

Part 1: Acute pain management

Nov 20, 2016 | 0



[anaesthetics](#), [emergency](#), [onthepods](#)

Summary Writer: Nicholas Malouf

Editor: John-Paul Favero

Interviewee: Tim Suharto

James talks to Dr Tim Suharto about acute pain management in the first of a two part series.

Tim is a specialist anaesthetist and one of the supervisors of training at Nepean Hospital. He is involved in the anaesthetic education program and leads the Group for Anaesthetic Simulation (GAS), which delivers in-situ crisis scenarios involving critical care doctors and nurses. Tim is an instructor for the Nepean Difficult Airway course as well as the Nepean Can't Intubate Can't Oxygenate (CICO) workshop. He is a strong advocate for innovation in medical education and developing links between sub-specialties in medicine to enhance understanding and collaboration.

Tim's clinical work encompasses both public and private practice with regular sessions in acute pain medicine, anaesthesia for orthopaedics, ENT, neurosurgery and interventional radiological procedures.

Part 1: Acute Pain Management

With Dr Tim Suharto, Staff Specialist Anaesthetist at Nepean Hospital, New South Wales, Australia

Introduction

Pain can be classified into several categories: acute, chronic, cancer-related, and neuropathic. In 1986 World Health Organization (WHO) devised a step-wise approach to pain management. Although this still has merit, in recent years pain management has developed a mechanistic approach tailored to the type of pain. Junior doctors regularly make decisions relating to the management of acute pain with opioids being a mainstay. It is important to be able to prescribe opioids safely and confidently.

Types of Pain

These include: Acute vs Chronic

1. **Acute:** pain of recent onset and probable limited duration. It usually has an identifiable temporal and causal relationship to injury or disease.
2. **Chronic:** commonly persists beyond the time of healing of an injury and frequently there may not be any clearly identifiable cause.
3. **Cancer related**

Pathophysiological classification of pain

1. **Nociceptive:** arises when tissue injury activates specific pain receptors

Somatic

Visceral

2. Neuropathic pain: caused by structural damage and nerve cell dysfunction

Central
Peripheral

3. Mixed

WHO Ladder

Hierarchy of pain prescribing

Simple analgesics initially, addition of opioids for severe pain

Case - A 70 year old woman is admitted from the Emergency Department with a neck of femur fracture. She is to be transferred to the ward to await surgery (likely nil by mouth) and you are asked to prescribe analgesia for when she goes to the ward.

1. Why is it important to treat pain?

- Compassion - to relieve suffering
- Prevention of complications 2° to pain

2. What would you consider when prescribing analgesia for this patient?

- Patient History
 - age and weight
 - comorbidities - renal or hepatic failure
 - medication history
 - possible interactions with current medications
 - previously used analgesic agents and their efficacy - what works well, what does not agree with this particular patient
 - allergies
 - cognitive baseline - ability to recognise pain and request PRN pain relief
- Awaiting Surgery
 - likely nil by mouth - consider parenteral analgesia
 - in most cases oral medications can still be given up to 2 hours prior to surgery
- Non-Pharmacological Measures
 - traction
 - ice, elevation (for other cases)

3. What dose of subcutaneous morphine would you use in this patient?

- There are better options than subcut morphine in terms of patient safety and pharmacokinetics
- Initially I would suggest IV morphine in ED to quickly reduce and stabilise pain
- Conservative opioid dosing is the safest to avoid side effects. Ensure optimal use of simple analgesics and adjuvants alongside any opioid prescribed. Consider the utility of regional analgesia such as a femoral nerve block or infusion in this case. This should reduce the required opiate use and reduce side effects
- Assuming the patient to be a frail, 50kg, elderly lady start at a low dose of 2.5-5mg SC 6 hourly with a maximum dose of 20mg in 24 hours
 - at extremes of age and weight there is a greater risk of respiratory depression
- In a young, fit 100kg footballer with an orthopaedic injury would consider higher doses and possibly a PCA
- Remember there is significant inter-patient variability in opioid tolerance and effect

4. Is there a role for intramuscular analgesia?

- Morphine used to commonly be given intramuscularly
- This has fallen out of use due to the pain caused by the IMI

5. Do patients receiving opioids require oxygen saturation monitoring?

- This will depend on the clinical situation. The level of acuity and frequency of monitoring should be increased as a general rule. Patients on a PCA have protocolised hourly observations. If you are prescribing high PRN doses then carefully consider this and document required frequency in the medical record and on the observation chart. Consider adjuvant agents

6. Patients frequently report an allergy to morphine. How can you determine if morphine is truly contraindicated in these patients?

- A true drug allergy is a systemic IgE-mediated process with symptoms such as widespread urticaria and itch and respiratory compromise
- Morphine can trigger local histamine release with a transient rash at the site of injection – this is not a true allergy
- Nausea and vomiting alone are not indicative of an allergy but rather a side effect of opioids in the same way as constipation and respiratory depression
 - these side effects can be managed (anti-emetics, aperients) and are not absolute contraindications to opioid use
 - multi-modal approach to analgesia is particularly helpful to minimise doses required to have analgesic benefit and therefore avoid side effects
 - side effects may be tolerated if pain (and hence analgesia required) is expected to reduce in the short term – such as in post-operative patients
 - if morphine is not tolerated then consider other parenteral opioids such as fentanyl

References

- **International Association for the Study of Pain**
- Faculty of Pain Medicine
- **Acute Pain Management: Scientific Evidence**
The Best and most detailed reference for specific evidence based questions but more than you need for quick practical tips.
- **IPE for QUM – Vanessa Anderson** Video and Report of Inquest worth reading – A relatable tale for all doctors and a great way to reflect critically on how you prescribe and your chosen max PRN doses for example. Consider the range of views, perspectives, and process for the expert witnesses in this case.

Related Podcasts

- [Chronic post-surgical pain](#)
- [Nutrition](#)

Tags: #acute pain management,#Anaesthetics,#pain management

If you enjoyed listening to this week's podcast feel free to let us know what you think by posting your comments or suggestions in the comments box below.

If you want to listen to this episode while not connected to WiFi or the internet, you can download it. To find out more go to Apple support (<https://support.apple.com/en-us/HT201859>)

