Adult Pain Management Guidance

Guidelines for the Pharmacological Management of Non-Malignant, Non-Palliative Pain in Primary Care / Non-Specialist Centres

To be used in conjunction with The Dorset Formulary:

www.dorsetformulary.nhs.uk

Version 1

Parts of this document have been adapted with permission from Wiltshire Clinical Commissioning Group Pain Management Documents 2018

Review Date: September 2020

Purpose
• To provide a standardised, readily accessible, consensus agreed, set of guidelines covering the use of medicines in the management of Adult pain across Dorset
Scope
• These guidelines cover the pharmacological management of non-malignant, non-palliative pain in Primary Care / Non-Specialist Centres

Document History

Version	**Date**	**Changes**
1	18-Sep-19	New document

Contents

Guidelines for the pharmacological management of Acute non-cancer pain in adults

If pain settles at any step, consider a step-wise trial of reduction of analgesia. Check compliance at every step before moving up.

Regular paracetamol throughout

Non-opioid analgesia

Opioids for moderate to severe pain

Opioids for severe pain

1. Assess patient using appropriate tool (see prescriber resources on page 15)

- Red flags or neuropathic pain - see specific guidance on pages 7-10 & 14
- Medicines should be used as part of a holistic approach in managing persistent pain

2. Ensure patient is prescribed regular Paracetamol

- (see page 5 for recommended doses in liver impairment, low body weight and frailty)

3. ADD NSAID (Naproxen or Ibuprofen) **+ PPI if necessary** (see Dorset Formulary PPI de-prescribing algorithm)

- Review effect after 2 weeks. Not for long term use. Monitor renal function

4. ADD Codeine 30mg - 60mg QDS when required

- Approx 10% of patients will not respond to codeine - try Dihydrocodeine 30mg every 4-6 hrs when required instead

5. STOP codeine / dihydrocodeine ADD Tramadol 50mg qds (up to 100mg qds)

- Agree max dose & acceptable response with patient

6. Re-assess patient - giving no drug is better than giving drugs that don't work (and may cause harm), review at least monthly and reduce dose as soon as possible to lowest effective dose, each drug should be trialled and assessed for efficacy and side effects.

- **Before prescribing stronger opioids,** consider that there is little evidence to support long term use of opiates, and there are endocrine and immunological risks e.g. opioid induced hypogonadism
- Opioids are NOT usually helpful for Mechanical back pain, Fibromyalgia (Guidelines for the diagnosis and management of fibromyalgia, link provided on page 15), Pelvic or Abdominal pain, or non-specific visceral pain
- There is not usually a basis for giving immediate release or breakthrough opioid analgesia
- Consider buprenorphine 7 days patch 5mcg/hr to 20mcg/hr for patients with stable pain who have no enteral access or have poor absorption from the GI tract

7. Consider referral to other services such as livewelldorset, steps2wellbeing, MSK, rheumatology, Dorset Community Pain Service

8. STOP tramadol (or codeine/dihydrocodeine); ADD Morphine MR 10mg bd

- Titrate by no more than 10mg bd morphine at a time to **maximum of 90-100mg per day**.
- Doses above this only in discussion with a pain specialist as risk of harm can outweigh benefits
- **Prescribe initially on acute medication records (not on repeat)** until efficacy established
- Patients should keep a diary during the opioid trial (twice daily report of pain intensity, sleep, activity levels and side-effects)
- Consider written contract - set max dose, treatment period and acceptable response
- Assess abuse potential (Use opioid risk tool, link provided on page 15)
- Discuss potential harms of opioid therapy and impairment of driving skills
- Do not increase dose without seeing patient
- If swallowing difficulties**, zomorph capsules can be opened (do not crush MR spheres)
- If patient does not gain 30-50% pain relief within 2-4 weeks consider withdrawing opioid
- It is unlikely that an alternative opioid will work where morphine has not
- **Avoid immediate release opiates such as morphine 10mg/5ml liquid (Oramorph) in non-cancer pain (may be of use in non-specific visceral pain**)
- There is little evidence that opioids are helpful long term. During long term treatment, review at least monthly in the first 3-6 months after stable dosing achieved, then at least annually.
- Consider fentanyl 72hours patch for patients with stable pain who have difficulty/inability to swallow or the oral route is inappropriate or have poor absorption from the GI tract (See prescribing guidance on page 11)

9. Refer to pain management specialist if failure to achieve adequate analgesia, concerns about excessive or uncontrolled opioid use or rapid escalation

- Problem drug/alcohol use should trigger referral to a substance misuse specialist

**please see https://www.sps.nhs.uk/articles/what-are-the-therapeutic-options-for-patients-unable-to-take-solid-oral-dosage-forms/ or seek pharmacist advice.

Guidelines for the pharmacological management of low back pain in adults: NICE NG59

1. Consider using risk stratification e.g. the STarT Back risk assessment (see page 15 for links)

- Use at first point of contact with healthcare professional for each new episode of low back pain with or without sciatica to inform shared decision making about stratified management.
- Medicines should be used as part of holistic approach in managing persistent pain
- Encourage patients to continue with normal activities as far as possible.

2. For patients with sciatica, see pages 6-7, Neuropathic pain section for Pharmacological treatment options.

3. Based on risk stratification, consider:

1.) Simpler and less intensive support for people with low back pain with or without sciatica likely to improve quickly and have a good outcome (e.g. reassurance, advice to keep active and guidance on self-management).

2.) Referral to MSK for more complex and intensive support for people with low back pain with or without sciatica at higher risk of a poor outcome (e.g. exercise programmes with or without manual therapy or using a psychological approach).

4. Consider oral NSAIDs (Naproxen or Ibuprofen) **+ PPI if necessary**

Review effect after 2 weeks. Not for long term use. Monitor renal function

Take into account potential differences in gastrointestinal, liver and cardio-renal toxicity, and the person's risk factors, including age.

