



Medos International SARL
% Denielle Smith
Regulatory Affairs Specialist
DePuy Synthes Spine
325 Paramount Dr
Raynham, Massachusetts 02767

December 12, 2023

Re: K233684

Trade/Device Name: TriALTIS™ Spine System
Regulation Number: 21 CFR 888.3070
Regulation Name: Thoracolumbosacral Pedicle Screw System
Regulatory Class: Class II
Product Code: NKB, PML
Dated: November 16, 2023
Received: November 16, 2023

Dear Denielle Smith:

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 (the 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. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database available at <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm> identifies combination product submissions. 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.

Additional information about changes that may require a new premarket notification are provided in the FDA guidance documents entitled "Deciding When to Submit a 510(k) for a Change to an Existing Device" (<https://www.fda.gov/media/99812/download>) and "Deciding When to Submit a 510(k) for a Software Change to an Existing Device" (<https://www.fda.gov/media/99785/download>).

Your device is also subject to, among other requirements, the Quality System (QS) regulation (21 CFR Part 820), which includes, but is not limited to, 21 CFR 820.30, Design controls; 21 CFR 820.90, Nonconforming product; and 21 CFR 820.100, Corrective and preventive action. Please note that regardless of whether a change requires premarket review, the QS regulation requires device manufacturers to review and approve changes to device design and production (21 CFR 820.30 and 21 CFR 820.70) and document changes and approvals in the device master record (21 CFR 820.181).

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 Part 803) for devices or postmarketing safety reporting (21 CFR Part 4, Subpart B) for combination products (see <https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR Part 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR Parts 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance>) and CDRH Learn (<https://www.fda.gov/training-and-continuing-education/cdrh-learn>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice>) for more information or contact DICE by email (DICE@fda.hhs.gov) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

**Eileen
Cadel -S** Digitally signed
by Eileen Cadel -
S
Date: 2023.12.12
08:23:06 -05'00' for

Colin O'Neill, M.B.E.
Assistant Director
DHT6B: Division of Spinal Devices
OHT6: Office of Orthopedic Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Enclosure

Indications for Use

510(k) Number (if known)
K233684

Device Name
TriALTIS™ Spine System

Indications for Use (Describe)

The TriALTIS™ Spine System is intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of acute and chronic instabilities or deformities of the thoracic, lumbar and sacral spine.

The TriALTIS™ Spine System is intended for pedicle fixation of the thoracic, lumbar, and sacral spine (T1-S2) and nonpedicle fixation for the following indications: degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies); spondylolisthesis; trauma (i.e., fracture or dislocation); spinal stenosis; curvatures (i.e., scoliosis, kyphosis, and/or lordosis); tumor, pseudarthrosis; and failed previous fusion in skeletally mature patients.

When used for posterior pedicle screw fixation of the thoracic, lumbar, and sacral spine (T1-S2) in pediatric patients, the TriALTIS™ Spine System is indicated as an adjunct to fusion to treat spinal deformities (i.e., scoliosis, kyphosis, or lordosis) including adolescent idiopathic scoliosis, neuromuscular scoliosis, and congenital scoliosis. Additionally, the TriALTIS™ Spine System is intended to treat pediatric patients diagnosed with: spondylolisthesis/spondylolysis, fracture caused by tumor and/or trauma, pseudarthrosis, and/or failed previous fusion. The TriALTIS™ Spine System is intended to be used with autograft and/or allograft. Pediatric pedicle screw fixation is limited to a posterior approach.

When the TriALTIS™ Spine System fenestrated screws are used in conjunction with CONFIDENCE™ High Viscosity Spinal Cement, the TriALTIS™ Spine System is intended to stabilize the spinal column even in the absence of fusion for a limited time period in patients with advanced stage tumors involving the thoracic and lumbar spine in whom life expectancy is of insufficient duration to permit achievement of fusion. The TriALTIS™ fenestrated screws augmented with the CONFIDENCE™ High Viscosity Spinal Cement is for use at spinal levels where the structural integrity of the spine is not severely compromised.

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.

