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## Summary of Safety and Effectiveness

OCT 31 2012

**Sponsor:** aap Implantate AG  
Lorenzweg 5  
D-12099 Berlin Germany

**Company Contact:** Dipl.-Ing. Marc Seegers  
**Phone:** +49-30-750-19 -192  
**Fax:** +49-30-750-19 - 111

**Date** November 28, 2011

**Trade Name:** aap LOQTEQ® Proximal Lateral Tibia Plate 4.5 System

**Common Name:** Proximal Lateral Tibia Plate System

**Classification:**

**Classification Name and Reference:** 21 CFR 888.3030 Single/multiple component metallic bone fixation appliances and accessories – Class II and 21 CFR 888.3040 Smooth or threaded metallic bone fixation fastener - Class II

**Device Product Code and Panel Code:** Orthopedics/87/ HRS: Plate, Fixation, Bone  
Orthopedics/87/ HWC: Screw, Fixation, Bone

**Predicate device:** 4.5 mm Titanium LCP® Proximal Tibia Plating System, Synthes (USA) premarket notification K023802 (JAN 28 2003).

**Device Description:** Bone plates used for fixation, i.e., for treatment of bone fractures and other bone injuries. Bone plates are fixed with bone screws. Bone plates and bone screws are implants.  
The aap LOQTEQ® Proximal Lateral Tibia Plates 4.5 are anatomically shaped osteosynthesis plates, which met in combination with the use of special screws the function of a Internal Fixator.

The following products are required for application:

- LOQTEQ® Proximal Lateral Tibia Plate 4.5
- LOQTEQ® Cortical Screw 4.5, T25, self-tapping
- LOQTEQ® Cortical Screw 4.5, small head, T25, self-tapping
- Cortical Screw 4.5, self-tapping
- Cortical Screw 4.5, small head, self-tapping
  
- Instruments, Proximal Lateral Tibia Plate 4.5

**Material:** Plates and Screws are made of titanium alloy according to ASTM F136 or ISO 5832-3

**Indication:** The aap LOQTEQ® Proximal Lateral Tibia Plate 4.5 System is intended for treatment of nonunions, malunions, and fractures of the proximal tibia, including simple, comminuted, lateral wedge, depression medial wedge, bicondylar combination of lateral wedge and depression, and fractures with associated shaft fractures.

**Substantial Equivalence:** The Substantial Equivalence of the new device and the predicate device is based on similar intended use, design, functionality, components and materials in use.

Documentation including mechanical testing to show the substantial equivalence and safety and effectiveness has been provided with this submission.

**Performance Data (Non-Clinical and / or Clinical):** Non-clinical tests have been performed and show the effectiveness and safety of the device:

Summary of Non-clinical tests:

Type of test:

Fatigue implant tests with progressive loadings, representing worst case scenario with respect to clinical use.

Assessment of test results:

Substantial equivalence with respect to the mechanical performance of the aap system could be stated due to the test results gained. The subject device is safe and effective, and whose performance meets the requirements of its pre-defined acceptance criteria and intended uses.

Documentation regarding the mechanical testing to show the substantial equivalence and safety and effectiveness has been provided with this submission.



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

aap Implantate  
% Mr. Marc Seegers, Dipl.-Ing., Director QA/RA  
Lorenzweig 5  
D-12099 Berlin Germany

OCT 31 2012

Re: K113602  
Trade/Device Name: aap LOQTEQ Proximal Lateral Tibia Plate 4.5 System  
Regulation Number: 21 CFR 888.3030  
Regulation Name: Single/multiple component metallic bone fixation appliances and accessories  
Regulatory Class: II  
Product Code: HRS, HWC  
Dated: October 19, 2012  
Received: October 22, 2012

Dear Mr. Seegers:

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.

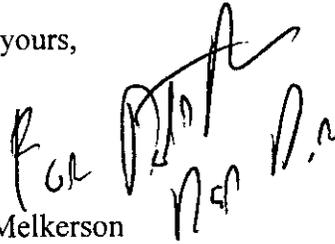
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's 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. Marc Seegers

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" (21CFR 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,

A handwritten signature in black ink, appearing to read "For Mark N. Melkerson". The signature is stylized and somewhat cursive.

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 Statement**

510(k) Number (if known): K113602

**Device Name: LOQTEQ<sup>®</sup> Proximal Lateral Tibia Plate 4.5 System**

**Indications for Use:**

The aap LOQTEQ<sup>®</sup> Proximal Lateral Tibia Plates 4.5 System is intended for treatment of nonunions, malunions, and fractures of the proximal tibia, including simple, comminuted, lateral wedge, depression medial wedge, bicondylar combination of lateral wedge and depression, and fractures with associated shaft fractures.

Prescription Use   
(Part 21 CFR 801 Subpart D)

AND/OR

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

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

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Concurrence of CDRH, Office of Device Evaluation (ODE)



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

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