5. Consider weak opioids (+/- paracetamol)

Only if an NSAID is contra-indicated, not tolerated or has been ineffective. Patients need to understand that these drugs do not work very well and hence short-term trials need to be undertaken to see how well they work.

6. DO NOT OFFER:

-Paracetamol on its own for managing low back pain

-Opioids for managing ACUTE low back pain. Only prescribe with specialist advice.

-Opioids for managing chronic low back pain

-Selective serotonin reuptake inhibitors (SSRIs), Serotonin-noradrenaline reuptake inhibitors or tricyclic antidepressants for managing low back pain

-Anticonvulsants for managing low back pain

7. Diazepam for muscle spasm

Based on expert opinion some international guidelines recommend the use of benzodiazipines if there is muscle spasm. NICE currently state that the evidence base to support use is extremely small and the risks associated with using is high. NICE have asked for further research before they can make any recommendations.

General guidance on treating pain

- For opioids prescribing in chronic pain see Opioid Prescribing for Chronic Pain: resource pack **link**
- Offer non-pharmacological treatments alongside education, explanation and reassurance
- Effervescent preparations should be reserved for patients who cannot swallow. Use with care as these have high sodium content
- If for OA of hand or knee, consider topical NSAID initially (as per NICE CG177) such as Ibuprofen 5% gel
- If analgesia fails, consider treating for neuropathic pain (page 7)
- Effective analgesia means at least 30% reduction in mean pain score
- Consider compliance when prescribing in the elderly, particularly in patients who cannot tolerate oral formulations, those with mental health problems, those who are socially isolated or with limited access to care.

Non-pharmacological management - see page 24 for links

- Include education, explanation and reassurance
- Manage patient's expectations of pain control - they may never be completely pain free - see pain toolkit available from page 24
- NICE OA guidance CG177 recommends exercise, weight loss and TENS
- NICE Lower back pain guidance NG59 (November 2016) recommends structured exercise programmes, that may include manual therapy and/or psychological therapy

Paracetamol dosing and liver damage

- The BNF advises some patients may be at increased risk of experiencing toxicity at therapeutic doses, particularly those with a body-weight under 50 kg and those with risk factors for hepatotoxicity.
- Clinical judgement should be used to adjust the dose of oral and intravenous paracetamol in these patients.
- Risk factors include: alcohol dependence; cirrhosis, increasing age; frail patients; hepatitis B; hepatitis C; malnutrition; liver impairment; p450 enzyme inducers e.g. carbamazepine, isoniazid, phenobarbital, phenytoin, primidone, rifampicin, rifabutin, efavirenz, nevirapine, St John's Wort.

Paracetamol Dosing in Adults			
Patient weight	**Enteral dose**	**Frequency**	**Maximum daily dose**
> 50kg no additional risk factors* for hepatotoxicity	1g	6 hourly	4g
> 50kg with additional risk factors* for hepatotoxicity	1g	8 hourly	3g
>33 kg to ≤ 50 kg	15mg/kg**	6 hourly	60mg/kg not exceeding 3g
Under 33kg	15mg/kg**	6 hourly	60mg/kg not exceeding 2g
**** Round to the nearest 250mg dose for enteral use**			

Drug driving and analgesics

- Health professionals prescribing or dispensing medication should consider the risk associated with that medicine or combination of medicines, and driving and take the opportunity to appropriately advise their patients.
- Explain that they should not drive or undertake skilled tasks or operate machinery if feeling drowsy.
- Discuss the implications of drug driving and that it is an offence to drive or be in charge of a vehicle with specified controlled drug in the body, in excess of a specified limit. A medical defence that the medicine has been prescribed exists. Records of opioid prescription/ discharge letter should be kept as proof.
- A medical defence will not stand, regardless if prescribed, if driving whilst impaired.
- Patients with a blood level of 80mcg/l of morphine, corresponding to a steady dose of around 209mg morphine equivalent per day, should not drive: https://www.gov.uk/government/collections/drug-driving .

Signs of excess opioid/toxicity

- Drowsiness
- Vivid dreams
- Hallucinations
- Pinpoint pupils
- Muscle twitching/jerking/myoclonus
- Hyperalgesia on light touch

Tolerance to opioids

Development of tolerance to many opioids develops within a few days of repeated administration due to receptor desensitisation. An increased dose is required to produce a given pharmacological effect:

Degrees of tolerance that may develop to opioids*:*

*(Schumacher A, Basbaum A, Way W. Chapter 31 Opioid Analgesics and Antagonists; In Katzung (Ed) Basic and Clinical Pharmacology 9th Edition. London: McGraw Hill; 2009

High tolerance develops	Moderate tolerance develops	Minimal or no tolerance develops
Analgesia **Euphoria/ dysphoria** **Mental clouding** **Sedation** **Respiratory depression** **Antidiuresis** **Nausea and vomiting** **Cough suppression**	**Bradycardia**	**Miosis** **Constipation** **Convulsions**

Management of opioid adverse effects - risk reduction measures

Adapted from MHRA. Opioids Learning Module. [online] available at http://www.mhra.gov.uk/opioids-learning-module/index.htm, Faculty of Pain Guidance www.RCOA.ac.uk and Stannard C, Coupe M, Pickering T. Chapter 7 Benefits and Adverse Effects of Opioids in Non-Cancer Pain. Oxford: Oxford University Press; 2013

Very common (> 10%) and common (1–10%) adverse effects:

