



March 19, 2026

Arbor Endovascular, LLC  
Kathy Tansey  
Vice President of Regulatory, Clinical and Quality  
2345 Bering Drive  
San Jose, California 95131

Re: K260537

Trade/Device Name: Willow 24 Guidewire  
Regulation Number: 21 CFR 870.1330  
Regulation Name: Catheter Guide Wire  
Regulatory Class: Class II  
Product Code: MOF, DQX  
Dated: February 17, 2026  
Received: February 17, 2026

Dear Kathy Tansey:

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 (the 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 available 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.

Additional information about changes that may require a new premarket notification are provided in the FDA guidance documents entitled "Deciding When to Submit a 510(k) for a Change to an Existing Device" (<https://www.fda.gov/media/99812/download>) and "Deciding When to Submit a 510(k) for a Software Change to an Existing Device" (<https://www.fda.gov/media/99785/download>).

Your device is also subject to, among other requirements, the Quality Management System Regulation (QMSR) (21 CFR Part 820), which includes, but is not limited to, ISO 13485 clause 7.3 (Design controls), ISO 13485 clause 8.3 (Nonconforming product), and ISO 13485 clause 8.5 (Corrective and preventative action). Please note that regardless of whether a change requires premarket review, the QMSR requires device manufacturers to review and approve changes to device design and production (ISO 13485 clause 7.3 and 21 CFR 820.70) and document changes and approvals in the Medical Device File (21 CFR 820.181).

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 Part 803) for devices or postmarketing safety reporting (21 CFR Part 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 Management System Regulation (QMSR) (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR Part 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR Parts 1000-1050.

All medical devices, including Class I and unclassified devices and combination product device constituent parts are required to be in compliance with the final Unique Device Identification System rule ("UDI Rule"). The UDI Rule requires, among other things, that a device bear a unique device identifier (UDI) on its label and package (21 CFR 801.20(a)) unless an exception or alternative applies (21 CFR 801.20(b)) and that the dates on the device label be formatted in accordance with 21 CFR 801.18. The UDI Rule (21 CFR 830.300(a) and 830.320(b)) also requires that certain information be submitted to the Global Unique Device Identification Database (GUDID) (21 CFR Part 830 Subpart E). For additional information on these requirements, please see the UDI System webpage at <https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/unique-device-identification-system-udi-system>.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 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,

**NAIRA MURADYAN -S**

Naira Muradyan, PhD

Assistant Director

DHT5A: Division of Neurosurgical,

Neurointerventional, and

Neurodiagnostic Devices

OHT5: Office of Neurological and

Physical Medicine Devices

Office of Product Evaluation and Quality

Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known)

K260537

Device Name

Willow 24 Guidewire

Indications for Use (Describe)

The Willow 24 Guidewire is intended for general intravascular use, including neurovascular and peripheral vasculatures. It can be used to selectively introduce and position catheters and other interventional devices within the peripheral and neuro vasculature. This device should be used only by physicians trained in percutaneous, intravascular techniques and procedures.

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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## K260537 510(k) Summary

### **Submitter Name, Address and Contact:**

**Submitter:** Arbor Endovascular, LLC  
2345 Bering Drive  
San Jose, CA 95131

**Sponsor Contact:** Kathy Tansey  
Vice President of Regulatory, Clinical, and Quality  
Email: ktansey@arborendo.com  
Phone: +1 (408) 391-6536

**Date Prepared:** March 12, 2026

### **Device Name and Classification:**

|                                           |                                                   |
|-------------------------------------------|---------------------------------------------------|
| <b>Trade/Proprietary Name:</b>            | Willow™ 24 Guidewire                              |
| <b>Common Name:</b>                       | Wire, Guide, Catheter                             |
| <b>Classification Name:</b>               | Wire, Guide, Catheter, 21 CFR 870.1330 – Class II |
| <b>Product Code:</b>                      | MOF, DQX                                          |
| <b>Legally Marketed Predicate Device:</b> | Willow™ 18 Guidewire (K260130)                    |
| <b>Legally Marketed Reference Device:</b> | Aristotle 24 Guidewire (K231954)                  |

### **Device Description:**

Like the predicate device, the Willow 24 Guidewire is a single-use product with a shapeable tip, used to gain intravascular access to facilitate the positioning and exchange of interventional devices in small diameter, tortuous vasculature for neuro and peripheral diagnostic and interventional procedures. The wire can be torqued to facilitate navigation through the vasculature. The Willow 24 Guidewire comes in two stiffness profiles: Soft and Standard.

**Accessories:**

The Willow 24 Guidewire is provided with four (4) accessories: two (2) Introducers, a Torque Device, and a Shaping Mandrel.

