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PrescQIPP
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Reducing opioid prescribing in chronic pain

£224million is spent annually on the prescribing of opioid medication in England, Wales, Isle of Man and Scotland (NHSBSA May-Jul23) and Public Health Scotland (Feb-Apr23).

This bulletin discusses the processes and resources available to support opioid reduction. Supporting resources include an audit, GP clinical system searches, patient information leaflets and text message templates. This bulletin should be used in conjunction with PrescQIPP Bulletin 284: Chronic pain which supports the review of pain pathways and facilitates the appropriate primary care management of chronic pain.

This bulletin does not cover the specific management of pain associated with cancer or neuropathic pain. For further information on neuropathic pain refer to PrescQIPP Bulletin 216: Neuropathic pain. Links to other opioid related PrescQIPP bulletins are included in the further resources section at the end of the bulletin.

Recommendations

- In England, Wales, and Northern Ireland - do not initiate opioids to manage chronic primary pain in people aged 16 years and over. In Scotland opioids should be considered for short or medium term treatment of chronic non-cancer pain, if other therapies have been insufficient, and the benefits outweigh the risks of serious harm.
- As there is little evidence that opioids are helpful for long term chronic non-cancer pain, review all opioids prescribed for chronic non-cancer pain. Use a shared decision-making approach to taper and stop the opioid if it is no longer providing useful pain relief or benefit or the risks of adverse effects outweigh the benefits of treatment.
- Discuss with the patient non-medicine treatments for chronic pain, such as TENS machine, acupuncture, advice about activity and increasing physical fitness and psychological treatments such as Cognitive Behaviour Therapy, Acceptance and Commitment Therapy (ACT) and meditation techniques such as mindfulness.
- Prioritise a review for people prescribed high dose opioids above 120mg oral morphine equivalent daily (above 90mg in Scotland), use a shared decision-making approach to reduce and/or stop the opioid. The risk of harm increases substantially at doses above oral morphine equivalent of 120mg per day, and there is no increased benefit.
- Opioid treatment should be reviewed at least six monthly to ensure that the benefits of the medicine continue to outweigh the potential harms and to check whether the dose needs adjusting. Consider tapering the dose at regular intervals e.g. 6-12 monthly, to assess benefit or potential side effects and to minimise risk of harm. Consider increasing the frequency of reviews during dose adjustment.
- During the review, look for any signs that the person is developing problems associated with dependence (see appendix 1).

Recommendations

- Opioid switching may be considered if a patient obtains pain relief with one opioid but is suffering severe adverse effects and it is in-line with local guidance. Switching should be recommended and supervised by a healthcare practitioner with adequate competence and sufficient experience. If uncertain, ask for advice from a more experienced practitioner.
- If converting opioids, use an individualised approach, as conversion factors are an approximate guide only, as comprehensive data are lacking and there is significant inter-individual variation (see appendix 2).
- If a person has pain that remains severe despite opioid treatment it means the opioid is not working and should be stopped, even if no other treatment is available.
- When discussing tapering or stopping an opioid explain the benefits the person can expect from reducing the dose and aim to reach an agreement using a shared decision-making approach.
- Ensure that the planned rate of reduction is acceptable to the person and agree outcomes of opioid tapering. Explain the reduction schedule can be modified if necessary.
- Suggest a slow, stepwise rate of reduction proportionate to the existing dose, to prevent withdrawal symptoms. The Faculty of Pain Medicine states that the dose of drug can be tapered by 10% weekly or every two weeks. However, the rate of reduction may need to be slower so should be adapted to suit the individual's needs based on how the withdrawal symptoms are tolerated.
- Agree arrangements for monitoring of pain levels and support required during opioid tapering. People should be reviewed at least every two weeks when reducing their opioid.
- In England, review and implement the five actions listed for Integrated Care Systems to optimise personalised care for adults prescribed medicines associated with dependence and withdrawal symptoms.

Background

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 chronic non-cancer pain.[1]

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.[1] Prescribing needs to be evidence based and opioids are not effective in most chronic pain conditions.

People who do not achieve useful pain relief from opioids within two to four weeks are unlikely to gain benefit in the long term.[1]

The strong opioids prescribed in primary care include alfentanil, buprenorphine, diamorphine, fentanyl, hydromorphone, morphine, oxycodone, methadone, pethidine, and tapentadol. Weak opioids include codeine, dihydrocodeine, and tramadol.

The experience of pain is complex and influenced by the degree of tissue injury, current mood, previous experience of pain and understanding of the cause and significance of pain. Previous unpleasant thoughts, emotions and experiences can also contribute to the current perception of pain and if unresolved, can act as a barrier to treatment. A full pain history is recommended to help understand the patient's current circumstances.[1]

The risk of harm increases substantially at doses above an oral morphine equivalent of 120mg per day, but there is no increased benefit. If a person has pain that remains severe despite opioid treatment it means the opioid is not working and should be stopped, even if no other treatment is available. Tapering or stopping high dose opioids needs careful planning and collaboration.[1]

Support for patients and prescribers

The Public Health England (PHE) prescribed medicines review was published in September 2019 and looked at the scale, distribution and causes of prescription drug dependence, including opioids for chronic non-cancer pain. Analysis showed that, in 2017 to 2018, 5.6 million adults in England (13% of the adult population) received, and had dispensed, opioid pain medicines. However, after a long increasing trend, the annual number of prescriptions for opioid pain medicines had slightly decreased since 2016.[2]

In response to the PHE review, opioid prescribing comparators for England have been developed by the NHS Business Services Authority (NHSBSA). These opioid prescribing comparators will support local work to reduce harm from opioid prescribing for non-cancer indications. They have been developed to help GP practices, PCNs, ICBs and others to:[3]

- Understand the scale of their local opioid issues.
- Understand which areas of opioid prescribing are most problematic locally.
- Identify people who are deemed to be at the greatest risk from harm to be prioritised for a structured medication review.
- Measure the impact of any interventions aimed at reducing harm from opioids.

In response to the PHE review, GPs and pharmacists have helped cut opioid prescriptions in England by 450,000 in under four years. An NHS framework for local health and care providers aims to further reduce inappropriate prescribing of high-strength pain relivers and other addiction-causing medicines, like opioids and benzodiazepines, where they may no longer be the most clinically appropriate treatment and in some cases can become harmful without intervention.[4]

The Optimising personalised care for adults prescribed medicines associated with dependence or withdrawal symptoms: Framework for action for integrated care boards (ICBs) and primary care will support GPs and clinical pharmacists to provide patients with a personalised review of their medicines and make a shared decision about whether a change in treatment is needed, such as moving patients away from potentially addictive prescribed drugs, especially in cases where the clinical benefit for an individual remaining on a treatment decreases.[4,5] Although the framework has been developed for English ICBs, the action points could be adopted by Health Boards outside of England to help with the development of plans that can support people who are taking medicines associated with dependence and withdrawal symptoms.

The British Medical Association (BMA) have worked collaboratively with medical bodies and patients to identify what positive action can be taken to support patients. This has had a particular focus on the prescribing of benzodiazepines, z-drugs, opioids and antidepressants.[6] A number of recommendations were set out, one of which was clear guidance on tapering and withdrawal management which this bulletin supports.

Prescribing trends

The Care Quality Commission safer management of controlled drugs: Annual update 2022 states that the most notable prescribing trends in NHS primary care in 2022 include:[7]

- A reduction in prescribing of pethidine, co-proxamol and fentanyl.
- A reduction in prescribing of diamorphine, without any corresponding increase of morphine prescribing.
- Higher prescribing of opioids in the North of England, which echoes trends seen in previous years.

In 2022 there was a reduction in prescribing for a number of controlled drugs compared with 2021 prescribing data in England:[7]

- Diamorphine - down by 65%
- Co-proxamol - down by 14%
- Pethidine - down by 12%
- Fentanyl - down by 8%
- Co-dydramol - down by 6%
- Methadone - down by 3%
- Dihydrocodeine - down by 2%

Prescribing data in England shows that in under three years the number of opioids prescribed has fallen by 8%, which is estimated to have saved nearly 350 lives and prevented more than 2,100 incidents of patient harm.[4]

The All Wales Medicines Strategy Group National Prescribing Indicators (NPI) 2022-2025 include the following indicators relating to opioids:[8]

- Opioid burden – Units of measure are:
  - Opioid burden defined daily doses (DDDs) per 1,000 patients.
  - High strength opioid DDDs per 1,000 patients.
- Tramadol – Unit of measure is:
  - Tramadol DDDs per 1,000 patients.