- **Gastrointestinal effects**
  - nausea, vomiting, constipation, abdominal pain, dry mouth
- **Central nervous system and psychiatric effects**
  - headache, drowsiness, sedation and sleep disturbances, dizziness, confusion, dysphoria
- **Cardiovascular adverse effects**
  - hypotension and bradycardia
- **Respiratory adverse effects**
  - aggravation of bronchospasm
- **Effects on the skin**
  - pruritus, rash, flushing, sweating
- **Urinary retention,**
- **Miosis** (excessive constriction of the pupil of the eye)

Gastrointestinal side effects

Factors that increase risk	Risk reduction methods
Nausea: • uraemia • central nervous system disease, • obstruction of the gastrointestinal tract • anxiety, • some medicines. • Nausea experienced in previous opioid treatment (anticipatory effect). **Opioid induced constipation:** • dehydration, • confusion, • use of other constipating medicines, and • immobility. • Use of an antimuscarinic (anticholinergic) drug may increase the risk of constipation. The risk of gastrointestinal adverse effects of opioids, including paralytic ileus, is increased by abdominal surgery.	**Nausea and vomiting** • Give antiemetic drug with the first dose of an opioid **Constipation** • Questioning the patient on bowel habit before starting prolonged opioid treatment can help to promptly identify any change. • Address factors which contribute to constipation (eg dehydration and use of constipating medicines). • consider prophylactic measures against constipation, but the usual advice to increase fibre intake might not be appropriate for those on opioids. • Encourage the patient to mention adverse effects on the bowel. • Specialist advice may be needed for treating patients with disorders including biliary-tract disease, inflammatory bowel disorders, and history of paralytic ileus. • Prescribe anticipatory macrogol and senna • Do not prescribe bulk forming laxatives e.g. ispahula husks) **Paralytic ileus** • Opioid should be stopped if paralytic ileus is suspected.

Treatment
Nausea and vomiting: • Antiemetic based on comorbidity, availability, formulation • Cyclizine = 50mg TDS PO/IM • antimuscarinic drugs (eg hyoscine), antihistamines (eg cyclizine and promethazine), and dopamine D_2 antagonists (eg haloperidol and prochlorperazine) are alternatives **Opioid-induced constipation** • laxatives which soften the stool (e.g. lactulose and macrogols) and those which stimulate peristalsis (eg docusate and senna). • Where constipation has not responded to laxative treatment consider Naloxegol as per NICE TA 345

CNS and Psychiatric effects

Factors that increase risk	Risk reduction methods
Drowsiness and confusion: • Increasing dose of opioid. • Concomitant medicines with similar side effects, such as anticholinergic medicines. • Alcohol **Patients with dementia** • at greater risk of worsening cognitive impairment. **Opioids should be used with care in patients susceptible to convulsions or those with head injuries.**	• While the dose of opioid should be adequate, an excessive dose or very rapid dose escalation should be avoided to reduce the risk of CNS effects such as drowsiness and confusion.
Treatment	
CNS side effects of opioids generally diminish without specific treatment. Additional drugs to counteract CNS side effects can be considered, but they may complicate therapy and there are no licensed medicines for this purpose.	

Cardiovascular adverse effects

Factors that increase risk	Risk reduction methods
Hypotension • Dehydration or concomitant treatment with sedative medicines or drugs such as beta-blockers • Use an opioid with very great care if the patient is in shock. • The risk of postural hypotension increases with age. **Bradycardia** • Beta-blockers and anaesthetic drugs • patients with arrhythmia might be at greater risk of heart rhythm disturbances.	• Correct hypovolaemia, ideally, before starting opioid treatment; perioperative use of intravenous fluids and antimuscarinic medicines can also help. • Reducing the rate of opioid administration (or of concomitantly administered anaesthetic) can also decrease the risk of hypotension and bradycardia. • Warn those taking opioids of a 'head rush' or dizziness when standing or sitting up from a reclined position or when stretching, particularly after surgery. • Advise patients to take care to avoid falls and injury.
Treatment	
Atropine counteracts bradycardia.	

Respiratory adverse effects

Factors that increase risk	Risk reduction methods
• Individuals with asthma are particularly prone to an asthmatic attack when treated with an opioid. • Conditions such as sleep apnoea, pulmonary disease, emphysema, and even severe obesity can compromise respiration in those taking opioids. • Head injury could increase the potential of opioids to reduce respiratory drive. • Concomitant use of other respiratory depressants such as anaesthetics and benzodiazepines.	• Avoid an opioid during an acute attack of asthma. • Advise patients to take care to avoid excessive dose of an opioid (e.g. inadvertent duplication of a dose). • Avoid increasing the dose too quickly. • In those at particular risk of respiratory depression, if an opioid needs to be given, select a lower initial dose; generally avoid use of an opioid in those with chronic obstructive pulmonary disease.
Treatment	
Treat bronchoconstriction with a short-acting beta$_2$ agonist, such as salbutamol. Significant respiratory depression = naloxone injection to reverse the opioid effect, but naloxone also reverses opioid analgesia. Since naloxone has a short duration of action, monitor the patient carefully for further deleterious respiratory effects.	

Effects on the skin

Factors that increase risk	Risk reduction methods
Spinal or epidural use of an opioid such as morphine increases the risk of pruritus, compared to oral, intramuscular or subcutaneous injection.	
Treatment	
• Emollients or cool compresses may help with pruritus. • Switching to another opioid analgesic. • There is little compelling evidence to support the use of an antihistamine, which in any case, might augment other opioid adverse effects. • Opioid antagonists are not licensed for the management of pruritus.	

Urinary retention

Factors that increase risk	Risk reduction methods
• Epidural injection, greater risk than intravenous or intramuscular injection. • Elderly • Prostatic hypertrophy • Concurrent use of an anticholinergic may increase the risk of urinary retention.	• Take care in those susceptible to urinary disorders including patients with prostatic hypertrophy and the elderly.
Treatment	
• In severe cases of urinary retention, bladder catheterisation may be needed. • The opioid antagonist naloxone may be able to reverse the urinary effects of opioids.	

