

APR 26 2004

K040287

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510(k) Summary

Submitter: Edwards Lifesciences LLC
One Edwards Way
Irvine, CA 92614-5686

Contact Person: Paula A. Torrianni, Manager, Regulatory Affairs

Date Prepared: February 5, 2004

Trade name: *Vigilance* Continuous Cardiac Output/Oximetry/Continuous End Diastolic Volume (CCO/SvO₂/CEDV) Monitor

Classification Name: Cardiac Output/Oximeter/Ejection Fraction Computer
Single-Function, Preprogrammed Diagnostic Computer
(21 CFR 870.1435)

Predicate Devices: *Vigilance* Continuous Cardiac Output/Oximetry/Continuous End Diastolic Volume (CCO/SvO₂/CEDV) Monitor
Oximetrix Shaw Catheter Oximeter System

Device Description: The *Vigilance* CCO/SvO₂/CEDV Monitor is a microprocessor-based instrument which, when connected to an Edwards thermodilution catheter, measures cardiac output both continuously (CCO) and by the intermittent bolus (injectate) method (ICO), as well as continuously generates right ventricular ejection fraction (EF) and end diastolic volume (EDV). When connected to an Edwards oximetry catheter, the monitor measure oxygen saturation (oximetry).

Intended Use: The *Vigilance* CCO/SvO₂/CEDV Monitor is intended to calculate and display ICO, CCO, oximetry and EF and compute derived hemodynamic and oxygenation parameters, including EDV.

Comparative Analysis: The *Vigilance* CCO/SvO₂/CEDV Monitor has been demonstrated to be as safe and effective as the predicate devices for its intended use.

Functional/Safety Testing: The *Vigilance* CCO/SvO₂/CEDV Monitor has successfully undergone functional testing as well as electrical safety testing. It has been shown to be equivalent to the predicate device.

Conclusion: The *Vigilance* CCO/SvO₂/CEDV Monitor is substantially equivalent to the predicate devices.



Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

APR 26 2004

Ms. Paula A. Torrianni
Manager, Regulatory Affairs
Edwards Lifesciences LLC.
One Edwards Way
Irvine, CA 92614

Re: K040287

Trade Name: Vigilance Continuous Cardiac Output/Oximetry/Continuous End Diastolic
Volume (CCO/SvO2/CEDV)

Regulation Number: 21 CFR 870.1435

Regulation Name: Computer, Diagnostic, Pre-programmed, Single-function

Regulatory Class: II (two)

Product Code: DXG, DQE

Dated: February 5, 2004

Received: February 6, 2004

Dear Ms. Torrianni:

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 either class II (Special Controls) or class III (PMA), it may be subject to such 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

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comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); 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.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket 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 Part 801), please contact the Office of Compliance at (301) 594-4648. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). 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) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,



 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): K040287

Device Name: *Vigilance* CCO/SvO₂/CEDV Monitor

Indications For Use:

The *Vigilance* CCO/SvO₂/CEDV Monitor is indicated for use in patients requiring monitoring of hemodynamic parameters, including cardiac output, oximetry and right ventricular ejection fraction and end diastolic volume measurements.

Prescription Use X
(Part 21 CFR 801 Subpart D)

AND/OR

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

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

Concurrence of CDRH, Office of Device Evaluation (ODE)

Danna D. Kochner
(Division Sign-Off)
Division of Cardiovascular Devices

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