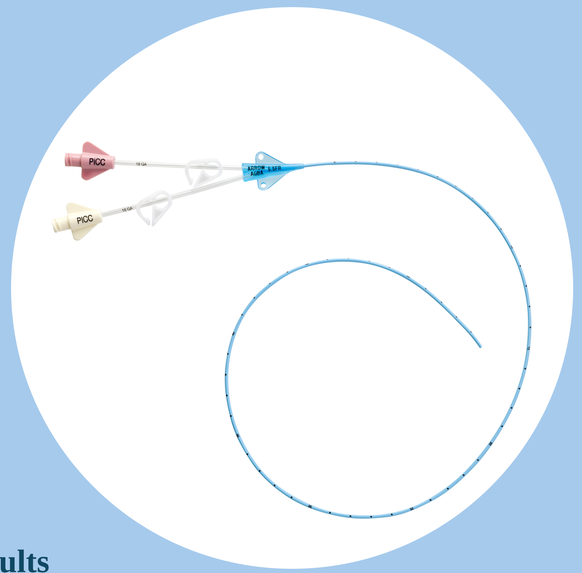
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Background and Objectives

Arrowg+ard Blue Advance™ (AGBA) Pressure Injectable Peripherally-Inserted Central Catheters (PICC) are treated with antimicrobial (AM) and antithrombogenic (AT) agent—chlorhexidine. They are indicated for short-term or long-term vascular access for patients requiring central venous access. A study examining the safety and performance of these PICCs when used for adult and pediatric patients was conducted. This report focuses on the use of the devices in pediatrics.

Methods and Materials

- Primary endpoint was successful completion of treatment using the AGBA PICCs (Teleflex, Morrisville, NC, USA) without elective removal due to complications/adverse events (AE).
- Secondary endpoint was the rate of specific AEs.
- Study protocol was reviewed by a central IRB and determined to be exempt from consent/continued review.
- The study was conducted in US, UK, Spain and Italy by clinicians collecting data for consecutive cases in which device was used within the previous 30 days.



Results

- Investigators at 38 sites collected data for 178 pediatric cases in which the AGBA PICCs were used; 55% male and 45% female patients
- Duration of use ranged from <1 day to 254 days (mean 24±42 days)
- Successful use in 90% of cases
- 11% incidence of potentially device-related AEs
  - No CRBSI or thrombus reported

Results

- Devices were used for IV therapy in 73% of cases; In other cases, also used for infusion (51%) blood sampling (43%), CVP monitoring (20%), and pressure injection of contrast media (15%)
- Successful pressure injection of contrast media in all 27 attempts
  - Mean 145 (±96) PSI (range: 4-300 PSI)
  - Mean 3 (±2) injections per PICC (range: 1-10)

Limitations

- Observational study; no control group
- Data not monitored
- Findings not necessarily applicable or restricted to specified cohort, such as in an RCT

Conclusion

- This real-world evidence study of AM/AT treated PICCs showed positive outcomes for pediatric patients
- Performed as intended with few AEs and no CRBSI, thrombus or anaphylaxis
- Catheters indicated for pressure injection performed successfully with no extravasation or other AEs

Disclosures: Arrowg+ard Blue Advance™ Pressure Injectable PICCs are manufactured by Teleflex and the authors are employed by Teleflex. This study was funded by Teleflex.