

## Heading towards Knee Replacement as a Day Case. A nursing perspective of current management, Ballarat Health Services

AIMS: Don't slow them down, don't tie them down  
– Get them UP & Moving (Kehlet, Late, 1990's)

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VPNG Country Conference 19<sup>th</sup> February 2011

### Objectives of Presentation:

To consider the Nursing implication of the aims of management in patient clinical pathways

- Pharmacological Management of pain pathways
- Psychological management of pain perception
- Basic nursing care of patients:
  - Psychological care of the patient
  - Inflammatory process / wound management
  - Nutritional status
  - Elimination, urinary (No IDC)
  - Early commencement of rehabilitation.

### Changes to practice that facilitate early patient discharge

- Pharmacological Management of pain pathways (Initially intraoperative Rx as close to site as possible)<sup>8</sup>
  - NSAIDs (*Ketorolac*) *R<sub>x</sub>* Inflammation:- at site (targets prostaglandin release)
  - Interruption to the pain pathway (*gate theory*):
    - L.A Use **Local at site** (*Ropivacaine*):-with top up facility - wound catheter (protocol has been developed)
    - Spinal** (*Ropivacaine* / *levobupivacaine*):- (without narcotic prolonged using Clonidine – alpha<sup>2</sup> agonist although ↑ risk ↓NIBP)

### Pharmacological Management of pain pathways cont'd

- Narcotic selection:
  - **Morphine avoidance** both Intrathecal/ intravenously (to avoid ↑ N&V, urinary retention)
  - Ideally no spinal narcotics used
  - PAR pain protocol **fentanyl (prn)**, +/- **tramadol** (used for opioid properties).
  - PAR, Commence **Norspan** (Buprenorphine) patch ASAP
  - Ongoing Ward Management: **tramadol** with breakthrough **oxycodone** (drug of choice if tramadol sensitivity/SSRI issues)

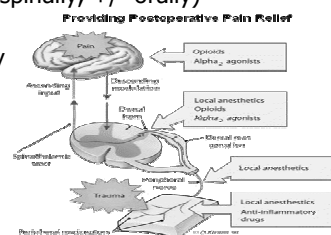
### Buprenorphine: Things to know in this off license use.

- Matrix Patch, (metered dose release < **7day**, peak stable effect at **72hrs**)<sup>(5,6)</sup>
- Application location is important (patch's heat/pressure sensitive)
- 5mcg/hr patch equivalent daily oral morphine dose **12mg daily**<sup>(7)</sup>
- A partial agonist at Mu Receptors, it has a high binding affinity → may impede antagonists (naloxone) activity (resulting in narcotics only partially reversed)

### Pharmacological Management of pain pathways cont'd

- Simple Analgesia:- Regular Paracetamol
- Adjunctive analgesic therapy:- Alpha<sup>2</sup> Agonist (Clonidine given spinally, +/- orally)

Summary of Pain Rx Pharmacology sites<sup>(8)</sup>





## Immediate post operative PAR issues in management

- **Patient in Pain** O/A PAR or on waking:
  - Ineffective / Patchy Spinal: Fentanyl Protocol ASAP, +/- tramadol / paracetamol
    - Once control achieved then Norspan patch
    - Wound catheter can be topped up, ASAP
  - No wound catheter process becomes difficult → may require PCAS / or oral slow release narcotic to achieve effective ongoing pain control. Norspan patch potentially no longer appropriate

## Immediate post operative PAR issues in management

- Hypotension:
  - *Aggressive IVT Rx* → ↑ risk urinary retention (Spinal) → ↑ risk Neurogenic bladder (no urinary catheter).
  - *Rx with drugs*, titration required → patient response ↑ monitoring → prolonged recovery room stay .

## On Reflection an ongoing

1. Consideration
2. Recommendation

- 1. Pharmacology for going Pain management:
  - drug interactions **paracetamol / warfarin**
  - INR may ↑ in patients on a stable warfarin regimen taking **>3.5 g** paracetamol / week.
  - Check INR 4 days after starting paracetamol and ↓ warfarin dose if required. <sup>(10)</sup>
- 2. Research Project: Statistical evaluation of public population outcomes: comfort / return to functional activity
  - At discharge from hospital ; 1 months; & at 6 month's post operative

(It is noted that the effectiveness of this management stream is heavily reliant on

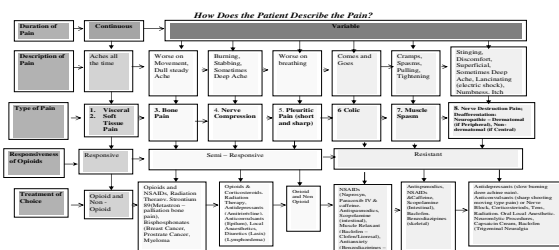
  1. Appropriate patient selection
  2. Pre and post hospitalisation patient support systems.

## Patients with independent gait are discharged home to continue personal rehabilitation

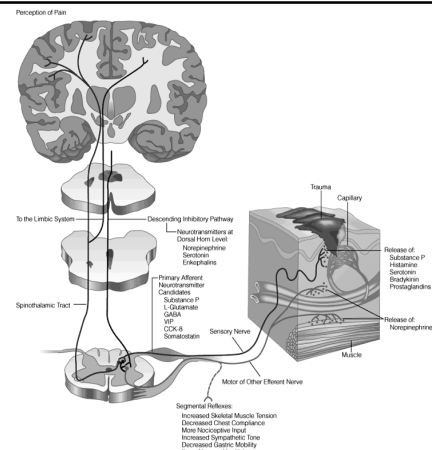


I'd like to thank VPNG for the invitation to speak, and the audience for your attention

## Awareness of Pain type and management options



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