



K113718 #1/2

JAN 27 2012

P.O. Box 708
Warsaw, IN 46581-0708
574 267-6131

510(k) Summary

Sponsor: Zimmer, GmbH
SulzerAllee 8
Winterthur, Switzerland CH-8404

Contact Person: Stephen H. McKelvey
Senior Project Manager, Trauma Regulatory Affairs
Telephone: (574) 372-4944
Fax: (574) 371-8760

Date: December 16, 2011

Trade Name: NCB[®] Straight Narrow Shaft Plates

Common Name: Locking Plate System

Classification Names and References: Plate, Fixation, Bone
(21 CFR 888.3030)

Predicate Devices: 4.5mm Locking Compression Plate (LCP) System with Expanded Indications, manufactured by Synthes, K082807, cleared January 13, 2009, and NCB Periprosthetic Femur Polyaxial Locking Plate System, manufactured by Zimmer, K100111, cleared April 12, 2010.

Device Description: The NCB Straight Narrow Shaft Plates are a line of polyaxial locking plates for the treatment of humeral and tibial shaft fractures, including periprosthetic fractures. The NCB System technology allows for polyaxial screw placement (30° cone) with screw locking achieved with the use of locking caps that are threaded into the plate holes. In the locked mode the NCB Straight Narrow Shaft Plate acts as an internal fixator without contact between the plate and the bone surface, reducing the risk of periosteal blood supply impairment. This Non-Contact-Bridging concept can be specifically controlled through the use of 1, 2, or 3mm spacers, which are threaded into the plate holes prior to plate insertion. Plates, screws, blind screw inserts, spacers and locking caps are made of titanium alloy.

K11378 #212

Intended Use:

The *NCB* Straight Narrow Shaft Plate is indicated for temporary internal fixation and stabilization of humeral and tibial fractures and osteotomies, including:

- Periprosthetic fractures
- Comminuted fractures
- Fractures in osteopenic bone
- Nonunions
- Malunions

Comparison to Predicate Device:

The *NCB* Straight Narrow Shaft Plates are similar in intended use, materials, sterility, and performance characteristics to the predicate devices.

Performance Data (Nonclinical and/or Clinical):

Non-Clinical Performance and Conclusions:

The results of non-clinical (lab) performance testing demonstrate that the devices are safe and effective and substantially equivalent to the predicate devices.

Engineering analysis as well as results of comparative fatigue testing of the *NCB* Straight Narrow Shaft Plate and Synthes 4.5 mm Locking Compression Plates (predicate devices) resulted in very similar mechanical properties of both devices.

Plate testing/analyses performed included; plate stiffness (bending and torsion), plate fatigue strength, screw/plate construct strength, construct strength with the compatible cables and Cable Button and compression slot resistance to screw pull-through.

A literature review was conducted to substantiate the use of the proposed device in osteopenic bone.

Clinical Performance and Conclusions:

Clinical data and conclusions were not needed for this device.



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

Zimmer GMBH
% Mr. Stephen H. McKelvey
Senior Project Manager, Trauma Regulatory Affairs
P.O. Box 708
Warsaw, Indiana 46581

JAN 27 2012

Re: K113718

Trade/Device Name: NCB[®] Straight Narrow Shaft Plates

Regulation Number: 21 CFR 888.3030

Regulation Name: Single/multiple component metallic bone fixation appliances and accessories

Regulatory Class: Class II

Product Code: HRS, HWC

Dated: December 16, 2011

Received: December 19, 2011

Dear Mr. McKelvey:

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

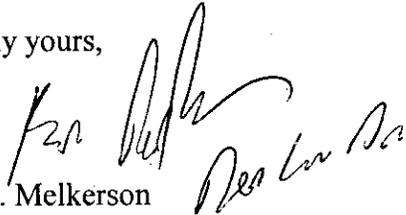
Page 2 – Mr. Stephen H. McKelvey

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

Indications for Use

510(k) Number (if known): K113718

Device Name:

NCB[®] Straight Narrow Shaft Plate

Indications for Use:

The *NCB* Straight Narrow Shaft Plate is indicated for temporary internal fixation and stabilization of humeral and tibial shaft fractures and osteotomies, including:

- Periprosthetic fractures
- Comminuted fractures
- Fractures in osteopenic bone
- Nonunions
- Malunions

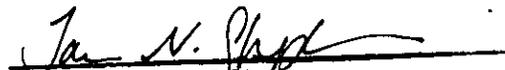
Prescription Use X
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use _____
(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)


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

510(k) Number K113718