**Indications for Use:**

The Indications for Use for the Willow 24 Guidewire are the same as for the predicate device and are as follows:

The Willow 24 Guidewire is intended for general intravascular use, including neurovascular and peripheral vasculatures. It can be used to selectively introduce and position catheters and other interventional devices within the peripheral and neuro vasculature. This device should be used only by physicians trained in percutaneous, intravascular techniques and procedures.

**Technological Characteristics and Product Feature Comparison:**

The Willow 24 Guidewire is substantially equivalent to the predicate device based on the following:

- Same indications for use
- Same fundamental materials and similar manufacturing process
- Same fundamental design and technology
- Same operating principles
- Same materials and processes for packaging
- Same sterilization method and process for devices

A comparison of the subject device with the predicate device is summarized in **Table 1** below.

**Table 1. Substantial Equivalence Comparison**

| Characteristic      | Predicate Device<br>Willow 18 Guidewire<br>(K260130)               | Subject Device<br>Willow 24 Guidewire<br>(K260537) |
|---------------------|--------------------------------------------------------------------|----------------------------------------------------|
| Classification Name | Wire, Guide, Catheter, 21 CFR 870.1330, Class II                   | Same                                               |
| Product Code        | MOF, DQX                                                           | Same                                               |
| Review Panel        | Neurology                                                          | Same                                               |
| 510(k) Submitter    | Arbor Endovascular, LLC<br>2345 Bering Drive<br>San Jose, CA 95131 | Same                                               |

| <b>Characteristic</b>                             | <b>Predicate Device<br/>Willow 18 Guidewire<br/>(K260130)</b>                                                                                                                                                                                                                                                                                                                        | <b>Subject Device<br/>Willow 24 Guidewire<br/>(K260537)</b>                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Indications for Use</b>                        | The Willow 18 Guidewire is intended for general intravascular use, including neurovascular and peripheral vasculatures. It can be used to selectively introduce and position catheters and other interventional devices within the peripheral and neuro vasculature. This device should be used only by physicians trained in percutaneous, intravascular techniques and procedures. | The Willow 24 Guidewire is intended for general intravascular use, including neurovascular and peripheral vasculatures. It can be used to selectively introduce and position catheters and other interventional devices within the peripheral and neuro vasculature. This device should be used only by physicians trained in percutaneous, intravascular techniques and procedures. |
| <b>Device Description/ Principle of Operation</b> | The Willow 18 Guidewire is a single-use product with a shapeable tip, used to gain intravascular access to facilitate the positioning and exchange of interventional devices in small diameter, tortuous vasculature for neuro and peripheral diagnostic and interventional procedures. The wire can be torqued to facilitate navigation through the vasculature.                    | The Willow 24 Guidewire is a single-use product with a shapeable tip, used to gain intravascular access to facilitate the positioning and exchange of interventional devices in small diameter, tortuous vasculature for neuro and peripheral diagnostic and interventional procedures. The wire can be torqued to facilitate navigation through the vasculature.                    |
| <b>Target Population</b>                          | Patients undergoing endovascular treatment, including in the neuro and peripheral vasculatures.                                                                                                                                                                                                                                                                                      | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Accessories</b>                                | Two Guidewire Introducers (1 metal, 1 plastic), Torque Device, and Shaping Mandrel                                                                                                                                                                                                                                                                                                   | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Core Wire</b>                                  | Commonly used metal alloy with PTFE coating on the proximal section                                                                                                                                                                                                                                                                                                                  | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Core Wire Length</b>                           | 215 cm Access Length                                                                                                                                                                                                                                                                                                                                                                 | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Guidewire Tip (slotted tube)</b>               | Nitinol-Titanium<br>Laser Cut Nitinol                                                                                                                                                                                                                                                                                                                                                | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Spacer</b>                                     | Not applicable                                                                                                                                                                                                                                                                                                                                                                       | Nitinol                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Radiopaque Coil</b>                            | Platinum-Tungsten Alloy                                                                                                                                                                                                                                                                                                                                                              | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Radiopaque Coil Shapes and Lengths</b>         | Standard and Soft: Platinum/ Tungsten, 10 cm                                                                                                                                                                                                                                                                                                                                         | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Adhesive</b>                                   | UV Curable Adhesive<br>Cyanoacrylate Adhesive                                                                                                                                                                                                                                                                                                                                        | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Primer</b>                                     | Parylene Dimer                                                                                                                                                                                                                                                                                                                                                                       | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Hydrophilic Coating</b>                        | Proprietary Hydrophilic Coating                                                                                                                                                                                                                                                                                                                                                      | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Guidewire Introducer</b>                       | Two Included                                                                                                                                                                                                                                                                                                                                                                         | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Shaping Mandrel</b>                            | Included                                                                                                                                                                                                                                                                                                                                                                             | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Torque Device</b>                              | Included                                                                                                                                                                                                                                                                                                                                                                             | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Dispenser Hoop</b>                             | High Density Polyethylene (HDPE)                                                                                                                                                                                                                                                                                                                                                     | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Accessory Card</b>                             | HDPE                                                                                                                                                                                                                                                                                                                                                                                 | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Sterile Pouch</b>                              | Tyvek®/Nylon- Polyethylene                                                                                                                                                                                                                                                                                                                                                           | Same                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Shipping Carton</b>                            | Folding Box Board (FBB)                                                                                                                                                                                                                                                                                                                                                              | Same                                                                                                                                                                                                                                                                                                                                                                                 |

