



One

Gloucestershire

Transforming Care, Transforming Communities

Joint Countywide Pain Formulary 2017

“First, Do No Harm”

Any treatment with medicines results in a balance of benefits and harms; if the medicine doesn't relieve the symptoms then the result of taking the medicine is *harm only*.

Review Date: June 2020

NOTE: Doses are oral and for adults unless otherwise stated.
Please refer to BNF for further information.

Any additional information or relevant updates prior to the 2020 review date of this publication will be made available in the pain section of the Gloucestershire Joint Formulary available at www.formulary.glos.nhs.uk

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Expensive 

Knowledge Point 

Caution 

1. Introduction

This formulary has been developed to support prescribers and patients in making the best choices in relation to medicines for pain. Further aims are to allow timely exploration of the role of medicines for persistent pain and reduce variation in prescribing across our health community. The formulary also helps patients, prescribers and commissioners of healthcare services to understand how analgesic medicine management can be integrated into pain pathways. The formulary does not include management of pain in end of life settings or of disease specific treatments which result in pain reduction (e.g. interventions for angina).

Adherence to general principles of good practice in prescribing underpin pharmacologic management of pain:

- Be up to date with clinical evidence and relevant legislation
- Prescribe within your own competence
- Prescribing decisions should be supported by best clinical evidence
- Benefits and harms of treatments should be discussed with the patient

- You should not prescribe without:
 - full knowledge of the patient's physical and emotional health
 - an understanding of how the proposed treatment meets the patient's needs and
 - knowledge of other medicines the patient is taking including OTC and illicit drugs.
- You must make arrangements for monitoring and review.
- If a drug is not working, it should be tapered and stopped.
- Keep clear records of prescribing decisions and of outcome of treatments.

Pain is usually classified depending on duration of symptoms.

Acute pain is short term pain usually relating to some sort of injury including operation, fracture or infection. **Chronic pain** is longer lasting, usually more than three months and includes low back pain and arthritis. Sometimes chronic pain can develop from an acute pain that persists. Pain from nerve damage e.g. diabetes, shingles, multiple sclerosis, pain following stroke, is described as **neuropathic pain** which is a type of chronic pain. (The term **nociceptive pain** implies pain associated with a specific definable injury process that is not neuropathic). **Visceral pain** is pain arising from pelvic, abdominal or thoracic organs. This type of pain may have neuropathic characteristics but may be particularly complex and always needs a detailed assessment. Pain symptoms may fall into more than one category.

Pain Intensity

Both acute and chronic pain can range from mild to severe. Intensity of acute pain is largely (but not completely) related to the degree of tissue injury: a big injury or operation hurts more than a small one. There is no similar relationship for chronic pain. The amount of tissue damage is a small contributor to pain intensity. Bigger contributors are anxiety, distress, depression and concern about causes of pain. Also, unpleasant thoughts, feelings and memories (even if unrelated to pain) can influence pain severity. NB: This is not a reporting bias: these experiences actually influence pain perception directly.

A Stepped Approach To Pain Prescribing

The WHO analgesic ladder was developed to support patients with cancer pain. The underlying principle was that medications should be used sequentially, according to the patient's reported pain intensity i.e. for mild pain non-opioid medication should be prescribed, with weak opioids for moderate pain and strong opioids for severe pain. Prescribing for persistent pain shouldn't be determined by reported pain intensity (see above). It is rational to start with non-opioid drugs, if these have evidence for efficacy for the condition being treated. This should always be accompanied by general condition specific advice for acute pain and for persistent pain advice about exercise, sleep, pacing activity and strategies to improve function. **Trials** of weak and strong opioid therapy can be considered for some patients if:

- There is a well-defined pain diagnoses.
- Symptoms persist despite first line treatments.
- The patient can be followed up within two weeks to evaluate effectiveness.

