

EkoSonic® Endovascular Device and Control Unit PT-3B

Nursing Skills Checklist

Indications for Use

The EkoSonic® Endovascular System is indicated for the:

- Ultrasound facilitated, controlled and selective infusion of physician-specified fluids, including thrombolytics, into the vasculature for the treatment of pulmonary embolism.
- Infusion of solutions into the pulmonary arteries.
- Controlled and selective infusion of physician-specified fluids, including thrombolytics, into the peripheral vasculature.

Please refer to the Instructions for Use for indications, contraindications, precautions, warnings, and full operational instructions.

Terms and Abbreviations

Control Unit	CU
Connector Interface Cable	CIC
EkoSonic® Endovascular Device	Infusion Catheter (IDDC) and Ultrasonic Core (MSD)

Skills to Review		Reviewer Initials
1.	The UPS/battery should be plugged into a hospital-grade outlet at all times except during transport.	
2.	<p>Confirm that the CIC is connected to the front of the EkoSonic® CU.</p> <p>Device cables black (MSD) and gray (IDDC), are connected to the CIC. Match color code and symbols. Always verify that the device cable pair is connected to a single CIC.</p> <p>Note: If there are red circles shown on the CU's schematic display around the MSD (also known as the Ultrasonic Core) or IDDC (also known as the Infusion Catheter), they will disappear when proper connections are made.</p>	
3.	<p>Verify coolant and thrombolytic infusion rates for accuracy. Verify that the normal/heparinized saline is connected to the COOLANT port of the Infusion Catheter and the thrombolytic is connected to the DRUG port of the Infusion Catheter.</p> <p>Drug (lytic) and coolant (normal/heparinized saline) are infused through hospital infusion pumps. The EkoSonic® System does not control infusions.</p>	

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This checklist is intended as an example to demonstrate the type of checklist you may wish to implement in your clinical practice. Any checklist you implement should reflect your actual clinical practice at your facility. EKOS® makes no recommendations or representations about the content of this sample checklist. The responsibility for such a checklist rests with the clinical practice.

4.	Never aspirate from the DRUG or COOLANT ports. This will clog the lumens with blood and render the catheter inoperable. Never piggyback any solutions on the drug or coolant infusions.	
5.	Infusion through the side arm of the sheath is at the discretion of the physician. Check MD orders.	
6.	<p>Ultrasound power is auto regulated by the CU. Proper functioning of the EkoSonic® CU is confirmed by a flashing yellow light below the display and immediately to the left of the green START button.</p> <p>Note: The CU display may be left showing the default Home screen or may be switched to the Power Graph screen as desired.</p>	
7.	<p>If thrombolytic drug is discontinued:</p> <ol style="list-style-type: none"> Keep coolant running at a maintenance level to avoid the catheter clotting off. Obtain physician's order to infuse normal saline through the drug port at a maintenance level in case thrombolytic drug is restarted. Ultrasound must be off unless fluid is infusing through the DRUG (min. 5 mL/hr) and COOLANT ports (min. 35 mL/hr). Inform the physician ultrasound should be turned off without the minimum infusion rates. Press the orange STOP button. Locate the rocker switch on the back of the CU. Turn off the CU. 	
8.	Push the orange STOP button when performing Doppler checks or Echocardiograms. An alarm will occur after 5 minutes as a reminder to restart the ultrasound. Pushing the Alarm Silence button will reset the 5 minute timer. Resume ultrasound after the Doppler or Echo is finished by pressing the green START button. See #6 for how to confirm ultrasound is running.	
9.	<p>Troubleshooting:</p> <ol style="list-style-type: none"> If a CU alarm sounds it can be muted by pushing the upper right hand soft key beside the Alarm Silence Icon. Confirm that the CU Display does not show any red circles indicating a disconnected cable. Reconnect any cable showing a circle and confirm that it goes away. Push the green START button. If the alarm condition persists then identify the troubleshooting icon that is flashing at the bottom of the CU display between or to the right of the two gray bars. Call EKOS® Help Line at 888-356-7435 (24/7/365). The Help Line number is located on top of the EkoSonic® CU. If unable to resume ultrasound therapy after contacting EKOS®, contact the interventional physician. 	

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10.	Process for transporting a patient: a. Unplug UPS/battery from AC outlet (battery will last for 60 minutes). b. When UPS/battery is unplugged, an alarm will sound. c. Silence the alarm by pressing and holding the "MUTE" button located on the front of the battery for 2 seconds. d. Transport patient to new location. e. Plug UPS/battery into AC outlet.	
11.	Removal of the EKOS® device at bedside: a. Turn off ultrasound by pressing the orange STOP button - disengage black connector clip, and disconnect the gray and black connectors from the CIC. b. Turn stopcocks off to the DRUG and COOLANT ports to prevent air from being introduced into the vasculature. c. Discontinue infusions and disconnect infusion tubing from the stopcocks. d. Don PPE and place the patient flat. e. Have the patient exhale and hold breath if able. f. Stabilize the introducer sheath with one hand and then pull the Infusion Catheter out in a steady motion. Verify there is a marker band near the distal tip of the Infusion Catheter. NOTE: If resistance is felt, stop and notify physician. g. If sheaths are to be discontinued, follow the hospital policy.	

Name: _____ **Date:** _____

Reviewer: _____