| Characteristic                                | Predicate Device<br>Willow 18 Guidewire<br>(K260130) | Subject Device<br>Willow 24 Guidewire<br>(K260537) |
|-----------------------------------------------|------------------------------------------------------|----------------------------------------------------|
| <b>Sterilization Method</b>                   | 100% Ethylene Oxide                                  | Same                                               |
| <b>How Supplied</b>                           | Single Use/Sterile                                   | Same                                               |
| <b>Guidewire Outer Diameter<br/>(maximum)</b> | 0.018" proximal                                      | Same                                               |
|                                               | 0.018" distal                                        | 0.024" distal                                      |

The difference between the devices, namely the larger overall device diameter of the subject device, does not raise new questions of safety and effectiveness.

#### **Risk Assessment:**

Risk assessment of the Willow 24 Guidewire has been conducted in accordance with ISO 14971:2019 to show that no new risks were identified compared to the commercially available predicate device. Results of non-clinical testing have demonstrated the subject device is substantially equivalent to the predicate device.

#### **Bench Performance Testing:**

The results of the bench testing conducted on the subject device demonstrate that it performs as intended and meets design specifications. A summary of the bench performance testing is provided in **Table 2**.

**Table 2: Bench Testing Summary**

| Test                              | Test Method Summary                                                                                                                                                                                                                                                                 | Conclusions                                               |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Coating Lubricity                 | Hydrophilic coating lubricity was assessed after multiple pull cycles through silicone pads.                                                                                                                                                                                        | Acceptance criteria were met.                             |
| Coating Durability                | Coating durability was assessed after repeating multiple pull cycles through silicone pads.                                                                                                                                                                                         | Acceptance criteria were met.                             |
| Coating Integrity                 | Testing completed per FDA guidance document “ <i>Coronary, Peripheral, and Neurovascular Guidewires – Performance Tests and Recommended Labeling</i> ” (2019). Coating integrity inspected pre- and post-simulated use tracking with comparison to predicate and reference devices. | Coating integrity was reported and considered acceptable. |
| Corrosion Resistance              | Testing completed per FDA guidance document “ <i>Coronary, Peripheral, and Neurovascular Guidewires – Performance Tests and Recommended Labeling</i> ” (2019).                                                                                                                      | Acceptance criteria were met.                             |
| Dimensional and Visual Inspection | Testing completed per FDA guidance document “ <i>Coronary, Peripheral, and Neurovascular Guidewires – Performance Tests and Recommended Labeling</i> ” (2019). Verified key dimensions of the guidewire.                                                                            | Acceptance criteria were met.                             |
| Flex Fatigue                      | Subjected the guidewire to multiple flexure cycles around cylindrical pins.                                                                                                                                                                                                         | Acceptance criteria were met.                             |