Miosis

Factors that increase risk	Risk reduction methods
Treatment	
Use naloxone to reverse	

Tolerance and dependence

Factors that increase risk	Risk reduction methods
• Chronic opioid use, especially when the opioid is no longer necessary to relieve pain can lead to dependence. • Vulnerable individuals such as those with a history of substance abuse. • History of anxiety and depression • Opioid withdrawal effects, though very unpleasant, are not generally life-threatening, but they may have more serious consequences in debilitated or frail individuals.	• In the management of acute pain, reduce the opioid dose as pain diminishes. If an opioid is no longer required to treat pain, withdraw it gradually. • Generally avoid a sustained-release opioid product for managing acute pain or for fluctuating pain intensity. • An opioid should not be continued if the pain does not respond to opioid treatment.
Treatment	
Referral to dependence/ addiction program	

Overdose

Factors that increase risk	Risk reduction methods

• Tolerance diminishes rapidly on stopping opioid use, and a dose that was tolerated previously could induce serious toxicity.
• Sustained-release preparations (or subcutaneous or intramuscular injection of an opioid when perfusion is poor) could delay or prolong toxicity.
• Concomitant use of medicines, alcohol, and illicit substances can complicate opioid poisoning and it is essential to identify such use.
• Genetic variation in the capacity to metabolise opioids may occasionally contribute to increased opioid toxicity.
• Inadvertent poisoning from medicinal use (iatrogenic poisoning) of opioids can result from errors in:
  ○ prescribing (eg error in calculating dose)
  ○ dispensing (eg incorrect strength supplied and error in transcribing dosing instructions)
  ○ administration (eg incorrectly set drip device; affixing a new transdermal patch without removing the previous one; and incorrect use of sustained-release formulations or of transdermal patches)
	• Opioids should be prescribed, dispensed and administered with great
	• The patient or the patient's carers should be carefully counselled on correct dosing and administration.
	• Other medicines, especially those with CNS depressant effect, should be used with care to reduce the risk of harmful interaction with opioids.
	• Transdermal patches must be stored, used and disposed of correctly to avoid inadvertent opioid exposure to the patient's household contacts including young children and pets.

Treatment

- The first aim of treatment is to restore effective breathing.
- The opioid antagonist, naloxone, rapidly reverses the effects of opioids and should be given preferably by intravenous injection, but it can also be given by intramuscular or subcutaneous injection. Naloxone has a short duration of action—monitor the patient closely for at least 6 hours and give further doses of the antidote if necessary. Excessive dose of naloxone can precipitate withdrawal symptoms in those with opioid dependency.
- Treat poisoning from other substances taken with the opioid. Convulsions that follow dextropropoxyphene or pethidine poisoning require treatment with anticonvulsants. The management of poisoning with buprenorphine (a mixed opioid agonist–antagonist) and with tramadol (with additional noradrenergic and serotonergic properties) may require additional consideration—seek urgent advice in case of serious poisoning.
- In a conscious patient, activated charcoal can prevent further absorption if the opioid has been taken within the previous hour; however, you should guard against the possibility of aspiration.

Withdrawal of opioids: physiological and psychological dependence to opioids

Physical dependence, characterised by a withdrawal syndrome, can occur on cessation of an opioid even after a few days of treatment. This withdrawal syndrome will also be precipitated by opioid antagonists such as naloxone.

The signs and symptoms of withdrawal are much less intense if the opioid is withdrawn slowly (10% a week is an often quoted slow level of reduction). An abstinence syndrome is observed when opioids are withdrawn after being used for pain relief over a few days or weeks. The intensity of the abstinence syndrome varies greatly, but rarely progresses to addiction or psychological dependence (craving for the drug).

Symptoms can last from a few days to several weeks. For most people symptoms begin to resolve after a few days.

Opioids such as codeine, buprenorphine and tramadol are less likely to cause physical or psychological dependence due to being their partial agonism of receptors or multiple receptor mode of action.

Characteristic symptoms of abstinence syndrome upon withdrawing opioids:

- Restlessness
- Runny nose
- Diarrhoea
- Shivering
- Piloerection (goose pimples)
- Anxiety
- Nausea & vomiting
- Sweating
- Dilated pupils
- Bone and muscle pain
- Yawning
- Increased lacrimation
- Insomnia
- Abdominal cramps
- Agitation

For further information on withdrawal of opioids please see the Opioid Resource Pack.
www.dorsetformulary.nhs.uk

Opioid patches - appropriate prescribing and use

- Consider using patches only when the person has previously tolerated opioids, has stable pain AND one of the following criteria:
    - difficulty/inability to swallow or the oral route is inappropriate
    - poor absorption from the GI tract
- Not suitable for acute pain
- If prescribed, it is recommended that the reason for use is documented on initiation
- Patients on patches who do not fit the above criteria for use, should be reviewed and if possible switched to an oral alternative that is suitable for the patient as per guidance on page 3.
- Patients should be assessed frequently, e.g. after two weeks, to assess the efficacy of treatment, improvements in functional status, tolerability of side-effects, and compliance

Low strength buprenorphine seven day patches 5, 10, 15, 20mcg/Hr

- High strength buprenorphine patches (35, 52.5 & 70 mcg/h) are non-formulary and should not be prescribed
- It approximately takes 17 hours to deliver detectable levels of buprenorphine. After removal, it takes around 30 hours for levels of buprenorphine to decrease
- Start with 5mcg patch and change every 7 days (apply to a different site) - avoid same area for at least 3 weeks. Allow at least 72 hours before evaluating analgesic effect
    - Maximum of 2 patches to be worn at any one time, up to a maximum total dose of 40 microgram/hour.
    - Do NOT cut patches in half
    - Do not administer other opioids within 24 hrs of patch removal
- How to stop it:
    - As a general rule, a subsequent opioid should not be administered within 24 hours after removal of the patch
    - The guidance on page 3 should be referred to when switching patients onto an oral alternative. Ensure that the patient is also taking regular paracetamol (not if treating low back pain)

