

**NHS Grampian Protocol For The Prescribing And Administration Of  
Oral Opioids Following Trauma Or Surgery In Adults**

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August 2021	August 2018	Updated 2021 UK consensus publications advocate the use of immediate- release opioids in management of post-op and trauma pain over modified-release preparations. (Ref 1 + v2). Protocol v5 changed throughout in light of this recommendation.	Throughout document
August 2021	August 2018	Liquid oral morphine solution (10mg/5mL) now first line drug of choice.	Page 1, Section 1

\* Changes marked should detail the section(s) of the document that have been amended, i.e. page number and section heading.

# NHS Grampian Protocol For The Prescribing And Administration Of Oral Opioids Following Trauma Or Surgery In Adults

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# NHS Grampian Protocol For The Prescribing And Administration Of Oral Opioids Following Trauma Or Surgery in Adults

## 1. Purpose and Scope

Patients with severe pain following trauma or surgery should be considered for oral morphine sulphate as the first line analgesic treatment. Immediate-release opioids are preferred in the management of postoperative and trauma pain when simple analgesics are insufficient to achieve analgesic goals<sup>1</sup>. Liquid oral morphine solution (10mg/5mL) is the preferred opioid as it is a Schedule 5 drug in the UK, which facilitates more timely administration.

Oral oxycodone should only be used as an alternative to oral morphine solution if the patient is intolerant of morphine. Morphine intolerance can be defined as any adverse effects from taking morphine, such as nausea, vomiting, itching or hallucinations. Oxycodone is a Schedule 2 Controlled Drug and therefore has additional recording and administration requirements, so delays to administration may occur.

Modified-release opioids should not be used routinely for acute post-operative pain and only be used if the patient was previously established on a modified-release opioid or if the patient experiences a prolonged pain state<sup>2</sup>. If modified-release opioid preparations (including transdermal) are used, due care should be exercised, as they have been associated with an increased risk of sedation and opioid induced ventilatory impairment, when used within the first 48 hours post-operatively<sup>3</sup>.

## 2. Background

It was thought by some that, even if pain was not good for the patient at least it did no harm. It is now recognised that severe acute pain can have a number of harmful physiological and psychological side effects<sup>4</sup>.

The pathophysiological consequences of acute pain involve adverse effects on multiple organ systems, while the psychological effects of acute pain may be less obvious. Pain after surgery can have a major influence on psychological function, which could lead to increased pain perception. Unrelieved pain can lead to increased anxiety, insomnia, and give rise to complications such as chest infections and deep vein thrombosis. Inadequate relief of acute pain may also impact significantly on the rehabilitation of patients after surgery and is a significant risk factor for the transition from acute to persistent post-surgical pain. The development of persistent pain following surgery is relatively common and is associated with a high prevalence of psychological illness, loss of income and increased use of healthcare services<sup>5</sup>. Pain assessment should be made regularly, especially in those patients unable to communicate effectively.

Anaesthetists might use oxycodone in theatre as the main opioid, either because the patient is intolerant of morphine or because patients wake up more quickly after oxycodone, compared to morphine following theatre. However, consideration should be given to using morphine post-operatively if not contraindicated, as morphine is the first line opioid, is more cost effective and the fact that oxycodone is potentially more addictive than morphine.

## **Patients under 70 years of age, tolerant of morphine with normal renal function**

- 1) Oral morphine solution (10mg/5mL) 10mg is prescribed for routine administration, e.g. at 0800, 1200, 1800 and 2200 (maximum recommended regular dose 80mg/24hr).

And

- 2) Oral morphine solution (10mg/5mL) 10mg hourly as required for pain (maximum recommended dose 120 mg/24hr).

If patient is using Patient Controlled Analgesia (PCA) consider stopping the PCA the morning after surgery if the patient can tolerate oral medication. If the patient has used more than 15mg/12 hours of intravenous morphine, commence oral morphine as above.

Review oral morphine prescription at least every 24 hours. If the patient has required less than 2 breakthrough doses of oral morphine, the regular oral morphine solution dose can be reduced by 50%, or patient changed to alternative analgesia, such as dihydrocodeine or tramadol.

Consideration must be given to the relative potency of dihydrocodeine and tramadol.

- Dihydrocodeine dose 60mg = approximately 5mg oral morphine.
- Tramadol dose 50mg = approximately 5 - 10mg oral morphine.

