

## PRODUCT

Catheter adaptor to prevent accidental guidewire retention.

## INDICATION

Intravascular interventions, especially central venous catheter (CVC) placement.

## VALUE PROPOSITION

- Prevents accidental guidewire retention.
- One-way mechanism enables the operator to safely remove their hands from the wire once it extends through the adapter.
- Manual disengagement feature allows operator to reverse the guidewire through the catheter if necessary.
- The presence of the device adds a layer of structural safety, independent of caregiver vigilance or education, to prevent accidental retention of guidewires.

## DEVELOPMENT STAGE

Functional prototype.

## INTELLECTUAL PROPERTY

Patent pending.

## CONTACT INFORMATION

Bill Kolosi  
Director, Medical Device Business  
Development & Licensing  
[kolosiw@ccf.org](mailto:kolosiw@ccf.org)  
(216) 630-3875

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# Guidewire Retention Prevention System (GRiPS)

Neal Chaisson, MD

## PROBLEM

Each year >5 million central venous catheters (CVC) are placed in the US; most require a guidewire for proper insertion. Accidental guidewire retention is rare but serious and often requires surgical intervention. Current prevention involves continuous training to promote operator vigilance or adding a dedicated observer to ensure guidewire removal. Despite these interventions, retained guidewire “never events” continue to occur ([Marivaselvam et al., 2017](#)).

## SOLUTION

Cleveland Clinic inventors designed a catheter adaptor which attaches to the luer lock of a CVC and provides added functional and structural safety for operators to minimize the risk of a retained guidewire “never event.” The adaptor permits a guidewire to advance easily in a single direction (i.e., out of the patient), preventing accidental guidewire migration back into the patient. An override feature allows the operator to manually disengage the one-way feature by twisting a cap on the adaptor. This action allows reversal of the wire (if, for example, the catheter needs to be removed without removing the guidewire).

