510(K) Summary

1. Name of Submitter: Hospira, Inc.
   275 North Field Drive
   Lake Forest, Illinois 60045

   Owner/Operator # 9063339

2. Manufacturer and Establishment Registration Number:
   Hospira, Inc. – Morgan Hill
   755 Jarvis Drive
   Morgan Hill, CA 95037

3. Proprietary or Trade Name of Proposed Device:
   Hospira GemStar® Infusion Pump Systems

4. Common Name: Infusion Pump
   IV Administration Sets

5. Device Classification, Pancode and ProCode: Class II, FRN (Infuser)
   Class II, FPA (IV Administration Sets)
   Class II, MRZ (Infusion Pump Lockboxes)

6. Performance Standards: No performance standards have been established under Section 514 of the
   Food, Drug and Cosmetic Act for intravenous infusion pumps. Infusion pumps are listed in
   21 CFR 880.5725.

7. Intended Use:
   The Hospira GemStar® Infusion Pump System with Hospira GemStar® Pump Sets and accessories
   is intended for use in intravenous, arterial, subcutaneous, short term epidural infusion and parenteral
   administration of general I.V. fluids, medications, nutritional fluids, and blood/blood products.

8. Indications for Use:
   The indications for use include hospital, ambulatory, and home care environments. The pump must be
   used with sterile, dedicated, GemStar® administration sets.

9. Proposed Device Description:
   The Hospira GemStar® Infusion Pump Systems are a family of single channel, software controlled,
   electromechanical infusion pumps that operate on a volumetric, piston driven, fluid displacement
   principle. An in-line cassette is used to meter IV fluids through sterile dedicated administration sets
   designed to be used exclusively with GemStar infusers. Power options included AC main adaptors, a
   rechargeable battery pack, a docking station, and two disposable AA batteries. The user interface allows
   the healthcare practitioner to program fluid delivery through a variety of weight and medication based
   units. The pump displays provide visible indication of several functions, including active pump
   operations, alarms, program status, and the parameters of fluid flow. The infusers function as both pole
mounted and ambulatory infusion pumps.

As of May 03, 2004, both the infusers and the dedicated GemStar® sets are manufactured and distributed by Hospira Incorporated, formerly the Hospital Products Division of Abbott Laboratories.

All Hospira GemStar® I.V. Infusion Pumps are single channel pumps that are available in the following configurations:

<table>
<thead>
<tr>
<th>Therapy Pump Configuration</th>
<th>I.V. Therapy Pump</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPN (Total Parenteral Nutrition)</td>
<td>TPN (Total Parenteral Nutrition)</td>
</tr>
<tr>
<td>Pain Management</td>
<td>Intermittent</td>
</tr>
<tr>
<td>Intermittent</td>
<td>Continuous</td>
</tr>
<tr>
<td>Continuous</td>
<td>Weight-Dosed</td>
</tr>
<tr>
<td>Weight-Dosed</td>
<td>Variable Time</td>
</tr>
<tr>
<td>Variable Time</td>
<td>mL/hr Only</td>
</tr>
<tr>
<td>mL/hr Only</td>
<td>Pain Management Only</td>
</tr>
</tbody>
</table>

10. Predicate Device Information:
Devices cleared for commercial distribution and determined to be appropriate for use as predicates are summarized in the following table.

<table>
<thead>
<tr>
<th>510(k) #</th>
<th>Product Name</th>
<th>Clearance Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>K051079</td>
<td>Hospira GemStar Infusion Pump System with Hospira GemStar Spring Assist Mechanism Lockbox</td>
<td>05/19/2005</td>
</tr>
<tr>
<td>K023062</td>
<td>Abbott GemStar® Infusion Pump System</td>
<td>09/30/2002</td>
</tr>
</tbody>
</table>