The numerator for the opioid burden indicators has changed from average daily quantities (ADQs) to DDDs from April 2023 onwards.[9]

These National Prescribing Indicators (NPI) have been extended for an additional two years and become the NPIs for 2022-2025.[8,9]

Figure 1: Trend in high strength opioid ADQs per 1,000 patients data to March 2023[8]

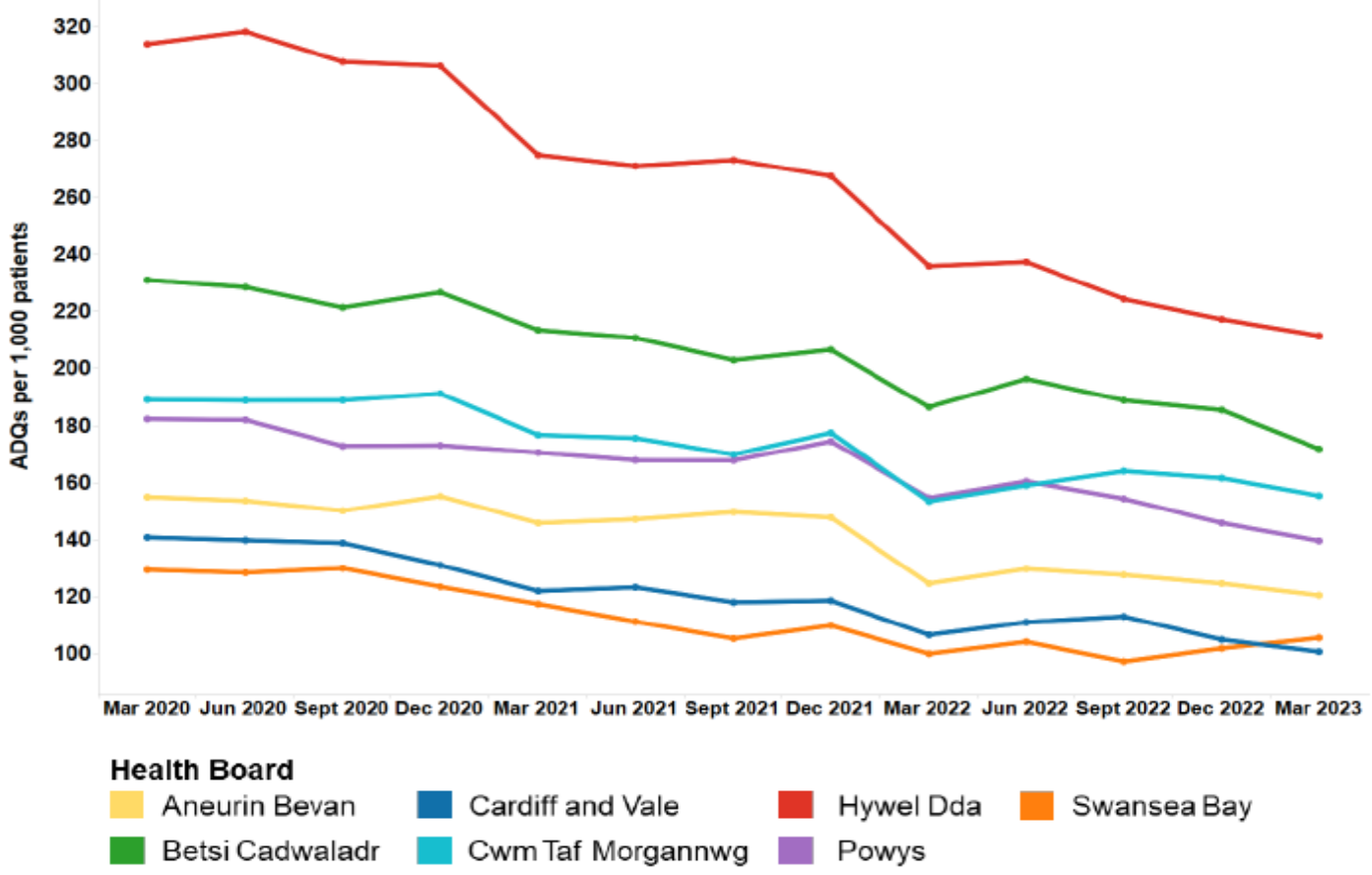


Figure 1 demonstrates a reduction in high strength opioid ADQs from June 2018 to March 2023 across all Welsh Health Boards.[8] Analysis of prescribing data to March 2023, compared with the equivalent quarter of the previous year, demonstrates decreases in line with the aims of the indicators:[10]

- Opioid burden (ADQs per 1,000 patients) decreased by 0.46% across Wales.
- High strength opioid prescribing (ADQs per 1,000 patients) decreased by 5.12% across Wales.
- Tramadol (DDDs per 1,000 patients) reduced by 6.19% across Wales.

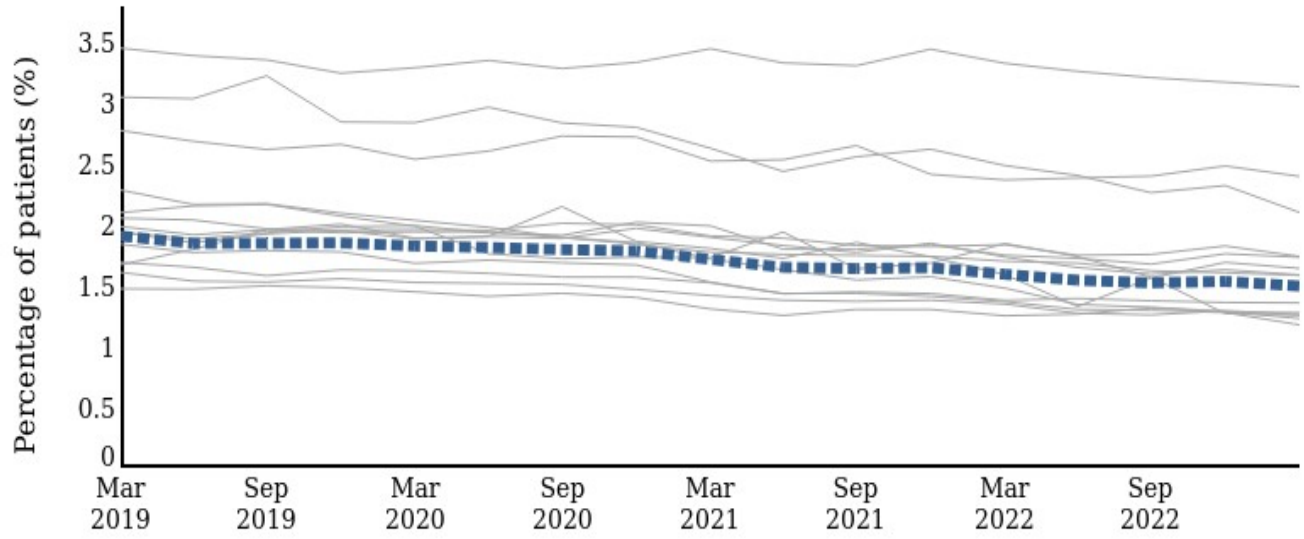
In NHS Scotland National Therapeutic Indicators (NTIs) relating to opioids are:[11]

- Analgesics (opioid DDDs).
- Analgesics (opioid DDDs) opioids excluding tramadol.
- Analgesics (opioid DDDs) tramadol only.
- Analgesics (opioid DDDs) weighted.
- Analgesics (opioid DDDs) opioids excluding tramadol (weighted).
- Analgesics (opioid DDDs) tramadol only (weighted).
- Opioid and gabapentinoid dependency (high dose opioids %) 120mg.
- Opioid and gabapentinoid dependency (high dose opioids %) 50mg.
- Opioid and gabapentinoid dependency (long term opioids %).

