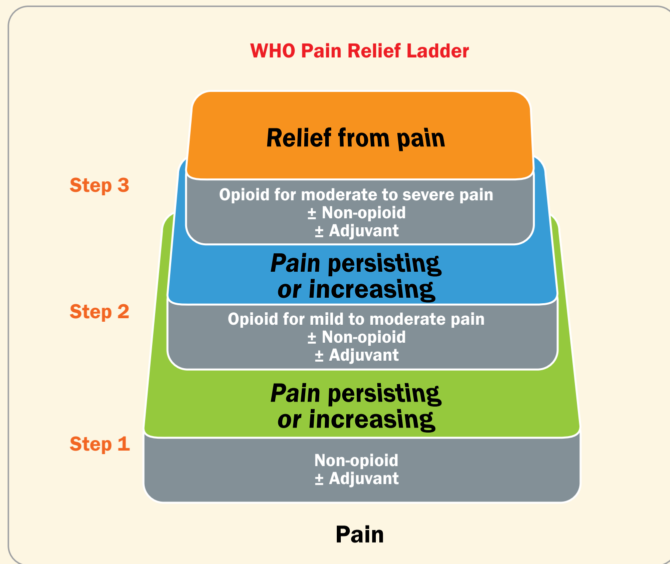
# SUMMARY OF GENERAL PALLIATIVE CARE GUIDELINES FOR THE MANAGEMENT OF PAIN AT THE END OF LIFE FOR ADULTS




## Step 1. For mild pain

**Regular non-opioid +/- an adjuvant**

- Paracetamol 1g QDS
- NSAIDs (including selective COX 2 Inhibitors) – orally, topically or subcutaneously. Avoid in renal impairment/cardiac failure.

***If pain relief is not achieved at maximum dose, then proceed to step 2***

## Step 2. For mild to moderate pain.

**Regular weak opioid +/-non-opioid +/- an adjuvant**

Consider combination preparation e.g. Co-codamol 30/500 2 tablets QDS or Tramadol - Maximum dose 400mg /24hrs. Avoid in epilepsy.

****Avoid rotation between weak opioids****

***If pain relief is not achieved at tmaximum dose , proceed to step 3***

## Step 3: For moderate to severe pain.

**Regular strong opioid +/- non-opioid +/- an adjuvant.**

Dose of strong opioid titrated according to analgesia requirements and clinical response e.g. morphine 5-10mg 4hrly.

## *HOW TO AVOID Predictable Opioid Adverse Effects:*

**Constipation: ALWAYS** prescribe regular laxatives.
**Nausea: ALWAYS** ensure an antiemetic (e.g. cyclizine 50mg TDS, metoclopramide 10mg TDS or haloperidol 0.5-1.5mg nocte) is available for 5-7days after starting opioid
**Sedation: WARN** patients that mild sedation may occur for the first few days, and advise of the risks of driving or using machinery.
**Dry Mouth: ADVISE** on simple mouthcare regimens

**Adjuvants**

These medications can be used throughout all steps of the WHO analgesic ladder where appropriate. ***Note they may have an opioid sparing effect and reduction of opioid may be required.***

**Neuropathic Pain**

**FIRST LINE** - ***either*** a tricyclic antidepressant or an anticonvulsant

- **Tricyclic Antidepressants** e.g. Amitriptyline 10mg nocte and increase gradually every 5-7 days to a maximum of 75mg nocte. Caution: known cardiac disease.
- **Anticonvulsants** e.g. Pregabalin (starting dose 25-75mg BD), or Gabapentin (starting dose 100mg TDS)

**SECOND LINE** – combine a tricyclic antidepressant and anticonvulsant.

**Also consider**

- **Lidocaine 5% patches** applied 12hrly over the area of maximal pain
- **Capsaicin** applied topically to painful area
- **Corticosteroids** –e.g. Dexamethasone 8mg mane trial for 3-5 days

**Bone Metastases e.g. Bisphosphonates** –discuss with Specialist physician
**Muscle Spasm: Antispasmodics** (intestinal colic, bladder spasms)-Hyoscine Butylbromide -starting dose 40-80mg / 24hrs via CSCI. **Muscle Relaxants**. Diazepam - starting dose 2mg BD-TDS, or Baclofen - starting dose 5mg TDS
Other Interventions: anti-cancer therapies e.g. radiotherapy, radioisotopes, chemotherapy or hormone therapy; anaesthetic procedures ; physiotherapy & occupational therapy, complementary therapies,.