Fentanyl patches

- Fentanyl patches should not be used for non-cancer pain unless for patients with stable pain who have difficulty/inability to swallow or the oral route is inappropriate or have poor absorption from the GI tract
- The initial dose should be based upon their previous 24-hour opioid requirement
- Effective systemic analgesic concentrations of fentanyl are usually reached less than 12 hours after applying the patch. When converting oral morphine to transdermal fentanyl:
    - if taking 4 hourly oral morphine, continue giving regular doses for 12 hours after applying the fentanyl patch
    - if taking 12 hourly modified release morphine, give the last modified release dose and apply the first fentanyl patch at the same time
    - if taking 24 hourly modified release morphine, apply the first fentanyl patch 12 hours after the final modified release dose.
- After discontinuing a fentanyl patch, fentanyl levels fall gradually. It takes around 20 (range 13-27) hours for the plasma-fentanyl concentration to decrease by 50% . Patients who experience serious adverse effects should have patches removed immediately and should be monitored for at least 24 hours after the patch is removed. In general, the discontinuation of opioid analgesia should be gradual in order to prevent withdrawal symptoms.

Opiate conversion doses

- These conversions are provided only as an approximate guide to equivalences and therefore individual patient variability needs to be considered when switching from one opioid to another
- Only when the patient is receiving genuine benefit from the opioid i.e. is demonstrating pain reduction and consequent functional improvement but is suffering adverse effects which are limiting its continued use for example: persistent drowsiness/ fatigue, intractable itching / nausea not responsive to regular anti-histamine / anti-emetic use respectively or problematic drug-drug interactions.
- In most cases, when switching between different opioids, the calculated dose-equivalent must be reduced to ensure safety. The starting point for dose reduction from the calculated equi-analgesic dose is around 25-50%.
- See the products Summary of Product Characteristics (SPC) for full prescribing information

DRUG NAME	DRUG DOSE	EQUIVALENT ORAL MORPHINE DOSE
Codeine	30mg	4.5mg
Dihydrocodeine	10mg	1mg
Tramadol	50mg	5-10mg
Oxycodone	10mg	20mg

Patch conversion

Oral Morphine equivalent (mg/24hrs)	**10**	**15**	**30**	**40**	**45**	**60**	**90**	**120**	**180**	**270**	**360**
Oral Codeine (mg/24hrs)	60-90	120	240					**ONLY WITH ADVICE FROM PAIN SPECIALIST**			
Oral Dihydrocodeine (mg/24hrs)	80										
Oral Tramadol (mg/24hrs)	100	150	300	400							
Oral Oxycodone (mg/24hrs)	5	7.5	15	20	22.5	30	45	60	90	135	180
Transdermal Buprenorphine (µg/hr)	5	10	20			35	52.5	70			
Transdermal Fentanyl (µg/hr)					12		25		50	75	100

Oxycodone prescribing advice

- Oxycodone formulations are on Dorset Formulary as an AMBER for Pain team/palliative care initiation with exception of: DCHFT: Used in post-operative pain in patients with eGFR <60mL/min and RBCH: 1st line modified release opioid for Derwent patients for in-patient use only.
- Oxycodone is included only for patients where morphine is contra-indicated or not tolerated.
- Despite many claims and a perception of oxycodone's superiority to morphine, available data does not provide any evidence to support this (NICE CG140).
- Oxycodone does not feature on the WHO essential medicines list.
- Any patients who are on oxycodone but who haven't tried morphine sulphate previously should be reviewed & switched to morphine sulphate MR if appropriate (NOT palliative care patients)
- Oxycodone is significantly more expensive than oral morphine
- Ensure that adverse effects such as constipation and nausea have been managed with adjunctive treatments before switching to oxycodone.
- There is no robust evidence that oxycodone has fewer side effects compared to morphine

Limited criteria for prescribing oxycodone first line

Oxycodone may be initiated in preference to morphine for the management of pain by a GP with experience in palliative care or on the advice of the pain team when:

- Dose escalation with morphine is not possible due to opioid toxicity e.g. hallucinations, myoclonic jerks and confusion
- Patients on morphine suffer from severe side effects/ intolerance, such as opioid induced vomiting, which have not responded to pharmacological interventions or dose reduction
- Patients are allergic to sulfates and need a strong oral opioid

Neuropathic pain guidance

Recognising and Diagnosing

- Use a diagnostic tool such as: LANSS pain scale (see resources)
- Many possible causes: e.g. diabetes, herpes zoster (shingles)
- Ongoing conditions e.g. sciatica, neck pain, low back pain
- Consider underlying disease e.g. cancer, that will require investigation.
- "Red and Yellow Flag" see (page 22) --> refer for investigation.

