

FEB 19 2010

## 510(k) Summary

**Sponsor:** Pioneer Surgical Technology  
375 River Park Circle  
Marquette, MI 49855  
(906) 226-4812  
Contact: Emily M. Downs

**Device Name:** Pioneer Posterior Cervico-Thoracic System

**Classification Name:** Spinal Interlaminar Fixation Orthosis  
Pedicule Screw System

**Classification Number:** Product Code/ Regulation Number:  
KWP/ 888.3050 – Spinal Interlaminar Fixation Orthosis  
MNI/ 888.3070(b)(1)- Pedicle Screw Spinal System  
MNH/ 888.3070(b)(1)- Pedicle Screw Spinal System  
Panel Code: 87

**Description:** The Pioneer Posterior Cervico-Thoracic System consists of a variety of rods, hooks, polyaxial screws, favored angle screws, locking caps, and connecting components used to build a cervico-thoracic spinal construct.  
  
The Pioneer Posterior Cervico-Thoracic System components are manufactured from medical grade titanium alloy and medical grade cobalt chromium. Medical grade titanium alloy and medical grade cobalt chromium may be used together.  
  
The Pioneer Posterior Cervico-Thoracic System can be attached to Pioneer Quantum® Spinal Rod System using parallel connectors.  
  
The system also contains Class 1 manual surgical instruments and cases that are considered exempt from premarket notification.

**Intended Use:** The Pioneer Posterior Cervico-Thoracic System is indicated to promote fusion of the cervico- thoracic regions of the spine (C1-T3). The intended indications are as follows:

- Degenerative Disc Disease (as defined by neck or back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies
- Spondylolisthesis

**Pioneer Posterior Cervico-Thoracic System**

- Spinal Stenosis
- Fracture/ Dislocation
- Deformities or Curvature
- Tumors
- Pseudoarthrosis
- Revision of previous cervical and upper thoracic spine surgery

The use of the screws is limited to placement in the upper thoracic spine (T1-T3) in treating thoracic conditions only. The screws are not intended for use in the cervical spine.

The hooks and rods are also intended to provide stabilization to promote fusion following reduction of fracture/ dislocation or trauma in the cervical/ upper thoracic (C1-T3) spine.

**Material:** Materials used to manufacture the implants and instruments of this system follow ASTM Standard Specifications.

**Performance Data:** Testing per recognized ASTM standards was presented.

**Performance and SE Determination:** The characteristics of the Pioneer Posterior Cervico-Thoracic System are similar to the following predicate devices:

1. Atoll Cervico-Thoracic System (K070638), Theken Spine, SE date 05/30/2007.
2. Summit OCT Spinal System (K002733), DePuy AcroMed, Inc., SE date 12/15/2000.
3. VERTEX™ Reconstruction System (K003780), Medtronic Sofamor Danek USA, Inc., SE date 09/28/2001.
4. Spine Oasys System (K032394), Stryker, SE date 2/20/2004
5. Cervifix/ Starlock System (K990965) Synthes (USA), SE date 7/1/1999.

Equivalence for Pioneer Posterior Cervico-Thoracic System is based on similarities of intended use, design, and physical characteristics when compared to predicate devices. Therefore, Pioneer Surgical Technology believes that there is sufficient evidence to conclude that the Pioneer Posterior Cervico-Thoracic System is substantially equivalent to existing legally marketed devices.



Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room W-066-0609  
Silver Spring, MD 20993-0002

FEB 19 2010

Pioneer Surgical Technology, Inc.  
% Ms. Emily M. Downs  
375 River Park Circle  
Marquette, Michigan 49855

Re: K092295

Trade/Device Name: Pioneer Posterior Cervico-Thoracic System  
Regulation Number: 21 CFR 888.3050  
Regulation Name: Spinal interlaminar fixation orthosis  
Regulatory Class: Class II  
Product Code: KWP, MNI, MNH  
Dated: February 12, 2010  
Received: February 16, 2010

Dear Ms. Downs:

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.

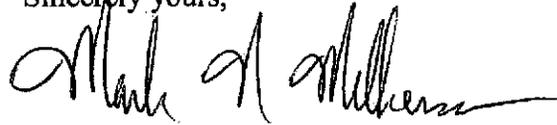
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's 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" (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/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Mark N. Melkerson  
Director  
Division of Surgical, Orthopedic  
and Restorative Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

Pioneer Posterior Cervico-Thoracic System

**3.0 Indications for Use Statement**

510(k) Number (if known): K09 2295

Device Name: Pioneer Posterior Cervico-Thoracic System

**Indications:**

The Pioneer Posterior Cervico-Thoracic System is indicated to promote fusion of the cervico- thoracic regions of the spine (C1-T3). The intended indications are as follows:

- Degenerative Disc Disease (as defined by neck or back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies
- Spondylolisthesis
- Spinal Stenosis
- Fracture/ Dislocation
- Deformities or Curvature
- Tumors
- Pseudoarthrosis
- Revision of previous cervical and upper thoracic spine surgery

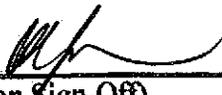
The use of the screws is limited to placement in the upper thoracic spine (T1-T3) in treating thoracic conditions only. The screws are not intended for use in the cervical spine.

The hooks and rods are also intended to provide stabilization to promote fusion following reduction of fracture/ dislocation or trauma in the cervical/ upper thoracic (C1-T3) spine.

Prescription Use   ✓   OR Over-the-Counter Use \_\_\_\_\_  
(Per 21 CFR 801.109)

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

Concurrence of CDRH, Office of Device Evaluation (ODE)

  
\_\_\_\_\_  
(Division Sign-Off)  
Division of Surgical, Orthopedic,  
and Restorative Devices

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