Figure 2 demonstrates a reduction in high strength opioid prescribing from March 2018 to September 2022 across all Scottish Health Boards. For Scotland the number of people prescribed an opioid at an average daily dose of ≥120mg per day of morphine over the previous six months as a percentage of all people prescribed step 2 and strong opioids has fallen from 1.9 (January to March 2019) to 1.49 (January to March 2023).[11]

Figure 2: Opioid dependency: number of people prescribed an opioid at an average daily dose of opioid equivalent to ≥ 120mg per day of morphine over the previous six months as a percentage of all people prescribed step 2 and strong opioids.[11]

National guidance



Source: Prescribing Information System Scotland, PHS, NSS.

NICE guidelines

NICE clinical guidelines cover the NHS in England, Wales and Northern Ireland. The Scottish Intercollegiate Guidelines Network (SIGN) produces clinical guidelines in Scotland.[12]

The NICE guideline on Chronic pain (primary and secondary) in over 16s: assessment of all chronic pain and management of chronic primary pain [NG193] defines chronic pain as pain that lasts for more than 3 months. Pain can be secondary to (caused by) an underlying condition (for example, osteoarthritis, rheumatoid arthritis, ulcerative colitis, endometriosis) or chronic pain can be primary. Chronic primary pain has no clear underlying condition, or the pain (or its impact) appears to be out of proportion to any observable injury or disease.[13] Chronic non-cancer pain is pain that lasts for more than three months and is not caused by cancer. The guideline recommends:[13]

- Non-pharmacological interventions such as exercise programmes, psychological therapy and acupuncture.
  - Exercise programmes need to take people's specific needs, preferences and abilities into account. For example, the NICE guideline for myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) recommends that people with ME/CFS should not undertake a physical activity or exercise programme unless it is overseen by a physiotherapist who has training and expertise in ME/CFS.[14]
- To consider pharmacological management with an antidepressant, for example amitriptyline, citalopram, duloxetine, fluoxetine, paroxetine or sertraline.[13] Please consult specific guidelines if they exist for the type of primary pain too.

The guideline does **not** recommend initiating opioids to manage chronic primary pain in people aged 16 years and over.[13]

NICE recommends that "when making shared decisions about whether to stop antidepressants, opioids, gabapentinoids or benzodiazepines, discuss with the person any problems associated with withdrawal."[13]

To support this:

- NICE guideline [NG215] Medicines associated with dependence or withdrawal symptoms: safe prescribing and withdrawal management for adults covers general principles for prescribing and managing withdrawal from opioids (it does not cover opioids prescribed for acute or cancer pain), benzodiazepines, gabapentinoids, Z-drugs and antidepressants in primary and secondary care.[15]
- NICE Clinical Guideline [CG52] Drug misuse in over 16s: opioid detoxification covers helping adults and young people over 16 who are dependent on opioids to stop using drugs. It aims to reduce illicit drug use and improve people's physical and mental health, relationships and employment.[16]

NICE have several guidelines for conditions causing secondary pain:

- NICE Clinical Guideline [CG150] - Headaches in over 12s: diagnosis and management. Last updated December 2021, has the following recommendations:[17]
  - Do not offer opioids for the acute treatment of tension-type headache.
  - Do not offer ergots or opioids for the acute treatment of migraine.
  - Do not offer paracetamol, NSAIDS, opioids, ergots or oral triptans for the acute treatment of cluster headache.
- NICE Guideline [NG59] - Low back pain and sciatica in over 16s: assessment and management. Last updated December 2020, has the following recommendations:[18]
  - Do not offer opioids for managing chronic sciatica.
  - Do not routinely offer opioids for managing acute low back pain.
  - Consider weak opioids (with or without paracetamol) for managing acute low back pain only if an NSAID is contraindicated, not tolerated or has been ineffective.

  - » Do not offer opioids for managing chronic low back pain.
- NICE Guideline [NG100] - Rheumatoid arthritis in adults: management. Last updated October 2020. The guideline states that analgesics (including NSAIDs, paracetamol, opioids and compound analgesics) are sometimes used with disease-modifying treatments to relieve pain and stiffness when symptom control is inadequate. The evidence is limited for many of the analgesic drugs other than NSAIDs, and their relative effectiveness is unknown. Further research in this area may inform future guidance on the use of analgesic drugs other than NSAIDs for controlling symptoms.[19]
- NICE Guideline [NG226] - Osteoarthritis in over 16s: diagnosis and management. Published October 2022, has the following recommendations:[20]
  - » Do not routinely offer paracetamol or weak opioids unless:
    - o They are only used infrequently for short term pain relief and
    - o All other pharmacological treatments are contraindicated, not tolerated or ineffective.
  - » Do not offer glucosamine or strong opioids to people to manage osteoarthritis.
- NICE Guidelines [NG65] - Spondyloarthritis in over 16s: diagnosis and management. Last updated June 2017, has no recommendations for the use opioids.[21]
- NICE Guidelines [NG73] - Endometriosis: diagnosis and management. Published September 2017, recommends paracetamol or a nonsteroidal anti-inflammatory drug (NSAID) alone or in combination first-line, but if this does not provide adequate pain relief, consider other forms of pain management and referral for further assessment.[22]
- NICE Clinical Guideline [CG173] - Neuropathic pain in adults: pharmacological management in non-specialist settings. Last updated September 2020, has the following recommendations:[23]
  - » Consider tramadol only if acute rescue therapy is needed.
  - » Do not start morphine or tramadol (for long term use) to treat neuropathic pain in non-specialist settings, unless advised by a specialist to do so.
- NICE Clinical Guideline [NG206] - Myalgic encephalomyelitis (or encephalopathy)/chronic fatigue syndrome: diagnosis and management. Published October 2021. The committee agreed that pain is a common symptom in people with ME/CFS and is particularly intense in people with severe or very severe ME/CFS. The lack of evidence meant they could not recommend any interventions, but they did refer to the NICE guidelines on neuropathic pain and headaches.[14]
- NICE Clinical Guideline [CG61] - Irritable bowel syndrome in adults: diagnosis and management. Last updated April 2017, has no recommendations for the use opioids.[24]

Appendix 3 is a summary of the opioid recommendations in NICE guidelines for secondary pain.

SIGN guidelines

The Scottish Intercollegiate Guidelines Network (SIGN) guideline 136 Management of chronic pain states that opioids should be considered for short to medium term treatment of carefully selected patients with chronic non-malignant pain, for whom other therapies have been insufficient, and the benefits may outweigh the risks of serious harms such as addiction, overdose and death. At initiation of treatment, ensure there is agreement between prescriber and patient about expected outcomes. If these are not attained, then there should be a plan agreed in advance to reduce and stop opioids.[25]

SIGN states that all patients receiving opioid doses of >50 mg/day morphine equivalent should be reviewed regularly (at least annually) to detect emerging harms and consider ongoing effectiveness. Pain specialist advice or review should be sought at doses >90 mg/day morphine equivalent.[25]

Wales guidance

The all Wales Pharmacological Management of Pain Guidance states that opioids should be prescribed in line with general good practice in prescribing and arrangements should be in place for regular monitoring and review. The key messages on opioids are:[26]

- 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 chronic pain.
- 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.
- The risk of harm increases substantially at doses above an oral morphine equivalent of 120mg a day, but there is no increased benefit.
- 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.
- Chronic 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.

NHS England

NHS England has published Optimising personalised care for adults prescribed medicines associated with dependence or withdrawal symptoms: Framework for action for integrated care boards (ICBs) and primary care to support people who are taking medicines associated with dependence and withdrawal symptoms. Five actions are listed for Integrated Care Systems:[6]

Action 1 – Personalised care and shared decision-making

Person-centred care should be embedded in service specifications and development plans to provide opportunities for healthcare professionals to practise personalised care, e.g. in dedicated clinics or using structured medication reviews (SMRs), where the clinician is working within their competence. During regular medication reviews and when considering prescribing, healthcare professionals should openly discuss with the patient (with consideration for their health literacy): intended outcome from prescribing; potential benefits, risk and harm of the treatment; decisions about whether to continue, stop or taper treatment.[6]

Action 2 – Alternative interventions to medicines

Prescribers should offer alternative interventions and services, where appropriate, to patients when a prescription for a medicine associated with dependence and withdrawal symptoms is first considered, or when the prescription is reviewed. Integrated Care Systems should ensure that alternative treatment options are available and that prescribers are aware of them.[6]

Consider providing a patient information leaflet on pain such as the Faculty of Pain Medicine leaflet, About Pain. This leaflet discusses non-medicine treatments for chronic pain, such as TENS machine, acupuncture, advice about activity and increasing physical fitness and psychological treatments such as Cognitive Behaviour Therapy, and meditation techniques such as mindfulness.

