SUMMARY OF SAFETY AND EFFECTIVENESS

Dec 31, 2001

DINAMAP® Pro Series 110-410 Monitor

A. Submitter
   GE Medical Systems Information Technologies
   4502 Woodland Corporate Boulevard
   Tampa, FL 33614

B. Company Contact
   Thomas J English
   Director, Regulatory Affairs
   Phone: 813-887-2107
   Fax: 813-887-2413

C. Common Name
   Physiological or Vital Signs Monitor, Patient Monitor

<table>
<thead>
<tr>
<th>Classification Name</th>
<th>Product Code</th>
<th>21 CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>System, Measurement, Blood Pressure, Noninvasive</td>
<td>DXN</td>
<td>870.1130</td>
</tr>
<tr>
<td>Computer, Blood Pressure</td>
<td>DSK</td>
<td>870.1110</td>
</tr>
<tr>
<td>Alarm, Blood Pressure</td>
<td>DSJ</td>
<td>870.1100</td>
</tr>
<tr>
<td>Oximeter</td>
<td>DQA</td>
<td>870.2700</td>
</tr>
<tr>
<td>Oximeter, Ear</td>
<td>DPZ</td>
<td>870.2710</td>
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<tr>
<td>Thermometer, Clinical Electronic</td>
<td>FLL</td>
<td>880.2910</td>
</tr>
<tr>
<td>Recorder, Paper Chart</td>
<td>DSF</td>
<td>870.2810</td>
</tr>
</tbody>
</table>

D. Predicate/Legally Marketed Devices
   DINAMAP® Pro Series Monitor 100-400-K992638
   Critikon Company, LLC

E. Device Description
   The DINAMAP Pro Series 110-410 Monitor is a prescription device intended for use only by health care professionals. Four configurations of the monitor—all with integrated printer—will offer the following vital signs parameters:
   - DINAMAP 110: Non-Invasive Blood Pressure and Pulse Rate
   - DINAMAP 210: Non-Invasive Blood Pressure and Pulse Rate, Temperature
   - DINAMAP 310M: Non-invasive Blood Pressure and Pulse Rate, Pulse Oximetry
   - DINAMAP 410M: Non-Invasive Blood Pressure and Pulse Rate, Pulse Oximetry and Temperature.

   This portable device includes an integrated printer and is capable of operation from an external AC mains power source or an internal lead-acid rechargeable battery.
F. Intended Use
The DINAMAP® Pro Series 110-410 Monitor is intended to monitor a single adult, pediatric or neonatal patient’s vital signs at the bedside or during intra-hospital transport. Vital signs parameters include non-invasive blood pressure (systolic, diastolic, and mean arterial pressure), pulse rate, and/or oxygen saturation (pulse oximetry) and/or temperature. The portable device is designed for use in numerous clinical settings in various hospital departments such as emergency, radiology, recovery, medical/ surgical, labor and delivery, endoscopy, cardiac step-down. It can also be used in satellite areas, physicians’ offices, or alternate care settings.

G. Technological Characteristics
The DINAMAP® Pro Series 110-410 Monitor has the same technological characteristics as the predicate device, the DINAMAP® Pro Series 100-400 Monitor. There are no new technologies used on the DINAMAP® Pro Series 110-410 Monitor.

H. Parameter Technology
The DINAMAP® Pro Series 110-410 Monitor has the following parameter technologies:
- NIBP ASAP algorithm wholly implemented from the DINAMAP Pro 1000 Monitor
- Wholly implemented Alaris IVAC Turbo thermometry technology
- Wholly implemented Masimo SpO2 SET technology

I. Testing
Several bench studies were conducted which demonstrate safety and effectiveness of the DINAMAP® Pro Series 110-410 Monitor:
- Mechanical and Environmental
- Electromagnetic Compatibility
- Electrical Safety

K. Substantial Equivalence

<table>
<thead>
<tr>
<th>Pro Series 110-410</th>
<th>Predicate Device &amp; Model</th>
<th>510(k) Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor</td>
<td>DINAMAP Pro Series 100-400</td>
<td>K992638</td>
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<tr>
<td>Pulse Oximetry</td>
<td>Masimo</td>
<td>K992238</td>
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<td>Temperature</td>
<td>Alaris Medical System</td>
<td>K955846</td>
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<tr>
<td>NIBP</td>
<td>DINAMAP Pro 1000</td>
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FEB 01 2002

Mr. Thomas English  
Director, Regulatory Affairs  
GE Medical Systems Information Technologies  
4502 Woodland Corporate Blvd.  
Tampa, FL  33614

Re: K020022  
Trade Name: DINAMAP® Pro Series 110-410 Monitor  
Regulation Number: 21 CFR 870.2300  
Regulation Name: Cardiac Monitor (Including Cardiotachometer and Rate Alarm)  
Regulatory Class: Class II (two)  
Product Code: MWI  
Dated: December 31, 2001  
Received: January 3, 2002

Dear Mr. English:

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 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 and additionally 21 CFR Part 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4646. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained 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.
Acting Director
Division of Cardiovascular
and Respiratory Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure
INDICATIONS FOR USE

510(k) Number (if known): K020022

Device Name: DINAMAP® Pro Series 110-410 Monitor

Indications for Use:

The DINAMAP® Pro Series 110-410 Monitor is intended to monitor a single adult, pediatric or neonatal patient’s vital signs at the bedside or during intra-hospital transport. Vital signs parameters include non-invasive blood pressure (systolic, diastolic, and mean arterial pressure), pulse rate and/or temperature and/or oxygen saturation (pulse oximetry). The portable device is designed for use in numerous clinical settings in various hospital departments such as emergency, radiology, recovery, medical/surgical, labor and delivery, endoscopy, cardiac step-down. It can also be used in satellite areas, physicians’ offices, or alternate care settings.

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

Concurrence of CDRH, Office of Device Evaluation (ODE)

Signature

Prescription Use ✓ OR Over-The Counter Use
(per 21 CFR 801.109 (Optional Format 1-2-96)

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