2. Medicines for Acute Pain Management

Acute pain is usually self-limiting and symptoms should resolve within days or weeks. Treatment needs to be given while healing occurs. Always advise about general measures including elevation, immobilisation and heat and cold. Acute pain usually responds well to analgesic medicines. Severe acute pain e.g. following major injury or surgery will usually need to be treated with strong opioids. The natural history of acute pain is favourable and analgesia regimens need to be flexible, as choice of drug and dose need to be adjusted as the patient recovers.

Medicines for acute pain should **not be put on repeat prescription** as patients will need to be reassessed regarding changing analgesic requirements.



If acute pain remains severe, consider underlying pathological processes. If these have been excluded the patient may be developing complex or persistent pain and prescribing should be adjusted accordingly.

The Oxford analgesic league table compares commonly used treatments for acute pain and ranks them according to efficacy.

Please see Annex 4.4 for more information on where to find the table online.

Acute Pain Prescribing

A word about paracetamol...

Paracetamol is a useful drug for the treatment of acute pain but has little role in the management of persistent pain



1. Paracetamol

Paracetamol 1g qds

(should be taken at 1g qds before adding other drugs NB: maximum dose of paracetamol is 60mg/kg/day so frail adults will need lower doses e.g. 500-750mg qds to avoid hepatotoxicity)

May be co-prescribed with...

Ibuprofen 400mg tds (*with or after food*)
(*smaller or older patients may need 200mg*)

2. Paracetamol and Ibuprofen (if no contraindication)

Paracetamol 1g qds plus
Ibuprofen 400mg tds (*with or after food*)

Or...

Paracetamol and Naproxen
Paracetamol 1g qds plus
Naproxen 500mg bd (*with or after food*)

If you have any concerns about gastric side-effects of NSAIDs, consider co-prescribing PPIs.



2. Medicines for Acute Pain Management

3. Paracetamol, NSAIDs and Weak Opioids

Paracetamol 1g qds plus

Ibuprofen 400mg tds or Naproxen 500mg bd plus

Codeine phosphate 30-60mg qds (*for 48 hours then reassess*)

Or...

Paracetamol 1g qds plus

Ibuprofen 400mg tds or Naproxen 500mg bd plus

Dihydrocodeine 30-60mg qds

(NB: Dihydrocodeine may be more effective in around 10% of the population who have no analgesic benefit from codeine)

4. Paracetamol, NSAIDs and Strong Opioids

Paracetamol 1g qds plus

Ibuprofen 400mg tds or Naproxen 500mg bd plus

Morphine immediate release 5-10mg 4 hourly initially adjusted according to response (can use morphine liquid or immediate release morphine tablets.) In elderly or frail patients start with 2.5-5mg dose then adjust according to response. (Morphine unsuitable in CKD stage 5)

Or...

Paracetamol 1g qds plus

Ibuprofen 400mg tds or Naproxen 500mg bd plus

Tramadol 50-100mg qds (*adjust dose if renal function impaired*)

2. Medicines for Acute Pain Management

Or...

Paracetamol 1g qds plus
Ibuprofen 400mg tds or **Naproxen 500mg bd** plus
Oxycodone immediate release 5mg 4 hourly adjusted according to response. (May be more suitable in presence or renal impairment. Consider oxycodone if intolerable side effects with morphine.)

Or...

Paracetamol 1g qds plus
Ibuprofen 400mg tds or **Naproxen 500mg bd** plus
Buprenorphine sublingual 200-400 microgram 8 hourly

(NB: Transdermal opioid preparations [buprenorphine and fentanyl] are unsuitable for management of acute pain as dosing is inflexible and acute pain requirements usually change daily. If transdermal preparations are used for patients who can't take oral medicines pain should be reassessed twice daily. Avoid combinations of opioids where possible.)

Do Not Prescribe:

Tapentadol

Tapentadol is licensed for the management of severe pain (including pain related to nerve injury) in adults.