## How to start strong opioids for moderate to severe pain

**ORAL STRONG OPIOIDS** - Morphine sulphate is the oral opioid of choice.
**Method 1: Using immediate release (IR) morphine** - *preferred approach*

- Stop regular weak opioid and consult opioid conversion charts for appropriate starting dose
- Commence 5 -10 mg orally at regular four hourly intervals with access to PRN doses. Lower doses, e.g. 1 - 2.5mg may be required in the opioid-naïve, elderly or frail patients and in those with renal impairment.
- If pain control is inadequate, and there is no evidence of opioid toxicity, increase the regular and PRN dose by up to 30% and reassess analgesic effect within 24-48 hours
- Continue to titrate up the regular analgesic dose and PRN dose until 4 hourly pain relief is achieved, then switch to a modified release preparation, i.e. divide the total amount of immediate release morphine required in the previous 24hours by 2 and prescribe as modified release 12hourly morphine.

**Method 2: Using modified and immediate release morphine.**

- Stop regular weak opioid and consult opioid conversion charts for appropriate starting dose
- Commence modified-release morphine e.g. 12 hourly morphine 10-20 mg BD. Lower doses (5mg BD) should be used in patients who are opioid-naïve, elderly or have renal impairment.
- Prescribe approximately 1/6 of this total daily dose as immediate release morphine for breakthrough pain.
- If pain control is inadequate after 24-36hrs, and there is no evidence of opioid toxicity, increase the regular and PRN dose by up to 30%
- Continue to titrate up the regular and PRN dose until adequate pain relief is achieved.

**PARENTERAL**

- **Diamorphine** –. Divide the total daily oral dose of morphine by three and administer this dose of diamorphine via CSCI over 24 hours. Breakthrough dose = 1/6 of 24 hour diamorphine dose
- **Morphine sulphate** – Divide total daily oral dose of morphine by two and administer this dose of morphine sulphate via CSCI over 24 hours. Breakthrough dose = 1/6 of 24 hour morphine dose

SECOND LINE STRONG OPIOIDS

- **ORAL** e.g Oxycodone, Hydromorphone,
- **TRANSDERMAL** e.g Fentanyl Patch * See over
- **PARENTERAL** - e.g. Oxycodone, Alfentanil , Fentanyl, Hydromorphone

**Note: Avoid Cyclimorph® (cyclizine/morphine)injection in end of life care**

## Breakthrough (PRN) analgesia

In addition to **regular strong opioids** patients should have access to breakthrough analgesia- traditionally approximately 1/6 (one sixth) of the total daily dose.
For management of incident or procedural pain use either:

- **oral immediate release opioids** - taken at least 30 min before the precipitating activity OR
- **short acting fentanyl preparations** - taken just prior to precipitating activity (only for patients on background opiate of 60mg PO morphine equivalent)

GAIN
GUIDELINES AND AUDIT IMPLEMENTATION NETWORK

**For patients with hepatic impairment or renal impairment consult full text version of Pain Guidelines**

## Opioid Conversion Table

**Oral Morphine** to **Subcutaneous (SC) Diamorphine** – Divide by 3
e.g. 30 mg Oral Morphine = 10 mg SC Diamorphine
**Oral Morphine** to **Oral Oxycodone** – Divide by 2
e.g. 30 mg Oral Morphine = 15 mg Oral Oxycodone
**Oral Morphine** to **SC Morphine** – Divide by 2
e.g. 30 mg Oral Morphine = 15 mg SC Morphine
**Oral Morphine** to **Oral Hydromorphone** – Divide by 7.5
e.g. 30 mg Oral Morphine = 4 mg Oral Hydromorphone

**Oral Oxycodone** to **SC Oxycodone** – Divide by 2 (Suggested safe practice)
e.g. 10 mg Oral Oxycodone = 5 mg SC Oxycodone
**Oral Oxycodone** to **SC Diamorphine** – Divide by 1.5 (Suggested safe practice)
e.g. 15mg Oral Oxycodone = 10mg SC Diamorphine

**Oral Hydromorphone** to **SC Hydromorphone** – Divide by 2
e.g. 4 mg Oral Hydromorphone = 2 mg SC Hydromorphone

**SC Diamorphine** to **SC Oxycodone** –
Treat as equivalent up to doses of 60 mg/24 hrs
Calculate by using oral Morphine equivalents
e.g. 10 mg SC Diamorphine = 10 mg SC Oxycodone
Caution should be used when converting higher doses.
**SC Diamorphine** to **SC Alfentanil** – Divide by 10
e.g. 10 mg SC Diamorphine = 1 mg SC Alfentanil
**SC Diamorphine** to **SC Morphine** – ratio is between 1:1.5 and 1:2 – Multiply by 1.5
e.g. 10 mg SC Diamorphine = 15 mg SC Morphine

**Oral Tramadol** to **Oral Morphine**– Divide by 10 (Suggested safe practice)
e.g. 100 mg Oral Tramadol = 10 mg Oral Morphine

**Oral Codeine / Dihydrocodeine** to **Oral Morphine** – Divide by 10
e.g. 240 mg Oral Codeine / Dihydrocodeine = 24 mg Oral Morphine

