

Guidelines for the Drug Treatment of Pain in Primary Care

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Link with Care Quality Commission Essential Standards of Quality and Safety	Regulation 10, Outcome 16 - Assessing and monitoring the quality of service provision. Regulation 13, Outcome 9 - Management of medicines.
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Link with Trust Purpose and Values statements	'We will support, deliver and develop our staff' 'We will work to continuously improve services'
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Summary Sheet

The objectives of treatment in primary care for all types of pain, irrespective of origin, are to achieve symptom control, to improve the patient's quality of life and to reduce the need for hospital referrals and/or admissions. A wide variety of oral analgesics are now available on the UK market, with various claims being made for efficacy and side effects. It can thus be difficult for prescribers to use the available evidence to select appropriate analgesia for a particular patient.

This document provides guidance for prescribers in primary care who are prescribing for patients with either acute or chronic pain. It describes the use of the WHO pain ladder to select the correct level of analgesia for each patient, and gives guidance on which analgesics should be used at each level.

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1. Background

This document aims to provide guidance for GPs and other prescribers in primary care within Dudley to ensure that the prescribing of oral analgesia for patients is evidence based, consistent and cost-effective. The current referral time to the local secondary care pain service is approximately 10-12 weeks, so it is important that primary care prescribers are empowered to treat pain effectively, in order to reduce the need for unnecessary referrals to this service.

These guidelines are based on the three-step World Health Organisation (WHO) analgesic ladder. This was originally produced for the treatment of cancer pain, but can equally well be applied to pain from other sources, both acute and chronic. The principles of the WHO analgesic ladder can be summarised as follows:

- Analgesics should be prescribed in a logical stepwise manner, with drug choice and dosage tailored to the individual and based on the severity and type of pain and supporting evidence.
- The ladder is a statement of principles, which can be used with a varying degree of interpretation, rather than a rigid framework.
- The ladder advocates the use of three steps for the control of pain. This ascends from non-opioids through weak opioids to strong opioids, according to the severity of pain.
- The underlying principle is that, following good pain assessment and a thorough knowledge of a small number of analgesics, a simple approach should produce pain relief in the majority of patients.

See Figure 1 for an illustration of the ladder.

The WHO analgesic ladder is widely regarded as being the best approach to the medical management of pain, whether it is acute, chronic, non-malignant or chronic malignant pain.

N.B.: when using the guidelines for the treatment on non malignant pain that the use of strong opioids needs to take into account assessments of improvement in a patient's disability or activity compared with activity before the pain presented. Further advice can be found in section 4 (page 6) with reference to the British Pain Society's Good practice consensus in the use of opioids for persistent pain.

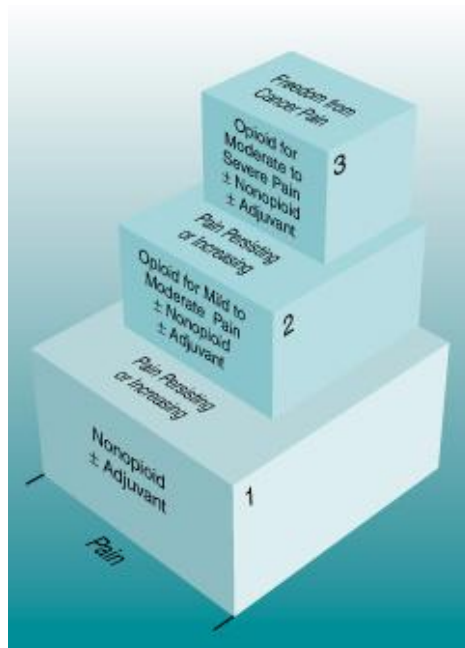


Figure 1 – The World Health Organisation Three-Step Analgesic Ladder (1996)

2. Outcomes

The intended outcome of these guidelines is that patients experiencing pain who present in primary care will be prescribed effective, appropriate and cost-effective analgesia.

3. Recognition and Assessment of Pain

The International Association for the Study of Pain (IASP) has proposed the following definition:

“Pain is an unpleasant sensation and emotional experience associated with actual or potential tissue damage or described in terms of damage. It follows on from this definition that pain is always a subjective sensation and is always unpleasant.”