| Test                         | Test Method Summary                                                                                                                                                                                                                                                                                                                 | Conclusions                                                                                                                                      |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Fracture                     | Subjected the guidewire to multiple wrappings around cylinder and visually inspected for signs of fracture.                                                                                                                                                                                                                         | Acceptance criteria were met.                                                                                                                    |
| Kink Resistance              | Testing completed per FDA guidance document “ <i>Coronary, Peripheral, and Neurovascular Guidewires – Performance Tests and Recommended Labeling</i> ” (2019). Wrapped the guidewire around test fixture with clinically relevant radii.                                                                                            | Acceptance criteria were met.                                                                                                                    |
| Particulate Characterization | Testing completed per FDA guidance document “ <i>Coronary, Peripheral, and Neurovascular Guidewires – Performance Tests and Recommended Labeling</i> ” (2019). Counted particulates of various size ranges after tracking through a tortuous simulated use model, with comparison to the reference device.                          | Particulate counts were reported and considered acceptable.                                                                                      |
| Radiopacity                  | Testing completed per FDA guidance document “ <i>Coronary, Peripheral, and Neurovascular Guidewires – Performance Tests and Recommended Labeling</i> ” (2019). Subject and reference guidewires were evaluated under fluoroscopy.                                                                                                   | All Willow Guidewires demonstrated acceptable radiopacity. The radiopacity of the subject device was comparable to that of the reference device. |
| Simulated Use                | Testing completed per FDA guidance document “ <i>Coronary, Peripheral, and Neurovascular Guidewires – Performance Tests and Recommended Labeling</i> ” (2019). Guidewires were tested for use with a microcatheter, guidewire introducer, and torque device while navigating to target locations in a tortuous simulated use model. | Acceptance criteria were met.                                                                                                                    |
| Tensile Strength             | Testing completed per FDA guidance document “ <i>Coronary, Peripheral, and Neurovascular Guidewires – Performance Tests and Recommended Labeling</i> ” (2019). Measured the force required to break at each bond, including distal tip.                                                                                             | Acceptance criteria were met.                                                                                                                    |
| Tip Flexibility              | Testing completed per FDA guidance document “ <i>Coronary, Peripheral, and Neurovascular Guidewires – Performance Tests and Recommended Labeling</i> ” (2019). Measured the force required to deflect the guidewire tip when held at 5 mm, 10 mm and 20 mm gauge lengths.                                                           | Acceptance criteria were met.                                                                                                                    |
| Tip Shapeability             | Shaped the guidewire tip for a total of three (3) times per labeling.                                                                                                                                                                                                                                                               | Acceptance criteria were met.                                                                                                                    |
| Tip Shape Retention          | Measured the tip shape retention after tracking the guidewire through a tortuous simulated use model.                                                                                                                                                                                                                               | Acceptance criteria were met.                                                                                                                    |
| Torqueability                | Testing completed per FDA guidance document “ <i>Coronary, Peripheral, and Neurovascular Guidewires – Performance Tests and Recommended Labeling</i> ” (2019). Tracked the guidewire through a tortuous simulated use model and evaluated the torque response.                                                                      | Acceptance criteria were met.                                                                                                                    |
| Torque Strength              | Testing completed per FDA guidance document “ <i>Coronary, Peripheral, and Neurovascular Guidewires – Performance Tests and Recommended Labeling</i> ” (2019). Recorded the number of times the proximal end of the wire can be rotated until it exceeds its maximum rotations and fails.                                           | Acceptance criteria were met.                                                                                                                    |

### **Sterilization and Shelf-Life Testing:**

The device and its accessories are sterilized by 100% Ethylene Oxide and have been adopted into the existing validated sterilization process in accordance with the principles of ISO 11135:2014 “Sterilization of health-care products - Ethylene oxide - Requirements for the development, validation and routine control of a sterilization process for medical devices” and AAMI TIR28:2016(R)2024 “Product adoption and process equivalence for ethylene oxide sterilization”. A sterility assurance level (SAL) of  $10^{-6}$  has been demonstrated. The performance testing completed supports a 1-year shelf-life.

#### **Performance Data – Animal, Clinical:**

No animal or clinical studies were conducted as the indications for use and the fundamental scientific technology are the same as that of the predicate. Substantial equivalence of the subject device has been established to the predicate device through the results of non-clinical performance testing.

#### **Biocompatibility Testing:**

The biocompatibility testing summarized in **Table 3** was conducted on the Willow 24 Guidewire in accordance with FDA guidance document, “*Use of International Standard ISO 10993-1, "Biological evaluation of medical devices - Part 1: Evaluation and testing within a risk management process",*” and demonstrates that the guidewire and accessories meet biological safety requirements for externally communicating medical devices with direct circulating blood contact for  $\leq 24$  hours. This statement is supported by the standards assessment and the testing conducted by Arbor Endovascular.

**Table 3: Summary of Biocompatibility Testing**

| Test                            | Test Method Summary | Conclusion                                   |
|---------------------------------|---------------------|----------------------------------------------|
| Acute Systemic Toxicity         | Per ISO 10993-11    | Pass: No evidence of acute systemic toxicity |
| Complement Activation           | Per ISO 10993-4     | Pass: Non-activator                          |
| Cytotoxicity – MEM Elution      | Per ISO 10993-5     | Pass: Non-cytotoxic                          |
| Hemolysis - Direct and Indirect | Per ISO 10993-4     | Pass: Non-hemolytic                          |
| Intracutaneous Reactivity       | Per ISO 10993-10    | Pass: Non-reactive                           |
| In Vivo Thrombogenicity         | Per ISO 10993-4     | Pass: Non-thrombogenic                       |
| Pyrogenicity                    | Per ISO 10993-11    | Pass: Non-pyrogenic                          |
| Sensitization                   | Per ISO 10993-10    | Pass: Non-sensitizing                        |

#### **Conclusion:**

The subject device is substantially equivalent to the predicate device with regards to device design, materials, intended use, and patient population. The conclusions drawn from the risk assessment and non-clinical testing conducted demonstrate that the subject device performs as intended and is substantially equivalent to the predicate device.