



# Transesophageal Echocardiography Sleeve and Controller (20140168)

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## Improved TEE Probe Control

An innovative sleeve design that attaches over a transesophageal echocardiography (TEE) probe improves control and allows the operator to maintain a steady grip. Associated buttons are embedded on the sleeve to enable control of a diagnostic ultrasound system. A holder clamps onto the probe to hold it in place via attachment to a surgical bed or mobile cart. A carrier serves as a storage and transportation unit to allow easy movement of the probe and necessary accessories.

While this technology is primarily designed for use with the TEE procedure, the sleeve could potentially be used with any kind of endoscopic probe, such as endoscopic ultrasound and gastroenterology endoscopes.

## Current TEE Probe Design is Outdated

TEE probe design has changed very little over the past decade. Current methods require the operator to remove their hands from the probe to press console buttons, to manipulate foot pedals, or to alternately use a second operator to operate the console for them.

There are significant disadvantages to both methods. If only one operator is used, removing hands or balancing on one foot to use pedals destabilizes the probe image, often causing the image of interest to be lost before capture and storage. The use of a second operator is expensive and cumbersome because operating and procedure rooms have limited space available and requires constant dialogue with the probe operator to convey orders.

## **BENEFITS AND FEATURES OF TRANSESOPHAGEAL ECHOCARDIOGRAPHY SLEEVE AND CONTROLLER:**

- A clamping holder locks probe into place for precise imaging
- A coupling sleeve with embedded buttons simplifies and improves probe control
- Eliminates the need for a second operator
- A carrier unit allows for easy device transportation and storage

**Phase of Development** Concept, prototype in development

## **Researchers**

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