

Nearly Opioid free Anesthesia for spine surgery

A pre-post quality assurance study

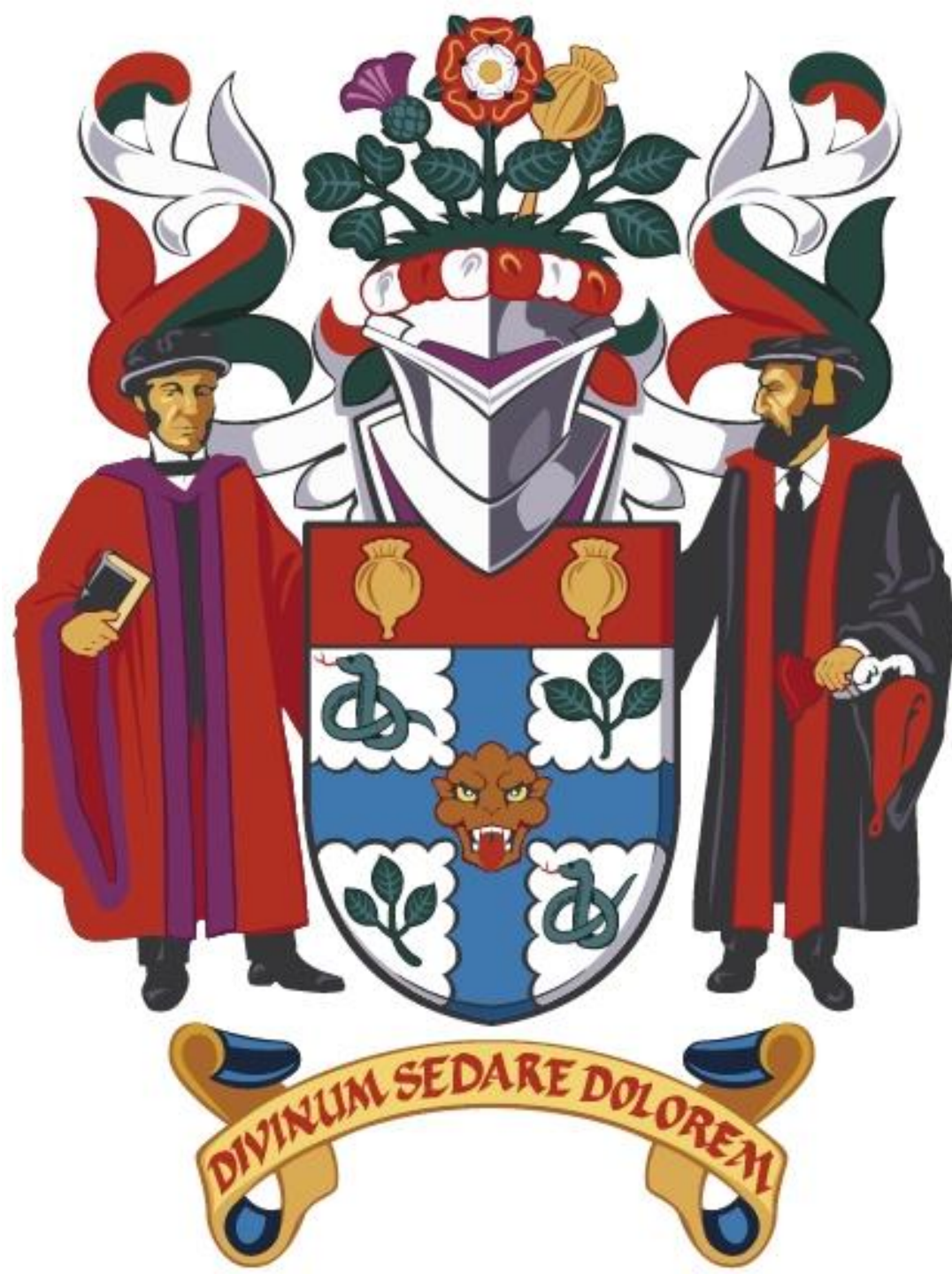
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Our setting

- Capio Spine Center Stockholm
- Elective neck & lower back surgery, neurosurgery (benign conditions)
- 4 operating rooms. 1750 surgeries/year
- 7 spine surgeons, 5 neurosurgeons, 2 anesthetists




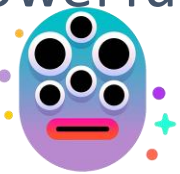









Reasons to reduce opioids?

