

# NOL Evaluation Checklist

Date:	Account:
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## Patient comorbidities

When demonstrating NOL in the OR the below patient conditions should be avoided .

Comorbidities/ conditions type:	
<input type="checkbox"/> Severe Cardiac Arrhythmia/ CPR	<input type="checkbox"/>
<input type="checkbox"/> Poor peripheral blood perfusion	<input type="checkbox"/>
<input type="checkbox"/> Atrial fibrillation	<input type="checkbox"/>
<input type="checkbox"/> Hyperthermia	<input type="checkbox"/>

## Recommended Procedure type

Only schedule demonstrations for general anaesthesia procedures.

<input type="checkbox"/> General surgery (colorectal, lap choly, bladder, whipple, bariatric)	<input type="checkbox"/>
<input type="checkbox"/> Hernia	<input type="checkbox"/>
<input type="checkbox"/> Orthopedics (THR, TKR)	<input type="checkbox"/>
<input type="checkbox"/> Gynecology (major procedures)	<input type="checkbox"/>
<input type="checkbox"/> Spine	<input type="checkbox"/>
<input type="checkbox"/> ENT	<input type="checkbox"/>
<input type="checkbox"/> Thoracic	<input type="checkbox"/>

## Analgesia regimen

Short-acting analgesics like Remifentanyl (Ultiva) will enable you to demonstrate the NOL fast response better than other analgesics.

TIVA TCI will enable you to demonstrate how NOL can help spare opioid and tailor it to patient's needs.

Remember do not reduce remifentanyl levels to zero as monitor cannot anticipate future noxious stimulus.

If regional analgesia is used, a very low NOL can be expected.

## Setup NOL

Make sure all relevant steps have been followed to ensure user confidence.

<i>Steps</i>	
<input type="checkbox"/> Installation of the PMD-200 –make sure system operates on AC power	<input type="checkbox"/>
<input type="checkbox"/> Ensure finger probe is on opposite arm to the blood pressure cuff	<input type="checkbox"/>
<input type="checkbox"/> Choose patient's finger that size fits finger probe and has good perfusion. Adequately apply a sensor and place the finger probe	<input type="checkbox"/>
<input type="checkbox"/> Check signals and make sure Pleth waveform is cyclic.	<input type="checkbox"/>

## NOL Evaluation Checklist

<input type="checkbox"/> Make sure the patient is in final positioning and only then press 'start' to initiate the monitoring session.	<input type="checkbox"/>
<input type="checkbox"/> Bring a spare finger probe and single-use sensors	<input type="checkbox"/>
<input type="checkbox"/> Bring a flash drive to enable data export after the case (following signing of data share agreement)	<input type="checkbox"/>

### What to highlight during a demonstration

<input type="checkbox"/> Focus on the NOL trend, and not the absolute NOL value	<input type="checkbox"/>
<input type="checkbox"/> Explain the uniqueness of the NOL multiparameter approach, and the different signals that NOL captures to reflect nociception	<input type="checkbox"/>
<input type="checkbox"/> How NOL reacts faster and more specifically to pain vs changes in HR/BP.	<input type="checkbox"/>
<input type="checkbox"/> NOL's response to surgical stimuli and administration of analgesics	<input type="checkbox"/>
<input type="checkbox"/> How to annotate data	<input type="checkbox"/>
<input type="checkbox"/> How to extract the data to a flash drive	<input type="checkbox"/>
<input type="checkbox"/> Troubleshooting sensor-related alerts	<input type="checkbox"/>
<input type="checkbox"/> How to clean the system	<input type="checkbox"/>

### Additional Considerations

*The steps below will bring added value to a demo in the OR*

<b><i>Remember</i></b>	
<input type="checkbox"/> Before the meeting Download on phone/iPad case reports and graphs from key outcomes studies (NOLA, SOLAR) to share during 'inactive' periods of surgery	<input type="checkbox"/>
<input type="checkbox"/> Annotate key events during surgery to review with the entire team after surgery ends by using the export tab "review session". This will enable them to be better prepared for the next NOL case.	<input type="checkbox"/>
Ask questions to spark discussions around nociception monitoring: <ul style="list-style-type: none"> <li>○ Where do you see pain-related opportunities for improvement in your own institution?</li> <li>○ How are you certain that your patients have received sufficient analgesia during surgery?</li> <li>○ In your experience, which patients or types of surgeries tend to report the highest pain score postoperatively?</li> <li>○ What are the most frequent complications that you consider to be related with analgesia management?</li> <li>○ What do you perceive as NOL's main benefits?</li> <li>○ What do you like most about the system?</li> </ul>	<input type="checkbox"/>

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## Clinical evaluation

*If a hospital shows interest in clinical evaluation, the following criteria may be documented and compared to a non NOL-guided group :*

<input type="checkbox"/> Intraoperative number of hypotensive events during surgery	<input type="checkbox"/>
<input type="checkbox"/> Intraoperative occurrence of other hemodynamic instability events, such as tachycardia, bradycardia, hypertension	<input type="checkbox"/>
<input type="checkbox"/> Reduction of intraoperative opioid consumption	<input type="checkbox"/>
<input type="checkbox"/> Intraoperative administration of vasoactive drugs	<input type="checkbox"/>
<input type="checkbox"/> How quickly was the patient extubated	<input type="checkbox"/>
<input type="checkbox"/> Reported pain score at PACU	<input type="checkbox"/>
<input type="checkbox"/> Opioid side effects: PONV, respiratory depression	<input type="checkbox"/>
<input type="checkbox"/> Patient's level of satisfaction	<input type="checkbox"/>
<input type="checkbox"/> Time to release from PACU	<input type="checkbox"/>
<input type="checkbox"/> Suggest that comparison should be done vs similar patient groups & procedure type	<input type="checkbox"/>

## Final reminders:

- Engage surgeons, nurses and other important stakeholders
- Spend at least 2 days with the OR teams
- Make frequent calls with the users throughout the evaluation period to check for any issues or interesting insights