Signs and Symptoms

- Neuropathic pain can be spontaneous or evoked, continuous or intermittent
- Often worse at the end of the day
- Can be made worse by hot or cold, touch or movement Patients are unresponsive to conventional analgesics
- Skin in painful area may look different from normal e.g. atrophic or cyanosed

Trigger words to aid diagnosis

- Always encourage patients to describe their pain
- Key words:
  - Burning
  - Shooting
  - Stabbing

Sensory Signs and Symptoms

- Allodynia – pain produced by a stimulus that does not normally produce pain
  - e.g. touch, pressure, warmth
- Dysaesthesia – an unpleasant, abnormal sensation
- Hyperaesthesia – increased sensitivity to stimulation
- Hyperalgesia – an increased response to a stimulus which is normally painful

Consider early specialist referral if

- There is diagnostic uncertainty
- Patient has severe pain
- Pain significantly limits daily activities
- The underlying health condition has deteriorated
- Continue to work through the medication management section whilst waiting for an appointment

Use of medicines for the management of neuropathic pain

Step 1 Non-opioid Analgesic / baseline analgesia	Step 2 Tricyclic Antidepressant (usually first choice) + baseline Paracetamol	Step 3 Anticonvulsant First choice if TCAs are contraindicated or lancinating 'electric shock' pain + baseline Paracetamol
• Paracetamol • Continue paracetamol as patient moves through step 2 and 3	• Amitriptyline, start at 10mg and increase by 10mg per week • Analgesic effect is separate from antidepressant effect • Best taken in the evening to reduce 'hangover effect' (6-8pm) • Slowly titrate to reduce side effects. Ensure titration occurs even if dose is later reduced • Recommended doses are 25mg - 75mg daily in the evening • If no response after 8 weeks stop amitriptyline and go to step 3 • If sub-optimal response, continue amitriptyline and add an anticonvulsant as per step 3.	• Gabapentin - titrate dose weekly according to table overleaf • Continue increasing to 600mg TDS – determined by efficacy and side-effects • A further increase to a maximum of 1200mg TDS can be made if tolerated without benefit • Minimum effective dose is considered to be 300mg TDS but some patients may benefit from lower doses • Should be used for at least an 8 week trial period • Taper and stop if no benefit • If this does not work or is not suitable see other possible options below

Dose titration

Amitriptyline				
Week 1	Week 2	Week 3	Week 4	Week 5
10mg ON	20mg ON	30mg ON	40mg ON	50mg ON

CNS side-effects are common with **amitriptyline** particularly in the elderly; therefore low doses should be used for initial treatment in this group. If contra-indicated try gabapentin instead:

Gabapentin				
	Week 1	Week 2	Week 3	Week 4
Morning		300mg	300mg	300mg
Midday			300mg	300mg
Night	300mg	300mg	300mg	600mg

Slower titration may be required in the elderly, starting at 100mg and increasing by 100mg increments. Somnolence, peripheral oedema and asthenia may be more frequent in elderly patients.

Other treatment options for neuropathic pain:

- **Pregabalin** – step 3 alternative if steps 1 and 2 and gabapentin have failed/not been tolerated/ contra-indicated. Start at 75mg per day and increase in 75mg weekly steps aiming for 300mg BD.
- Slow titration in elderly patients and those susceptible to side-effects. Review use at 6-8 weeks, taper and stop if no benefit. Refer patient to specialist pain service if there is no response or it is ineffective. Slower titrations may be required if it is not tolerated very well or in elderly patients

Pregabalin				
	Day 1	Day 4	Day 8	Day 12
Morning		75mg	75mg	150mg
Night	75mg	75mg	150mg	150mg

- **Duloxetine -** consider in painful diabetic neuropathy (this is the only pain indication it is licensed for), where Amitriptyline and Gabapentin have either failed or are contraindicated. Discuss with patient's mental health team before initiation if already on antidepressants. Start at 30mg nocte, increasing to 60mg nocte after 2 weeks. Maximum 60mg BD. Discontinue if no response after 8 weeks.

- **Tramadol – Only for use if acute rescue therapy is needed while the patient is waiting for a referral appointment, NOT for long-term use**. Start at 50mg QDS and increase to a maximum of 400mg/day. Do not start other opioids unless on recommendation from a specialist pain service.

- **Capsaicin cream**: Localized areas of neuropathic pain may respond to topical capsaicin 0.025% cream 3-4 times a day, especially for those who cannot tolerate oral treatments. Licensed for treatment of post-herpetic neuralgia, after lesions have healed. NB Capsaicn 0.075% is amber on the Dorset formulary, for specialist initiation only.

- **Capsaicin patches** – specialist only

- **Lidocaine 5% medicated plaster - Only within licensed indication (post herpetic neuralgia) by pain specialists.** It remains non-formulary for other indications apart from for short-term use by Secondary Care Acute Pain Teams for Rib Fracture and post amputation pain. NB there is no expectation for GPs to continue lidocaine patches upon discharge from secondary care.

- Reassess patients every two weeks until pain is well controlled.
- Refer if there is no significant improvement and to clarify the diagnosis.
- Be aware of the risk abuse and addiction to gabapentin and pregabalin, even in those patients with no known history of abuse. Consider implementing additional monitoring of individual patients where appropriate https://www.england.nhs.uk/south/wp-content/uploads/sites/6/2018/01/nhs-cd-newsletter-pregabalin.pdf

Gabapentin vs pregabalin: points to consider when selecting which to use?

- Both gabapentin and pregabalin have the same pharmacological mode of action
- Pregabalin has the advantage of being twice daily
- Gabapentin has non-linear absorption pharmacokinetics, it's bioavailability decrease the more you give and a dose effect curve that plateaus at the maximum recommended dose. Pregabalin has a much steeper dose-effect curve which continues over the maximum recommended dose. This is why pregabalin is preferred for drug-misuse and may account for interpatient variability observed with adverse effects and tolerance between the two medicines.
- Therapeutically no study has confirmed superiority of either medicine.
- Adverse effect profiles remain similar.
- The cost difference between the drugs is no-longer an issue to base selection on.

PHE (2014) advice on Gabapentinoids and risk of diversion

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[1] and may be misused or diverted.

Gabapentin and pregabalin are associated with significant euphoric effects. Individuals misusing gabapentin and pregabalin variably describe improved sociability, euphoria, relaxation and a sense of calm. Gabapentin and pregabalin have the propensity to cause depression of the central nervous system, resulting in drowsiness, sedation, respiratory depression and at the extreme, death.