In Gloucestershire, local recommendations for prescribing tapentadol (outlined on the Gloucestershire Joint Formulary) state that tapentadol may be prescribed as third line treatment by Gloucestershire Hospitals NHS Foundation Trust (GHNHSFT) pain or palliative care consultants for patients who are appropriate for and benefit from opioid treatment, but cannot tolerate the first or second line formulary treatment options. Where a trial of tapentadol is successful in secondary care, the initiating consultant will apply for GP continuation via the local Individual Funding Request (IFR) panel based on the criteria within the tapentadol policy. If compliant with the CBA+PA requirements, prescribing will transfer to the GP with a six monthly review.

Full guidance for use of tapentadol in Gloucestershire can be found in Appendix 4.4 Useful Resources.

Pethidine

Clinical experience suggests that pethidine is particularly unsuitable for patients with persistent pain. Its high lipid

2. Medicines for Acute Pain Management

solubility and rapid onset/offset may predispose patients to problem drug use. Its active metabolite norpethidine can lead to serious neurotoxicity (this can occur even if a patient has used pethidine uneventfully for some time). It does not produce less smooth muscle spasm than equipotent doses of other opioids and so confers no advantage for patients with visceral pain.

Coproxamol

- Do not initiate coproxamol for acute or persistent pain.
- If patients who are already taking coproxamol continue to have pain, the medicine is not working so should be tapered and stopped.
- Patients who describe benefit from coproxamol: try other therapies as in the formulary and consider non-medicine interventions.
- Gloucestershire CCG will not support the continued prescribing of coproxamol. Patients who describe benefit and are unable to tolerate other drugs or describe other drugs as unhelpful will not continue to have access to the drug. It may be helpful to explain to patients that:
 - Coproxamol was withdrawn by the MHRA because it was considered an unsafe drug.
 - The drug is no longer available and in line with many other CCGs there is a decision that it should not be acquired for patients from other sources.

2. Medicines for Acute Pain Management

- It is unreasonable to expect a prescriber to prescribe a drug that is known to be unsafe as this puts the prescriber in an indefensible position.
- Given that coproxamol is no longer available, the patient may wish to try a period with no pain medicine and receive other support for pain. Alternatively, the patients may wish to re-try something that they previously thought was unhelpful.
- Medicines play a small role only in the management of pain.
- If the patient has derived no benefit from any other pain medicine, it is likely that a non-medicine approach is in the patient's best interest.

Nefopam

- A Cochrane review of nefopam suggests there is no evidence for efficacy.
- No studies met methodological inclusion criteria so the review concludes we can't be confident about using nefopam for painful conditions.
- Nefopam is specifically not recommended in patients with seizures or patients on antidepressants.

Alfentanil or Fentanyl buccal/sublingual/oral transmucosal preparations should **not** be used for the treatment of acute non-cancer pain.



3. Medicines for Complex or Persistent Pain

Any drug treatment results in a balance between benefits and harms. If a drug doesn't relieve the symptoms for which it is being prescribed then ***the result of taking the drug is harm only.***



Pain that persists has many effects including lack of mobility, low mood, poor sleep, irritability and interruption of work and social activities. Anxiety, depression, post-traumatic stress disorder, and previous emotional trauma or other mental health diagnoses, will make the pain feel worse and make it more difficult to treat.

Chronic pain is difficult to treat with most treatments helping less than a third of patients. Different treatments work for different patients. Medicines generally and opioids in particular are often not very effective for chronic pain but some medicines are worth trying for neuropathic pain.

Medicines for pain should always be used as part of a wider treatment plan including advice on physical activity or physiotherapy, sleep and support in achieving improvements in emotional wellbeing and quality of life. Medicines for pain don't work for everyone and when they do work they rarely take pain away completely. The aim of treatment is to reduce intensity of pain sufficiently to help patients function better and to help self-manage their pain.

3. Medicines for Complex or Persistent Pain

The effectiveness of medicines for complex and persistent pain should be regularly evaluated for continued efficacy. Periodic dose taper will allow assessment of the natural history of the pain and confirm usefulness of continued treatment.