Action 3 – Service specification and change management

Integrated Care Systems task and finish groups (or similar) should ensure appropriate commissioning of services for patients taking medicines associated with dependence or withdrawal symptoms, including services for patients wishing to reduce or stop these medicines. Additionally, ensure that people with a role in service design, provision, monitoring and implementation have access to sufficient education and training on medicines associated with dependence and withdrawal symptoms, so they can meet their population's needs.[6]

Action 4 – Taking whole system approaches

A whole system approach and pathways involving multiple interventions should be used to improve care for people prescribed medicines associated with dependence and withdrawal symptoms. A service specification should set out the requirements for any commissioned services and should be produced in collaboration with other partners, including local authorities and third sector bodies. Service specifications to include such things as:

- Appropriate services for patients experiencing withdrawal symptoms from deprescribing of these medicines.
- Alternative treatments and services for prescribers to offer the right type and level of support for patients.
- A requirement to deliver local care using multidisciplinary teams.
- A requirement to use data on prescribing and localised health inequalities.[6]

Action 5 – Population health management

Primary care data on prescribing and localised health inequalities should be used to:

- Monitor access to services, patient experience and outcomes for communities within the Integrated Care Systems that often experience health inequalities.
- Help local areas prioritise.
- Identify key lines of enquiry.
- Inform action plans that prioritise and support patients at greatest risk of dependence and withdrawal.

Integrated Care Systems should ensure that processes are in place to identify and review medicines of patients who may have been taking them for longer than the evidence suggests is helpful.[6]

Clinical effectiveness

There are a large number of randomised control trials and systematic reviews that conclude that opioids may reduce pain for some patients in the short and medium term (usually less than twelve weeks) for a number of chronic painful conditions.[1]

- The trials included in these syntheses are sometimes large and without conventional sources of bias but the results need more detailed analysis to understand the role of opioids in routine clinical practice.
- This is important because in trials of opioids in chronic pain withdrawal rates due to adverse events are high. For example, with oxycodone in musculoskeletal conditions about 45% withdraw in the first three weeks, and about 65% overall.

Short term efficacy does not guarantee long term efficacy, data regarding improvement in quality of life with long term opioid use are inconclusive.[1]

There is no good evidence of dose-response with opioids, beyond doses used in clinical trials, usually up to oral morphine equivalent of 120mg per day.[1]

There is no evidence for efficacy of high dose opioids in long term chronic non-cancer pain.[1]

The NICE guideline committee found no evidence for effectiveness of opioids for chronic primary pain. Although there were limitations, evidence from non-randomised studies on the long term use (more than six months) of opioids for chronic pain suggested an increased risk of dependence. Based on their experience, the committee agreed that even short term use of opioids could be harmful for a chronic condition. The evidence of long term harm, along with lack of evidence on effectiveness of opioids, persuaded the committee to recommend against starting opioid treatment for people with chronic primary pain.[13]

Safety

Data regarding long term harms of opioids from randomised controlled trials are limited as most trials are of relatively short duration, although observational studies can provide more information.[1]

A retrospective large cohort study looked at the safety of opioids compared with non-selective non-steroidal anti-inflammatory drugs (NSAIDs), and selective cyclooxygenase-2 inhibitors (coxibs). Opioid use increased the relative risk of many of the outcomes studied. Unexpectedly, gastrointestinal tract bleeding was similar for non-selective NSAID users and opioid users, although it was lower for coxib users. Compared with non-selective NSAIDs, the relative risk for cardiovascular events (including myocardial infarction, heart failure) was higher for opioids than coxibs. Use of opioids was associated with an increased risk for side effects requiring hospitalisation compared with use of non-selective NSAIDs and all-cause mortality was higher for patients prescribed opioids.[1]

Long term harms of opioids include:

Fractures and falls[1]

There are an increased risk of fractures and falls which is particularly important in the elderly.

Endocrine system[1]

The long term administration of opioids is associated with endocrine abnormalities. Influences on both the hypothalamic-pituitary-adrenal axis and the hypothalamic-pituitary-gonadal axis have been demonstrated in patients taking oral opioids with consequent hypogonadism and adrenal insufficiency in both sexes. Hypogonadism and decreased levels of dehydroepiandrosterone sulfate have been reported in men and women. Endocrine effects are probably dose related and can lead to:

- Amenorrhoea in women.
- Reduced libido in both sexes.
- Erectile dysfunction in men.
- Infertility.
- Depression and fatigue.

Patients (particularly women of childbearing age) should be told about these effects before starting opioids.

Endocrine function should be monitored regularly if a patient reports symptoms consistent with potential dysfunction, such as decreased libido, sexual dysfunction or fatigue. (NB these symptoms can also occur as part of the presentation of chronic pain). Recommended tests include:

- Blood pressure.
- Electrolytes (especially if tramadol is used).
- Fasting glucose levels.
- Thyroid function tests.
- Serum testosterone, sex-binding globulin, LH/FSH and oestradiol levels.
- Bone density (in an ‘at-risk’ group).

If endocrine impairment is demonstrated, patients should be referred to an endocrinologist for advice regarding the benefits of hormonal replacement therapy. There is insufficient evidence to recommend routine monitoring of asymptomatic patients taking opioids in the long term for hormonal deficiencies.

Immune system[1]

Both animal and human studies have demonstrated that opioids have an immunomodulating effect.

These effects are mediated via opioid receptors both on immune effector cells and in the central nervous system. In animals, opioids have effects on antimicrobial response and anti-tumour surveillance. Opioids may differ in their propensity to cause immunosuppression. In animal studies, buprenorphine has demonstrated to have no impact on immune function. The relevance of these findings to the clinical use of opioids is not known.

Opioid induced hyperalgesia[1]

Both animal and human studies have demonstrated that prolonged use of opioids can lead to a state of abnormal pain sensitivity, sometimes called opioid induced hyperalgesia (OIH). The prevalence of OIH in clinical practice is unknown. There are neurobiological similarities between the symptoms of hyperalgesia and allodynia that typify neuropathic pain, OIH and opioid tolerance. Mechanisms for these phenomena relate to neuroplastic changes in the peripheral and central nervous system that lead to sensitisation of pronociceptive pathways.

Clinically, hyperalgesia may be diagnosed if the patient on long term opioid therapy presents with increased pain. This might be qualitatively and anatomically distinct from pain related to disease progression or to breakthrough pain resulting from development of opioid tolerance. Pain associated with hyperalgesia tends to be more diffuse than the pre-existing pain and less defined in quality. Management of OIH requires opioid dose reduction or changing to an alternative opioid preparation.

Dependence

Anyone on long term opioids will have dependence as they would experience withdrawal if treatment stopped abruptly, this is a physiological response to the having adapted to opioids being present. There is a difference between this and the psychological aspects of dependence. Care is needed around the language used as patient feedback is that they often feel labelled as an ‘addict’ and the stigma that comes with that label.

Dependence is characterised by both tolerance (the need for increasing doses to maintain the same effect) and withdrawal symptoms. Dependence is a common and well described property of a number of medicines and is not in itself a contraindication to continued or new prescribing. Dependence becomes clinically important if treatment reduction or cessation is needed.[15]

The people at increased risk of dependence on prescribed opioids are:[1,15]

- People who find the mood-elevating effects of opioids beneficial but have underlying psychological distress or diagnosed psychiatric illness. Any patient on long term opioids should be reviewed regarding their psychological health. This is especially true of those with a current or past history of psychiatric illness. In these cases, they warrant treatment for opioid dependence, but of equal importance is treatment of the underlying psychiatric condition.
- Those without psychological distress who find themselves dependent but are very willing to engage in reduction programs and further addiction treatment.
- Those with a history of alcohol or drug dependence who may or may not be willing to engage in further assessment or treatment.
- Not having a clear, defined diagnosis to support the prescription.
- Taking an opioid together with a benzodiazepine.