- Poor analgetic for neuropathic pain 
- Post operative nausea and vomiting (PONV) 
- Post operative urinary retention (POUR)
- Respiratory depression
- Impaired bowel function causes less intake of food and water – less energy 
- Delirium 
- Addiction
- Increased length of hospital stay
- Inhibits osteoblasts 

How to reduce opioids?

Pre-op medication

- Oxycontin 10 mg
- Betamethasone 16 mg
- Gabapentin 300 mg
- Celecoxib 200 mg
- Paracetamol 1,5 g



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Anesthetic regimen

- Propofol + remifentanyl
- Local Ropivacaine 2-3 mg/kg
- Morphine 0.05 mg/kg + Clonidine 30-150 ug before emergence



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Timeline

New hospital guideline
Information to surgeons and staff



38 patients



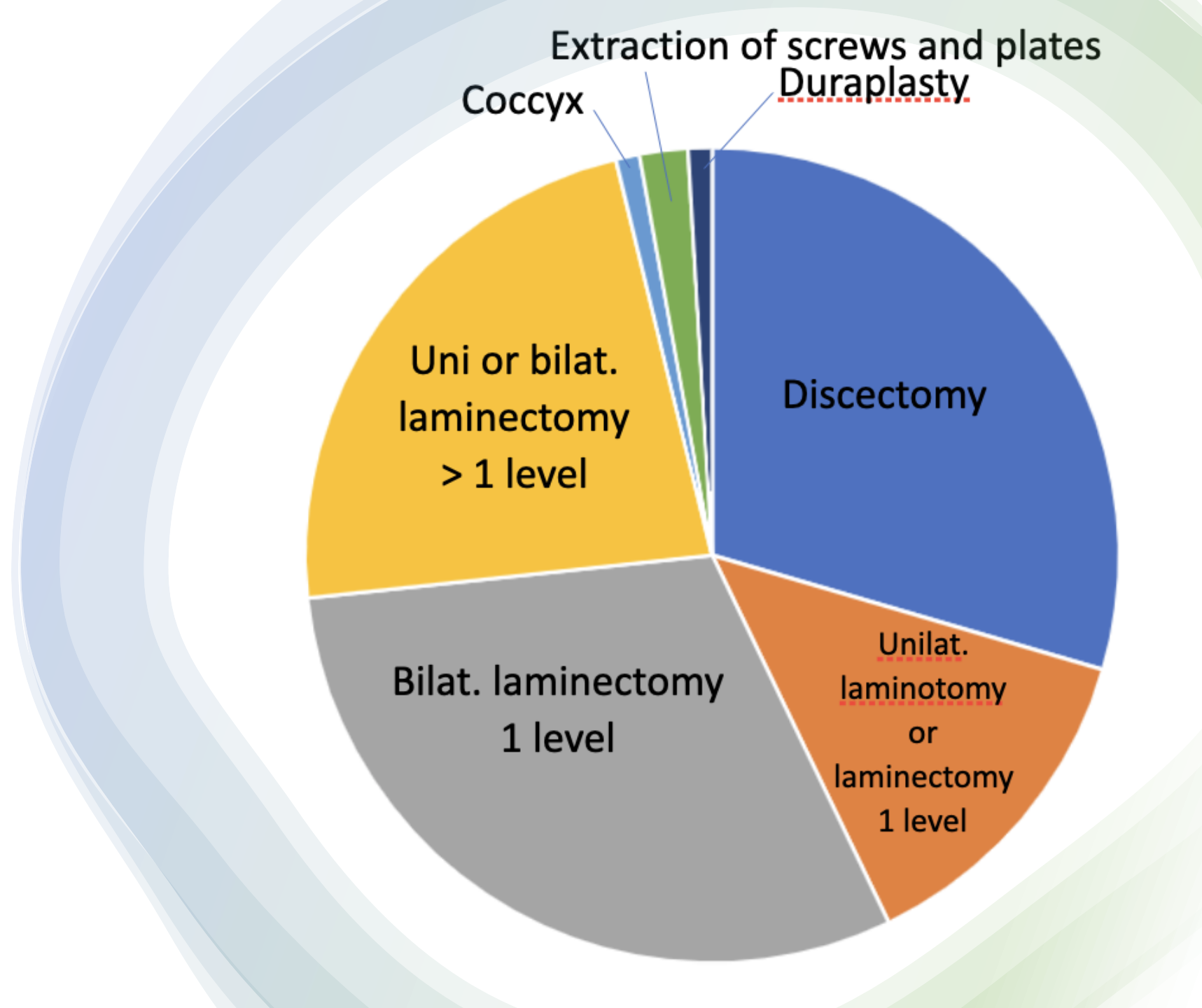
67 patients



August 2024 Standard care patients

Sept 2024 Nearly Opioid free Anesthesia patients

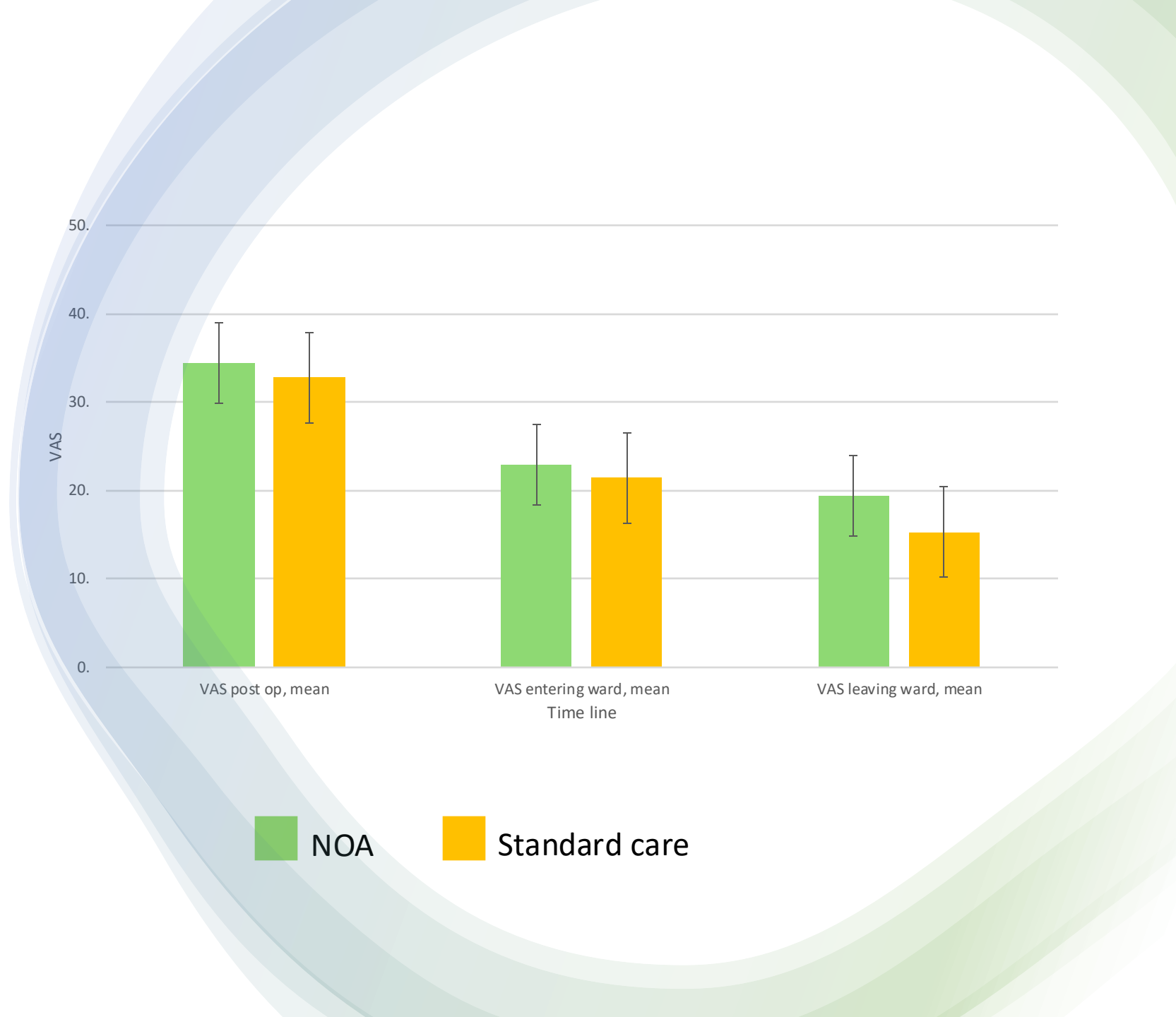
Patients



Results

Visual Analog Scale

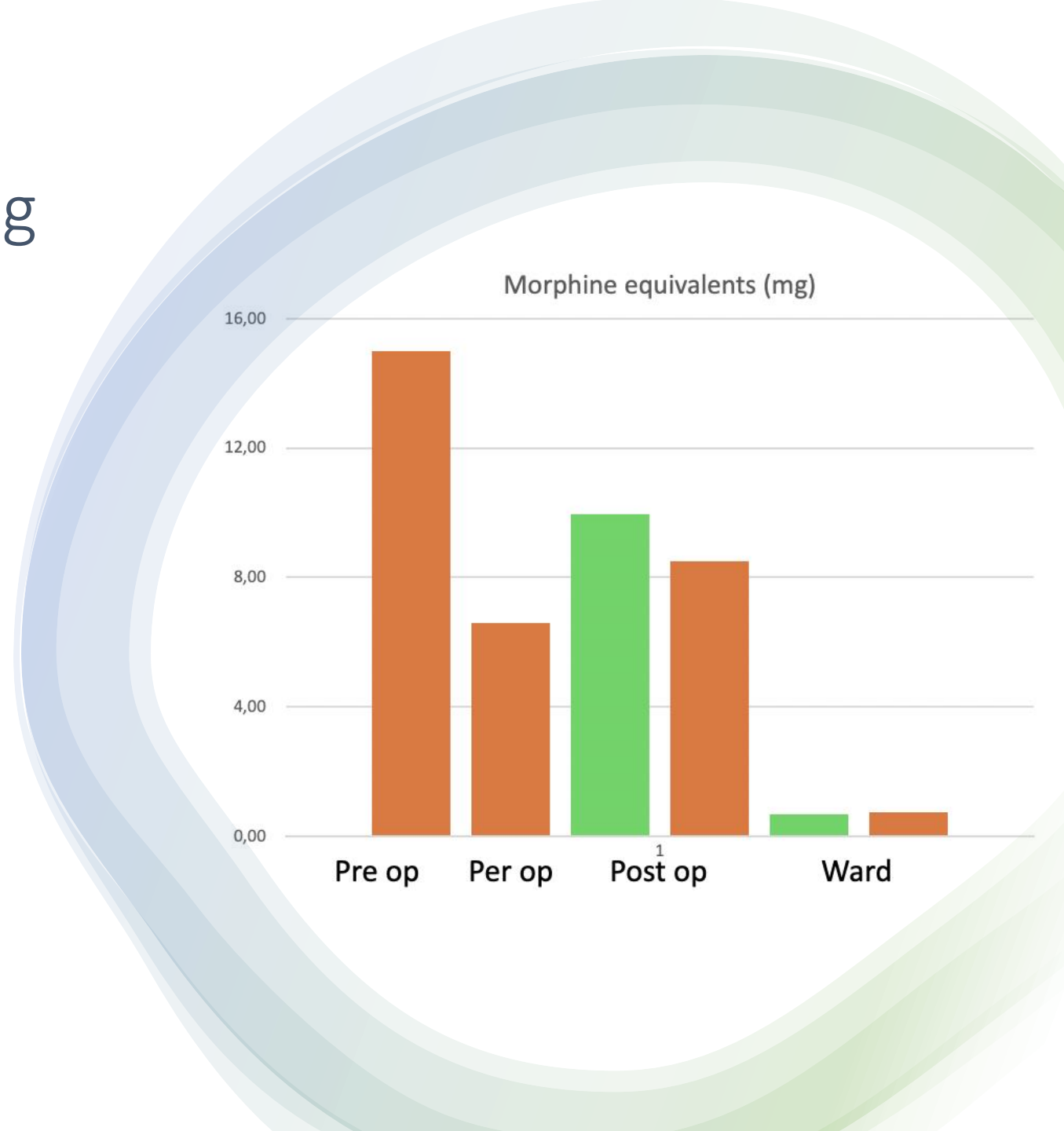
- 0-4: No pain
- 5-44 mm: Mild pain
- 45-74 mm: Moderate pain
- 75-100 mm: Severe pain