The pharmacokinetic properties of pregabalin make the drug relatively more dangerous than gabapentin in high doses. Pregabalin misusers are achieving the effects above by taking large quantities, ranging from 200mg to 5g as a single dose.

Both gabapentin and pregabalin have adverse effects on the central nervous system, which are additive when used with other centrally acting drugs, particularly opioids.

Trigeminal neuralgia

- Start Carbamazepine at 100 mg up to twice daily, and titrate in steps of 100 - 200 mg every two weeks, until pain is relieved.
- In the majority of people a dosage of 200 mg three or four times a day is sufficient to prevent paroxysms of pain (maximum dosage 1,600 mg daily).
- Modified release preparations may be useful at night if the person experiences breakthrough pain.
- Once pain is in remission, the dosage should be gradually reduced to the lowest possible maintenance level, or the drug can be discontinued until a further attack occurs.
- If carbamazepine is contraindicated, ineffective, or not tolerated, seek specialist advice. Do *not* offer any other drug treatment unless advised to do so by a specialist.
- CKS Trigeminal neuralgia: https://cks.nice.org.uk/trigeminal-neuralgia

Strategies for review and withdrawal of gabapentin and pregabalin

- **First line gabapentin has not worked -** Depending on dose, duration of use, medical/ psychiatric conditions and concurrent drug/ alcohol use - gradually withdraw the gabapentin over a 4-6 week period.
- Reassess the need for a gabapetinoid or alternative treatment for their pain. Consider assessing how patient copes and functions for a period of time before deciding on next treatment strategy.
- Titrate pregabalin if decision is made to use.
- **Patient intolerant to gabapentin -** Depending on intolerance, its severity and duration of use - a hard stop of gabapentin may be justified, starting the pregablin titration the next day.
- **Gabapentin contraindicated -** do not use gabapentin, titrate pregabalin.
- **Withdrawal of gabapentinoids**: a gradual withdrawal of gabapentin and preagablin over a period of 4-6 weeks will allow for emergent symptoms that may have been controlled by the medication to be observed. It may also mitigate development of a withdrawal syndrome which has been reported to occur anywhere between 12hours to 7 days after stopping gabapentinoids.
- Withdrawal symptoms reported include rebound anxiety, sleep disorders, restlessness, palpitations and agitation.

Clinical note
An assumption can be made that 300mg of gabapentin is approximately equivalent to 50mg of pregabalin

Example Gabapentin withdrawal regimen - for a 600mg TDS gabapentin dosing schedule

	Week 1	Week 2	Week 3	Week 4 (review pt)	Week 5	Week 6	Week 7
Morning	600mg	300mg	300mg	200mg	100mg	100mg	Stop Review patient
Lunch	300mg	300mg	300mg	200mg	100mg		
Bedtime	600mg	600mg	200mg	200mg	100mg	100mg	

Example pregabalin withdrawal regimen - for a 150mg BD pregabalin dosing schedule

	Week 1	Week 2	Week 3	Week 4	Week 5
Morning	75mg	75mg	50mg	25mg	Stop Review patient
Bedtime	150mg	75mg	50mg	25mg	

Information on Cannabis for Patient Education

Answer for public/patient queries.

We understand that patients and the public are interested in the recent news about Cannabis products becoming available on the NHS.

Both NHS England guidance and information released from the Home Office are clear that cannabis-based products for medicinal use are to be prescribed by specialist doctors only. They will not be prescribable by your GP. The list of specialists is yet to be set, but they will need to be trained. This is only for the conditions in which there is a proven evidence base, and specialists are working within their competences.

Currently, it is only likely to be prescribed for the following conditions:

- children with rare, severe forms of epilepsy
- adults with vomiting or nausea caused by chemotherapy
- adults with muscle stiffness (spasticity) caused by multiple sclerosis (MS)

Patients with those conditions are likely to already be under specialist care. Those specialists will be aware of the potential use of the cannabis products and the processes by which they can apply to prescribe them.

There are many anecdotal reports from patients and the public that suggest they have found benefit for a range of other conditions by using this drug or oils containing the active ingredients.

Without a clinically proven, medical evidence base, which includes reports of trials undertaken in controlled conditions, it is unlikely to be made available more widely.

National Institute for Health and Care Excellence (NICE) guidance is expected in October 2019. In the meantime unless suffering from the conditions listed above patients and the public are unlikely to be able to obtain cannabis products either privately or on the NHS.

References

NHS Advice for patients on Medical cannabis (and cannabis oils)

https://www.nhs.uk/conditions/medical-cannabis/

https://www.rcplondon.ac.uk/projects/outputs/recommendations-cannabis-based-products-medicinal-use

Faculty Pain Medicine position statement 2018 https://www.rcoa.ac.uk/sites/default/files/FPM Cannabis Position Statement Oct18.pdf

Red and yellow flags in Pain Management

Red flags are clinical indicators of possible serious underlying conditions requiring further medical intervention. Red flags were designed for use in acute low back pain, but the underlying concept can be applied more broadly in the search for serious underlying pathology in any pain presentation.	**Differential diagnosis**	**Red Flags from patient history**	**Red Flags from examination**
	Possible fracture	• Major trauma • Minor trauma in elderly or osteoporotic	• Evidence of neurological deficit (in legs or perineum in the case of low back pain)
	Possible tumour or infection	• Age < 20 or > 50 years old • History of cancer • Constitutional symptoms (fever, chills, weight loss) • Recent bacterial infection • Intravenous drug use • Immunosuppression • Pain worsening at night or when supine	
	Possible significant neurological deficit	• Severe or progressive sensory alteration or weakness • Bladder or bowel dysfunction	

The presence of red flags in acute low back pain suggests the need for further investigation and possible specialist referral as part of the overall strategy. If there are no red flags present in this situation it is safe to reassure the patient and move ahead with a multimodal management approach.

