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**SECTION: VIII. SPECIALTY SERVICES**

**SUBJECT: ULTRASONIC ENDOVASCULAR SYSTEM FOR THROMBUS MANAGEMENT**

**APPROVED BY:** \_\_\_\_\_  
CHIEF NURSING OFFICER

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## **POLICY**

This policy outlines the proper use, management, and safety procedures for the Ultrasonic Endovascular System in our hospital setting. It is designed to ensure consistent, safe, and effective treatment for patients with pulmonary embolism and other vascular bed thrombosis.

## **EQUIPMENT**

- I. Ultrasonic Control Unit: The central unit that powers and controls the ultrasound delivery.
- II. Ultrasonic Endovascular Device:
  - A. Consists of two components:
    1. Ultrasonic Assisted Infusion Catheter (IC): Delivers the thrombolytic agent and coolant.
    2. Ultrasonic Core (USC): Generates ultrasound waves to enhance thrombolysis.
- III. Connector Interface Cable (CIC): Connects the Endovascular Device to the Control Unit.
- IV. Two Hospital-grade infusion pumps for precise delivery of thrombolytic agent and coolant.
- V. Ultrasonic cart: For secure mounting and transport of the Control Unit.

## **PROCEDURES**

- I. Indications for use include but not limited to:
  - A. Ultrasound facilitated, controlled and selective intravascular infusion of practitioner-specified fluids, including thrombolytics, for the treatment of pulmonary embolism and other vascular bed deemed appropriate by supervising practitioner.
  - B. Controlled and selective infusion of practitioner-specified fluids, including thrombolytics, into the pulmonary arteries and/or peripheral vasculature.
- II. Contraindications for use includes but not limited to:
  - A. Patients in whom thrombolytic and/or anticoagulation therapy is contraindicated.
  - B. Any situation in which the medical judgment of the practitioner determines such a procedure may compromise the patient's condition.
- III. Equipment Preparation:

- A. Follow the Manufacturer's Instructions for Use (IFU)

IV. Order Set:

- A. Obtain thrombolytic orders

V. Device set-up, Insertion, Treatment Initiation and Trouble Shooting:

- A. Follow the Manufacturer's Instructions for Use (IFU)

XI. Device Removal

1. Sheath removal by practitioner only
2. Follow the IFU

XII. Education

- A. Registered Nurses with validated competency may perform monitoring and managing device.

**REFERENCES:** **EkoSonic® Control Unit Instructions for Use** [OneSource Docs | Document Database of IFUs and PM Service Manuals](#)

**DEFINITIONS:** Control Unit (CU): The Control Unit (CU) is the main component that manages and regulates the operation of the entire system, providing power and user interface for operator control.

Connector Interface Cable (CIC): The Connector Interface Cable (CIC) is the cable assembly that connects the Ultrasonic Assisted Infusion Catheter (IC) and Ultrasonic Core (USC) to the Control Unit (CU).

Ultrasonic Assisted Infusion Catheter (IC): The Ultrasonic Assisted Infusion Catheter (IC) is a component used to deliver fluids, including thrombolytics, into the vasculature.

Ultrasonic Core (USC): The Ultrasonic Core is a part of the system that uses ultrasound to enhance the delivery and effectiveness of the infused fluids.

ATTACHMENTS:     N/A

APPROVAL DATE:	<u>9/18/2024</u>	<b>Gloria Steen, Interventional Radiology Charge Nurse</b> Department/Service Director, Manager or Supervisor
	<u>9/20/2024</u>	<b>Nursing Standards Committee</b> Applicable Administrator, Hospital or Medical Committee
	<u>9/25/2024</u>	<b>Patient Safety and Quality Committee</b> Applicable Administrator, Hospital or Medical Committee
	<u>1/9/2025</u>	<b>Quality Management Committee</b> Applicable Administrator, Hospital or Medical Committee
	<u>1/23/2025</u>	<b>Medical Executive Committee</b> Applicable Administrator, Hospital or Medical Committee
	<u>9/9/2025</u>	<b>Board of Supervisors</b> Approved by the Governing Body

REPLACES:     N/A

EFFECTIVE:     9/18/2024

REVISED:     N/A

REVIEWED:     N/A