In most cases pain can be improved for patients. If not improving, seek Specialist Palliative Care advice

COMMON TYPES OF PAIN

Visceral / Soft Tissue Pain (nociceptive)
Constant dull pain; Poorly localised
Usually opioid responsive

Bone Pain (somatic nociceptive)
Usually well localised; worse on movement; localised tenderness
Partly opioid responsive; may be NSAID responsive.
If cancer diagnosis radiotherapy or IV Bisphosphonates may help

Nerve Pain (neuropathic)
Try opioids first, but may be less responsive.
Consider adjuvant neuropathic analgesia

WHO STEP 1
Non-Opioids
e.g. Paracetamol 1 g qds PO
+/- ADJUVANT

WHO STEP 2
Non-Opioid plus Weak Opioid
e.g. Codeine 30-60 mg qds PO
+/- ADJUVANT

WHO STEP 3
Non-Opioid plus Strong Opioid
e.g. Morphine
+/- ADJUVANT

ADJUVANTS
- **Neuropathic Pain Agents**
  Gabapentin start 100 mg to 300 mg nocte
  Pregabalin start 25 mg OD or BD
  Amitriptyline 10 mg nocte
  (*starting doses in clinical frailty, requires titration to effects*)
- **Anti-inflammatories** (Ibuprofen 400 mg TDS or Naproxen 500 mg BD or Celecoxib 100—200 mg BD) with food

ALSO

Conventional Opioid Titration
IMMEDIATE RELEASE MORPHINE
(4 hourly duration of action)

Regularly: Morphine Oral Solution 2.5 mg - 5 mg 4 hourly
PRN: Morphine Oral Solution 2.5 mg - 5 mg 1 hourly

If clinically frail or eGFR less than 60ml/min use lower doses or reduced frequency of dose e.g. regularly 6 or 8 hourly.
Assess response of background pain to opioids and if necessary increase dose by 30-50% every 24-48 hours to achieve pain control.
If not seek Specialist Palliative Care advice.

If eGFR less than 30ml/min *see renal failure page 21*
Ensure breakthrough dose of immediate release opioid is also prescribed, roughly 1/6th of the total 24 hour background dose.

When pain controlled on steady dose, convert to sustained release morphine. Calculate total daily dose of 4-hourly immediate release morphine, and divide by two.

SUSTAINED RELEASE MORPHINE
(12 hourly preparation)
Zomorph capsules BD, MST tablets BD, Morphgesic SR BD, Filnarine SR BD
e.g. 5 mg morphine used 4 times = 20 mg oral morphine in 24 hours = 10 mg sustained release morphine (12 hourly) twice a day

Alternative Opioid Titration
SUSTAINED RELEASE MORPHINE
(12 hourly duration of action)

Regularly: Morphine MR 10 mg BD 12 hourly
Zomorph capsules , MST tablets , Morphogesic MR Filnarine SR
PRN: Morphine oral solution 2.5 - 5 mg 1 hourly

Assess response of background pain to opioids and if necessary, increase dose by 30 - 50% every 24-48 hours to achieve effective breakthrough dose – consider co-analgesics.

If clinically frail or eGFR less than 60ml/min use modified release medication with caution. If eGFR less than 30ml/min *see renal failure page 21*

When pain controlled calculate total daily dose of modified release morphine and any immediate release morphine taken in a 24 hour period and divide by 2 to get a 12 hourly dose.

Ensure breakthrough dose of immediate release opioid is also prescribed, roughly 1/6th of the total 24 hour background dose.

If converting from regular codeine to morphine a higher starting does may be appropriate, e.g. if previously taken codeine phosphate 240 mg/24h consider starting morphine MR 20—30 mg BD

ANTICIPATE OPIOID SIDE EFFECTS

Consider co-prescribing regular laxatives
Senna or Docusate as first line; [alternative Co-danthramer or Macrogol]

and consider PRN anti-emetics such as
Metoclopramide 10 mg TDS PO
Or
Haloperidol 500 micrograms - 1.5 mg PO at teatime
Or
cyclizine 50 mg TDS PO
or
levomepromazine 3 to 6 mg PO nocte

Guidance in the Last Days of Life (page 17)

In most cases pain can be improved for patients. If not improving, seek Specialist Palliative Care advice.

USE OF TRANSDERMAL OPIOID PATCHES

Only consider if:

- Pain is **stable**, and **NOT** rapidly changing
- Oral route not appropriate or poorly absorbed in the long term (for short term management consider CSCI)
- Unacceptable side effects from other opioids despite opioid rotation, e.g. unmanageable constipation with opioids despite optimisation of laxatives
- Renal impairment *(seek Specialist Palliative Care advice in renal failure - see page 21)*
- Cognitive impairment, compliance or concordance issues

New prescriptions of Fentanyl patches are not recommended out-of-hours, unless on specialist advice.

Commencing transdermal fentanyl or Buprenorphine patches:

- Do not start if opioid naïve. Titrate 4-hourly immediate release morphine/oxycodone or titrate modified release morphine/oxycodone as above until pain is controlled, and then convert to equivalent strength Fentanyl or Buprenorphine patch (see opioid conversion chart for guidance)
- Remember, a Fentanyl 25micrograms/hour patch is equivalent to a 60-90 mg daily dose of oral morphine and a Buprenorphine 10 micrograms/hr patch is equivalent to 30mg daily dose of oral Morphine.
- Ensure immediate release oral morphine (or oxycodone) is available for breakthrough pain (see opioid conversion chart for guidance)
- Stick patch to dry, hairless skin; clip (do not shave) hair. When changing patches use a new area of skin.
- Fentanyl patches are changed every 72 hours for most patients.
- Buprenorphine patches are changed either every 7 days (Butrans) or every 4 days (Transtec)
- After application, it takes at least 12-24 hours to take analgesic effect and a steady state may not be achieved for 72 hours. Additional PRN doses may be needed for the first few days. When converting from:
  - ◊ 4-hourly oral morphine/oxycodone, give regular doses for the first 12 hours after applying the patch
  - ◊ 12-hourly modified release morphine/oxycodone, apply the patch and give the final modified release dose at the same time
  - ◊ 24-hourly modified release morphine/oxycodone, apply the patch 12 hours after the final modified release dose
- A depot of drug remains in the patch when removed; fold in on themselves and discard safely