There is little evidence for **efficacy of paracetamol** for complex and persistent pain. If there are no contraindications, ambulant patients can be advised to try OTC paracetamol 1g qds but should stop if there is no effect within 3 days.



If a patient is already taking paracetamol and is reporting benefit, encourage the patient to reduce the dose where possible to minimise toxicity.

3.1 Complex or Persistent Pain: First Line Medicines

1. NSAIDs (if not contraindicated) may be useful for OA, RA, MSK pain (can be continued with other medicine classes if effective)

Ibuprofen 400mg tds (*with or after food*)

Naproxen 500mg bd (*with or after food*)

(NB: patients with morning pain and stiffness may benefit from modified release NSAID preparations)

Eg...

Ibuprofen m/r 800-1600mg od

2. Drugs used in the treatment of depression (can be continued with other medicine classes if effective) *(NB: in doses for pain, these medicines are unlikely to have impact on mood: amitriptyline is usually used for neuropathic pain but may be helpful for other types of pain if sleep is disturbed by pain)*

Amitriptyline 10mg increasing to 30mg nocte initially but effectiveness for pain is dose related so may need **50-125mg nocte**.

Or...

Duloxetine 30-120mg once daily (do not co-prescribe with another SSRI.)

3.1 Complex or Persistent Pain: First Line Medicines

Or...

Nortriptyline 10mg increasing to 30mg nocte initially



but effectiveness for pain is dose related so may need **50-125mg nocte**.

(NB: Nortriptyline should be prescribed only if a patient has a definite and substantial response from amitriptyline but can't continue because of daytime somnolence).

If you have any concerns about gastric side-effects of NSAIDs, consider co-prescribing PPIs.



Be aware of potential renal and cardiovascular side-effects of extended use of NSAIDs, particularly in the elderly.

Gabapentin and Pregabalin should not be prescribed for pain that is **not neuropathic**.



3.2 Medicines for Neuropathic Pain

Neuropathic pain is a type of persistent pain associated with injury to peripheral nerves or the central nervous system e.g. lumbar radiculopathy after disc prolapse or surgery, diabetic neuropathy, post-herpetic neuralgia, pain following stroke, pain associated with multiple sclerosis. NB: Central neuropathic pain following stroke can be difficult to diagnose and is very refractory to treatment.

Neuropathic pain is usually reported as severe and intrusive. Medicines are usually the first-line treatment for neuropathic pain but are usually not highly effective and work for only a small proportion of patients. Complete pain relief is very unlikely. Different drugs work for different people so you may need to try a number of drugs in succession. NB: if a patient has no response after two weeks of being on a therapeutic dose of a drug for neuropathic pain, they are unlikely to respond and the drug should be tapered and stopped. Appropriate follow up arrangements should be in place (e.g. telephone follow-up) to minimise the use of medicines that are ineffective.

Did you know?

If a decision is made to prescribe medicines for unlicensed indications, the rationale should be discussed with the patient, appropriate consent acquired and all discussions clearly documented. NB: the licensing of newer drugs reflects the stringency modern trial design.

Amitriptyline is unlicensed for neuropathic pain

Nortriptyline is unlicensed for neuropathic pain

Duloxetine is licensed for use in diabetic neuropathy

Carbamazepine is licensed for use in trigeminal neuralgia

Gabapentin is licensed for peripheral neuropathic pain

Pregabalin is licensed for peripheral and central neuropathic pain



1. Drugs used in the treatment of depression

Amitriptyline 10mg increasing to 30mg nocte initially but effectiveness for pain is dose related so may need **50-125mg** (*once daily*)

Or...

Duloxetine 30-120mg (*once daily*)
(*Do not co-prescribe with another SSRI*)

Or...