Yellow flags are psychosocial indicators suggesting increased risk of progression to long-term distress, disability and pain. Yellow flags were designed for use in acute low back pain. In principle they can be applied more broadly to assess likelihood of development of persistent problems from any acute pain presentation.	**Attitudes and Beliefs**	• Pain is harmful or severely disabling • Expectation that passive treatment rather than active participation will help • Feeling that 'no-one believes the pain is real' – may relate to previous encounters with health professionals
	Emotions and Behaviour	• Fear-avoidance behaviour (avoiding activity due to fear of pain) • Low mood and social withdrawal
	Other psychosocial factors	• Poor family relationships or history of abusive relationships • Financial concerns particularly related to ill-health or ongoing pain • Work related factors e.g. conflict over sick-leave, ability to perform current job tasks • Ongoing litigation related to persistent pain condition

The presence of multiple biopsychosocial factors may highlight the need for a multi-disciplinary approach to care.

References and resources

For prescribers

Brief Pain Inventory (short form) assessment tool: Use to quantify level of pain & provide a baseline	http://prc.coh.org/pdf/BPI%20Short%20Version.pdf
Pain Assessment and Documentation Tool (PADT):	https://healthinsight.org/Internal/assets/SMART/PADT.pdf
Patient leaflets available here:	**https://www.britishpainsociety.org/british-pain-society-publications/patient-publications/**
Pain assessment in advanced dementia tool (PAINAD):	http://dementiapathways.ie/_filecache/04a/ddd/98-painad.pdf
British Pain Society, pain scales in multiple languages:	https://www.britishpainsociety.org/british-pain-society-publications/pain-scales-in-multiple-languages/
Opioid Risk Tool (to assess for mental health problems, alcohol abuse & addiction potential):	https://www.drugabuse.gov/sites/default/files/files/OpioidRiskTool.pdf
LANSS neuropathic pain scale:	http://www.endoexperience.com/documents/Apx4_LANSS.pdf
General Pain management tools	www.britishpainsociety.org
Opioids Aware: A resource for patients and healthcare professionals to support prescribing of opioid medicines for pain	https://rcoa.ac.uk/faculty-of-pain-medicine/opioids-aware
STarT back screening tool (Keele University): a brief validated tool (Hill et al 2008), designed to screen primary care patients with low back pain for prognostic indicators that are relevant to initial decision making.	http://www.keele.ac.uk/sbst/
Lancet abstract about this tool	http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)60937-9/fulltext#article_upsell
Drugs and driving the law:	www.gov.uk/government/collections/drug-driving
Patient Health Questionnnaire (PHQ9) score:	http://www.patient.co.uk/doctor/Patient-Health-Questionnaire-(PHQ-9).htm
NICE NG59- Low back pain and sciatica in over 16s (Nov 2016)	https://www.nice.org.uk/guidance/ng59
NICE CG177- Osteoarthritis (Feb 2014)	http://www.nice.org.uk/guidance/cg177
NICE CG173- Neuropathic pain- pharmacological management (Nov 2013, Apr 2018 update)	http://guidance.nice.org.uk/CG173/Guidance/pdf/English
NHS Dorset CCG services	https://www.dorsetccg.nhs.uk/services/
The Pan-Dorset Musculoskeletal Triage service is a new triage service, for people experiencing musculoskeletal (MSK) problems. This may include problems with joints, muscles and other soft tissues such as ligaments and nerves.	https://www.dorsetccg.nhs.uk/services/msk/
Referral criteria to Dorset Community Pain service	http://dorsetpain.org.uk/About-the-pain-service/?Category=2229
Guidelines for the diagnosis and management of fibromyalgia	http://www.dorsetccg.nhs.uk/Downloads/aboutus/medicines-management/Other%20Guidelines/Management%20of%20Fibromyalgia%202017.pdf

For Patients:

Management of chronic pain	www.paintoolkit.org https://livewellwithpain.co.uk/
NHS choices back pain guide	http://www.nhs.uk/Tools/Pages/Back-pain-guide.aspx
Offers a range treatments for people experiencing problems with low mood/depression, anxiety, stress or other common mental health problems	https://www.steps2wellbeing.co.uk/ https://dorsetmind.uk/
Offers support and guidance on quitting smoking, losing weight, drinking less alcohol and moving more	https://www.livewelldorset.co.uk/
Dorset Community Pain Service	http://dorsetpain.org.uk/
A five minute overview of chronic pain by the Hunter Integrated Pain Service in Australia: **Follow up video called "Brainman stops his opioids":**	www.youtube.com/watch?v=5KrUL8tOaQs https://www.youtube.com/watch?v=MI1myFQPdCE
An explanation of how your mood can affect pain	https://www.tamethebeast.org/#home
British Pain Society	www.britishpainsociety.org
Drug driving PIL	https://extranet.dft.gov.uk/think-downloads/wp-content/uploads/sites/29/2015/01/150213-10349-DfT-New-Drug-Driving-Rules-A5-Leaflet_DIGITAL-Amended.pdf http://www.mhra.gov.uk/home/groups/dsu/documents/publication/con437439.pdf
Pain Concern	http://painconcern.org.uk
Physio advice on managing back pain	https://www.csp.org.uk/publications/10-things-you-need-know-about-your-back
Resource developed by UK healthcare professionals and policymakers, provides the information on a safe and effective use of opioids medication.	https://www.rcoa.ac.uk/faculty-of-pain-medicine/opioids-aware
Complementary and alternative medicines for the treatment of rheumatoid arthritis, osteoarthritis and fibromyalgia.	https://www.arthritisresearchuk.org/
Medical cannabis (and cannabis oils)	https://www.nhs.uk/conditions/medical-cannabis/