A patient’s pain must be assessed on an individual basis and recorded systematically, involving the patient where possible. A pain scale of 0-3 should be used to classify pain, where

- 0 = no pain
- 1 = mild pain
- 2 = moderate pain
- 3 = severe pain.

This pain score corresponds to the three steps in the WHO analgesic ladder.

4. Steps for Effective Pain Management (See Flow charts page 8 and 9)

- Assess the patient using 0-3 pain score as in section 3 above.
- The patient should be the prime assessor of their pain.
- Analgesics should be selected using the initial pain assessment, and titrated as a result of ongoing regular reassessment of the patient's response to the analgesia.
- When treating generalised pain the patient's treatment should start at the step of the ladder appropriate for the severity of the pain.
- If the severity increases and is not controlled on a given step, move upwards to the next step of the ladder. Do not prescribe another analgesic of the same potency.
- Analgesia for continuous pain should be prescribed on a regular basis and not just "as required".
- **It is imperative that regular review of patients' pain occurs to ensure effective treatment and to reduce the risk of dependence.** [The British Pain Society's \(2010\) Opioids for persistent pain: Good practice](#) document highlights best practice with respect to opioid drugs:
 - **'Where possible, modified release opioids administered at regular intervals should be used in the management of patients with persistent pain. Clinical experience suggests that immediate release preparations are more associated with tolerance and problem drug use. Use of flexible dosing regimens using immediate release preparations (alone or in combination with modified release preparations) can, in some circumstances, provide effective symptomatic relief and allow an overall reduction in opioid dose. Use of such regimens may be justified when::**
 - **the pain is intermittent and short-lived;**
 - **pain intensity has significant diurnal variation; and**
 - **background pain is well controlled with modified release preparations but the patient has infrequent, short-lived episodes of increased pain.'**
- If following review it is felt that opioid treatment in proving ineffectual then the patient's treatment should be weaned off gradually rather than being withdrawn abruptly.
- Consider non-drug measures for pain relief at all stages, e.g. physiotherapy, TENS, psychological treatments, patient support groups, complementary therapy (acupuncture, reflexology etc).

Neuropathic pain

- With specific reference to neuropathic pain look for other possible causes of peripheral neuropathy (PN) such as alcohol and medications such as metformin (particularly in the absence of retinopathy and nephropathy). Offer PN screening tests which include vitamin B12 level, coeliac serology, thyroid profile, autoimmune profile, multiple myeloma screen, and VDRL

- **Note treatment with amitriptyline is cautioned in the elderly, cardiovascular disease, or risk of antimuscarinic side effects e.g. urinary retention (see BNF section 4.3.1 for more detail when prescribing).** Where treatment with amitriptyline has failed or is cautioned or when in addition to gabapentin has led to intolerable side effects review titrated dose of gabapentin – some patients may benefit from slower titration to an effective dose. If a slower titration with gabapentin is unsuccessful then pregabalin may be considered. Within hospital its initiation will be on consultant authority only.
- After starting or changing a treatment, perform an early clinical review of dosage titration, tolerability and adverse effects to assess suitability of chosen treatment. Include assessment of: pain reduction, adverse effects, daily activities and participation (such as ability to work and drive), mood (in particular, possible depression and/or anxiety), quality of sleep, overall improvement as reported by the person. For continued treatment consider gradually reducing dose over time if improvement is sustained.
- The BNF recommends that the use of other drugs which are unlicensed for pain relief, such as sodium valproate, carbamazepine and phenytoin, should be initiated under specialist supervision only.

Primary Care Generalised Pain Guidelines (including pain associated with cancer)

Step 1- Mild Pain

- Paracetamol 1g qds
+/-
- NSAID- Ibuprofen 400mg tds or Naproxen 250-500mg bd (with gastro-protection as appropriate)

Step 2- Mild to Moderate Pain

- STEP 1 plus
- Codeine 30-60mg 4 hourly (max 240mg daily) **OR** Tramadol 50-100mg 4 hourly (max 400mg daily)
+/-
- Tricyclic antidepressant- Amitriptyline- See neuropathic pain guideline (if in combination with NSAID ensure PPI cover has been considered)
+/-
- Topical NSAID- Ibuprofen 5-10% gel tds [NICE CG59](#)

