GammaPen & SURGEOGUIDEII

Due to high prevalence of breast cancer in females, there are annually lots of breast surgical operations for removal of malignant tumors. However, failure in discovery and removal of cancerous lymph nodes will lead to metastasis of cancer in the patient. Currently, there are some methods with different degrees of accuracy, cost, and ease to detect sentinel nodes. Amongst all of them, the most common and the most favorite device for surgeons is "Gamma Probe" providing an easy-to-use small hand-held tool with the capability of detection and localization of sentinel lymph nodes not only in breast cancer but also for some masculine types of cancers where detection of sentinel nodes is mandatory. We developed such a gamma probe system in two models: **SURGEOGUIDE II** and **GammaPen**.

توسعه صنايع تصويربرداري

Parto Negar Persia Co.

طراحی و تولید سیستمهای تصویربرداری پزشکی وکمک تشخیصی

گار ب

Clinical applications:

- Breast cancer
- Gynecological cancers (cervical, ovarian, uterine, vaginal and vulvar)
- Melanoma and other types of skin tumors
- Head & Neck
- Endocrine cancers (thyroid, parathyroid)
- Urology cancers (prostate, bladder, testicular, kidney and penile)
- Nuclear Medicine (localization of gamma labeled areas)

NEMA-NU3 standard test results:

- Sensitivity: ~2000 cps/MBq at 3 cm
- Shielding Efficiency: >99 % for Tc-99m
- Energy Resolution: <11% FWHM for Tc-99m
- Angular Resolution: between 65° to 85°
- Local Resolution: <55 mm FWHM at 3 cm distance

New Version: GammaPen

All in one version of gamma probe is a fully mobile system which is an ingenious precision instrument that works without any annoying cables. This version is a combination of console and probe with a display so it does not need separated console, but it supports Bluetooth connection, so user has freedom to use its main display or connect it to a mobile or tablet for multiple displaying.

Ultra low weight and adequate dimension of it causes easily transporting of this instrument from an operating room to another in different hospital.

This gamma probe has excellent detection capabilities, meaning an exclusive sensitivity combined with excellent side shielding by the already collimation.

Setting up the gamma probe consist of simply slipping the device into sterile bag and depressing any button. Following the case, simply remove it from sterile bag and place it into a specially designed carrying case, where it goes to sleep until the next case.

GammaPen Specifications:

- Length: 23cm
- Two type of tips: Small and large
- Tip Diameter: 14 mm (Large), 9 mm (Small)
- Tungsten Collimator
- Crystal: CsI (TI)
- Weight: 170 gr
- Adequate dimension
- No disturbing cables
- Recharge able battery
- Bluetooth connection support
- User- Friendly
- Digital and bar graph display.
- Sound modulated with count rate
- beep sound





SURGEOGUIDE II Probe specifications:

- Three types of Probes: Large, Small, and Endoscopic
- Length: 21 cm (Large, Small), 48cm (Endoscopic)
- Tip Diameter: 16 mm (Large), 11 mm (Small), 10 mm (Endoscopic)
- Stainless Steel Body, Tungsten Collimator
- Crystal: CsI (TI)
- Weight: 220 gr
- Ergonomic Design

SURGEOGUIDE II System Specifications:

- Digital and bar graph display.
- Bright display
- Sound modulated with count rate
- Beep/FM sound
- User- Friendly
- Weight: 3Kg



ISO 9001: 2015 specification requirements for a quality management system

ISO 13485: 2016 specification requirements for a quality management system where an organization needs to demonstrate its ability to provide medical devices and related services and consistently meet customer requirements and regulatory requirements applicable to medical devices and related services.

IEC 60601-1:2005 & IEC 60601-1-2:2014 contains requirements concerning basic safety and essential performance that are generally applicable to medical electrical equipment.

All of our products are designed and manufactured based on national and international safety and quality rules. Having such certificates guarantees the safety and quality of **SURGEOGUIDE II** and **GmmaPen**