

## 510(k) Summary

K103159

(1) Submitter: Cardio Medical Products, Inc.  
385 Franklin Avenue - Suite L  
Rockaway, NJ. 07866  
Phone: 973-586-9500  
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Contact: Nick Mendise, V.P. Sales  
Date prepared: 19 October 2010

JAN 11 2011

(2) The name of the device: DEFIBRILLATION/CARDIOVERSION/MONOPHASIC OR BIPHASIC PACING/ ECG ELECTRODE (Various Models)  
Common or usual name: Defibrillator Pad  
Classification name: 870.5300 DC-defibrillator (including paddles).

(3) Predicate devices: Identical in function and construction to the Heart Sync Electrodes described in K080421, as well as PadPro (K020203), and Katecho (K981737).

(4) Description of the device: These are single use, non-sterile, self stick defibrillator electrodes packaged in pairs. Effective electrode area = 98 cm<sup>2</sup> (15.2 in<sup>2</sup>). They are radiotransparent. They come in various connector styles to match the specific defibrillator. (See intended use statement below.) The construction and materials employed are identical to the predicate. The patient contact material is a conductive adhesive hydrogel identical to the material used in the predicate devices. These pads meet the AAMI Standard ANSI/AAMI DF80:2003 and the connectors meet the FDA performance standard for touch proof ECG connectors.

(5) Statement of the intended use of the device: The Cardio Med DEFIBRILLATION/CARDIOVERSION/MONOPHASIC OR BIPHASIC PACING/ ECG ELECTRODES are indicated for use in external pacing, defibrillation and monitoring applications as a non-sterile, disposable device for single patient use only. The electrodes provide the conductive interface between the defibrillator and/or the external transcutaneous (noninvasive) cardiac pacemaker and the patient's skin. The electrode is intended for use on adult patients. When a patient requires defibrillation; cardioversion or external pacing, these electrodes will be applied to the patient and connected to the instrument. This device is intended for use on defibrillators whose output is classified as low power (360 joule maximum).

Compatible with Cardiac Science (ANDERSON connectors), PHILIPS MEDICAL, PHYSIO-CONTROL, and ZOLL MEDICAL models of monophasic and bi-phasic defibrillators, external pacemakers.

(6) This device has the same technological characteristics (i.e., design, material, chemical composition, energy source) as the predicate devices. The defibrillator pads meet the AAMI and FDA performance standards for this type of device.

(7) A brief discussion of the nonclinical tests submitted, referenced, or relied on in the premarket notification submission for a determination of substantial equivalence:

Bench testing summary: Three different lots containing six samples each were subjected to the AAMI tests:

Test	Pre-Pacing Limits	Post-Pacing Limits
DC Offset	≤100 mV	≤100 mV
Offset Instability and Noise	≤150 μV	≤150 μV
AC Small Signal Impedance		
10 Hz	≤2,000 Ohms	≤2,000 Ohms
30 kHz	≤5 Ohms	≤5 Ohms
AC Large Signal Impedance	≤ 2 Ohms	≤ 2 Ohms
Defib Overload Recovery		
At 4 seconds	≤ 400 mV	≤ 400 mV
At 60 seconds	≤ 300 mV	≤ 300 mV

All units passed these tests. The same testing routine (three lots, 2 samples each) was applied to a 36 month accelerated age shelf life test. All units passed the tests.

Biocompatibility testing was performed on the patient contact material Hydrogel. The material passed biocompatibility testing.

Compliance with the FDA performance standard was verified by inspection of the connectors. (Connectors must be "touch-proof.")

(8) Conclusion: Based on the results of the nonclinical tests (that demonstrate that the device is as safe, as effective, and performs as well as or better than the legally marketed devices) we conclude that these defibrillator pads are as safe and effective as the predicates identified in paragraph (3). Furthermore, the materials and construction methods are identical to the predicates.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room -WO66-G609  
Silver Spring, MD 20993-0002

Cardio Medical Products, Inc.  
C/O Nick Mendise  
V.P. Sales  
385 Franklin Avenue- Suite L  
Rockaway, NJ 07866

JAN 11 2011

Re: K103159

Trade/Device Name: Cardio Med Defibrillation/Cardioversion/Monophasic or Biphasic  
Pacing/ECG Electrodes  
Regulation Number: 21 CFR 870.5300  
Regulation Name: Cardiovascular  
Regulatory Class: Class II  
Product Code: LDD  
Dated: October 19, 2010  
Received: October 26, 2010

Dear Mr. Nick Mendise:

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. 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.

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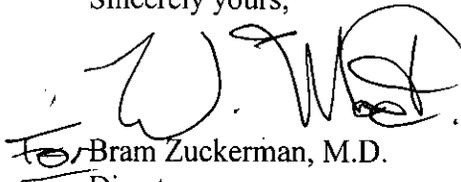
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's 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); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to

<http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR 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/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



~~To~~ Bram Zuckerman, M.D.

Director  
Division of Cardiovascular Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

**Indications for Use**

JAN 11 2011

510(k) Number: K103159

Device Name: Cardio Med Defibrillation/Cardioversion/Monophasic or Biphasic Pacing/ECG Electrodes

Indications For Use: The Cardio Med DEFIBRILLATION/CARDIOVERSION/MONOPHASIC OR BIPHASIC PACING/ ECG ELECTRODES are indicated for use in external pacing, defibrillation and monitoring applications as a non-sterile, disposable device for single patient use only. The electrodes provide the conductive interface between the defibrillator and/or the external transcutaneous (noninvasive) cardiac pacemaker and the patient's skin. The electrode is intended for use on adult patients. When a patient requires defibrillation, cardioversion or external pacing, these electrodes will be applied to the patient and connected to the instrument. This device is intended for use on defibrillators whose output is classified as low power (360 joule maximum).

Compatible with Cardiac Science (ANDERSON connectors), PHILIPS MEDICAL, PHYSIOCONTROL, and ZOLL MEDICAL models of monophasic and bi-phasic defibrillators, external pacemakers.

Prescription Use  (Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use  (21 CFR 807 Subpart C)

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

Concurrence of CDRH, Office of Device Evaluation (ODE)

**(Division Sign-Off)**  
**Division of Cardiovascular Devices**

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