Step 3- Moderate to Severe Pain - consider impact of prescribing strong opioids long term and ensure regular review*

- STEP 2 plus
- Replace Codeine or Tramadol with
- Morphine as Oramorph 10mg/5ml Solution- titrate according to response, converting to Morphine Sulphate SR (as Zomorph caps) 12 hourly.
+
- For breakthrough pain Morphine as Oramorph 10mg/5ml Solution (dose as 1/6th of total daily dose of Zomorph caps)
* see page for more information on **importance of regular review of opioid use in long term** (particularly immediate release)

If morphine not tolerated consider:

- Fentanyl transdermal patch (as Matrifen) 72 hourly (if constipation is a significant problem despite adequate laxative treatment)

Consider transdermal patch in cases where patient unable to swallow.

(Please note: Transdermal buprenorphine [BuTrans] is not on the Dudley Formulary after its application to the AMMC was rejected Dec 2009)

Alternative Strong Opioids, West Midlands Palliative Care Guidelines, SIGN Guidance 106, WHO

- Usually reserved for cancer pain with specialist support & supervision
- e.g. alfentanil, diamorphine, fentanyl, hydromorphone, oxycodone

**Always
Prescribe
A
Laxative
When
Initiating
Opioids.**

Adjuvant Analgesia in Cancer Pain see p25 of [West Midlands Palliative Care Guidelines](#)

Primary Care Neuropathic Pain Guidelines

First-line Treatment: Offer oral amitriptyline[‡] or gabapentin* unless painful diabetic neuropathy then see box bottom left below

Amitriptyline: start at 10mg/day, with gradual upward titration to an effective dose or the person's maximum tolerated dose of no higher than 75mg/day (higher doses could be considered in consultation with a specialist pain service). (Note cautions for use - see section 4, page 6 for more detail and BNF section 4.3.1)

Gabapentin: starting dose 300mg daily (e.g. 100mg tds) for one week, then increase to 200mg tds for one week then 300mg tds for one week increasing as necessary to a maximum of 3600mg daily. [Note: a quicker titration is indicated by the BNF but may lead to more patients experiencing side effects and subsequently stopping treatment. Advise patient to avoid abrupt withdrawal- taper off over at least 1 week]

[‡] If amitriptyline is **effective** but **not tolerated**, consider offering oral imipramine or nortriptyline as an alternative.

*If gabapentin is not tolerated **after gradual titration (preferably over 6-8 weeks, minimum 4 weeks)**, pregabalin (See BNF Section 4.8.1) may be considered. (See section 4 page 6 for more detail). Within hospital setting this initiation will be on consultant authority only.

Second-line Treatment:

If satisfactory pain reduction is not achieved with amitriptyline, (or nortriptyline or imipramine), **switch to, or combine** with oral gabapentin. If satisfactory pain reduction is not achieved with oral gabapentin, switch to, or combine with oral amitriptyline. Dosage and titration should be same as in recommendations for first-line treatment.

Third-line treatment:

If satisfactory pain reduction is not achieved with second-line treatment:

- consider offering oral tramadol as third-line treatment instead of or in combination with the second-line treatment,

For tramadol as monotherapy, start at 50 to 100mg/day, with upward titration if required to an effective dose or the person's maximum tolerated dose of no higher than 400mg/day. If tramadol is used as combination therapy, more conservative titration may be required.

If tramadol not effective, a trial of low dose morphine with gradually upwards titration may be considered, but bear in mind that neuropathic pain is not always opioid responsive.

- and refer the person to a specialist pain service and/or a condition-specific service
- or refer when response with opioids is poor or ineffective

Specific for people with painful diabetic neuropathy:

If amitriptyline ineffective or contraindicated:

Duloxetine at 60mg/day (a lower starting dose may be appropriate for some patients), with upward titration to an effective dose or the person's maximum tolerated dose of no higher than 120mg/day

Post herpetic neuralgia - Lidocaine patch

Approval pending agreement of Chronic Pain management Pathway for Specialist use only for first three months then continuation in Primary Care if proven benefit.

Approved in principle but to be evaluated as part of the pain relief pathway.