Long term epidemiological data show that patients with co-morbid mental health diagnoses or a history of addiction are more likely to receive opioids for pain and are more likely to be prescribed high doses, multiple opioids and other psychoactive drugs (e.g. benzodiazepines). This phenomenon has been described as ‘adverse selection’.[1]

Prescribers should take steps to reduce the risk of developing problems associated with dependence, for example starting at a low dose, and consider avoiding modified-release opioids. Make shared

decisions and discuss withdrawing an opioid with the person if problems associated with dependence have developed.[15] Indicators that suggest the possibility of dependence should be explored in patients on a long term opioid prescription. These are listed in appendix 1.

MHRA Drug Safety Updates

- Opioids: risk of dependence and addiction - September 2020. Advised healthcare professionals of new recommendations following a review of the risks of dependence and addiction associated with prolonged use of opioid medicines for non-cancer pain. Before prescribing opioids, discuss with the patient the risks and features of tolerance, dependence, and addiction, and agree together a treatment strategy and plan for end of treatment.[27]
- Transdermal fentanyl patches for non-cancer pain: do not use in opioid-naive patients - September 2020. Following a review of the risks associated with use of opioid medicines for non-cancer pain, the Commission on Human Medicines recommended that fentanyl transdermal patches are contraindicated in opioid-naive patients in the UK.[28]
- Gabapentin (Neurontin): risk of severe respiratory depression - October 2017. Advised that gabapentin has been associated with a rare risk of severe respiratory depression even without concomitant opioid medicines. Patients with compromised respiratory function, respiratory or neurological disease, renal impairment, concomitant use of central nervous system depressants, and elderly people might be at higher risk of experiencing severe respiratory depression. Dose adjustments might be necessary in these patients.[29]
- Pregabalin (Lyrica): reports of severe respiratory depression - February 2021. Advised that pregabalin has been associated with infrequent reports of severe respiratory depression, including some cases without the presence of concomitant opioid medicines. Patients with compromised respiratory function, respiratory or neurological disease, renal impairment; those using concomitant central nervous system depressants; and people older than 65 years might be at higher risk of experiencing these events and adjustments in dose or dosing regimen may be necessary.[30]
- Benzodiazepines and opioids: reminder of risk of potentially fatal respiratory depression - March 2020. This Drug Safety Update reminded healthcare professionals that benzodiazepines and opioids can both cause respiratory depression, which can be fatal if not recognised in time. Only prescribe together if there is no alternative and closely monitor patients for signs of respiratory depression.[31]

Duration of opioid therapy and review

Duration of therapy

The Faculty of Pain Medicine states that:[1]

- Patients who do not achieve useful pain relief from opioids within two to four weeks are unlikely to gain benefit in the long term.
- Patients who may benefit from opioids in the long term will demonstrate a favourable response within two to four weeks.
- Short term efficacy does not guarantee long term efficacy.
- Data regarding improvement in quality of life with long term opioid use are inconclusive.
- There is no good evidence of dose-response with opioids, beyond doses used in clinical trials, usually up to 120mg per day oral morphine equivalent. There is no evidence for efficacy of high dose opioids in long term chronic non-cancer pain.
- Increasing opioid load above this dose is unlikely to yield further benefits but exposes the patient to increased harm.

See attachment 1 - High dose opioid audit which identifies, and reviews people prescribed opioids greater than 120mg oral morphine equivalent daily.

Review

When looking at potential outcomes of reducing opioids, focus on function and quality of life, rather than pain scores e.g. activities of daily living, sleep, things a person would like to be able to do that pain/ opioid side effects interfere with.

People prescribed opioids should have a management plan documented in their medical records which include the strategy for regular reviews (by phone, video or face to face), where and by whom the review will be done and the date of their next review.[15] Documentation should also include:[1]

- Agreed outcomes of opioid therapy.
- The choice of drug, formulation, dose and duration of treatment.
- A maximum dose of drug should be defined at initiation, and this should not exceed oral morphine equivalent of 120mg per day.
- The circumstances under which opioid therapy should be discontinued.
- Arrangements for review.
- The information given to patients.

Regular reviews should be offered (by phone, video or face to face) to ensure that the benefits of the medicine continue to outweigh the potential harms and to check whether the dose needs to be adjusted and, if so, how to do this safely. The frequency of the review is based on the person's preferences and circumstances, the type of medicine they are taking and the dose.[15] Opioid treatment should be reviewed at least six monthly.[1] Consider tapering the dose at regular intervals e.g. 6-12 monthly, to assess benefit or potential side effects and to minimise risk of harm. Consider increasing the frequency of reviews during dose adjustment. Factors that might indicate a need for frequent reviews include:[15]

- The person has additional care needs (such as people with a learning disability or cognitive impairment).
- The person is taking the medicine for the first time.
- There are potential adverse effects or problems associated with dependence.
- The medicine is being used outside its licensed indications.
- There is potential for misuse of the medicine.

Take into account the person's clinical and support needs when agreeing review frequency.[15]

During the review, discuss with the person the benefits and risks of continuing the current dose, adjusting the dose or stopping the medicine. Base decisions on this discussion, taking into account, the benefits or harms the person is experiencing from continuing the medicine, any signs that the person is developing problems associated with dependence (such as running out of a medicine early, making frequent requests for dose increases or reporting loss of efficacy of a medicine that was previously working well – see appendix 1) and the person's preferences.[15]

Agree and update the management plan with the person after each review and give them a copy. Check that they know who to contact if they have problems or concerns.[15]

Switching opioids

Opioid switching may be considered if a patient obtains pain relief with one opioid but is suffering severe adverse effects and it is in-line with local guidance.[1] Occasionally it may be necessary to switch between opioids e.g. due to intolerance or to aid dose reduction.

Switching from one opioid to another should only be recommended or supervised by a healthcare practitioner with adequate competence and sufficient experience. If uncertain, ask for advice from a more experienced practitioner.[1]

When converting from one opioid to another:[1]

- The initial dose depends on the relative potency of the two drugs and route of administration.
- An individualised approach is necessary.
- Conversion factors are an approximate guide only because comprehensive data are lacking and there is significant inter-individual variation.*
- 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%.
- A dose reduction of at least 50% is recommended when switching at high doses (e.g. oral morphine equivalent doses of 500mg per 24 hours or more), in elderly or frail patients, or because of intolerable undesirable effects.
- The half-life and time to onset of action of the two drugs needs to be considered when converting so that the patient does not experience breakthrough pain or receive too much opioid during the conversion period.
- Once the conversion has occurred, the dose of new opioid should be titrated carefully according to individual response and the patient monitored closely for side effects and efficacy, especially when switching at high doses.
- Withdrawal symptoms (e.g. sweating, yawning, abdominal cramps, restlessness, and anxiety) occur if an opioid is stopped/dose reduced abruptly.

*Appendix 2 provides conversion rates and further links to opioid calculators.

Tapering or stopping opioids

If a person has pain that remains severe despite opioid treatment it means the opioid is not working and should be stopped, even if no other treatment is available. Tapering or stopping high dose opioids needs careful planning and collaboration.[1]

Recent studies suggest that tapering is associated with short-term risks of substance misuse, overdose, and mental health crisis extending up to two years after taper initiation, although lower opioid dose could reduce risks of adverse events over the longer term.[32] It is important to be aware of this and balance these risks with the potential benefits of opioid reduction. Healthcare professionals need to use the guidance on best practice for safe and effective opioid reduction in the context of patient centred care, taking into account each person's unique circumstances.

Making shared decisions about tapering or stopping opioids

When discussing tapering or stopping an opioid explain the benefits and risks the person can expect from reducing the medicine and aim to reach agreement using a shared decision-making approach. Allow enough time to explore the person's circumstances and preferences. Understand that the person might be reluctant or anxious about discussing problems associated with dependence. Reassure them that dependence is an expected effect of these medicines and that problems associated with dependence sometimes develop.[15]

As with switching opioids, withdrawal symptoms occur if an opioid is stopped or the dose is reduced abruptly.[1] It is important to taper or stop the opioid regimen if:[1,15]

- The medication is not providing useful pain relief and no longer benefitting the person.

- The dose of opioid is above 120mg oral morphine equivalent per 24 hours, because harms of treatment outweigh benefits above this dose.*
- Problems associated with dependence have developed.
- The underlying painful condition resolves.
- The patient receives a definitive pain-relieving intervention (e.g. joint replacement).
- The patient develops intolerable side effects.
- There is strong evidence that the patient is diverting his/her medications to others.
- The person wants to stop taking the medicine.[15]

*See attachment 1 - High dose opioid audit which identifies and reviews people prescribed opioids greater than oral morphine equivalent of 120mg daily.

