Appendix B

CEASED criteria -strategy for Intravenous PCIA

Guide for Medical staff

This guideline is to aid medical staff in the cessation of Patient Controlled Analgesia (PCIA). It provides a guide to the appropriate dosing of oral route opioid analgesics as well as commonly used non- opioid adjuvant analgesics.

Is the patient complex? If not, proceed with CEASED.

If the patient is considered a complex patient, then the Acute Pain Service will manage their analgesic requirements. Please do not alter the pain management strategy.

Complex patients include those with:

- Pre-admission "oMEDD" > 60 ("oMEDD": is oral morphine equivalent daily dosage) use the opioid calculator (refer POL0244 Opioid Prescribing Policy ANZCA App details)
- History of chronic pain.
- History of substance abuse.
- Concurrent use of ketamine infusion +/- sublingually.
- Significant patient concern.
- Significant nursing or medical concern.
- Severe hepatic or renal impairment.

Check list ***PRIOR*** to PCIA cessation:

- Patient is tolerating oral intake.
- Plan has been communicated to nursing staff and the patient.
- Renal function checked prior to prescribing oral analgesics that may require dose adjustments.
- Patient's regular pre-admission medications are charted, available and have been confirmed.
- STAT dose of immediate release opioid **1 hour prior to removal** of PCIA.
- PRN Opioids and Adjuncts (see below) charted and available.

Any issues or concerns to the analgesic management?

*Please contact Acute Pain Service: Duty Anaesthetic Registrar (24/7) on M: *280.OR **CNC Acute Pain (m-F 8-4.30PM) on Ext # 9483** Page 4829 or M: *206*

ANZSCA: PS41(G) Position statement on acute pain management 2022

4.3 Pharmacological therapies

4.3.3 Multimodal analgesia aims to reduce opioid-related adverse effects by reducing opioid requirements. Multimodal analgesia medication regimens should not increase the risk of adverse effects or interactions with other analgesic medications. Use of non-opioid analgesic and adjuvant medications and 'opioid-free analgesic techniques will not avoid the need for opioids in all patients, either in hospital or after discharge, and may not lead to a reduction in patient harm.

4.3.4 Long-acting opioid preparations include slow-release opioids, methadone and opioid patches. ***Avoid routine prescription*** *of long-acting opioids in the management of acute pain unless there is a demonstrated need, close monitoring is available, and a cessation plan is in place.*

Please consult Acute Pain Service: Anaesthetic Registrar for clarification on patient suitability if required.

FPM ANZCA

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Opioid Dose Equivalence Calculation Table

In order to calculate an oral Morphine Equivalent Daily Dose (oMEDD), multiply the current daily opioid dose by the conversion factor in column 3.

For example, oMEDD of oxycodone 40mg/day = 40 x 1.5 = 60mg/day

CURRENT OPIOID		CONVERSION FACTOR	PROPRIETARY NAMES
ORAL (SWALLOWED) PREPARATIONS *Note: Modified release formulations are marked MR*			
Morphine	mg/day	1	Anamorph, Kapanol (MR), MS Contin (MR), MS Mono (MR), Ordine, Sevredol
Oxycodone	mg/day	1.5	Endone, OxyContin (MR), OxyNorm, Targin (MR)
Hydromorphone	mg/day	5	Dilaudid, Jurnista (MR)
Codeine	mg/day	0.13	Aspalgin, Codalgin, Panadeine, Panadeine Forte, Mersyndol, Nurofen Plus, others
Dextropropoxyphene	mg/day	0.1	Di-Gesic, Doloxene
Tramadol	mg/day	0.2	Durotram-XR (MR) , Tramal, Tramadol SR (MR), Zydol, Zydol SR (MR), others
Tapentadol	mg/day	0.3	Palexia-SR (MR), Palexia-IR
SUBLINGUAL PREPARATIONS			
Buprenorphine	mg/day	40	Suboxone, Subutex, Temgesic
RECTAL PREPARATION *Note: Absorption from rectal administration is highly variable*			
Oxycodone	mg/day	1.5	Proladone
TRANSDERMAL PREPARATIONS			
Buprenorphine	mcg/hr	2	Norspan
Fentanyl	mcg/hr	3	Denpax, Durogesic, Dutran, Fenpatch, Fentanyl Sandoz
PARENTERAL PREPARATIONS			
Morphine	mg/day	3	DBL morphine sulphate injection, DBL morphine tartrate injection
Oxycodone	mg/day	3	OxyNorm FI
Hydromorphone	mg/day	15	Dilaudid FI, Dilaudid-HP FI
Codeine	mg/day	0.25	Codeine phosphate injection USP
Pethidine	mg/day	0.4	Pethidine injection BP
Fentanyl	mcg/day	0.2	DBL fentanyl injection, Sublimaze
Sufentanil	mcg/day	2	
Faculty of Pain Medicine, ANZCA – June 2021			

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Australian and New Zealand College of Anaesthetists

Opioid conversion tables (BHS: Opioid Prescribing Policy - POL0244)

Oral opioids to oral morphine			
Opioid		**Conversion factor**	**Calculation**
Oxycodone	(mg/day)	1.5	Oral oxycodone 10mg = Oral morphine 15mg
Hydromorphone	(mg/day)	5	Oral hydromorphone 8mg = Oral morphine 40mg
Codeine	(mg/day)	0.13	Oral codeine 30mg = Oral morphine 4mg
Tramadol	(mg/day)	0.2	Oral tramadol 50mg = Oral morphine 10mg
Tapentadol	(mg/day)	0.4	Oral tapentadol 50mg = Oral morphine 20mg