Notes:

- i. The two flow charts should be used in conjunction with the additional guidance in sections 4-8 of this document.
- ii. The combination of paracetamol and codeine in step 2 may be prescribed as Co-Codamol 30/500 tablets for added patient convenience if required. However, prescribing these as two separate drugs allows patients greater flexibility in dosing.
- iii. The doses of paracetamol and codeine may need to be reduced in elderly patients or those with renal or liver impairment. See BNF for further details.
- iv. Laxatives should only be prescribed if constipation is present or anticipated, and discontinued at the same time as the analgesia. See '[Guidelines for the Prevention and Management of Constipation in Adults](#)'.

5. Additional guidance on the prescribing of adjuvant drugs

a. NSAIDs must be used with caution in patients with:

- Asthma
- GI sensitivity (contraindicated in active peptic ulcer disease)
- Cardiovascular disease (especially if taking aspirin)
- Renal disease
- Hepatic disease
- Thrombolytic problems.

b. An osmotic laxative (macrogol rather than lactulose can be added in steps 2 and 3 in the following groups of patients

- Elderly
- Immobile
- Prone to constipation

Senna or docusate can be prescribed to manage drug induced constipation, with co-danthramer and co-danthrusate reserved for those with terminal illness only. Guidance on managing opioid induced constipation plus tools to assist in management are available in Dudley Adult Constipation Guidelines ([Insert link](#)) Laxative usage and management of constipation should be included when reviewing pain management medication and other pain control techniques. To avoid unnecessary laxative use, ensure the laxatives are stopped if the opioid analgesics are stopped, unless otherwise clinically indicated.

6. Dose conversions from oral codeine to oral morphine when moving up the analgesic ladder

The accepted oral dose equivalence between these drugs is

Codeine phosphate 10mg \equiv morphine sulphate 1mg

i.e. a potency of 1:10.

- Start by prescribing immediate release morphine sulphate using this conversion factor until the required dose has been established. Use morphine sulphate solution 10mg in 5ml (Oramorph® or equivalent brand).
- When the effective morphine dose has been established, add up the **total** dose of morphine (regular and prn) taken over the previous 24 hours, and divide this figure by 2 to give the dose of controlled release morphine to be prescribed **every 12 hours**.
- Prescribe this dose **by brand** as Zomorph® capsules. The capsules may be opened and the granules swallowed without crushing, or sprinkled on soft food? for patients unable to swallow capsules whole*.
- Prescribe additional morphine sulphate solution 10mg in 5ml for prn use; the dose of this solution should be approximately 1/6th of the total slow release morphine dose being taken over 24 hours.

* Generic prescribing of this product is discouraged during the differing durations of action of the various products available.

Example: Patient has been taking Codeine Phosphate tablets, 60mg qds, but this is no longer effective.

- Total codeine phosphate dose = 240mg in 24 hours. This is equivalent to a dose of 24mg morphine sulphate in 24 hours.
- Therefore start with Morphine Sulphate Solution 10mg in 5ml, 5mg every 4 hours and prn.
- Assuming patient has required five additional doses of 5mg morphine sulphate in addition to the regular doses,
- Total dose of morphine sulphate in 24 hours is 30mg + (5x5mg) = 55mg
- Therefore convert this to 30mg bd of Zomorph capsules (this is the nearest available dose to the previous 55mg daily total), plus 10mg prn of Morphine Sulphate Solution 10mg in 5ml (this is 1/6th of the total regular dose of 60mg over 24 hours).
- The dose of slow release morphine should be reviewed regularly and increased if the patient has required more than occasional doses of the Morphine Sulphate Solution.

7. Analgesics to be avoided where possible in primary care

AVOID USING:

Drug name	Comments
Dihydrocodeine	Bandolier states that dihydrocodeine is an ineffective analgesic. It commonly causes unacceptable drowsiness, confusion and hallucinations.
Co-Dydramol	Has approximately similar analgesic effect to paracetamol alone, but with additional opioid side effects.
Soluble analgesic products	Only use if patient cannot swallow solid dosage forms. They are expensive, and many contain large quantities of sodium (particular caution needed in patients with cardiovascular disease). e.g. soluble co-codamol tablets contain approx. 18mmol of sodium each. 8 tablets per day contain 8.8g salt equivalent – about 1.5 times the recommended daily maximum intake from all sources!
COX-2 inhibitors	Not recommended in patients with cardiovascular disease. There is also evidence that COX-2 inhibitors are not significantly safer than non-selective NSAIDs in the general patient population.