Preparation for tapering or stopping opioids

When planning withdrawal from an opioid, take into account:[15]

- The urgency of the withdrawal, for example gradual withdrawal of a medicine that is no longer effective or necessary, or more rapid withdrawal of a medicine that is causing significant harm.
- Whether the initial goal should be complete withdrawal or, for people who find complete withdrawal too difficult, whether dose reduction with ongoing review is a more realistic initial aim.
- Which medicine to reduce first, if the person will be withdrawing from more than one medicine.
- Factors that might increase the person's risk of problems during withdrawal, including:
  - Long duration of medicine use
  - High dose of medicine
  - History of withdrawal symptoms
  - History of problems associated with dependence
- Any concurrent medicines and how these might affect the person's response to withdrawal.
- Factors that might influence the timing of the start of the dose reduction, such as the person's circumstances and available support.

A check list for use during a consultation when agreeing a dose reduction schedule is available in appendix 4. When agreeing a dose reduction schedule with the person:[1,15]

- Explain the rationale for stopping opioids including the potential benefits and risks of opioid reduction (avoidance of long term harms and improvement in ability to engage in self-management strategies).
- Explain the risk of abrupt discontinuation and that the rate of safe withdrawal varies between people and can vary over time for the same person.
- Discuss balancing the risk of adverse events from continued exposure to the medicine with minimising the risk of withdrawal symptoms by slow dose reduction and withdrawal.
- Discuss symptoms and signs of opioid withdrawal.
- Review and decide if the person may need admission to specialist services for opioid taper/cessation informed by existing opioid dose (see stopping opioids in collaboration with specialist services).
- Review any physical and mental health co-morbidities the person may have including significant emotional trauma.
- Suggest a slow, stepwise rate of reduction proportionate to the existing dose, so that decrements become smaller as the dose is lowered, unless clinical risk is such that rapid withdrawal is needed.

- Ensure that the planned rate of reduction is acceptable to the person and agree outcomes of opioid tapering.
- Ensure if using a published withdrawal schedule, it is applied flexibly to accommodate the person's preferences, changes to their circumstances and the response to dose reductions.
- Explain that although withdrawal symptoms are to be expected, the reduction schedule can be modified to allow intolerable withdrawal symptoms to improve before making the next reduction.
- Consider giving the person additional control over the process of dose reduction (for example, by issuing their usual daily dose in a form that allows them to reduce the amount in small decrements at a pace of their choosing, rather than issuing successive prescriptions for reduced daily doses).
- Agree regular intervals for reviewing and adjusting the reduction schedule as needed.
- Consider providing details of sources of peer support, national and local support groups for people who are withdrawing from a medicine. Define the role of drug and alcohol services to support dose reduction.
- Consider referring to a specialist if conversion to methadone or buprenorphine is required.
- During withdrawal, offer continued management of the underlying condition for which the medicine was prescribed.
- Agree arrangements for monitoring of pain levels and support required during opioid tapering.
- Ensure close collaboration between the patient, carers and all members of the patient's health care team.
- Ensure the plan for dose reduction or withdrawal is clearly recorded in the overall management plan and document agreement of tapering schedule.
- Ensure the person knows the arrangements for follow-up including agreed prescribing responsibilities and who to contact if problems occur.

The Faculty of Pain Medicine states that the dose of drug can be tapered by 10% weekly or every two weeks.[1] However, the rate of reduction may need to be slower so should be adapted to suit the individual's needs.

NICE guidelines on safe prescribing and withdrawal symptoms state do not stop a medicine abruptly (complete cessation with immediate effect) unless there are exceptional medical circumstances, such as the occurrence of serious side effects (for example, respiratory depression from an opioid). In these circumstances, consider:[15]

- Scheduling more frequent reviews.
- Short term use of medicines to treat the physical symptoms of withdrawal (for example, abdominal cramps and diarrhoea during withdrawal of an opioid).

It may sometimes be necessary to convert to oral morphine and then reduce the dose, but not in all instances. See appendix 2 for opioid equivalence to morphine, conversion rates and further links to opioid calculators. Table 1 lists morphine preparations which may aid reducing opioids by 10% weekly or over a longer period if required. Whilst Zomorph® is the most cost-effective morphine preparation, it may be necessary to use MST® Continus if 5mg or 15mg is required.[33,34]

Table 1: Morphine preparations availability and price per 60 capsules or tablets[33,34]

	Zomorph® MR capsules (Twice daily at 12 hourly intervals)	Morphgesic® SR tablets (Twice daily at 12 hourly intervals)	MST® Continus tablets (Twice daily at 12 hourly intervals)
5mg			**£3.29**
10mg	**£3.47**	**£5.20**	**£5.20**
15mg			**£9.10**
30mg	**£8.30**	**£12.47**	**£12.47**
60mg	**£16.20**	**£24.32**	**£24.32**
100mg	**£21.80**	**£38.50**	**£38.50**
200mg	**£43.60**		**£81.34**

Patients should be reviewed at least every two weeks when reducing their opioid.

The Faculty of Pain Medicine have information for patients which are available as printable leaflets. Click on the link below and scroll down for the leaflet:[1]

- About pain for patients
- Thinking about opioid treatment for pain
- Taking opioids for pain

Attachment 2, 'Opioid factsheet' is an opioid patient information leaflet which describes how to take opioids, the risks and benefits of taking opioids for chronic pain, when to stop opioids, managing expectations that people may not be pain free when taking opioids and that increasing doses is unlikely to be beneficial but can cause more harm.

Attachment 3, Information about stopping your opioid treatment, is a patient information leaflet to support people who plan to reduce or stop their opioid treatment.

Stopping opioids in collaboration with specialist services

People who are failing to derive benefit from large doses of opioids (greater than oral morphine equivalent of around 300mg per day) may need support from specialist services in order to reduce medication. This must include detailed exploration of emotional and mental health history (including addiction). Opioid tapering/cessation when patients are taking high doses is more likely to succeed if patients' emotional and mental health needs are identified and an appropriate plan for support established.[1]

Withdrawal symptoms

Dependence and addiction to opioids are associated with adverse reactions of withdrawal upon sudden cessation of treatment that make it harder to stop taking these medicines. Withdrawal from an opioid is characterised by shivers, diarrhoea, difficulty sleeping (insomnia), sweating, body aches (myalgia), widespread or increased pain, irritability and agitation, and nausea and vomiting. Other signs and symptoms include restlessness, lacrimation, rhinorrhoea, yawning, mydriasis, palpitations, anxiety, hyperkinesia, tremor, weakness, anorexia, abdominal cramps, and increased blood pressure, respiratory rate, and heart rate.[27]

NICE recommends that healthcare professionals discuss withdrawal symptoms with the person and tell them about the support that is available. When discussing withdrawal symptoms, explain that:[15]

- Withdrawal can be difficult and may take several months or more.
- Support will be available throughout the withdrawal process.

- Withdrawal symptoms do not affect everyone, and it is not possible to predict who will be affected.
- Withdrawal symptoms vary widely in type and severity, can affect both physical and mental health, may occur at any time during withdrawal or be delayed in onset and can change over time or persist over a prolonged period.
- Some people may experience withdrawal symptoms that can be difficult to distinguish from a re-emergence of their original symptoms or a new disorder, and it is important to discuss these with a healthcare professional if they occur.
- The following may indicate withdrawal symptoms rather than the re-emergence of symptoms of an underlying condition:
  - Rapid or early onset of symptoms after a dose reduction or cessation of the medicine.
  - Symptoms of the underlying illness that the person reports as qualitatively different or more intense than before.
  - New symptoms that the person has not experienced before.
- Use clinical judgement to determine the need for further investigation to rule out new pathology.
- If distressing symptoms occur or worsen after a dose reduction:
  - Determine whether they are withdrawal symptoms or a re-emergence of symptoms that were relieved by the medicine.
  - If the symptoms are new, think about delaying the next dose reduction, trying a smaller dose reduction or reverting to the previous dose.
- Do not treat withdrawal symptoms with another medicine that is associated with dependence or withdrawal symptoms.