Sublingual opioids to oral morphine			
Opioid		**Conversion factor**	**Calculation**
Buprenorphine	(mg/day)	40	Sublingual buprenorphine 1mg = Oral morphine 40mg

Transdermal opioids to oral morphine			
Opioid		**Conversion factor**	**Calculation**
Buprenorphine	(microg/hr)	2	Transdermal buprenorphine 5microg/hr = Oral morphine 10mg/day
Fentanyl	(microg/hr)	3	Transdermal fentanyl 25microg/hr = Oral morphine 75mg/day

Parenteral opioids to oral morphine			
Opioid		**Conversion factor**	**Calculation**
Morphine	(mg/day)	3	Subcutaneous morphine 10mg = Oral morphine 30mg
Hydromorphone	(mg/day)	15	Subcutaneous hydromorphone 2mg = Oral morphine 30mg
Pethidine	(mg/day)	0.4	IV pethidine 20mg = Oral morphine 5mg
Fentanyl	(microg/day)	0.2	Subcutaneous fentanyl 25microg = Oral morphine 5mg

(Adapted from Opioid Dose Equivalence, Faculty of Pain Medicine, ANZCA, December 2014)

Dosage considerations: Following Opioid Prescribing Policy - POL0244 and ANZCA opioid conversion recommendations below is an example of what the parental to oral conversion may look like

Conversion from Intravenous Opioid to Oral Opioids		
PCA use in last 24hrs		**Suggested oral oxycodone dose**
Morphine/Oxycodone	< 10 mg	
Fentanyl	≤ 200 microg	5-10 mg Oxycodone QID every 2 hours PRN
Morphine/Oxycodone Fentanyl	10-20 mg 200-400 microg	*AND*, Oxycodone 2.5-5 mg, every 2 hours PRN
Morphine/Oxycodone Fentanyl	20-40 mg 400-800 microg	Targin 10/5 mg BD, for 3 days *AND*, Oxycodone 5-10 mg every 2 hours PRN
Morphine/Oxycodone Fentanyl	40-60 mg 800-1200 microg	Targin 15/7.5 mg BD, wean over 1 week *AND*, Oxycodone 5-10 mg every 2 hours, PRN
Morphine/Oxycodone Fentanyl	60-80 mg 1200-1600 microg	Targin 20/10 mg BD, wean over 1 week *AND*, Oxycodone 5-10 mg every 2 hours PRN
Morphine/Oxycodone Fentanyl	>80 mg >1600 microg	**Do NOT Cease: Contact Pain Service**

Reduce the dosage if: elderly; frail; OSA; renal and hepatic impairment. Increase the dosage if: opioid tolerant. The analgesic requirement should reduce with each postoperative day but will be influenced by the patient's activity.

The **weaning period** for a **long-acting agent depends** on the **surgery** and may **range** from **3 days** to more than **2 weeks.** In general, a **stop-date** should be instituted for long-acting opioids. This **information is conveyed** to patient **General Practitioner** for ongoing care.

N.B: if the patient was taking a controlled release opioid pre-admission, it is likely that it will need to be continued post-operatively.

Australian Commission on Safety and Quality in Health Care, Opioid Analgesic Stewardship in Acute Pain Clinical Care Standard 2022 see summary below.

Non-Opioid Adjuncts

- All patients should receive adjuvants.
- All patients except otherwise contraindicated should be ordered aperients.
- Usually these are used for 3 to 5 days.

Medication	Dose	Comment
Paracetamol	1 g QID	Consider dose reduction in severe hepatic impairment.
Ibuprofen	200-400 mg TDS with food prn	Caution in patients with renal impairment, age >75, concurrent ACE- Inhibitor use, Hx of haematemesis or gastritis
Pregabalin	75-150 mg BD	Rarely used in the acute setting as it takes 7 weeks for onset. (Only used if patient is already on this medication)
Tramadol immediate release	50-100 mg QID PRN	Do not use if age >75yrs and caution in patients on other serotonergic medications e.g.: SSRIs, TCAs
Tapentadol immediate release	50 – 100mg QID PRN	Alternate to Tramadol (APS will need to have prescribed, "Not for Discharge")
Temgesic sublingual Buprenorphine	200-400microg 6-8hrly (1200<24hr)	Required to be prescribed by APS Dr. in anticipation of slow return to bowel function with weaning plan "Until return bowel function, " not for discharge"

Other agents may be used in consultation with the Pain Services

Reference Online Australian Medicines Handbook Pty Ltd Last modified by AMH: July 2022

REFERENCES

1. Macintyre, P.E., & Schug, S.A.(2021). ACUTE PAIN MANAGEMENT A Practical Guide. *W.B Saunders*
2. Schug SA, Scott DA, Mott JF, Halliwell R, Palmer GM, Alcock M; APM:SE Working Group of the Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine (2020), Acute Pain Management: Scientific Evidence (5th edition), ANZCA & FPM, Melbourne.
3. Khor KE; Sia A,; Cardosa (2021) Opioid Therapy for pain: A practical Guide for clinicians, pg 408-417, SingHealth Academy Publishing
4. General resources used in the preparation of this monograph include On-line: *MIMS; Australian Medicines Handbook;* Royal Women's Pregnancy and Breastfeeding Medicines Guide.