

Who are the NOL early adopters?

Supporters of opioid-free/opioid sparing protocols

Early adopters of other new technologies
OR is equipped with latest monitoring devices (noninvasive cardiac output, BIS, INVOS...)

Users of TIVA TCI

Teaching centers

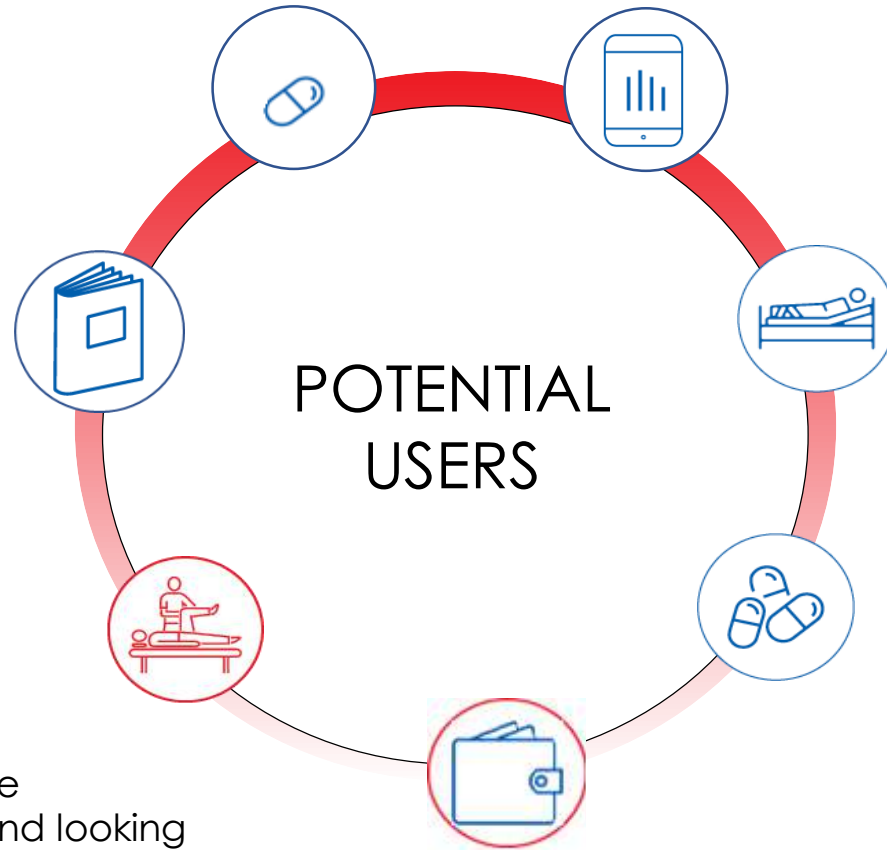
Researchers
Interested in pain/nociception research; published or on a PhD track

Active...
Recognize intraoperative challenges and looking for a better way to titrate patients' analgesia

Have institutional influence and budget

Practice ERAS and other fast track approaches
Since pain control is a major contributor to early and optimal recovery.

Interested in automatic drug delivery
Highly sophisticated clinicians actively seeking solutions to automate delivery of anaesthetic and analgesic drugs



POTENTIAL
USERS

Target Surgeries

TARGET SURGERY	The Clinical Challenge	NOL Solution/ Utility
THORACIC	Painful surgery. Post-operative pain is particularly undesirable as it impedes patient's recovery of respiratory function	NOL-guided surgery improves postoperative pain scores
	Regional blocks are typically used with systemic opioids	NOL can help quantify technique's impact and help surgeons adjust surgical techniques and analgesia regimen
ABDOMINAL	Opioids contribute to postop ileus, slowing the return of bowel function, extending hospital length of stay (big component of ERAS outcomes)	NOL guides less remifentanyl use intraoperatively, with a potential reduction in LOS
	Recovery from major procedures and patient satisfaction levels diminish when pain is inadequately managed	Reduced post-operative pain and prevention of chronic pain development through adequate intraoperative analgesia
SPINE	Spine procedures are long and require short acting opioids.	Big opportunity for opioids reduction.
	Often don't include muscle relaxation agents	NOL allows close titration to avoid pain related movement
	Opioid tolerant patients – difficult to identify effective dosing	NOL may better reflect patient's nociception level
ORTHOPEDIC	Tend to use regional nerve blocks, but when combining with general anaesthesia there is no way to know if block is effective	NOL identifies partial, complete or non-effectiveness of the block and allows better titration of analgesia according to patient needs
	THR are very common in elderly patients with additional comorbidities. These patients are particularly sensitive to opioids and at higher risk of overdose	NOL allows a better titration of analgesia to meet individual needs and safely reduce opioid dosages where possible.

Use Cases/ Patient Segmentation

Patient with
high BMI



When fast
awakening is
imperative



Opioid tolerant
patients



Fragile patients /
high-risk patients

When using combinations
of analgesic techniques
and medications
“Multimodal opioid-
sparing analgesia”

Painful procedures

When BP or HR are not
indicative of pain
response

Length of GA surgery is
more than 90 minutes