

FEB 29 2012

**Summary of Safety and Effectiveness**

K113207

Date of Preparation: October 27<sup>th</sup> 2011

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Establishment Registration Number: 9611612

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**Contract Sterilizer:**

Ethylene Oxide;  
External service provider, validated procedure.

**Device Information:**

Device Name:

cannulas/ needles enhanced for ultrasound visibility for anesthesia and analgesia

Trade Names:

Tuohy Sono, SonoTAP, Quincke Sono, Chiba Sono and Crawford Sono

Common Name:

Anaesthesia conduction needles/ cannulas

Classification Name

needle, conduction, anesthetic (w/wo introducer)

Classification Reference

21 CFR §868.5150, April 1, 2011

Product Code:

BSP

Establishment Registration Number:

9611612

Regulatory Class:

II

Panel:

Anesthesiology

Predicate Device:

K040965 PAJUNK TUOHY NEEDLES, QUINCKE NEEDLES, CHIBA NEEDLES & CRAWFORD NEEDLES  
PAJUNK® GmbH Medizintechnologie, Geisingen

### **Indications for use**

The cannulas/ needles for anesthesia and analgesia enhanced for ultrasound visibility – Tuohy Sono, Sono TAP, Quincke Sono, Chiba Sono, Sono and Crawford Sono – are intended for the transient delivery of anesthetics to provide regional anesthesia and analgesia or to facilitate placement of a catheter.

### **Device Description:**

The cannulas/ needles for anesthesia and analgesia enhanced for ultrasound visibility are single use sterile and non-pyrogenic devices used to gain entry or puncture the tissue and inject anesthetics to induce single shot anesthesia and analgesia. The needles/ cannulas may be used during all anaesthetic and analgetic procedures according to the physicians indication.

Cannulas/ needles for anesthesia and analgesia enhanced for ultrasound visibility are standard cannulas/ needles equipped with CornerStone reflectors (cleared in K111374 – SonoPlex STIM) in order to significantly enhance ultrasound visibility.

The cannulas basically consist of stainless steel tubing and an epoxy glued polycarbonate hub. The tubing is optionally coated for better insertion properties with NanoLine, a copolymeric coating cleared for market in K053283.

In order to enhance ultrasound visibility the cannulas are equipped with a special reflector pattern named CornerStone imprinted to the cannulas surface. These reflectors are designed to optimally reflect ultrasound waves.

Brand names of the original file as well as the corresponding brand names of the subject file are:

Predicate: Tuohy	Subject: Tuohy SONO
Predicate: Quincke	Subject: Quincke SONO, SonoTAP
Predicate: Crawford	Subject: Crawford SONO
Predicate: Chiba (Facette)	Subject: Chiba SONO

### **Predicate Devices:**

Predicate device with identical or at least partial identical indications of use are:

- 1) K040965 PAJUNK TUOHY NEEDLES, QUINCKE NEEDLES, CHIBA NEEDLES & CRAWFORD NEEDLES  
PAJUNK® GmbH Medizintechnologie, Gelsingen

The detailed discussion of substantial equivalence can be found in Section 12 of this submission.

### **Technological Characteristics:**

#### Tip Specifications

The tips of the needles/ cannulas covered by this 510(k) are identical to the tips of the original predicate devices submission: Tuohy tip, Beveled tip (which is synonymously used with Chiba tip and facette tip), Crawford tip and Quincke tip (SonoTAP).

### Length

The length of the needles/ cannulas subject to this 510(k) submission are identical to the lengths of the cannulas covered by the predicate device submission.

Tuohy: 20mm-180mm

Tuohy SONO : 20mm-180mm

Quincke: 20mm-180mm

Sono TAP, Quincke SONO : 20mm-180mm

Chiba: 20mm-180mm

Chiba SONO : 20mm-180mm

Crawford: 20mm-180mm

Crawford SONO : 20mm-180mm

### Diameters

The diameters of the needles/ cannulas subject to this 510(k) submission are identical to the diameters of the cannulas covered by the predicate device submission.

Tuohy: 16G – 26G

Tuohy SONO : 16G – 26G

Quincke: 16G – 26G

Quincke SONO : 16G – 26G

Chiba: 16G – 26G

Sono TAP, Chiba SONO : 16G – 26G

Crawford: 16G – 26G

Crawford SONO : 16G – 26G

### Technical specifications

The material of the cannulas/ needles tubing and hub of the predicate devices is identical to the material of the cannulas/ needles tubing and hub of the subject device. So are the glue connections. Both, subject device and predicate device are glued to the hub.

### **Sterilization**

The contract sterilizer and the sterilizing process are identical to the process and sterilizer used for all PAJUNK® - manufactured and purchased devices which are already cleared for market or exempt. Cornerstone-technique does neither influence sterilization process nor shelf life properties.