A pain specialist advises to explain to patients that withdrawal symptoms are the body's physical response, and not something the person can control. They usually start from when a dose change is made and peak at around 3-4 days. After this the withdrawal symptoms will decline and settle at around 14 days; however, some effects may take longer to settle, especially if there is prolonged use of opioids. They also advise to discuss ways of managing withdrawal symptoms ahead of dose reduction and involve family and friends if appropriate. For example, discuss what is happening and why, focus on positive reasons for reducing, ideas for distraction and relaxation. Feedback received from patients is that what to expect from withdrawal symptoms is important and helpful.[35]

There are a number of resources available to signpost patients to including:

- Flippin' pain
- Live well with pain
- Painkillers don't exist campaign

Strategies if tapering or stopping opioids cannot be agreed or is unsuccessful

If a shared decision to withdraw cannot be reached and continuing the current prescription is not in the person's best interests, the prescriber should follow the advice on 'handling patient requests for medicines you don't think will benefit them' in the General Medical Council guidance: good practice in prescribing and managing medicines and devices.[15] The prescriber should:[15,36]

- Explore the reasons for the request, and the person's understanding of what it would involve and their expectations about the likely outcome.
- This discussion will help prescribers take account of the factors that are significant to the patient and assess whether providing the treatment or care could serve the patient's needs.
- Not prescribe a medicine if they believe it is not in the person's best interests.
- Explain the reasons for their decision to the person.
- Document all discussions carefully and give a copy to the person.

- Offer the person a second opinion.

If continued use of the medicine may be particularly harmful for the person or others (for example, in a secure setting) and a dose reduction, or a more rapid reduction than the person wishes, is the safest option, consider scheduling more frequent reviews and short term use of medicines to treat the physical symptoms of withdrawal, for example, abdominal cramps with mebeverine and diarrhoea with loperamide.[15,33]

If dose reduction has been unsuccessful (for example because of intolerable withdrawal symptoms or a change in the person's physical, mental or social circumstances) and the current prescription needs to be continued:[15]

- Aim to stop any further escalation in dose.
- Make a plan to attempt dose reduction again at a later date.
- Clearly record the advice given to the person about the potential harms of continuing the medicine, and the reasons for continuing without a reduction, in the management plan.

Cost

Data relates to NHSBSA (May-Jul23) and Public Health Scotland (Feb-Apr23).

£224million is spent annually on the prescribing of opioid medication in England, Wales, Isle of Man and Scotland. It is recommended to review opioid treatment with patients to determine if they are no longer providing useful pain relief or benefit or the adverse effects experienced outweigh the benefits of treatment. If these reviews result in a 10% reduction in opioid prescribing, **this would lead to savings of £18.7million in England, £1.2million in Wales, £34,914 in the Isle of Man and £2.5million in Scotland. This equates to £31,195 per 100,000 patients.**

The PrescQIPP pain clinical snapshot can be used to review organisational prescribing data for strong and weak opioids.

Additionally, inadequate management of side effects (intractable constipation, faecal impaction, bowel obstruction) and consequences of opioid treatment (falls, fractures and acute confusional state) may contribute to unplanned hospital admissions and contribute to the overall costs associated with opioid treatment.[1] As there is little evidence that opioids are helpful for long term chronic non-cancer pain, inappropriate prescribing should be tapered and stopped if no longer providing useful pain relief or benefit. If the dose of opioid prescribed is above 120mg oral morphine equivalent per 24 hours the harms of treatment outweigh benefits. A shared decision-making approach should be used to reduce and/or stop the high dose opioid.

Environmental cost

Reducing inappropriate opioid prescribing can also contribute to reductions in the NHS carbon footprint.[39]

Further PrescQIPP resources

Webkits and Bulletins:

- Pain Webkit
- Bulletin 164: Controlled drugs monitoring
- Bulletin 194: Co-proxamol
- Bulletin 199: Oxycodone/naloxone (Targinact®)
- Bulletin 208: Paracetamol and tramadol combination products
- Bulletin 213: Oxycodone

- Bulletin 215: Opioid patches
- Bulletin 252: Medicines without harm
- Bulletin 256: Dependence forming medications
- Bulletin 266: Tapentadol
- Bulletin 285: Fentanyl
- Bulletin 324: Combination analgesics

Innovation and best practice examples:

- Gold Award Winner - East Kent targeted high dose opioid reduction project (2022)
- Highly commended - Improving pain management pharmacotherapy in Doncaster (2022)
- Silver Award Winner - Pharmacist led chronic pain clinic (2021)
- Winner - Whole System Improvement in Opioid Safety using Opioid Reduction Pathway (2021)
- Silver Award Winner - Pain Support Programmes in Healthy Living Centres across Northern Ireland (2020)
- Silver Award Winner - 'Blue-folder clinics to facilitate reduction of inappropriate opioid, pregabalin, hypnotic and benzodiazepine prescribing to improve patient outcomes' (2019)
- Appropriately reducing opioid prescribing for chronic non-malignant pain in primary care (2019)
- Winner - High dose opiate reduction in Great Yarmouth and Waveney (2019)
- Medicines optimisation in chronic pain (2019)
- Highly commended - GP and Practice Clinical Pharmacist Opiate Reduction Clinic Project (2018)
- Big idea - Using nudges to reduce high dose opioid prescribing (2018)
- Pain Toolkit Workshops (2017)

Summary

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 chronic non-cancer pain.[1]

The risk of harm increases substantially at doses above an oral morphine equivalent of 120mg/day, but there is no increased benefit.[1]

As there is little evidence that opioids are helpful for long term chronic non-cancer pain, inappropriate prescribing should be tapered and stopped if no longer providing useful pain relief or benefit.

If the dose of opioid prescribed is above 120mg oral morphine equivalent per 24 hours the harms of treatment outweigh benefits. A shared decision-making approach should be used to reduce and/or stop the high dose opioid.

If a person has pain that remains severe despite opioid treatment it means the opioid is not working and should be stopped, even if no other treatment is available.[1]

Tapering or stopping high dose opioids needs careful planning and collaboration.[1] Agree a slow, stepwise rate of reduction of opioid proportionate to the existing dose, so that decrements become smaller as the dose is lowered, to prevent withdrawal symptoms.[16] The Faculty of Pain Medicine states that the dose of drug can be tapered by 10% weekly or every two weeks.[1] However, the rate of reduction may need to be slower so should be adapted to suit the individual's needs.

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Additional PrescQIPP resources

Briefing	https://www.prescqipp.info/our-resources/bulletins/bulletin-336-reducing-opioid-prescribing-in-chronic-pain/
Implementation tools	
Data pack	https://data.prescqipp.info/#/views/B336_Reducingopioidprescribinginchronicpain/FrontPage?:iid=1

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The use and application of this guidance does not override the individual responsibility of health and social care professionals to make decisions appropriate to local need and the circumstances of individual patients (in consultation with the patient and/or guardian or carer). Terms and conditions

Appendix 1: Indicators that suggest the possibility of dependence[1]

Indicators that suggest the possibility of psychological dependence should be explored in those on a long term opioid prescription:

- Long term prescribing of opioids for non-cancer conditions.
- Current or past psychiatric illness or profound emotional trauma.
- Reports of concern by family members or carers about opioid use.
- Concerns expressed by a pharmacist or other healthcare professionals about long term opioid use.
- Insistence that only opioid treatment will alleviate pain and refusal to explore other avenues of treatment.
- Refusal to attend or failure to attend appointments to review opioid prescription.
- Resisting referral for specialist addiction assessment.
- The repeated seeking of prescriptions for opioids with no review by a clinician.
- Repeatedly losing medications or prescriptions.
- Taking doses larger than those prescribed or increasing dosage without consulting the clinician; often coupled with seeking early replacement prescriptions. Associated with continued requests for dose escalations.
- Seeking opioids from different doctors and other prescribers. This can take place within GP practices, often identifying locum doctors or doctors unfamiliar with their case. This may be associated with attempting unscheduled visits.
- Obtaining medication from multiple different providers, NHS and private GPs, repeatedly and rapidly deregistering and registering with GPs, seeking treatment for the same condition from both specialists and GP; or seeking treatment from multiple specialists. This may be coupled with a refusal to agree to writing to the main primary care provider.
- Obtaining medications from the internet or from family members or friends.
- Resisting referrals to acute specialists about complex physical conditions or failing to attend specialist appointments.
- Appearing sedated in clinic appointments.
- Misusing alcohol or using illicit or over-the counter, internet or other prescribed drugs or a past history of alcohol or other drug dependence.
- Deteriorating social functioning including at work and at home.
- Resisting or refusing drug screening.
- Signs or symptoms of injecting opioids or snorting oral formulations.

