White Paper: Economic Benefits of VTI Single-Use Surgical Doppler System

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*The VTI Single-Use Surgical Doppler System eliminates the hidden costs of reusable devices, improves hospital infection controls and unlike reusable Doppler probes, is separately **billable**.*

Cost Avoidance

The VTI Single-Use Surgical Doppler Probe eliminates the hidden costs associated with reusable Doppler probes.

Malfunctioning or Accidentally Discarded Probes	Reprocessed Doppler probes are reported to malfunction in 1 in 4 cases. Reusable Doppler probes are reported to be accidentally discarded in 1 in 10 cases.[1]
Lost OR Time Due to Probe Malfunction	Diagnosing and replacing malfunctioning probes intraoperatively wastes valuable OR time; on average, surgical staff report 7 minutes of lost OR time due to Doppler probe malfunction.[2,3] – CMS reports the national average cost for operating room time at $35.16 per minute.[4] – A 2019 study showed that time spent in the OR increased surgical procedure cost by $108 per minute.[5]
Staff Cost for device Retrieval/Traceability	A significant amount of nursing time is required to collect, wipe down, pack and document reusable probes that are routed to central sterile processing.
Reprocessing Costs (EO Sterilization)	The cost of reprocessing devices can range from $10.16 to $280.71 depending on the efficiency of the hospital.[6,7,8]
Potential for Surgical Site Infection due to inadequate reprocessing.	Cost of a single Surgical Site Infection ranges from $25,000 to $90,000.[9]

Separately Billable

Unlike reusable Doppler probes, the VTI Single-Use Doppler Probe is a sterile, single-use supply that meets Medicare's criteria as a separately billable supply[10] and may be separately billed using revenue code *0272 Supplies, Sterile*.

Billable Supply Example

Hospital Charge Code	*Description*	*CPT/HCPCS Code*	*Revenue Code*
123456	*Single-Use Doppler Probe*	–	*0272*

Risk Management/Infection Control

Using sterile, single-use instruments reduces the risk of SSIs and cross-contamination, providing peace of mind for both surgeons and healthcare managers.

Using sterile, single-use instruments eliminates the complexity of tracking and routing reusable instruments, including adherence to compliance regulations, maintaining pool of unused inventory, and allows simplification of case cart builds.

Single-use instruments are all individually traceable. The lot number that appears on the packaging is all the information that is required to trace the instrument back to its production batch and date.

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[1]From survey conducted with AORN members in April 2019 at AORN Annual Meeting; data on file at VTI.
[2]OR time lost includes additional work to identify probe malfunction, replace and reconnect a new probe and relocate the target vessel. Device malfunctions are not always apparent, physicians often attempt to better locate target vessels before determining the device is malfunctioning, then must obtain a new probe, connect it, reinsert, and relocate the target vessel. Precious OR time is wasted to identify and resolve reusable probe malfunctions.
[3]From survey conducted with AORN members in April 2019 at AORN Annual Meeting; data on file at VTI.
[4]Cost per OR minute calculated from FY2016 Inpatient Claims Data for Revenue Code 0360 where per-minute units and charges were accurately reported and were reduced using the national average hospital-wide CCR.
[5]Bokshan, SL, Mehta, S, DeFroda, SF, et al. What Are the Primary Cost Drivers of Anterior Cruciate Ligament Reconstruction in the United States? A Cost-Minimization Analysis of 14,713 Patients. Arthroscopy. 2019 Mar 26. pii: S0749-8063(18)31190-3.
[6]Reprocessing Cost includes per-unit costs for Ethylene Oxide (EO) Resterilization, which is a standard technique for Doppler probes.
[7]SGNA. Standard of infection prevention in the gastroenterology setting. 2015
[8]AORN. Guideline for processing flexible endoscopes. 2016:675-758.
[9]Berríos-Torres SI, Umscheid CA, Bratzler DW, et al. Healthcare infection control practices advisory committee. Centers for Disease Control and Prevention guideline for the prevention of surgical site infection. JAMA Surg. Published online May 3, 2017.
[10]The Medicare Provider Reimbursement Manual states , that the given item must meet the following criteria:
- Be directly identifiable to a specific patient,
- May be furnished at the direction of a physician because of specific medical needs,
- Not generally provided to most patients,
- Not reusable*

*In very limited cases, such as reconditioned catheters under FDA approval, items may be billed as disposable supplies when they are reused

Disclaimer: This billing guide should not supersede or replace any individual hospital supply charging policies. Hospitals should follow their own internal supply charging and mark-up guidelines when establishing a price for the VTI Single-Use Doppler Probe.