Cleaning and Sterilization method, which ensures an SAL of  $10^{-6}$  as well as compliance with limits for chemical burden, bioburden, pyroburden (i.e. LAL) and EtO-residuals as well as shelf life have been validated and are safe and effective.

Efficacy of sterile product's lifecycle has been validated for a period of 10 years now. Shelf life is set to 5 years.

### **Biocompatibility:**

All cannulas comply with ISO 10993-1, 2<sup>nd</sup> and 3<sup>rd</sup> edition.

The stainless steel tubing of the Sono-needles/cannulas is identical to stainless steel tubing of the NanoLine-needles/cannulas as they were cleared for market in K040965, K000722 and K053283 in formulation, processing, and sterilization, and no other chemicals have been added (e.g., plasticizers, fillers, color additives, cleaning agents, mold release agents, etc.).

The polycarbonate hub of the Sono-needles/cannulas is identical to the polycarbonate hub of the needles/cannulas as they were cleared for market in K040965, K000722 and K053283 in formulation, processing, and sterilization, and no other chemicals have been added (e.g., plasticizers, fillers, color additives, cleaning agents, mold release agents, etc.).

The epoxy resin glue of the Sono-needles/cannulas is identical to the epoxy resin glue of the needles/cannulas as they were cleared for market in K040965, K000722 and K053283 in formulation, processing, and sterilization, and no other chemicals have been added (e.g., plasticizers, fillers, color additives, cleaning agents, mold release agents, etc.).

The optional polymeric NanoLine coating of the Sono-needles/cannulas is identical to the polymeric NanoLine coating of the NanoLine-needles/cannulas as they were cleared for market in K053283 in formulation, processing, and sterilization, and no other chemicals have been added (e.g., plasticizers, fillers, color additives, cleaning agents, mold release agents, etc.):

#### **Technology Characteristics:**

The components are listed in a table in section 11 of this submission. Shelf life and impact of sterilization and storage on the devices has been proven and found to be safe and effective.

#### **Performance Testing**

The needles/ cannulas have been subjected to standard testing applicable for all cannulas. Standard testing consists of bending stability and breaking resistance testing as well as of hub-to-needle-bondage testing. Due to technological equivalence the subject device is tested the same way as each cannula is tested at PAJUNK® GmbH Medizintechnologie. There are no special testing requirements defined, neither in incoming and in-process inspection routines nor in final testing.

#### **Conclusion:**

The comparison between the predicate devices – cannulas for anaesthesia conduction: Tuohy, Quincke, Crawford, Chiba – and the subject device – cannulas/ needles for anesthesia and analgesia enhanced for ultrasound visibility – in section 12 of this submission as well as the validated sterilization process and the results of the bench testing and bench marking demonstrates that the proposed devices are substantially equivalent to the predicate devices and identical in technical description to devices already cleared for market and therefore demonstrated to be safe and effective.

**Based on the clinical evaluation, the biocompatibility testing and the bench testing conducted, safety and effectiveness as well as efficacy of the CornerStone -technique is demonstrated for each type of cannula.**



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

Mr. Christian G.H. Quass  
Director Regulatory Affairs  
Pajunk GmbH  
Karl-Hall-Strasse 1  
Geisingen  
GERMANY D-78187

FEB 29 2012

Re: K113207  
Trade/Device Name: Cannulas/ Needles for Anesthesia and Analgesia Enhanced  
For Ultrasound Visibility  
Regulation Number: 21 CFR 868.5150  
Regulation Name: Anesthesia Conduction Needle  
Regulatory Class: II  
Product Code: BSP  
Dated: February 15, 2012  
Received: February 21, 2012

Dear Mr. Quass:

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,



Anthony D. Watson, B.S., M.S., M.B.A.  
Director  
Division of Anesthesiology, General Hospital,  
Infection Control and Dental Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for use

510(k) Number:

Device Name: Cannulas/ needles for anesthesia and analgesia enhanced for ultrasound visibility

Brand name: Tuohy Sono, Sono TAP, Quincke Sono, Chiba Sono and Crawford Sono

Indications for Use:

The cannulas/ needles for anesthesia and analgesia enhanced for ultrasound visibility – Tuohy Sono, Sono TAP, Quincke Sono, Chiba Sono and Crawford Sono – are intended for the transient delivery of anesthetics to provide regional anesthesia and analgesia or to facilitate placement of a catheter.

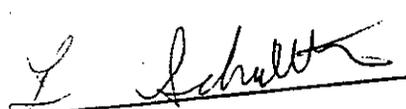
Prescription Use  (Per 21 CFR 801.109)

AND/OR

Over-The-Counter Use \_\_\_\_\_ (21 CFR 801 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 Anesthesiology, General Hospital  
Infection Control, Dental Devices

510(k) Number: \_\_\_\_\_

K113207