**VERDICT & SUMMARY**

Oxycodone (controlled release)  
(*Oxycontin®*)

**Committee’s Verdict:** CATEGORY A (Q3) (cancer-related pain)  
CATEGORY B (Q3) (non-cancer pain)

**BNF:** 4.7.2

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**Cancer-related pain:** Controlled release (CR) oxycodone is suitable for prescribing in primary care as a second-line option in patients in whom morphine sulphate is inappropriate or not tolerated.

**Category A:** suitable for prescribing in primary care

**Non-cancer pain:** CR oxycodone should be initiated and stabilised in secondary care, or by a prescriber with a special interest in chronic pain management. It is then suitable for prescribing in primary care.

**Category B:** suitable for restricted prescribing under defined conditions

**Q3 rating:** The evidence for the efficacy of CR oxycodone as an analgesic was relatively strong. CR oxycodone was of similar efficacy to morphine or hydromorphone in a meta-analysis of patients with cancer-related pain. In non-cancer pain, two open-label RCTs showed CR oxycodone to be of similar or slightly less efficacy than morphine. Five double-blind RCTs showed that CR oxycodone was a significantly better analgesic than placebo. The place in therapy of CR oxycodone is second-line after morphine, in patients in whom morphine is inappropriate or not tolerated.

The Q rating relates to the drug’s position on the effectiveness indicator grid. The strength of the evidence is determined by the quality and quantity of studies that show significant efficacy of the drug compared with placebo or alternative therapy. Its place in therapy in primary care takes into account safety and practical aspects of using the drug in primary care, alternative options, relevant NICE guidance, and the need for secondary care input.

MTRAC reviewed CR oxycodone because of increased potential for prescribing in primary care.

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**Licensed indications**

Controlled release (CR) oxycodone is licensed for:

- the treatment of moderate to severe pain in patients with cancer and post-operative pain
- the treatment of severe pain requiring the use of a strong opioid

**Background information**

The International Association for the Study of Pain has defined pain as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage.” Pain is frequently triggered by a noxious stimulus such as injury, or disease such as cancer. It may also be triggered by lesions in the peripheral or central nervous system.

A telephone survey conducted in 15 European countries and Israel with 46,394 respondents found that, in the UK (3,800 respondents), the prevalence of chronic pain was 13%.

A wide range of agents are used to treat pain including non-steroidal anti-inflammatory agents (NSAIDs), paracetamol, antidepressants, anticonvulsants and opioids. Opioids mediate their actions by acting as agonists at endogenous opioid receptors. The World Health Organisation (WHO) recommends opioids for the management of moderate to severe pain due to cancer. Opioids are also sometimes used to manage chronic, severe non-malignant pain although their use has been controversial because repeated administration may cause dependence and tolerance. Side effects with opioids are common and include constipation, nausea, vomiting, dry mouth and biliary spasm. Constipation is the most common adverse effect of long-term opioid therapy.

The randomised controlled trials (RCTs) that evaluated oxycodone for the treatment of moderate to severe chronic pain all used the CR formulation, first launched in 2000.

**Clinical efficacy**

Eight studies evaluated the efficacy of CR oxycodone in patients with moderate to severe chronic pain: a meta-analysis of trials of cancer-related pain, and seven RCTs evaluating CR oxycodone for chronic back pain, osteoarthritis-related pain and post-herpetic or diabetic neuropathic pain. In most trials, the dose of CR oxycodone was titrated up from 10 mg twice daily to a dose giving adequate pain relief.
Cancer-related pain
The meta-analysis (four trials, total n = 222, duration of treatment 10 to 20 days) compared CR oxycodone with CR oral morphine (three trials) or CR hydromorphone (one trial) in patients with cancer-related pain. The analysis found no statistically significant difference in mean pain intensity scores between treatments.

Non-cancer pain
Two randomised, open-label trials compared CR oxycodone with morphine sulphate; one trial in patients with any non-malignant pain (back, neck or limb pain, arthralgia, or osteoarthritis), and one in patients with chronic back pain. In the first trial, 97 patients were evaluated after 24 weeks’ treatment. There was no statistically significant difference between treatments in improvement in pain measures from baseline. Only the improvement in morphine sulphate-treated patients was considered to be clinically relevant. In the second trial, in 266 patients whose pain control improved during initial dose titration, morphine sulphate treatment showed significantly greater improvement in pain measures than CR oxycodone during an eight-week evaluation phase (p = 0.02).

Two double-blind RCTs evaluated CR oxycodone in patients with osteoarthritis-related pain (total n = 216). In the first trial, a two-week double-blind phase was followed by up to 18 months’ open-label treatment. The second trial was of three months duration. In both trials, CR oxycodone showed significantly greater improvements in pain intensity scores and quality-of-life measures than placebo. Improvements in pain scores were sustained during the open-label extension phase in the first trial.

Three double-blind RCTs evaluated CR oxycodone in patients with diabetic or postherpetic neuropathic pain (n = 242; 6 or 8 weeks). All three studies showed a significantly greater analgesic effect with CR oxycodone than with placebo. Results for quality of life (using SF-36), reported in two trials, were inconsistent. One found significantly greater improvements with CR oxycodone treatment than placebo and the other did not.

Adverse events
Adverse events commonly reported in the trials were those usually associated with opioid use: constipation, somnolence, nausea and dizziness. See the Summary of Product Characteristics (SPC) for full details of adverse events.

Additional information
- CR oxycodone is available in liquid, oral tablet, and capsule formulations and a range of strengths. The initial starting dose is 10 mg twice daily, titrated to achieve adequate pain relief. The maximum recommended dose is 200 mg/day but higher doses have been used. See the SPC for full details of doses.
- At current prices, a year’s treatment with CR oxycodone 10 to 200 mg 12-hourly costs £325 to £6,496.

References