Key features

Performance
- Measurement system by video camera and built-in DSP
- Measurement range: 0.5 to 10 mm (pupil size)
- Precision 0.1 mm, Resolution 0.01 mm (pupil size)
- Measurement and image acquisition frequency 1 Hz.

Clinical
- Measurement of patient’s analgesia level: PDI
  (Pain Pupillary Index)
- Measurement of Pupillary Reflex Dilation (PRD)
- Measurement of PND triggered by a calibrated electric stimulus
- Measurement of Pupillary Light Reflex by standardized Flash light.

Ergonomic design
- Touch screen with adjustable optical sight
- Over 10,000 measurements stored in memory
- Autonomy approximately one week in normal use
- Data Transfer by USB connection (optional)
- No user calibration required

Compliance and approval
- EN 60601-1
- EN 60601-2-10
- IEC 62471
- Ila CE Class

References

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Assessment of thoracic epidural analgesia during general anesthesia using pupillary reflex dilation: a preliminary study.
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Li G, Moskwoski C, Burtkanti G, Pumilia K. Department of Physiological Nursing, University of California, San Francisco, CA, J Crit Care. 2007 Sep

SFAR Congress 2011 Paris – Pupillometry allows to evaluate nociception intensity for different chirurgical incision ?
M.Mazerolles, H. Vinour, F. Leblanc (France - Toulouse C.H.U Rangueil)

ASA Congress 2011- Monitoring of analgesia using pupillometry decreases opioid consumption during major gynecological surgery / ref: A282
Pupillary Reflex Dilation (PRD) has been shown to correspond to the analgesia level of patients and is useful in both the operating theatre and intensive care.

AlgiScan offers a dynamic and bespoke approach to a patient’s analgesia, providing reproducible and accurate measurements of pupillary diameter and a trace of variations over time.

From optimising morphine doses to monitoring regional anaesthetics under general anaesthetic, as well as measuring an individual patient’s reaction to pain, the AlgiScan is a very convenient clinical tool for analgesia monitoring.

**4 Operating modes**

**PPI® (Pain Pupillary Index):**
Measurement of PRD following an automatically increasing electric stimulation (from 10 to 60 mA).
A low PPI score (e.g. 1-2) indicates a deep analgesia.
A high PPI score (e.g. 7-8) indicates an insufficient or slight analgesia.

**Tetanus:**
Measurement of PRD following an operator-controlled electric stimulation.

**PRD:**
Measurement of Pupillary reflex dilation following a medical nociceptive stimulus.

**PLR:**
Measurement of Pupillary Light Reflex following a light stimulation.

**AlgiScan® electrodes:**
Electrodes designed for patient comfort and security, guarantee the reproducibility and accuracy of stimulations.

**In the Surgery Unit**
- Incision
- Post-operative analgesia
- Analgesia evaluation
- Assessment of epidural
- Epidural analgesia during general anaesthesia

**In Intensive Care**
- Endotracheal suctioning
- Turning / Patient Mobilization
- Pain procedure

Identification and automatic recording of all measurements.

A control curve of pupil size variation enables an accurate check of measurement precision.

A range of nociceptive stimulation compatible with all levels of analgesia.

Suggestions of interpretations for a quick and reasonable analysis of the results.

Optimal ergonomic design for intuitive use.

PPI test® on a sedated patient: In this case, the pupillary response to electrical stimulation shows an insufficient level of analgesia for a surgical incision. (PPI® score 6/10)