Nortriptyline 10mg increasing to 30mg initially but effectiveness for pain is dose related so may need **50-125mg** (*once daily*)
(*NB: nortriptyline should be prescribed only if a patient has a definite and substantial response from amitriptyline but can't continue because of daytime somnolence*)



2. Drugs with Anti-Epileptic Actions

Gabapentin 900-3600mg daily in three divided doses (may need to start with 300mg daily in divided doses for one day, 600mg daily in divided doses for one day then 900mg daily in divided doses thereafter. Further increase to a maximum of 1200mg tds may be indicated depending on response to lower doses. Doses need to be greater than 600mg tds to improve chances of a positive response)
Or...

Pregabalin 150-600mg daily in two divided doses
(*NB: gabapentin and pregabalin need to be prescribed with appropriate dose reductions for patients with impaired renal function and in the elderly.*)



Carbamazepine 200-1200mg daily in two divided doses (follow BNF guidance for dose escalation in first few weeks)

Gabapentin and Pregabalin

Gabapentin and pregabalin are structurally similar drugs acting via the alpha-2-delta subunit of voltage-gated calcium channels. Bioavailability of gabapentin decreases as the dose increases whereas pregabalin's is largely independent of dose, which explains the increased risk of high dose pregabalin use. There are no trials that compare efficacy of gabapentin with that of pregabalin. The side effects of both drugs occur with similar frequency although an individual may tolerate one drug more than the other. Both drugs can cause unsteadiness and should be used with caution in patients at risk of falls. Gabapentin should be tried before pregabalin. Be cautious about prescribing gabapentin and pregabalin with other sedating medicines particularly benzodiazepines.

Professionals prescribing pregabalin and gabapentin should be aware not only of the potential benefits of these drugs to patients, but also that the drugs can lead to dependence and may be misused or diverted.



Practitioners should prescribe pregabalin and gabapentin appropriately to minimise the risks of misuse and dependence, and should be able to identify and manage problems of misuse if they arise. Most patients who are given these drugs will use their medicines appropriately without misuse.

Patients who are offered these drugs need to have sufficient information to consent to the treatment plan. Patients should be aware of the likely efficacy of the drugs for management of their symptoms and also about the risk of harms, including dependence.

3.2 Medicines for Neuropathic Pain

A number of pregabalin preparations are available; please use the least costly option.



3. Topical treatments for neuropathic pain

Lidocaine 5% plaster:

Consider when no response to oral therapy or when side effects of oral therapy limit use for:

- Post-herpetic neuralgia
- Discrete surface neuropathic pain of clear origin



1-2 patches to be applied for 12 out of 24 hours

NB: if no clear-cut benefit within 5 days **stop**. Patches can be cut to size for smaller areas of pain to allow multiple use per patch.

Or...

Capsaicin cream 0.075%:

Consider when no response to oral therapy or when side effects of oral therapy limit use for

- Post-herpetic neuralgia
- Discrete surface neuropathic pain of clear origin

To be applied four times daily: if no response after first tube then **stop**. If substantial pain relief, arrange regular review to establish continued efficacy.

3.3 Opioids for Complex or Persistent Pain

A simple opioid prescribing guideline

Opioids should be prescribed in line with **general good practice in prescribing**:

- Be up to date with clinical evidence and relevant legislation
- Prescribe within your own competence
- Prescribing decisions should be supported by best clinical evidence
- Benefits and harms of treatments should be discussed with the patient

You should not prescribe without:

- full knowledge of the patient's physical and emotional health
- an understanding of how the proposed treatment meets the patient's needs and
- knowledge of other medicines the patient is taking including OTC and illicit drugs.
- You must make appropriate arrangements for monitoring and review
- If a drug is not working it should be tapered and stopped
- Keep clear records of prescribing decisions and of outcome of treatments

Opioids 5 A Day



1. Opioids are very good analgesics for acute pain and for pain at the end of life but there is little evidence that they are helpful for long-term pain.
2. A small proportion of people may obtain good pain relief with opioids in the long-term if the dose can be kept low and especially if their use is intermittent (however it is difficult to identify these people at the point of opioid initiation).
3. The risk of harm increases substantially at doses above an oral morphine equivalent of 120mg a day, but there is no increased benefit.
4. If a patient is using opioids but is still in pain, the opioids are not effective and should be discontinued, even if no other treatment is available.
5. Persistent pain is very complex and if patients have refractory and disabling symptoms, particularly if they are on high opioid doses, a very detailed assessment of the many emotional influences on their pain experience is essential.

