



May 3, 2023

Quynh Phuong Le  
Regulatory Affairs Manager  
Abbott Medical  
14901 Deveau Place  
Minnetonka, Minnesota 55345

Re: K230934

Trade/Device Name: ViewFlex™ Eco Reprocessed ICE Catheter  
Regulation Number: 21 CFR 870.1200  
Regulation Name: Diagnostic Intravascular Catheter  
Regulatory Class: Class II  
Product Code: OWQ, OBJ  
Dated: March 31, 2023  
Received: April 3, 2023

Dear Quynh Le:

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/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products>); 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 <https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance>) and CDRH Learn (<https://www.fda.gov/training-and-continuing-education/cdrh-learn>). 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 (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-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,

**Aneesh S. Deoras -S**

Aneesh Deoras  
Assistant Director  
Division of Cardiac Electrophysiology,  
Diagnostics and Monitoring Devices  
Office of Cardiovascular Devices  
Office of Product Evaluation and Quality  
Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known)  
K230934

Device Name  
ViewFlex™ Eco Reprocessed ICE Catheter

Indications for Use (Describe)

The ViewFlex™ Eco Reprocessed ICE Catheter is indicated for use in adult and adolescent pediatric patients to visualize cardiac structures, blood flow and other devices within the heart.

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.

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*Special 510(k)*  
**ViewFlex™ Eco Reprocessed ICE Catheter**  
*Compatible with ViewMate™ Multi Ultrasound System*



510(k) Number	K230934
510(k) Type	Special 510(k)
Date Prepared	03 April 2023
Manufacturer Name & Address	Abbott Medical 14901 DeVeau Place Minnetonka, MN 55345-2126, USA
Contact Person	Quynh Phuong Le Regulatory Affairs Manager 949-769-5058 or 949-469-9779 <a href="mailto:quynhphuong.le@abbott.com">quynhphuong.le@abbott.com</a>
Trade Name	ViewFlex™ Eco Reprocessed ICE Catheter
Common Name	ICE Catheter
Class	II
Classification Name	870.1200, Diagnostic Intravascular Catheter
Product Code	OWQ
Subsequent Product Code	OBJ
Predicate Device	ViewFlex™ Xtra Reprocessed ICE Catheter (K222217)
Reference Device	ViewFlex™ Xtra ICE Catheter (K223077)
Device Description	<p>The ViewFlex™ Eco Reprocessed ICE Catheter is a temporary intracardiac ultrasound catheter intended for use in patients to accurately visualize cardiac structures, blood flow and other devices within the heart when connected to a compatible intracardiac ultrasound console via the compatible ViewFlex™ Catheter Interface Module. Examples of the types of other devices that can be visualized include, and are not limited to, intracardiac catheters, septal occluders, delivery wires, delivery sheaths, sizing balloons and transeptal needles. The use of these images is limited to visualization with no direct or indirect diagnostic use. The ViewFlex™ Eco Reprocessed ICE Catheter has a useable length of 90 cm, with a 9 French (F) shaft with an ultrasound transducer. A 10F introducer is recommended for use with this catheter for insertion into the femoral or jugular veins. The catheter tip has four-directional deflection allowing for Left-Right and Posterior-Anterior deflection, with an angle of at least 120 degrees in each direction.</p> <p>The ViewFlex™ Eco Reprocessed ICE Catheter is compatible with the ViewMate™ Z, ViewMate™, ViewMate™ Multi, and Philips CX50 ultrasound consoles.</p>
Indications For Use	The ViewFlex™ Eco Reprocessed ICE Catheter is indicated for use in adult and adolescent pediatric patients to visualize cardiac structures, blood flow and other devices within the heart.
Patient Population	The patient population includes both adult and adolescent pediatric patients with suspected or confirmed cardiac electrical or structural abnormalities who require visualization of cardiac structures, blood flow, or other devices within the heart. The testing performed supports safety and effectiveness in both (adult and adolescent pediatric) patient populations.
Comparison	The subject, predicate and reference devices have the same intended use, indications for use and method of operation. There are no changes to the claims, clinical applications, patient populations, or performance specifications. The current compatible consoles for the predicate device

	<p>are the ViewMate™ Z, ViewMate™, and Philips CX50 ultrasound consoles. The subject device has added an additional compatible console, ViewMate™ Multi Ultrasound System which is compatible with the reference device cleared under K223077.</p> <p>The difference between the subject device ViewFlex™ Eco Reprocessed ICE Catheter and the predicate device does not raise any new questions of safety or efficacy.</p>
<p>Non-Clinical Testing Summary</p>	<p>Design verification activities were performed with their respective acceptance criteria to ensure that the use of the ViewFlex™ Eco Reprocessed ICE Catheter in conjunction with the ViewMate™ Multi Ultrasound System does not affect the safety or effectiveness of the device. All testing performed met the established performance specifications.</p> <p><b>Testing</b>                  The ViewFlex™ Eco Reprocessed ICE Catheter was developed and tested in accordance with the following industry guidance documents and standards:</p> <ul style="list-style-type: none"> <li>– BS EN 60601-2-37: 2008+A1:2015 - Medical electrical equipment: Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment.</li> <li>– BS EN 60601-1: 2006+A12:2014 (Edition 3.1) - Medical electrical equipment: General requirements for basic safety and essential performance.</li> <li>– BS EN 60601-1-2:2015 (Edition 4.0) - Medical electrical equipment. General requirements for basic safety and essential performance. Collateral standard. Electromagnetic compatibility. Requirements and tests.</li> </ul> <p><b>Types of Testing Performed</b></p> <ul style="list-style-type: none"> <li>- Design validation</li> <li>- Design verification</li> </ul> <p><b>Risk Management</b>                  Abbott has reviewed the applicable risk management files, and there were no new or modified hazards identified as result of the proposed modifications.</p>
<p>Conclusion</p>	<p>The technological characteristics for the subject device, and the indications for use are the same as the predicate device. Based on this and the data provided in this pre-market notification, the subject device and predicate device have been demonstrated to be substantially equivalent.</p>