

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

April 5, 2017

K2M, Inc. Ms. Nancy Giezen Manager, Regulatory Affairs 600 Hope Parkway Southeast Leesburg, Virginia 20175

Re: K161332

Trade/Device Name: NILE Proximal Fixation Spinal System

Regulation Number: 21 CFR 888.3010 Regulation Name: Bone fixation cerclage

Regulatory Class: Class II Product Code: OWI Dated: March 6, 2017 Received: March 7, 2017

Dear Ms. Giezen:

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 <u>Federal Register</u>.

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 contact the Division of Industry and Consumer Education 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. 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

<u>http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm</u> 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 Industry and Consumer Education 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 -S

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

Enclosure

# DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration

# **Indications for Use**

Form Approved: OMB No. 0910-0120 Expiration Date: January 31, 2017 See PRA Statement below.

Device Name NILE Proximal Fixation Spinal System  Indications for Use (Describe)  The NILE Alternative Fixation and NILE Proximal Fixation Spinal Systems are temporary implants for use in orthopedic surgery. The systems are intended to provide temporary stabilization as a bone anchor during the development of solid bony fusion and aid in the repair of bone fractures.
NILE Proximal Fixation Spinal System  Indications for Use (Describe)  The NILE Alternative Fixation and NILE Proximal Fixation Spinal Systems are temporary implants for use in orthopedic surgery. The systems are intended to provide temporary stabilization as a bone anchor during the development of solid
The NILE Alternative Fixation and NILE Proximal Fixation Spinal Systems are temporary implants for use in orthopedic surgery. The systems are intended to provide temporary stabilization as a bone anchor during the development of solid
surgery. The systems are intended to provide temporary stabilization as a bone anchor during the development of solid
The indications for use include the following applications:
<ol> <li>Spinal trauma surgery, used in sublaminar, interspinous, or facet wiring techniques;</li> <li>Spinal reconstructive surgery, incorporated into constructs for the purpose of correction of spinal deformities such as idiopathic and neuromuscular scoliosis in patients 8 years of age and older, adult scoliosis, kyphosis, and spondylolisthesis;</li> <li>Spinal degenerative surgery, as an adjunct to spinal fusions.</li> </ol>
The NILE Alternative Fixation and NILE Proximal Fixation Spinal Systems may also be used in conjunction with other medical implants made of similar metals whenever 'wiring' may help secure the attachment of other implants.

Type of Use (Select one or both, as applicable)

Prescription Use (Part 21 CFR 801 Subpart D)

Over-The-Counter Use (21 CFR 801 Subpart C)

# CONTINUE ON A SEPARATE PAGE IF NEEDED.

This section applies only to requirements of the Paperwork Reduction Act of 1995.

# \*DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.\*

The burden time for this collection of information is estimated to average 79 hours per response, including the time to review instructions, search existing data sources, gather and maintain the data needed and complete and review the collection of information. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden, to:

Department of Health and Human Services Food and Drug Administration Office of Chief Information Officer Paperwork Reduction Act (PRA) Staff PRAStaff@fda.hhs.gov

"An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB number."

# 510(k) SUMMARY NILE Proximal Fixation Spinal System

### **Submitter**

K2M, Inc.
Contact Person: Nancy Giezen
600 Hope Parkway SE
Leesburg, VA 20175
Contact Person: Nancy Giezen
Telephone: 571-919-2000
Date Prepared: 4/3/2017

#### Classification

Trade Name: NILE Proximal Fixation Spinal System

Common Name: Bone Fixation Cerclage

Regulatory Class: Class II

Classification Name(s):

Bone Fixation Cerclage (21 CFR 888.3010, Product Code OWI)

#### **Predicate Device(s)**

**Primary Predicate:** 

K2M NILE Alternative Fixation Spinal System (K143350)

Reference Devices:

K2M Range/ Denali/ Mesa Spinal System (K153031)

K2M Everest Spinal System (K151727)

# **Device Description**

The NILE Proximal Fixation Spinal System is a multiple component spinal fixation system intended for application to the thoracic, lumbar and sacral spine. The band is manufactured from polyethylene terephthalate (PET) and the connectors are made from titanium alloy in accordance with ASTM F136.

Function: The NILE Proximal Fixation Spinal System is designed to be used in conjunction with spinal rod constructs for attachment to the posterior vertebral structures.

The purpose of this submission is to add bands and connectors to the Nile system.

#### **Indications For Use**

The NILE Alternative Fixation and NILE Proximal Fixation Spinal Systems are temporary implants for use in orthopedic surgery. The systems are intended to provide temporary stabilization as a bone anchor during the development of solid bony fusion and aid in the repair of bone fractures.

The indications for use include the following applications:

- 1. Spinal trauma surgery, used in sublaminar, interspinous, or facet wiring techniques;
- 2. Spinal reconstructive surgery, incorporated into constructs for the purpose of correction of spinal deformities such as idiopathic and neuromuscular scoliosis in patients 8 years of age and older, adult scoliosis, kyphosis, and spondylolisthesis;
- 3. Spinal degenerative surgery, as an adjunct to spinal fusions.

The NILE Alternative Fixation and NILE Proximal Fixation Spinal Systems may also be used in conjunction with other medical implants made of similar metals whenever 'wiring' may help secure the attachment of other implants.

# **Technological Comparison to Predicate(s)**

The NILE Proximal Fixation Spinal System implants were compared to predicate devices and the design features, materials and intended uses were found to be substantially equivalent to these systems.

#### **Non-clinical Performance Evaluation**

The NILE Proximal Fixation Spinal System implants were tested in accordance with ASTM F1717 and compared to predicate devices. The NILE Proximal Fixation system implants performed equally to or better than these systems in static and dynamic compression, static torsion, static and dynamic tension and axial slip per ASTM F1798. Bacterial endotoxin testing (BET) as specified in ANSI/AAMI ST72:2011 was also performed and will be routinely repeated to ensure that the Endotoxin limit of <20EU/Device is maintained.

#### **Conclusion**

There are no significant differences between the NILE Proximal Fixation Spinal System implants and other systems currently being marketed which would adversely affect the use of the product. It is substantially equivalent to these other devices in design, function, material and performance.