Derbyshire Medicines Management UPDATE

www.derbyshiremedicinesmanagement.nhs.uk

OXYCODONE – ANY BETTER THAN MORPHINE?

Date Updated: March 2017

WHAT IS THE PROBLEM?

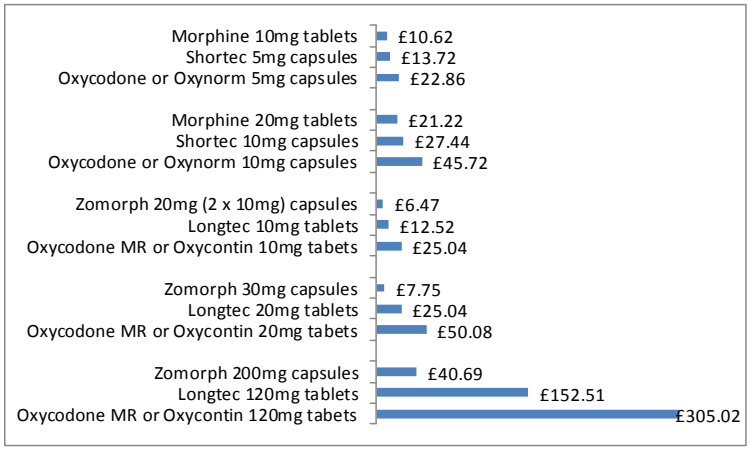
Oxycodone is a strong opioid similar to morphine. It has a comparable analgesic effect though it is around 1.5 times more potent, probably because it has better bioavailability than morphine. However oxycodone costs several times more than morphine and at higher doses, up to six times as much. The highest strength of oxycodone MR can cost over £3,900 for a year's supply (120mg twice daily). During 2016 primary care in Derbyshire spent over £720,000 on oxycodone. If half of this had been prescribed as morphine significant savings would be achieved could have been available for other treatments.

MAJOR CONSIDERATIONS

- The BNF states that oxycodone has an efficacy and side effect profile similar to that of morphine. Traditional use of oxycodone has been as a strong opioid in palliative care (see NICE guidance), but its use in chronic non-cancer pain is increasing (recent SIGN guidance here).
- The analgesic effect of oxycodone is similar to other strong opioids. It is available as liquid, immediate-release (IR) and modified release (twice daily) preparations. Some of the names of these are similar which has led to prescribing and dispensing errors – for example Oxynorm® is immediate-release oxycodone, Oxycontin® is the modified release (MR) product. Sudden death has been reported in a patient taking the MR product four times a day and over 800 incidents involving the drug were reported in a 2 year period from 2010 to 2012. See overleaf for further safety information.
- Oxycodone liquid is available as 5mg/5ml and 10mg/ml (i.e. 50mg/5ml) strengths. Prescribers should double-check that they have selected the correct strength.
- There are now many branded generic formulations of oxycodone IR and MR available (e.g.Shortec® and Longtec® respectively are the preferred brands in Derbyshire); these are significantly cheaper than the originator brand (around 30% less) and should be used in preference to the brand leader if oxycodone is considered preferable to morphine in an individual patient.
- There is significant potential for abuse and/or diversion of oxycodone. Great caution is needed when prescribing to patients with a history of drug abuse and prescribers should be wary of unsolicited requests for the drug.
- Derbyshire JAPC guidelines on pain management can be found here.
- A new on-line resource for prescribers and patients is available from the faculty of pain medicine to support prescribing of opioid medicines for pain. "Opioids Aware" can be found here
- Targinact (oxycodone + naloxone) is classified as **black** in Derbyshire.

WHAT ARE THE COSTS?

(28 days, drug tariff March 2017, MIMS Dec 2016)



NB: Cost comparisons are for illustration only and should not be assumed to imply dose equivalence. Oxycodone is approximately 1.5 times as potent as morphine. Patients should be monitored closely if any changes in dose or formulation are made.

KEY MESSAGES

- **Oxycodone is a potent opioid analgesic with similar properties to morphine.**
- **Oxycodone is much more expensive than equivalent doses of morphine and should be generally reserved for second line use where morphine is ineffective or not tolerated.**
- **Many branded generics of oxycodone are now available. These are cheaper than Oxycontin® but still cost more than morphine. Use brand names for clarity when prescribing strong opioids such as oxycodone. Consider adding "This is a brand of oxycodone" to the directions.**
- **Mistakes have occurred in prescribing and dispensing of similar-sounding brand names of immediate-release and modified-release oxycodone, resulting in overdose.**
- **Mistakes have occurred in prescribing and dispensing the concentrated liquid (10mg/ml) instead of the 5mg/5ml strength.**
- **All opioids have the potential for abuse and/or diversion to illicit use.**

Derbyshire Medicines Management UPDATE

www.derbyshiremedicinesmanagement.nhs.uk

OXYCODONE – ANY BETTER THAN MORPHINE?

Date Updated: March 2017

Supporting Information

Relative Potency

The BNF gives the potency ratio of morphine: oxycodone as 1.5 to 1, although product literature for oxycodone (SPC for Oxynorm®) suggests a 2:1 ratio when converting patients from morphine to oxycodone. No information is provided on the ratio to use when switching patients away from oxycodone to other opioids. This difference is probably due to oxycodone having a better bioavailability than morphine; the Palliative Care Formulary (PCF-4)[1] says that bioavailability of oxycodone is about 75%, and for morphine it is around half that.

Note that patients should be monitored closely if there are any changes in dose or type of opioid they are taking. Prescribing information should be consulted before starting patients on strong opioids, use low doses initially, particularly in opioid-naïve patients.

Efficacy

There is little good evidence of efficacy of long term use of opioids to treat chronic non-malignant pain.[2] SIGN guidance has recently been released for management of chronic pain which confirms this.[3]

*The Scottish Medicines Consortium (SMC) recommended that oxycodone prolonged release should be restricted to use in patients with severe non-malignant pain requiring a strong opioid analgesic in whom controlled release morphine sulphate is ineffective or not tolerated.[4] Guidelines on the medicines management website[5] reiterate this. Guidelines are available on the treatment of **neuropathic pain**, **non-malignant chronic pain** and **choice of strong opioids for cancer pain**.*

Oxycodone has been suggested to act on a different opioid receptor type to morphine (i.e. kappa- or k-receptors rather than mu receptors), though this is controversial according to the Palliative Care Formulary (PCF-4). In practice the analgesic effect is similar to other strong opioids.[1]

Safety

The hyperlink from '800 incidents' overleaf is to a CQC document which, amongst other things, lists 6 points to be aware of when prescribing oxycodone. These include: oxycodone should only be used as a 2nd line strong opiate; dose increases should not normally be more than 50% higher than the previous dose; confirm that the appropriate formulation is being used (e.g. fast or slow acting) – significant risk of overdose if the wrong product is used; check for duplication – previous drugs/doses may have meant to have been cancelled; confirm any use of concentrated products – significant risk of overdose if a concentrate product is used in error; any 'as required' medicines should have clear instructions regarding dose frequency.

References

1. Twycross et al. Palliative care formulary PCF-4 PalliativeDrugs.com Ltd, 2011; p424 (oxycodone monograph).
2. Kissin I. J Pain Res 2013:6 513–529, accessed via http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3712997/pdf/jpr-6-513.pdf
3. SIGN guidance 136: Management of chronic pain (Dec 2013), accessed via http://www.sign.ac.uk/pdf/SIGN136.pdf, accessed May 2014
4. SMC 2005. Verdict on Oxycontin, accessed via this link, May 2014
5. Derbyshire Medicines Management website can be found here