Link to opioids Aware

<https://www.rcoa.ac.uk/faculty-of-pain-medicine/opioids-aware>

Opioids for Persistent Pain: Background

Efficacy of opioids

Clinical trial data conclude that opioids may reduce pain in some patients in the short and medium term (usually less than 12 weeks). RCT evidence for effectiveness of opioids is lacking although open label trial data suggest that a small proportion of patients with persistent pain may demonstrate a sustained response from low dose opioids. The relevance of these findings is uncertain as clinical trials exclude patients at risk from long-term opioid use and supervision of medicines use in clinical trials is unlikely to be reflected in clinical practice.

Opioids for long term pain: **important practice points**

- It is not possible to identify which patients will benefit long-term at initiation of therapy.
- Patients who don't benefit from opioids within 2-4 weeks are unlikely to benefit from longer term prescribing.
- Efficacy in the short term does not guarantee long term efficacy.
- There are no conclusive data on improvements in quality of life with opioid therapy.
- Escalation of opioid dose beyond 120mg morphine equivalent daily (MED) is unlikely to improve pain relief but is associated with increasing harms.

3.3 Opioids for Complex or Persistent Pain

- There is no evidence that any opioid is superior to morphine. When prescribing morphine modified release, use least costly option ie. zomorph.
- For patients with hepatic or renal impairment, consult the BNF.

Harms of opioids

- 80% of patients are likely to experience at least one side effect from opioid treatment.
- Constipation and itching usually persist. Other side effects, if experienced at initiation of opioid treatment or after dose increase may improve with time.
- Respiratory effects of opioids are more problematic during sleep. Patients with sleep apnoea are at risk from opioid therapy: these patients need regular assessment of nocturnal respiratory function and need to be compliant with treatment for sleep apnoea. Co-prescription of benzodiazepines increases risk.

3.3 Opioids for Complex or Persistent Pain

- Sedation and cognitive impairment with opioids has important relevance for concentration-critical activities, particularly **driving**:
 - New drug driving legislation refers to driving with specified controlled drugs in the body in excess of specified limits
 - Patients who are taking prescribed medicines in accordance with prescriber instructions are medically exempt from prosecution **but**
 - It remains illegal in England and Wales for a patient to drive when taking prescription medicines if the medicines impair the ability to drive
 - Concentration may be impaired on very low doses of opioids: if patients feel lethargic they should not drive

A blood morphine level of 80micrograms/litre is equivalently impairing as being over the legal limit for alcohol.



- A patient taking morphine long-term in doses around 200mg/day will have blood levels around 60micrograms/litre.
- NB: pain, lack of sleep, fatigue and weakness also impair driving.
- Impairment from opioids is more likely at initiation of treatment and after dose change (up or down).

3.3 Opioids for Complex or Persistent Pain

There is little evidence that different opioid preparations (in equianalgesic doses) have different side effect profiles



Long term-harms of opioid treatment include:

- Increased risk of fractures and falls.
- Endocrine disturbance (reduced libido, amenorrhoea, erectile dysfunction, infertility).
- Immune disturbance including effects on antimicrobial response and tumour surveillance.
- Worsening of pain (Opioid Induced Hyperalgesia OIH): OIH is well demonstrated in patients undergoing surgery given high dose opioids intraoperatively, patients receiving Methadone maintenance for addiction and in experimental pain. It's uncertain how often OIH occurs with routine clinical use of opioids for pain. Suspect OIH in patients taking long-term opioids if patient describes relatively sudden and otherwise unexplained increase in pain which is often difficult to describe and is seen as being different from the usual pain, and is often widespread. Treat suspected OIH by dose reduction or changing to alternative opioid.

