

Guide Wire Retention Device

Current catheterization techniques are based on the “Seldinger Technique,” which uses a series of guidewire placements into blood vessels to both facilitate penetration of catheters into the vasculature and also guide the placement of said catheters at the exact location where a medical procedure would be performed. While completely avoidable and in most cases accidental, there are incidents where the guide wire is inadvertently left completely inside the patient, leading to a medical crisis. While hospital protocols have been developed in an attempt to prevent guide wire loss, it still occurs in about 1 in 1000 cases, leading to severe medical complications for the patient and money loss for the hospital.

The technology

Researchers at Virginia Commonwealth University have developed a simple, low cost device to be used along with the Seldinger Technique. Designed as a clip which grips the guide wire used in catheterization procedures, it prevents the guide wire from completely entering the patient’s body, thus eliminating the risk for guidewire loss. Additionally, this clip contains a digital alarm feature, which activates once the clip is released from the wire and continues to sound until the clip is again secured about the wire for an extra layer of safety.

Along with the clip, a modified Seldinger technique has been developed to incorporate the clip into the catheterization process. Only minor modifications have been made to the technique, with the central components of the technique left unchanged. This simple, cost effective device is designed to be a safety check for surgeons, preventing unnecessary medical complications, time and money spent in the long run.

Benefits

- » Improves safety of catheterization process
- » Works in accordance with Seldinger Technique (slight modification)
- » Ease of use
- » Low cost

Applications

- » Catheterization (Seldinger Technique modification)
- » Additional medical guide wire uses

Patent status:

Patent pending: U.S. and foreign rights are available.

License status:

This technology is available for licensing to industry for further development and commercialization.

Category:

Biomedical

VCU Tech #:

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Design is fully developed and prototype made

Contact us about this technology

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