**Transdermal Opioids:**
***DO NOT COMMENCE in patients with uncontrolled pain or who are moribund***
**Transdermal Fentanyl:** Available as a matrix or reservoir patch. Change every 72hrs
**Initial prescribing of transdermal fentanyl**
**Opioid naïve patients** – ideally should be commenced on oral or parenteral opioids and dose titrated until pain is controlled before converting to transdermal fentanyl.
**Patients on regular opioids** - convert to the appropriate dose using conversion chart
**N.B.** Due to lag time to onset of analgesia of 12-24hrs note the following considerations:
**For patient on 4 hourly IR oral opioids** - Take regular oral dose at the same time as patch applied and continue with two further doses at 4 and 8 hrs later.
**For patient on regular 12hrly MR opioid** - Apply patch with final oral dose.
**For patient receiving opioids via CSCI** - Apply patch and continue CSCI for 6hrs
**To calculate breakthrough dose:** Oral IR morphine (or alternative opioid) should be prescribed for breakthrough i.e. 1/6 equivalent 24 hour total morphine dose.
***DO NOT adjust the fentanyl patch dose until at least 48 hours have elapsed- use IR opioid PRN in the interim. Thereafter dose increases should be based on breakthrough analgesic usage (usually in 12-25 micrograms/hour increments).***

**In a moribund patient:**
Where pain is well controlled, patch can be continued.
Where pain is poorly controlled despite transdermal opioids, continue to change the patch as per the manufacturer's recommendations but give additional opioid via CSCI. Adjust CSCI dose according to PRN usage and titrate as required. Note when calculating PRN dose the TOTAL opioid dose in 24 hours (both patch and syringe driver) must be considered.

**Transdermal buprenorphine:** Butrans- every 7 days ( Step 2 of WHO)
Transtec- twice weekly ( Step 3)

## BuTrans Patch® (Buprenorphine) Conversion Guide

| | 5 mcg/hr | 10 mcg/hr | 20 mcg/hr |
|---|---|---|---|
| Oral Tramadol | ≤ 50mg/day | 50-100mg/day | 100-150mg/day |
| Oral Codeine | ~30–60mg/day | ~60-120mg/day | ~120-180mg/day |
| Oral Dihydrocodeine | ~60mg/day | ~60-120mg/day | ~120-180mg/day |

## Transtec Patch® (Buprenorphine) Conversion Guide

| Transtec Patch(microgm/hr) | 24 hour Oral Morphine Dose (mg) |
|---|---|
| 35 | ~ 50 - 97 |
| 52.5 | ~ 76 - 145 |
| 70 | ~ 101 - 193 |

**Opioid toxicity**
**Symptoms and Signs** - drowsiness, myoclonic jerks, pinpoint pupils, confusion, agitation, cognitive impairment, hallucinations, vivid dreams, respiratory depression.
**Management**
1. Check renal and hepatic function
2. Treat reversible factors e.g. infection, hypercalcaemia.
3. **Mild** opioid toxicity: reduce the dose of opioid and ensure adequate hydration
4. **Moderate** opioid toxicity (If respiratory rate >8/min, oxygen saturations are normal and patient not cyanosed and easily rousable): Discontinue regular opioid immediately and 'wait and see'. Consider reducing or omitting the next regular dose of morphine.
5. **Severe** Opioid toxicity: (If respiratory rate ≤ 8/min, oxygen saturations are abnormal or the patient is cyanosed- urgent hospital admission is indicated.)

Consider reversal of respiratory depression using naloxone:
- Dilute a standard ampoule (naloxone 400micrograms) to 10ml with saline for injection.
- Administer 0.5ml (20micrograms) IV every 2 min until the respiratory status is satisfactory
- Further boluses may be necessary
- Nb – The aim is to reverse respiratory depression without compromising pain control. This may not fully reverse sedation.

6 Review background analgesia

**Seek specialist palliative medical advice for continuing problems- particularly if transdermal patches have been used**

## Transdermal Fentanyl Conversion Guidance

| Oral Morphine Dose (mg/day) | Fentanyl dose (micrograms/hr) |
|---|---|
| ≤44 | 12 |
| 45-89 | 25 |
| 90- 134 | 37 |
| 135-189 | 50 |
| 190-224 | 62 |
| 225-314 | 75 |
| 315-404 | 100 |
| 405-494 | 125 |
| 495-584 | 150 |
| 585-674 | 175 |
| 675-764 | 200 |

**Remember:**
- Holistic assessment and regular review
- Try to identify likely cause/s of pain/s
- Is there any disease modifying treatment which may help pain control?
- Start at the level of the World Health Organisation (WHO) analgesic ladder appropriate for the severity of the pain
- If pain uncontrolled prescribe medication from the next step of the ladder rather than alternative analgesic from the same step
- Involve patient and carer in management plan

**For persisting complex Pain: SEEK SPECIALIST ADVICE e.g. specialist palliative care**