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K233684

510(k) Summary

Prepared on: 2023-11-16

Contact Details

[21 CFR 807.92\(a\)\(1\)](#)

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Correspondent Contact Ms. Denielle Smith

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Device Name

[21 CFR 807.92\(a\)\(2\)](#)

Device Trade Name TriALTIS™ Spine System

Common Name Thoracolumbosacral pedicle screw system

Classification Name Thoracolumbosacral Pedicle Screw System

Regulation Number 888.3070

Product Code NKB, PML

Legally Marketed Predicate Devices

[21 CFR 807.92\(a\)\(3\)](#)

Predicate #	Predicate Trade Name (Primary Predicate is listed first)	Product Code
K231479	TriALTIS Spine System	NKB, PML

Device Description Summary

[21 CFR 807.92\(a\)\(4\)](#)

The TriALTIS™ Spine System is a posterior spinal fixation system intended to provide immobilization and stabilization of spinal segments as an adjunct to fusion of the thoracic lumbar and sacral spine (T1-S2). The system is composed of multiple components to allow the surgeon to build an implant system to fit the patient's anatomical and physiological requirements. The system consists of bone anchors (such as screws) for connection by longitudinal components (such as rods) via an interconnection mechanism (e.g., set screws) to link the longitudinal components for additional stability. The TriALTIS™ System implant components are comprised of Titanium alloy conforming to ASTM F136, and Cobalt-Chromium-Molybdenum alloy conforming to ASTM F1537.

Intended Use/Indications for Use

[21 CFR 807.92\(a\)\(5\)](#)

The TriALTIS™ Spine System is intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of acute and chronic instabilities or deformities of the thoracic, lumbar and sacral spine.

The TriALTIS™ Spine System is intended for pedicle fixation of the thoracic, lumbar, and sacral spine (T1-S2) and nonpedicle fixation for the following indications: degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies); spondylolisthesis; trauma (i.e., fracture or dislocation); spinal stenosis; curvatures (i.e., scoliosis, kyphosis, and/or lordosis); tumor, pseudarthrosis; and failed previous fusion in skeletally mature patients.

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When the TriALTIS™ Spine System fenestrated screws are used in conjunction with CONFIDENCE™ High Viscosity Spinal Cement, the TriALTIS™ Spine System is intended to stabilize the spinal column even in the absence of fusion for a limited time period in patients with advanced stage tumors involving the thoracic and lumbar spine in whom life expectancy is of insufficient duration to permit achievement of fusion. The TriALTIS™ fenestrated screws augmented with the CONFIDENCE™ High Viscosity Spinal Cement is for use at spinal levels where the structural integrity of the spine is not severely compromised.

Indications for Use Comparison

[21 CFR 807.92\(a\)\(5\)](#)

The TriALTIS™ Spine System is substantially equivalent to the predicate, cleared in K231479. The devices have the same intended use, design, material and performance characteristics as the predicate devices. This submission is to update the TriALTIS™ Spine System labeling to include compatibility with existing spine systems offered by Medos International SARL: SYMPHONY OCT, EXPEDIUM Spine System titanium alloy, EXPEDIUM VERSE, VIPER, VIPER 2, VIPER PRIME. No design changes are being introduced in this submission for the existing spine systems. Engineering rationale demonstrating compatibility of the TriALTIS™ Spine System with the existing spine systems. The TriALTIS™ Spine System labeling, specifically the indications for use and compatibility sections, include proposed updates as the only changes being made to the system. The indications of the TriALTIS™ were updated to remove redundant language and add clarity. In accordance to 21 CFR 807.92(a)(5), the difference does not constitute a new intended use and are not critical to the intended therapeutic, diagnostic, prosthetic, or surgical use of the device. The changes do not affect the safety and effectiveness of the device when used as labeled. The remaining verbiage of the indications for use for the TriALTIS™ Spine System are identical to the predicate submission.

Technological Comparison

[21 CFR 807.92\(a\)\(6\)](#)

Evaluation of the subject device intended use, technological characteristics, and performance data demonstrates substantial equivalence with the predicate devices.

Non-Clinical and/or Clinical Tests Summary & Conclusions

[21 CFR 807.92\(b\)](#)

Evaluation of the subject device performance data as compared to the predicate system has found that the TriALTIS™ Spine system has a substantially equivalent safety and effectiveness profile compared to the predicate system identified above. Clinical testing is not applicable.