Consider concomitant use of simple analgesics, e.g. paracetamol, NSAIDs.

For patients:

- 1) On opioids pre-operatively
- 2) Whose parenteral morphine consumption in last 12 hours is greater than 20mg.

Consider

- 1) Oral morphine solution (10mg/5mL) 15mg prescribed for regular administration, e.g. at 0800, 1200, 1800 and 2200 hours (maximum dose 80mg/24hours).

And

- 2) Oral morphine sulphate solution (10mg/5mL) 20mg hourly as required for breakthrough pain (maximum dose 200 mg/ 24 hours).

These doses may have to be increased further in opioid tolerant patients, e.g. Intravenous Drug User (IVDU), or in those requiring more than 4 breakthrough doses in 24 hours.

## **Patients under 70 years of age, intolerant of morphine with normal renal function**

- 1) Shortec<sup>®</sup> Capsules (oxycodone immediate release (IR) capsules) 5mg prescribed for regular administration e.g. at 0800, 1200, 1800 and 2200 hours, (maximum dose 40 mg/24 hour. As there are several brands of oxycodone IR, in order to minimize risks of inappropriate selection, prescribing by brand name here is preferable, i.e. Shortec<sup>®</sup> Capsules (oxycodone immediate release (IR) capsules).

And

- 2) Shortec<sup>®</sup> Capsules (oxycodone immediate release (IR) capsules) 5mg hourly as required for breakthrough pain (maximum dose 50 mg/24hr).

If the patient is using patient controlled analgesia (PCA), consider stopping the PCA the morning after surgery if the patient can tolerate oral medication. If they have used more than 10mg /12 hours of oxycodone then commence oral oxycodone as above.

Review oral oxycodone prescription at least every 24 hours. If the patient has required less than 2 breakthrough doses of oral Shortec<sup>®</sup> Capsules (oxycodone immediate release capsules), the background Shortec<sup>®</sup> Capsule dose can be reduced by 50%, or patient changed to alternative analgesia, such as tramadol or dihydrocodeine.

Consideration must be given to the relative potency of dihydrocodeine and tramadol.

- Dihydrocodeine dose 60mg = approximately 2.5mg oxycodone.
- Tramadol dose 50mg = approximately 2.5 - 5mg oral oxycodone.

Consider concomitant use of simple analgesics, e.g. paracetamol, NSAIDs.

For patients:

- 1) Taking opioids pre-operatively.
- 2) Whose parenteral oxycodone consumption in last 12 hours is greater than 15mg.

Consider:

- 1) Shortec<sup>®</sup> Capsules (oxycodone immediate release (IR) capsules) 10mg prescribed for regular administration, e.g. at 0800, 1200, 1800 and 2200 hours, (maximum dose 40 mgs/24 hours).

And

Shortec<sup>®</sup> Capsules (oxycodone immediate release capsules) 10mg hourly as required for breakthrough pain (maximum dose 100 mgs/24 hours).

These doses may have to be increased further in opioid tolerant patients, e.g. IVDU or in those requiring more than 4 breakthrough doses in 24 hours.

## Alternative prescription for those over 70 years old

Patients over the age of 70 are more sensitive to strong opioids and may suffer from excess sedation and respiratory depression. Regular paracetamol and reduced opioid dosage (e.g. oral morphine solution 5mgs or oxycodone liquid 2mgs) given as required rather than regularly may help reduce their occurrence.

Oxycodone has been shown to reduce risk of falls in the elderly compared to morphine and is used in the NHSG Hip Fracture Repair Guideline [6](#). Alternative analgesics given on a regular basis such as dihydrocodeine 30mg every six hours or tramadol 50mg every six hours along with regular paracetamol every six hours should be considered but may be inadequate for severe pain.

Advice can be sought from the Acute Pain Service on ASCOM 52590 or out of hours from the on call anaesthetist on page 2999.

