October 1, 2008

Contact: Liz Dowling, (760) 942-2544
Dowling & Dennis Public Relations
E-mail: LizDowling@DowlingDennis.net

Accelerated Seldinger Technique Is Focus of AVA Talk

SAVANNAH, Ga. – The Accelerated Seldinger Technique reduces the danger of air embolism while providing fail-safe needlestick protection and faster access. Those were among the conclusions of research presented at the annual conference of the Association for Vascular Access (AVA).

A talk by Steve Bierman, M.D., described the results of a study led by Bonnie Smith, R.N., manager of the IV therapy department at a Florida medical center. Smith's research compared the Accelerated Seldinger Technique (AST) to the Modified Seldinger Technique (MST), a widespread, though sometimes problematic approach to placing central catheters.

The Seldinger technique was developed in 1953 to reduce complications associated with the introduction of catheters and other medical devices into blood vessels and hollow organs. Because there have been few significant improvements to the technique since it was invented, MST still carries risks for patients and clinicians.

Smith's study was designed to evaluate the AST using The WAND®, a novel device that integrates all components for the procedure into one safety introducer. She tested whether The WAND might improve safety and speed when compared to the Modified Seldinger Technique.

The research, which compared the device to MST under simulated conditions, produced three important results:

- **Substantially fewer "open-to-air" events.** There were 50% fewer "open-to-air" events with AST than with MST, indicating a reduced risk of air embolism.
- **Needlestick safety.** The WAND's needlestick safety feature appeared to be failure-proof.
- **Much faster speed of access.** The time to complete AST – 11.3 seconds – was more than three times faster than the time to complete MST (38.8 seconds).

"The AST device performed impressively in our study," said Smith. "The MST was originally developed as a safer procedure, but most clinicians don't recognize that the challenges with MST are avoidable. It's noteworthy that this new device appears to significantly improve upon the old technique."

The reduced risk of air embolism is of particular interest to vascular access nurses, who place most peripherally inserted central catheters (PICCs). Reducing the likelihood of air embolism has both clinical and financial benefits. Beginning in October 2008, the Centers for Medicare & Medicaid Services (CMS) will cease reimbursing healthcare institutions for air embolisms, which are events that CMS considers preventable.

Air embolisms, which are fatal in rare instances, are clinical events caused by gas bubbles in the bloodstream. Insertion or removal of a central venous catheter is among the procedures that can lead to an air embolism. The average cost to treat an air embolism is estimated at $66,000 per case.

“AVA selects only a very few abstracts for oral presentation at our annual conference,” said AVA’s CEO, Kathy McHugh, R.N., B.S.N. “Only four of 75 poster submissions – including the Smith study – were chosen for full oral presentation this year.

“The research stood out to us for two reasons. First, the topic of the study is of great interest to vascular access professionals. Second, both patients and vascular access clinicians could benefit from a safer approach to the MST. Such an improvement could also have financial advantages for healthcare institutions.”

Dr. Bierman is CEO of Access Scientific, Inc., developers of The WAND, and one of the study’s co-authors and researchers, along with several others. He delivered the talk for Smith because she could not be present at the conference on the day of the event. The AVA conference was held Sept. 11-14 in Savannah, Ga.

-- END --