References

1. Faculty of Pain Medicine of the Royal College of Anaesthetists. Opioids Aware: A resource for patients and healthcare professionals to support prescribing of opioid medicines for pain. https://fpm.ac.uk/opioids-aware

Appendix 2: Opioid equivalence to morphine

Table 1: Approximate equi-analgesic potencies of opioids for oral administration[1,2]

Oral drug	Potency	Equivalent dose to 10mg oral morphine
Codeine	0.1	100mg
Dihydrocodeine	0.1	100mg
Oxycodone	1.5	6.6mg
Tapentadol	0.4	25mg
Tramadol	0.1	100mg

Table 2: Transdermal opioids – approximate equivalence of buprenorphine patches with oral morphine[1,2]

Oral morphine mg/day	12	24	36	48	84	126	168
Transdermal buprenorphine micrograms/hour (mcg/hr) - change every seven days	5mcg/hr	10mcg/hr	15mcg/hr	20mcg/hr			
Transdermal buprenorphine micrograms/hour (mcg/hr) - change twice weekly-apply every 72 hours or 96 hours					35mcg/hr	52mcg/hr	70mcg/hr

Table 3: Transdermal opioids – approximate equivalence of fentanyl patches with oral morphine.[1,2]

Fentanyl patch dose (microgram/hour)	Oral morphine dose (mg/day)
12	30
25	60
37.5	90
50	120
75	180
100	240

Total oral morphine equivalent (OME) dose calculation

An opioid calculator is available from: Oxford University Hospitals opioid calculator.

- Click on 'edit a copy' to download an editable version.
- Add in the opioid dose and frequency in the respective boxes in the table.
- The total OME in mg/day is automatically calculated.

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%.[1]

References

1. Faculty of Pain Medicine of the Royal College of Anaesthetists. Opioids Aware: A resource for patients and healthcare professionals to support prescribing of opioid medicines for pain. https://fpm.ac.uk/opioids-aware
2. Joint Formulary Committee. British National Formulary (online) London: BMJ Group and Pharmaceutical Press. https://www.medicinescomplete.com/ accessed on 22/03/23.

Appendix 3 – Summary of NICE Guidance for secondary pain[1-9]

Guidance	Title	Recommendations including opioids
CG150	Headaches in over 12s: diagnosis and management.	• Do not offer opioids for the acute treatment of tension-type headache, for the acute treatment of migraine or for the acute treatment of cluster headache.
NG59	Low back pain and sciatica in over 16s: assessment and management.	• Do not offer opioids for managing chronic sciatica or chronic low back pain. • Do not routinely offer opioids for managing acute low back pain. • Consider weak opioids (with or without paracetamol) for managing acute low back pain only if an NSAID is contraindicated, not tolerated or has been ineffective.
NG100	Rheumatoid arthritis in adults: management.	• No recommendations for opioids.
NG226	Osteoarthritis in over 16s: diagnosis and management.	• Do not routinely offer weak opioids unless: » they are only used infrequently for short-term pain relief and » all other pharmacological treatments are contraindicated, not tolerated or ineffective. • Do not offer strong opioids to people to manage osteoarthritis.
NG65	Spondyloarthritis in over 16s: diagnosis and management.	• No recommendations for opioids.
NG73	Endometriosis: diagnosis and management.	• No recommendations for opioids.
CG173	Neuropathic pain in adults: pharmacological management in non-specialist settings.	• Consider tramadol only if acute rescue therapy is needed. • Do not start morphine or tramadol (for long term use) to treat neuropathic pain, unless advised by a specialist to do so.
NG206	Myalgic encephalomyelitis (or encephalopathy)/chronic fatigue syndrome: diagnosis and management.	• No recommendations for opioids. • Refer to CG173 and CG150 for advice on treating neuropathic pain or headaches
NG61	Irritable bowel syndrome in adults: diagnosis and management.	• No recommendations for opioids.

References

1. NICE. Headaches in over 12s: diagnosis and management. Clinical Guideline [CG150]. September 2012, last updated December 2021. https://www.nice.org.uk/guidance/cg150

2. NICE. Low back pain and sciatica in over 16s: assessment and management. November 2016, last updated December 2020. NICE Guideline [NG59]. https://www.nice.org.uk/guidance/ng59
3. NICE. Rheumatoid arthritis in adults: management. NICE Guideline [NG100]. July 2018, last updated October 2020. https://www.nice.org.uk/guidance/ng100
4. NICE. Osteoarthritis in over 16s: diagnosis and management. NICE Guideline [NG226]. Published October 2022. https://www.nice.org.uk/guidance/ng226
5. NICE. Spondyloarthritis in over 16s: diagnosis and management. NICE Guidelines [NG65]. February 2017, last updated June 2017. https://www.nice.org.uk/guidance/ng65
6. NICE. Endometriosis: diagnosis and management. NICE Guidelines [NG73]. Published September 2017. https://www.nice.org.uk/guidance/ng73
7. NICE. Neuropathic pain in adults: pharmacological management in non-specialist settings. Clinical Guideline [CG173]. November 2013, last updated September 2020. https://www.nice.org.uk/guidance/cg173
8. NICE. Myalgic encephalomyelitis (or encephalopathy)/chronic fatigue syndrome: diagnosis and management. NICE guideline [NG206]. October 2021. https://www.nice.org.uk/guidance/ng206
9. NICE. Irritable bowel syndrome in adults: diagnosis and management. Clinical Guideline [CG61]. February 2008, last updated April 2017. https://www.nice.org.uk/guidance/cg61

Appendix 4: Checklist for agreeing a dose reduction schedule[1,2]

Action	Completed Y/N
Explain the rationale for stopping opioids including the potential benefits and risks of opioid reduction.	
Explain the risk of abrupt discontinuation and that the rate of safe withdrawal varies between people and can vary over time for the same person.	
Discuss balancing the risk of adverse events from continued exposure to the medicine with minimising the risk of withdrawal symptoms by slow dose reduction and withdrawal.	
Discuss symptoms and signs of opioid withdrawal.	
Review and decide if the person may need admission to specialist services for opioid taper/cessation informed by existing opioid dose	
Review any physical and mental health co-morbidities the person may have including significant emotional trauma.	
Suggest a slow, stepwise rate of reduction proportionate to the existing dose, so that decrements become smaller as the dose is lowered.	
Ensure that the planned rate of reduction is acceptable to the person and agree outcomes of opioid tapering.	
Ensure if using a published withdrawal schedule, it is applied flexibly to accommodate the person's preferences, changes to their circumstances and the response to dose reductions.	
Explain that although withdrawal symptoms are to be expected, the reduction schedule can be modified to allow intolerable withdrawal symptoms to improve before making the next reduction.	
Consider giving the person additional control over the process of dose reduction (for example, by issuing their usual daily dose in a form that allows them to reduce the amount in small decrements at a pace of their choosing).	
Agree regular intervals for reviewing and adjusting the reduction schedule as needed.	
Consider providing details of sources of peer support, national and local support groups for people who are withdrawing from a medicine.	
Define the role of drug and alcohol services to support dose reduction.	
Consider referring to a specialist if conversion to methadone or buprenorphine is required.	
During withdrawal, offer continued management of the underlying condition for which the medicine was prescribed.	
Agree arrangements for monitoring of pain levels and support required during opioid tapering.	

Ensure close collaboration between the patient, carers and all members of the patient's health care team.	
Ensure the plan for dose reduction or withdrawal is clearly recorded in the overall management plan and document agreement of tapering schedule.	
Ensure the person knows the arrangements for follow-up including agreed prescribing responsibilities and who to contact if problems occur.	

References

1. Faculty of Pain Medicine of the Royal College of Anaesthetists. Opioids Aware: A resource for patients and healthcare professionals to support prescribing of opioid medicines for pain. https://fpm.ac.uk/opioids-aware
2. NICE. Medicines associated with dependence or withdrawal symptoms: safe prescribing and withdrawal management for adults. NICE guideline [NG215]. April 2022. https://www.nice.org.uk/guidance/ng215