Addiction to opioids

Individuals exposed to long-term opioid treatment will experience withdrawal effects if dose is abruptly reduced or

3.3 Opioids for Complex or Persistent Pain

opioids stopped. This is not the same as addiction. Up to 12% of long-term opioid users in primary and secondary care meet the criteria for an opioid use disorder.

The terms 'addiction' and 'dependence' are often used interchangeably. Consider addiction to opioids if:

- Continued opioid use becomes main priority for patient.
- Continued desire to use opioids despite demonstrable physical, emotional, social harms.
- Patient describes a craving for drugs.
- Patient describes a lack of control over use of drug.

Risk of addiction increases in patients who:

- Have co-morbid mental health diagnoses including anxiety and depression.
- Have current or past history of substance misuse.
- Use multiple opioid preparations.
- Are co-prescribed other psychoactive drugs eg. benzodiazepines.

3.3 Opioids for Complex or Persistent Pain

Opioid addiction is a barrier to successful pain management. Patients who have both pain and addiction have complex needs and will need to be managed by multidisciplinary teams including pain specialists with expertise in addiction and drug and alcohol services.

Harms of opioids are dose related: the risk of harms increases substantially at doses above 120mg morphine equivalent daily but there is no increased benefit above this dose. Recent evidence from the United States suggests that harms may increase at even lower doses eg. 60mg morphine equivalent daily.



Assessment of patients for opioid therapy

You may consider a trial of opioids for patients with well-defined pain syndromes with demonstrable physical pathology. If you are considering opioids for your patient you will need to assess for physical and emotional comorbidity that may influence outcome (includes respiratory, hepatic and renal function and assessment of mood, anxiety, substance misuse and significant emotional trauma which if unaddressed may complicate pain management).

The opioid trial

Explain that sustained pain relief is unlikely and when pain relief occurs it is usually modest.

- The aim of treatment should be to support specific functional improvement including sleep.
- Agree functional outcomes with the patient.
- Duration of the trial depends on the patient's pain. If the patient has continuous pain, effectiveness can be shown within 1-2 weeks. If a patient has intermittent pain or flare ups of disabling pain, observe effects of opioids on 2-3 episodes of pain.
- Explore effectiveness of opioids with short supply of immediate release morphine liquid or tablets. Advise patients about dose range. If there is no obvious

3.3 Opioids for Complex or Persistent Pain

benefit from a single dose of morphine 20mg it is unlikely that the patient is going to respond to opioids.

- Trial of modified release regimens takes longer and needs close supervision: allow for one or two upwards dose titrations.
- Ask the patient to keep a diary of opioid dose and effects of treatment on pain, sleep and function and of side effects.
- If the opioid trial was unsuccessful, taper and stop opioids within one week.

Long-term prescribing of opioids

If the opioid trial is a success consider longer-term prescribing. Immediate release opioid regimens or combinations of modified release and immediate release preparations are associated with lower dose opioid use than fixed regimens. (Modified release regimens may be more appropriate for patients who are using opioids problematically).

Follow-up and monitoring

Patients started on long-term opioids should be followed up monthly for three months and at least 6 monthly thereafter. Consider intermittent dose tapering to establish continued efficacy. Concerns about efficacy or problematic use should prompt closer supervision.

4. Appendices

4.1 Medicines for Persistent Pain: Practical Points

- Drugs for persistent pain should improve symptoms within two weeks of being on a reasonable dose for that patient
- Medicines should be tapered and stopped if:
 - The medicines are ineffective.
 - The patient is experiencing unacceptable side effects.
 - The pain has resolved spontaneously.
 - The patient has an intervention effective for the pain (e.g. joint replacement).
- The efficacy of drugs should be assessed one drug at a time.
- The dose of each drug should be optimised before adding additional medicines.
- Avoid prescribing more than one drug class for neuropathic pain unless the patient has clear-cut neuropathic pain eg. Post herpetic neuralgia or MRI proven nerve entrapment.