Guidance in the Last Days of Life (page 17)

- When a patient is in the dying phase, **LEAVE PATCH IN SITU**, and change regularly as before.
- If patient has pain use an appropriate subcutaneous dose of opioid PRN for breakthrough pain
- If PRN doses are needed more that twice start CSCI in addition to patch
- Ensure PRN dose calculated to reflect total background dose adequate for both patch & CSCI
- **Seek Specialist Palliative Care advice for support if needed**

If eGFR less than 30ml/min see Renal Failure page 21

In most cases pain can be improved for patients. If not improving; seek Specialist Palliative Care advice, especially if:

- Complex, multiple pains where assessment is difficult;
- Pain appears to be resistant to usual measures or not responding to morphine doses equivalent to or exceeding 120 mg morphine in 24 hours;
- Difficulty in managing pain due to adverse effects of medication or compliance or administration.

CONCEPT of TOTAL PAIN

Should prompt healthcare professionals to consider ALL possible influences on the individual's pain experience:

- **PHYSICAL**
- **SPIRITUAL**
- **SOCIAL**
- **PSYCHOLOGICAL**

Success in pain management depends on

- regular review of the pain and its causes
- effectiveness of treatment
- acceptability of the proposed treatment to the patient

The patient's understanding, fears, concerns and previous experience of pain, as well as their expectations of treatment will all influence each individual's experience of pain and its effective management.

NEUROPATHIC PAIN AGENTS

AMITRIPTYLINE—start 10 mg OD increased to 25 mg OD after 3-7 days and then by 25 mg every 1—2 weeks as tolerated to a maximum of 75 mg daily

GABAPENTIN—start 100 mg OD increase to 100 mg BD after 2-3 days to 100 mg TDS after 2-3 days and then by increments of 100 mg every 2-3 days depending on response to a maximum dose of 900 mg TDS

PREGABALIN—start 25 mg BD and increase by 25 mg every 2-3days to a maximum dose of 300 mg BD

DULOXETINE– start at 30 mg OD and increase to 60 mg OD after 2 weeks—stop if no response after 2 months. Maximum dose 120 mg OD

Start with either an anticonvulsant or an antidepressant and titrate dose as above. Response takes a number of days to become apparent. For common side effects see BNF.

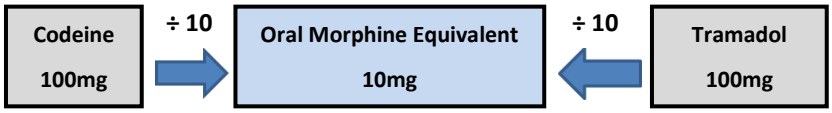
A GUIDE TO EQUIVALENT DOSES OF OPIOID DRUGS

Use the table as a guide (not a set of definitive equivalences) to identify an appropriate starting point for your prescribing decision. **ALL** prescribing decisions must be based on a **full clinical assessment**. **Higher opioid doses may be needed for some patients—seek advice**

Think about the role of adjuvant medication **before** rotating opioids, changing the dose or route. For guidance on conversion to a transdermal fentanyl patch see Pg 7. For guidance on conversion to CSCI see Pg 20.

Consider **reducing prescribed opioid dose by 30-50%** if converting from one route to another route (e.g. transdermal to oral or oral to subcutaneous) or there is concern about **opioid toxicity** (confusion, drowsiness, myoclonic jerks, slowed respiration, pin-point pupils).
Never increase an opioid dose by more than 50% of the previous 24 hour regular dose without SPECIALIST ADVICE

Consider prescribed doses of moderate opioids (Codeine and Tramadol). Factor these in when converting to regular morphine (or other strong opioid) or when calculating PRN dosages.



	Morphine (mg)					Oxycodone (mg)					Fentanyl Patch (mcg/hr)	Buprenorphine Patch (mcg/hr)
Route	Oral			SC		Oral			SC			
	24hr total	12hrly MR dose	PRN	CSCI 24h	PRN	24hr total	12hrly MR dose	PRN	CSCI 24h	PRN		
Dose	20	10	3	10	2	10	5	2	5	1	-	-
	30	15	5	15	3	15	*	3	7.5	1	12 micrograms	10 micrograms
	40	20	7	20	3	20	10	3	10	2	-	-
	50	25	8	25	4	25	*	6	13	2	-	20 micrograms
	60	30	10	30	5	30	15	5	15	3	25 micrograms	-
	70	35	12	35	6	35	*	6	18	3	-	30 micrograms
	80	40	13	40	7	40	20	7	20	3	-	-
	100	50	17	50	8	50	25	8	25	4	-	-
	120	60	20	60	10	60	30	10	30	5	50 micrograms	-

Seek specialist advice for higher doses

* When equal divided doses not possible due to tablet strength e.g. Oxycodone 25mg/24hrs . Prescribe equal doses at higher or lower level e.g. 10mg BD or 15mg BD, dependent on clinical judgement *

Manufacturer's ratios (2:1) have been used to convert oral morphine to oral oxycodone and to convert oral oxycodone to SC oxycodone. Experimentally determined ratios (100:1) have been used to calculate opioid equivalent doses for Fentanyl & Buprenorphine transdermal patches