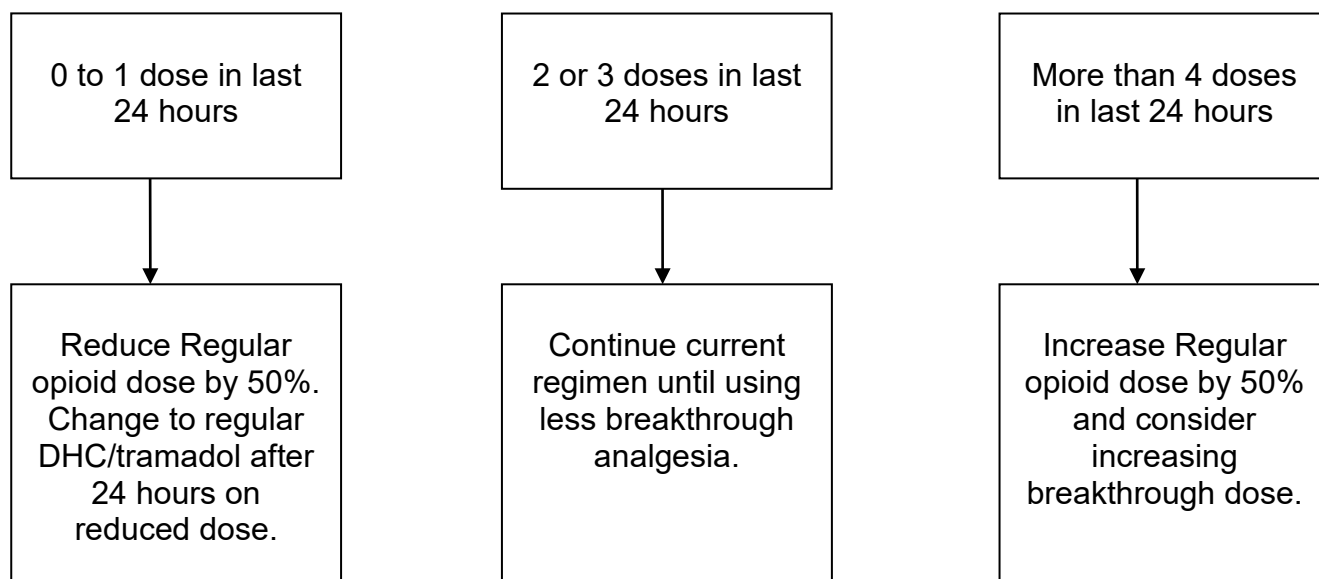
The dose of paracetamol is 15mgs/kg up to a maximum dose of 1g every 6 hours. However, 1g should only be given where weight is >50kg.

Both dihydrocodeine and tramadol can cause sedation and confusion in the elderly. Tramadol may be less constipating at lower doses than dihydrocodeine and lower doses can be used if adverse effects are problematic.

### 3. Monitoring

All patients receiving strong oral opioids must have pain, sedation and nausea scores and respiratory rate recorded and assessed at regular intervals. The Acute Pain Service or senior ward medical staff must be informed of any concerns.

The number of doses of rescue analgesia (oral morphine solution 10mg/5mL or Shortec<sup>®</sup> Capsules (oxycodone immediate release capsules)) must be reviewed at least daily and the dose of regular strong opioid adjusted as below:





## Discharge Advice

Some patients may require these strong opioids for longer periods of time but should not be discharged home with them unless specified by senior medical staff or Acute Pain Service. Analgesia should be reviewed daily to avoid unnecessary discharge prescriptions. Responsible opioid stewardship should be practiced as described by the Faculty of Pain Medicine Opioids Aware guidelines and Surgery and Opioid: Best Practice Guidelines 2021 <sup>4.1</sup>. There should be clear discussion with all patients started on opioids, especially MR preparations, on the risks of opioids with a clear agreed and documented plan to de-escalate and stop them when the acute pain phase is over. Discharge prescriptions for opioids should be for a maximum of 5 days<sup>1</sup>. After this, a Primary Care Physician must review the patient before re-prescribing these drugs. Communication with Primary Care Providers is recommended when discharging a patient on opioids especially modified release (MR) preparations (which should generally be avoided in acute pain management).

Patient information leaflets about strong opioids are available on all wards and should be supplied to any patient discharged on strong opioids.

## Consultative Group

Aberdeen Acute Pain Service  
Grampian Area Anaesthetic Senior Staff Committee

## References

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- 4) Faculty of Pain Medicine of the Royal College of Anaesthetists. Opioids Aware resource 2020. Available from: <https://fpm.ac.uk/opioids-aware>.
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- 6) Hip Fracture Repair Guideline 2016, NHS Grampian