4.2 Opioid Equivalence Tables

- Conversion factors are approximate only and patients' responses vary.
- Consider converting to a different opioid if a patient has a good response to morphine but has unmanageable side effects.

- When switching between opioids, start with 50% of the equianalgesic dose to avoid hazards of incomplete cross-tolerance: this is particularly important for patients on high dose opioids.
- Patients need close monitoring (sometimes daily) during dose switching.
- Consider half-lives of the two drugs when switching opioids.

Approximate equianalgesic potencies of opioids for oral administration: (reproduced from *Opioids Aware*: Faculty of Pain Medicine Royal College of Anaesthetists 2015 www.fpm.ac.uk/node/21126).

	Potency Ratio with Oral morphine	Equivalent Dose to 10mg Oral morphine
Codeine Phosphate	0.1	100mg
Dihydrocodeine	0.1	100mg
Hydromorphone	7.5	1.3mg
Methadone	*	*
Morphine	1	10mg
Oxycodone	2	5mg
Tapentadol	0.4	25mg
Tramadol	0.15	67mg

* *The relative potency of **methadone** depends on the starting dose and the duration of administration. Conversions to and from methadone should always be undertaken with specialist advice.*

Transdermal Opioids

A. Buprenorphine

Transdermal Buprenorphine changed at weekly intervals

	Buprenorphine patch strength (micrograms/hour)		
	5	10	20
Codeine Phosphate (mg/day)	120mg	240mg	
Tramadol (mg/day)	100mg	200mg	400mg
Morphine Sulphate (mg/day)	12mg	24mg	48mg

Transdermal Buprenorphine changed every three or four days (twice weekly)

	35	52	70
Morphine Sulphate (mg/day)	84mg	126mg	168mg

B. Fentanyl

Fentanyl Patch Strength (microgram/hr)	Oral Morphine (mg/day)
12	45
25	90
50	180
75	270
100	360

Transdermal opioid preparations should not be combined with other modified release opioids: if additional analgesia is needed for patients using transdermal preparations, the preferred drug is oral morphine. The dose of 'rescue' medication should be determined by cautious upward titration and should not exceed 15% of the daily morphine equivalent of the transdermal preparation.

4.3 Schedules for Tapering Pain Medicines

Paracetamol and NSAIDs can be stopped without tapering.

Amitriptyline and Nortriptyline

- Doses <50mg: reduce by 10mg every 4-7 days.
- Doses >50mg: reduce to 50mg then reduce by 10mg every 4-7 days.

Pregabalin and Gabapentin

- Pregabalin: reduce the daily dose at a maximum of 50-100mg/week.
- Gabapentin: reduce the daily dose at a maximum rate of 300mg every four days.

Opioids:

- Reduce total opioid dose by 10% every 1-2 weeks
NB: as the dose reduces the decrement at each dose adjustment becomes smaller. When tapering fentanyl patches the patient may need to be converted to oral opioids when the dose is to be tapered below 25microgram/hour.

4.4 Useful Resources

- **Opioids Aware**
www.fpm.ac.uk/faculty-of-pain-medicine/opioids-aware
- **NICE Safer use and Management of Controlled Drugs**
www.nice.org.uk/guidance/ng46
- **Tapentadol Prescribing in Gloucestershire**
<https://www.gloucestershireccg.nhs.uk/about-us/funding-treatment/interventions-not-normally-funded/https://g-care.glos.nhs.uk/ifrs/>
- **Oxford Analgesic League Table**
<http://www.fpm.ac.uk/node/21184>
- **Patient information leaflets**
 - **About pain**
www.rcoa.ac.uk/node/21134
 - **Thinking about opioid treatment for pain**
www.rcoa.ac.uk/node/21135
 - **Taking opioids for pain**
www.rcoa.ac.uk/node/21136
- **Pain podcasts on G-Care (in production)**
- **UK Teratology Information Service**
Tel: 0344 8920909