8. Converting from oral morphine to fentanyl patches

- Fentanyl patches may be useful for patients who have been **stabilised on a high dose of morphine**. Due to its long half life, it takes at least 12-24 hours to achieve therapeutic drug concentrations; it is therefore only of benefit in patients with stable pain - acute pain is an absolute contraindication to its use. BE AWARE, however, that the **lowest** strength of the fentanyl patch used for initiation (the 12 microgram patch is indicated for dose titration thereafter), which releases 25 micrograms of fentanyl per hour, is equivalent to approximately **90 mg daily** of morphine. It is therefore unsuitable for patients who are taking less than approximately 70mg of oral morphine daily.
- Several patches may be worn together to increase the total dose of fentanyl. Some brands of fentanyl patch may be cut in half if a smaller dose is required. However, this is not possible with every brand, so check before prescribing.
- Oral morphine should still be prescribed for breakthrough pain, in a dose of approximately 1/6th of the equivalent daily dose of morphine provided by the fentanyl patch.
- As the various brands of fentanyl patch have some important differences between their characteristics in use, **fentanyl patches should be prescribed by brand**. Equally effective pain relief is provided by all brands, so the choice of brand rests with the prescriber (**local formulary recommendation is to prescribe the Matrifen brand**).
- Be aware that there is a “lag time” for the first fentanyl patch to become effective. It will be necessary to continue to prescribe oral morphine to provide pain relief during this time. See current BNF for details of timing of the last dose of controlled release morphine when changing to a fentanyl patch.
- Use the table below to select the appropriate strength of fentanyl patch and of morphine for breakthrough pain.

Equivalent doses oral morphine and fentanyl patches:

4 hourly morphine dose (mg)	Total morphine dose over 24 hours (mg)	Fentanyl patch size (microg/hr)	Dose of prn morphine for breakthrough pain (approximate) (mg)
5-15	<90	25	15
15-20	90-134	37	20
20-30	135-189	50	30
30-40	190-224	62	40
35-50	225-314	75	45
50-65	315-404	100	60
65-80	405-494	125	75
85-95	495-584	150	90
100-110	585-674	175	105
115-125	675-764	200	120
130-140	765-854	225	135
145-155	855-944	250	150
160-170	945-1034	275	165
175-185	1035-1124	300	180

9. References

[West Midlands Palliative Care Physicians. Palliative Care Guidelines for the use of drugs in symptom control. 4th Edition. Jan 2007.](#)

Shernsword J. Colleau SM., Ventafriddo. The World Health Organisation Cancer Pain and Palliative Care Program – past, present and future. *J. Pain Symptom Management* (1996); 12: 65 – 72.

World Health Organisation. *Cancer Pain Relief*. 2nd Edition. Geneva; WHO, (1996).

Moore A., Collins S., Carroll D., McQuay H., Edwards J. Single Dose Paracetamol (Acetaminophen), with and without Codeine for Post-Operative Pain. *The Cochrane Database of Systematic Review* (1998), Issue 4, Art No. DOI: 10:1002/14651858. CD 001547. Evidence grade A, level 1a.

Collins SL., Moore RA., McQuay HJ., Wiffen PJ., Edwards JE. Single Dose Oral Ibuprofen and Diclofenac for Post-Operative Pain. *The Cochrane Database of Systematic Review* (1999), Issue 1, Art No. CD001548. DOI: 10:1002/14651858. CD 001548. Evidence grade A, level 1a.

Borden J., Edwards SJ., Moore A., McQuay H. Single Dose Oral Paracetamol (Acetaminophen) for Post-Operative Pain. *The Cochrane Database of Systematic Reviews* (2004), Issue 1, Art No. CD004602. DOI: 10:1002/14651858. CD 004602. Evidence grade 2, level 1a.

[The British Pain Society's \(2010\) Opioids for persistent pain: Good practice.](#) British Pain Society January 2010. Consensus statement.

Medicines and Healthcare Products Regulatory Agency. Letter to health professionals. 2nd August 2005.

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