Total dose of opioids during hospital stay

Standard care group: 30.8 mg oral morphine equivalents

NOA group: 10.9 mg oral morphine equivalents



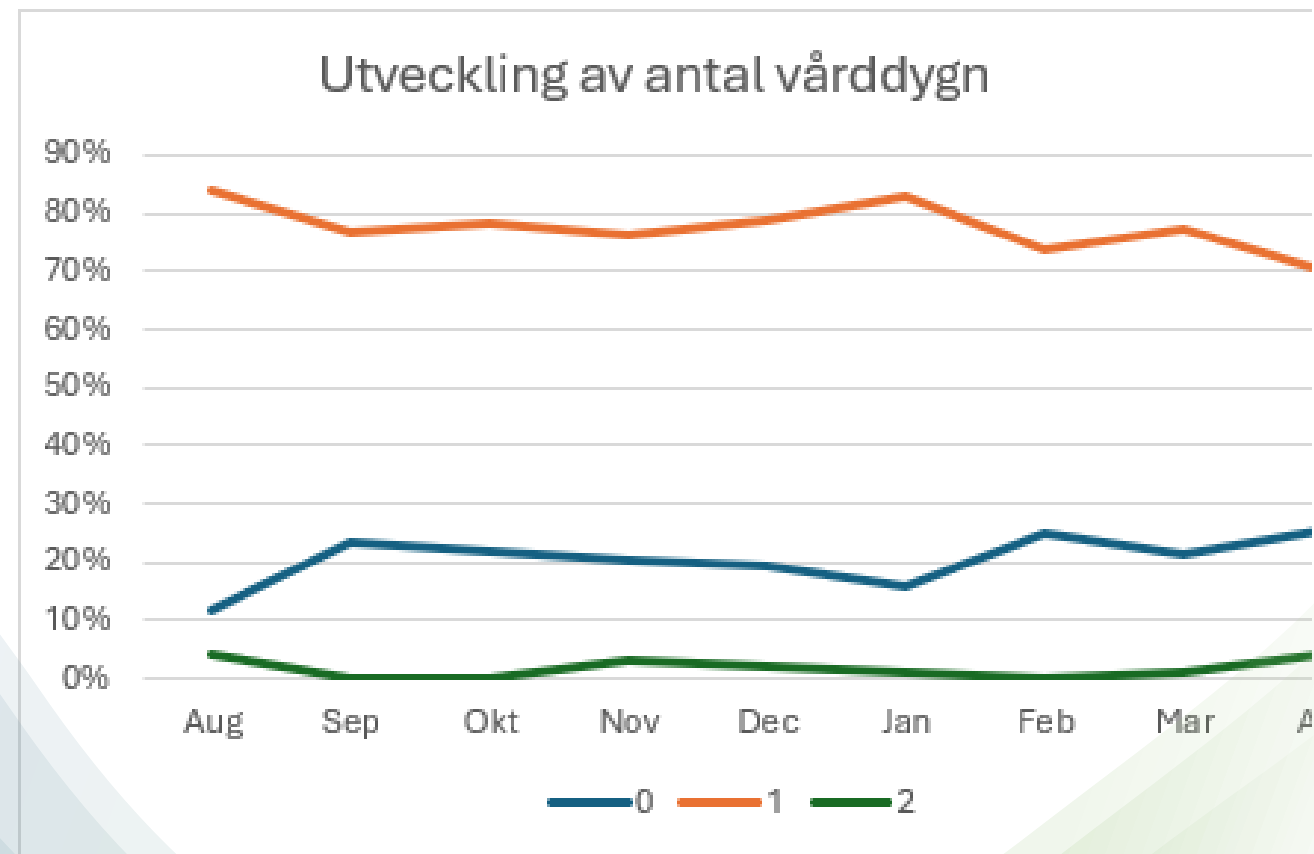
Total dose of clonidine and local anesthetic

Standard care group: 61 ug clonidine and 220 mg ropivacaine

NOA group: 65 ug clonidine and 275 mg ropivacaine



Length of hospital stay



Conclusion:

Taking away nearly all opioids from smaller spinal surgeries..

.. does not increase pain score

.. does not increase need for other medication

.. reduces length of stay