



July 27, 2018

Inari Medical, Inc.  
Mr. Eben Gordon  
Vice President, Regulatory Affairs & Quality Assurance  
9272 Jeronimo Rd., Suite 124  
Irvine, California 92618

Re: K181694

Trade/Device Name: FlowTrievers Retrieval/Aspiration System  
Regulation Number: 21 CFR 870.5150  
Regulation Name: Embolectomy Catheter  
Regulatory Class: Class II  
Product Code: DXE  
Dated: June 25, 2018  
Received: June 27, 2018

Dear Mr. Gordon:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm> identifies combination product submissions. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's

requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see <https://www.fda.gov/CombinationProducts/GuidanceRegulatoryInformation/ucm597488.htm>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/>) and CDRH Learn (<http://www.fda.gov/Training/CDRHLearn>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<http://www.fda.gov/DICE>) for more information or contact DICE by email ([DICE@fda.hhs.gov](mailto:DICE@fda.hhs.gov)) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

2018.07.27

Eleni Whatley 08:40:24

For -04'00'

Bram D. Zuckerman, M.D.

Director

Division of Cardiovascular Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known)

K181694

Device Name

FlowTrieve Retrieval/Aspiration System

Indications for Use (Describe)

The FlowTrieve Retrieval/Aspiration System consists of the FlowTrieve Catheter, Aspiration Guide Catheter, and Retraction Aspirator. The FlowTrieve Retrieval/Aspiration System is indicated for:

- The non-surgical removal of emboli and thrombi from blood vessels.
- Injection, infusion, and/or aspiration of contrast media and other fluids into or from a blood vessel.

The FlowTrieve Retrieval/Aspiration System is intended for use in the peripheral vasculature and for the treatment of pulmonary embolism.

Type of Use (Select one or both, as applicable)

Prescription Use (Part 21 CFR 801 Subpart D)

Over-The-Counter Use (21 CFR 801 Subpart C)

### CONTINUE ON A SEPARATE PAGE IF NEEDED.

This section applies only to requirements of the Paperwork Reduction Act of 1995.

**\*DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.\***

The burden time for this collection of information is estimated to average 79 hours per response, including the time to review instructions, search existing data sources, gather and maintain the data needed and complete and review the collection of information. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden, to:

Department of Health and Human Services  
Food and Drug Administration  
Office of Chief Information Officer  
Paperwork Reduction Act (PRA) Staff  
PRAStaff@fda.hhs.gov

*"An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB number."*

**510(K) SUMMARY**

Date prepared	June 25, 2018
Name	Inari Medical, Inc. 9272 Jeronimo Road, Suite 124 Irvine, CA 92618 949.600.8433 x114
Contact person	Eben Gordon Vice President, Regulatory Affairs & Quality Assurance
Trade name	FlowTrieve Retrieval/Aspiration System
Common name	Embolectomy catheter
Regulation Name	Embolectomy catheter
Classification number	21 CFR 870.5150
Product code	DXE
Regulatory class	II
Predicate device	Inari FlowTrieve Retrieval/Aspiration System (K181325)
Reference device	Inari ClotTrieve Thrombectomy System (K180329)
Description	<p>The FlowTrieve Retrieval/Aspiration System is a single-use over-the-wire catheter-based system for the minimally invasive treatment of thromboemboli in the peripheral vasculature. The system is comprised of three main components packaged separately:</p> <ul style="list-style-type: none"> <li>• Aspiration Guide Catheter</li> <li>• FlowTrieve Catheter (available in 4 sizes: 6-10 mm, 11-14 mm, 15-18 mm, and 19-25 mm)</li> <li>• Retraction Aspirator</li> </ul> <p>The FlowTrieve Catheter is inserted through the Aspiration Guide Catheter and advanced to the thrombus. Self-expanding wireform disks are deployed to engage thrombus by retracting the outer Delivery Catheter. The hand-lever operated Retraction Aspirator simultaneously aspirates fluids and retracts the FlowTrieve Catheter with thrombus into the Aspiration Guide Catheter to capture clot and restore blood flow.</p>
Indications for Use	<p>The FlowTrieve Retrieval/Aspiration System consists of the FlowTrieve Catheter, Aspiration Guide Catheter, and Retraction Aspirator. The FlowTrieve Retrieval/Aspiration System is indicated for:</p> <ul style="list-style-type: none"> <li>• The non-surgical removal of emboli and thrombi from blood vessels.</li> <li>• Injection, infusion, and/or aspiration of contrast media and other fluids into or from a blood vessel.</li> </ul>

The FlowTriever Retrieval/Aspiration System is intended for use in the peripheral vasculature and for the treatment of pulmonary embolism.

Device modifications The change to the FlowTriever Retrieval/Aspiration System is to increase the diameter of the disks of the FlowTriever Catheter to allow the treatment of vessels 19-25 mm in diameter. The modifications being implemented to the FlowTriever Catheter are:

1. Increase the wireform disk diameter from 0.88” to 1.10”.
2. Increase the wire diameter from 0.0050” to 0.0055”.
3. Increase the gap between the expandable disks from 0.50 to 0.75”.
4. Change colorant in catheter shaft from Blue 292C to Cool Grey 7C.

Summary of substantial equivalence There is no change of intended use or fundamental scientific technology between the proposed and predicate devices.

The FlowTriever Retrieval/Aspiration System has the same indication for use as the predicate, K181325.

#### **Non-Clinical Testing**

In accordance with the Design Failure Modes and Effects Analysis, verification and validation testing were identified to support the substantial equivalence of the modified FlowTriever Retrieval/Aspiration System. This testing demonstrated compliance with relevant product specifications. These tests included:

- Visual & Dimensional Inspections
- Deployment Force, Wireform Catheter from Delivery Catheter
- Retraction Force, Wireform Catheter into Delivery Catheter
- Retraction Force, Wireform Catheter into Guide Catheter
- Simulated use Track and Tensile
- Simulated Thrombus Removal Characterization
- 25 mm Wireform Radial Expansion Force

Assessment of the 2-year shelf-life data for the predicate device concluded that the existing accelerated aging studies can be leveraged to support 2-year shelf-life for the proposed 25 mm FlowTriever Catheter.

In consideration of the biological safety for the proposed 25 mm FlowTriever Catheter was leveraged off existing data for the predicate devices with regards to the new colorant (Cool Grey 7C) and the increased surface area of Nitinol.

Clinical testing was not required for the determination of substantial equivalence.

Test results demonstrated that all acceptance criteria were met; therefore, the device conforms to established product specifications and intended use.

#### **Conclusion**

The proposed device modifications to the FlowTriever Retrieval/Aspiration System do not change its intended use or raise different questions of safety and effectiveness. With consideration of the results of the testing leveraged from K181325 and K180329, it can be concluded that the proposed FlowTriever Retrieval/Aspiration System is substantially equivalent to the predicate devices.