11. Comparison to Legally Marketed Device(s)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Subject Device(s)</th>
<th>Predicate Device(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intended Use</td>
<td>Intended for use in intravenous, arterial, subcutaneous, short term epidural infusion and parenteral administration of general I.V. fluids, medications, nutritional fluids, and blood/blood products.</td>
<td>Same</td>
</tr>
<tr>
<td>Indications for Use</td>
<td>Hospital, ambulatory, and home care environments using sterile, dedicated, GemStar® administration sets.</td>
<td>Same</td>
</tr>
<tr>
<td>Operating Principle</td>
<td>Volumetric, piston driven, fluid displacement principle. Stepper motor with in-line cassette meters IV fluids through sterile dedicated administration sets. Programmable fluid delivery through a variety of weight and medication based units. Visible indication of several functions, including active pump operations, alarm and program status, and the parameters of fluid flow.</td>
<td>Same</td>
</tr>
<tr>
<td>Factors</td>
<td>Subject/Device(s)</td>
<td>Predicate Device(s)</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Administration Sets and Fluid Contact Materials</td>
<td>Sterile, dedicated, non-pyrogenic, latex-free “GemStar” administration sets.</td>
<td>Different</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Addition of (3) new sets to GemStar Set line since last cleared 510(k).</td>
</tr>
<tr>
<td>Physical Features</td>
<td>Materials, Size, Weight, Input Lines, Output Lines, Power Sources, Battery Type, Power Cord</td>
<td>Different</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1) Slight increase in Weight and Height</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Removal of the disposable AA lithium batteries, NiMH Battery Pack, and NiMH Docking Station as options.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) Change in Pump Top Cap Material</td>
</tr>
<tr>
<td>Environmental Features</td>
<td>Operating Temperature, Storage Temperature, Relative Humidity, Pressure</td>
<td>Same</td>
</tr>
<tr>
<td>Performance Features</td>
<td>Delivery Rates, VTBI Range, Dose Units, Delivery Accuracy, Delivery Modes, Therapies, Distal Occlusion Limits, Proximal Occlusion Limits, Alarm Types and Conditions, Default Drug Library.</td>
<td>Different</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1) Addition of a programming option within Weight Dosed Therapy to permit delivery of Precedex® (dexmedetomidine hydrochloride injection).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Increased programming and delivery precision for pain management therapies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) Allowance for VTBI titration without changing container size.</td>
</tr>
<tr>
<td>BioMed Settings</td>
<td>Configuration settings available for customization.</td>
<td>Different</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Option to custom configure air sensitivity default lockout.</td>
</tr>
</tbody>
</table>
## Key Accessories

<table>
<thead>
<tr>
<th>Factors</th>
<th>Subject Device(s)</th>
<th>Predicate Device(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Accessories (Optional)</td>
<td>GemStar Connect Remote Communication Software (Clinician Kit, Patient Kit), Docking Station (2), Bolus Cord, Battery Pack (2), Lockboxes (4), AC Mains Adapters (3), Carrying Cases (4) and Carrier, Serial Cable</td>
<td>Different</td>
</tr>
</tbody>
</table>

### 12. Statement of Substantial Equivalence:
Hospira GemStar® Infusion Pump Systems with the Hospira GemStar® Pump Sets and accessories are substantially equivalent to the predicate devices identified in the submission.

**Similarities:**
1) Same intended use and indications for use.
2) Same fundamental scientific technology.
3) Similar physical, operational, and performance specifications.
4) Similar materials of construction for all infuser components.
5) Same materials of construction for new administration sets as previously cleared sets.

### 13. Statement of Safety and Effectiveness
Hospira GemStar® Infusion Pump System with Hospira GemStar® Pump Sets and accessories meet the functional claims and intended use as described in the product labeling, and are as safe and effective in terms of substantial equivalence as the predicate devices described in the submission.

Prepared and submitted by:
Patricia Melerski
Manager, Global Device Regulatory Affairs
Hospira, Inc.
275 North Field Drive
Lake Forest, IL 60045
Phone: 224/212-4880
Fax: 224/212-5401
Ms. Patricia Melerski  
Manager, Global Device Regulatory Affairs  
Hospira, Incorporated  
275 N. Field Drive, Building H-2, Dept. 389  
Lake Forest, Illinois 60045  

Re: K060806  
Trade/Device Name: Hospira GemStar® Infusion Pump System  
Regulation Number: 880.5725  
Regulation Name: Infusion Pump  
Regulatory Class: II  
Product Code: FRN  
Dated: March 23, 2006  
Received: April 24, 2006  

Dear Ms. Melerski:

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), please contact the Office of Compliance at (240) 276-0115. Also, please note the regulation entitled, ”Misbranding by reference to premarket notification” (21 CFR 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/industry/support/index.html.

Sincerely yours,

Chiu Lin, Ph.D.
Director
Division of Anesthesiology, General Hospital, Infection Control and Dental Devices
Office of Device Evaluation
Center for Devices and Radiological Health

Enclosure
Indications for Use Statement

510(k) Number (if known)

Device Name: Hospira GemStar® Infusion Pump System

Indications for Use

The Hospira GemStar® Infusion Pump System is intended for use in intravenous arterial, subcutaneous, short term epidural infusion and parenteral administration of general I.V. fluids, medications, nutritional fluids, and blood/blood products.

The indications for use include hospital, ambulatory, and home care environments. The pump must be used with sterile, dedicated, GemStar® administration sets.

Prescription Use _X__ AND/OR Over-The-Counter Use ___
(Part 21 801 Subpart D) (Part 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)