MEDASENSE
PAIN INTELLIGENCE

# NOL™ MONITORING

## CONFIDENT PAIN MANAGEMENT

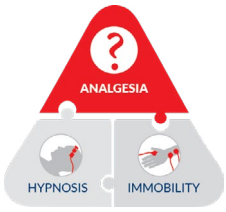
- REDUCE PAIN
- PERSONALIZE ANALGESIA
- IMPROVE PATIENT OUTCOMES

PMD-200™ with the NOL-Nociception Level Index® is commercially available in the United States, Europe, Canada, select Latin American countries, South Africa and Israel.

# NOL™ TECHNOLOGY

Accurate, continuous and noninvasive nociception (pain response) monitoring for personalized analgesic treatment

## PATIENTS VARY IN THEIR ANESTHETIC REQUIREMENTS.[1]




**Without objective monitoring, how can you get it right?**

In patients under general anesthesia, nociception and analgesia are assessed indirectly through changes in heart rate and blood pressure - which are not sufficiently sensitive or specific.[2,3]

As a result, **insufficient or excessive analgesia may be administered**, potentially leading to postoperative pain, complications, delayed recovery, and associated costs.[4,5,6]

## THE PAIN MANAGEMENT CHALLENGE

**UP TO 50%** of surgical patients suffer from moderate to severe post-operative pain.[5,7]

**UP TO 10%** of opioid naive patients become chronic opioid users post surgery.[8,9]

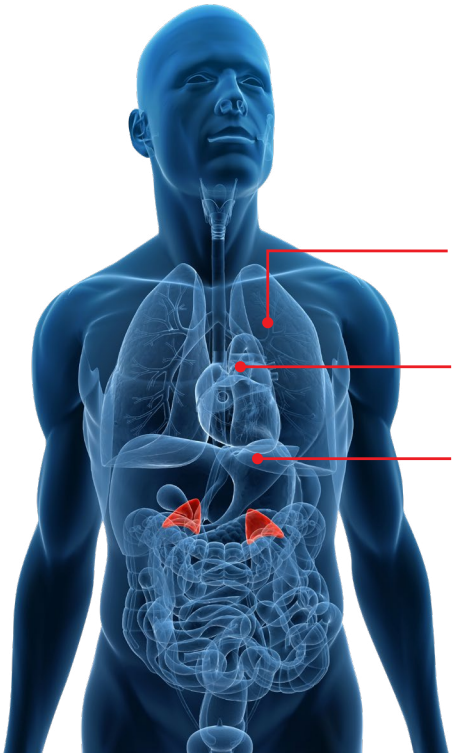
**UP TO 12%** of surgical patients suffer from opioid-related adverse effects leading to:[6]

- **3.3** **extra** days of hospitalization
- **27%** **extra** cost per patient
- **Increase** in re-admissions

## NOL REFLECTS THE PATIENT'S NOCICEPTIVE STATE

By analyzing autonomous nervous system-related patterns, the NOL-Nociception Level Index® reflects the impact of stimuli, and the effect of analgesic treatment.

**The NOL-Nociception Level Index® is a multiparameter composite of physiological signals based on artificial intelligence technology and a proprietary sensor platform.**

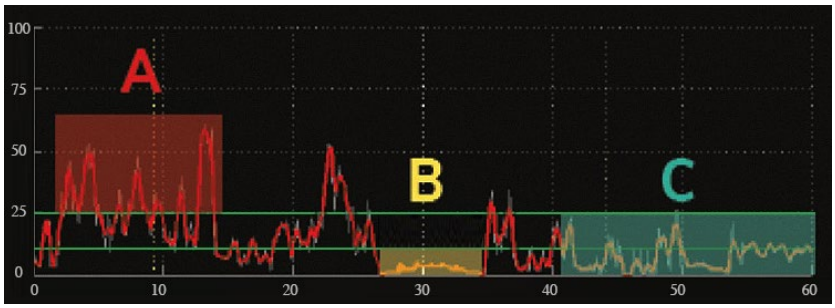


- **Breathing patterns**
- **Blood pressure patterns**
- **Pulse rate patterns**
- **Movement**
- **Skin - sweating**
- **Peripheral temperature**

# NOL™ VISUALIZES NOCICEPTION

Multiparametric physiological data is acquired using a reusable finger probe and single-use sensor. AI technology allows the clinician to tailor analgesia to meet the patient's needs.

- **A** NOL trend **above 25** is indicative of nociceptive response
- **B** NOL **below 10** may indicate excessive analgesia.
- **C** NOL **below 25** is indicative of good nociception-antinociception balance




**The NOL technology and the threshold of 25 have been clinically validated in adult anesthetized patients**

## THE BENEFITS OF NOL-GUIDED ANALGESIA

- Smoother procedures and better outcomes [10,11]
- Personalized opioid dosing [10,11,12,13]
- safer analgesia in high-risk patients [14]
- Supporting opioid-sparing anesthesia [15]
- Supports multimodal and regional analgesia [16]

## THE IMPACT OF NOL AS SHOWN IN CLINICAL STUDIES

**33%**
Less postoperative pain[10]

**30%**
Less intraoperative opioid use[13]

**80%**
Fewer interaoperative hypotensive events[13]

NOL values in response to incision could predict postoperative pain scores[17]

## HOSPITAL COST SAVINGS

ROI
Within less than 1 year of purchase[18]

22%
Reduce costs associated wuth postoperative patient care[19]

# PMD-200™ MONITOR | PRODUCT SPECIFICATIONS

| PMD-200™ Monitor | |
|---|---|
| **Dimensions** | 24 × 19.3 × 15cm (9.45 x 7.6 x 5.9in) |
| **Weight** | 3.5 kg (7.7 lbs) |
| **Regulatory Approvals** | USA, Europe, Canada, Israel, Brazil , South Africa, UAE |
| **User Interface Language** | English, Danish, Dutch, Finnish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, Greek |
| **Finger Probe** | |
| **Reusable** | |
| **Dimensions** | Finger Probe + Cable: 106.3in (270cm) |
| **PVC free, Latex free, Biocompatible** | |
| **Sensor** | |
| **Single use only** | |
| PVC free, Latex free, Biocompatible | |
| **Connectivity** | |
| Connectivity to Philips™ through Intellibridge™ and Mindray™ through Benelink™ interface. | |
| Connectivity through serial port (RS-232) with third parties optional. | |

## The NOL-Nociception Level Index® provides clinicians with a valuable decision support tool to objectively assess and manage analgesia.

***The PMD-200 is intended for use as an adjunct monitor.***
***Our product does not process any PHI and we cannot identify a natural person from the physiological data that is recorded by the device.***

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