



K102953  
NOV - 4 2010

## 510(k) Summary

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**Date Prepared**                      October 1, 2010

**Submitter**                              Medtronic, Inc.  
Medtronic Perfusion Systems  
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Establish Registration Number: 2184009

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### Device Name and Classification

**Trade Name:**                              Heparin Dose Response (HDR) Cartridge  
**Common Name:**                          Automated Heparin Analyzer  
**Regulation Number:**                      21 CFR 864.5680  
**Product Code:**                              JOX  
**Classification:**                              Class II

### Predicate Device

Heparin Dose Response (HDR) Cartridge (K042070) cleared on October 1, 2004.

### Comparison to Predicate Device

A comparison of the modified device and the currently marketed Heparin Dose Response (HDR) Cartridge shows the following similarities:

- Same intended use.
- Same operating principle.
- Same technological characteristics.
- Same performance claims.

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## **Description of Device Modification**

### **Heparin**

- The modification to the current device is to replace old USP heparin with revised USP heparin. The heparin concentrations have been increased by 13.6% for heparinized channels (ch 1 & 2 and ch 3 & 4). The source of the heparin remains porcine.

### **Intended Use**

The intended use is unchanged.

### **Labeling**

The current labels and IFU are being updated to reflect the revised USP heparin concentrations in heparinized channels (ch.1& 2 and ch.3 & 4). The current IFU also includes updates for style, grammar and readability. Applicable tables have also been updated with data generated from the verification testing with modified cartridges using revised USP heparin.

- Appendix A contains the current IFU.
- Appendix B contains the draft IFU.
- Appendix C contains the current and draft labels

### **Conclusion**

The modifications to the Heparin Dose Response (HDR) Cartridge described in this submission result in a substantially equivalent device because the fundamental scientific technology and the intended use are unchanged.



Food and Drug Administration  
10903 New Hampshire Avenue  
Silver Spring, MD 20993

Medtronic, Inc.  
Medtronic Perfusion Systems  
c/o Mr. Jeffrey Koll  
Senior Regulatory Affairs Specialist  
8200 Coral Sea Street NE  
Mounds View, MN 55112

**NOV 04 2010**

Re: k102953

Trade/Device Name: Heparin Dose Response (HDR) Cartridge  
Regulation Number: 21 CFR 864.5680  
Regulation Name: Automated heparin analyzer  
Regulatory Class: Class II  
Product Code: JOX  
Dated: October 28, 2010  
Received: November 1, 2010

Dear Mr. Koll:

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. 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.

If your device is classified (see above) into class II (Special Controls), it may be subject to such additional controls. Existing major regulations affecting your device can be found in Title 21, Code of Federal Regulations (CFR), Parts 800 to 895. 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 Parts 801 and 809); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); and good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820). This letter will allow you to begin marketing your device as described in your Section 510(k) premarket

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notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Parts 801 and 809), please contact the Office of *In Vitro* Diagnostic Device Evaluation and Safety at (301) 796-5450. 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 the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



Maria M. Chan, Ph.D  
Director  
Division of Immunology and Hematology Devices  
Office of *In Vitro* Diagnostic Device Evaluation and Safety  
Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): K102953

Device Name: Heparin Dose Response Cartridge

NOV 04 2010

### Indications for Use:

For determining in vitro individual responses to heparinization using whole blood on the HMS Plus instrument.

For in Vitro Diagnostic Use.

Prescription Use   X    
(Part 21 CFR 801 Subpart D)

AND/OR

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

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE  
IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

  
Division Sign-Off

Office of In Vitro Diagnostic  
Device Evaluation and Safety

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