

TOPICAL MORPHINE IN PALLIATIVE CARE (Information Sheet)

Topically applied morphine can be used as an additional analgesic route for the management of wound pain in palliative care patients e.g., fungating wounds and pressure ulcers. These guidelines have been devised to answer some of the frequently asked questions about the use of topical morphine. If considering the use of topical morphine please liaise with a specialist palliative care team.

HOW DOES IT WORK?

The number of peripheral opioid receptors increases in nociceptive afferent nerve fibres in the presence of local inflammation (Smith, 2008; Ribeiro MD et al, 2004; PCF7, 2020)). Topical morphine has successfully been used to relieve intractable pain associated with cutaneous ulceration, often decubitus ulcers (Twillman et al 1999; Zeppetella, & Ribeiro 2005). Opiates may successfully modulate the experience of pain by binding to opioid receptors on sensory nerve terminals located at the periphery (Twillman et al 1999) It is likely opioids also work indirectly by decreasing inflammation caused by the wound and by optimising opioid concentration at the site of pain.

WHEN WOULD I USE IT?

On any broken skin surface which is causing moderate to severe pain e.g. pressure ulcer, fungating wound. It will not work on deeper wounds where opiate receptors are absent. The aim should be for symptom management rather than wound healing.

It can be used on opioid naive patients, where the introduction of systemic opioids would be inappropriate, or is refused by the patient. It can also be used for patients already taking opioids, where (a) side effects prevent adequate increase of the systemic dose or (b) pain relief remains inadequate.

WHY USE TOPICAL MORPHINE?

It is an effective topical opioid analgesic that can be applied to inflamed or open skin lesions and can be useful where other options for pain relief have been exhausted. Locally applied morphine acts peripherally rather than centrally and systemic absorption is limited if at all, so it is possible to achieve analgesic effect with fewer of the side effects commonly associated with parenteral opioids (Flock 2003).

HOW LONG AN ANALGESIC EFFECT WILL IT HAVE?

This varies from patient to patient depending on the type of the wound. Analgesic effect can occur within one hour of application, and although duration of action remains unclear it can range from 2 to 48 hours (Flock 2003).

HOW DO I APPLY IT TO THE WOUND?

It is often given as a 0.1% (1mg/ml) gel, using IntraSite®. This preparation can be made by:

- 1) Thoroughly mix 1ml of morphine sulphate 10mg/ml for injection with a sachet of IntraSite® 8g gel.
- 2) The amount of gel varies according to the size and the site of the ulcer, but is typically 5-10ml of IntraSite® 8g applied b.d.-t.d.s.
- 3) The topical morphine is kept in place with either a non-absorbable pad or dressing eg Opsite or Tegaderm (PCF7, 2020) Other morphine 0.2% ointments and gels have been locally prepared (Cialkowska-Ryska, A and Dzierzanowski, T, 2019)
- 4) When redressing the wound the Intrasite® gel should be washed off with sodium chloride 0.9% before reapplying the next dose.

HOW OFTEN CAN I USE IT?

The topical morphine can be reapplied b.d. – t.d.s.

The prescription should be reviewed after 3-7 days

Continue topical morphine unless: Contra-indications arise, patient does not wish to continue with treatment, suitable long-term alternatives are arranged (e.g. Nerve block) or topical analgesia no longer required.

Pain reduced:

Continue applications of topical morphine but consider:

- * Could applications be reduced to alternate days (if being used daily)?
- * Could applications be decreased (b.d. or daily if being used t.d.s.)?
- * Could systemic analgesics be reduced?

Pain not reduced:

Stop use of topical morphine and consider alternative options or contact the Specialist Palliative Care team

HOW DO I PRESCRIBE?

Prescribe on the patients drug chart as per medicines protocol and administer in accordance with other controlled drugs.

“Morphine Sulphate 10mg in IntraSite® gel 8g”

POTENTIAL SIDE EFFECTS?

Very few side effects have been reported in the literature regarding the use of topical morphine. However, the potential exists for systemic absorption, patients should be closely monitored for opioid side effects, especially if taking opioids orally at the same time. Some patients complain of pruritus with the application, Intrasite® gel which contains propylene glycol, this has been reported to be a potential irritant and sensitizing agent in a small number of patients.

WHAT HAPPENS IF THE PATIENT IS BEING DISCHARGED HOME?

The use of topical Morphine is unlicensed therefore you need to check with the District Nursing team and GP that they are happy to carry on this treatment.

IS THERE ANY RESEARCH TO PROVE IT IS EFFECTIVE?

There are some articles available, but it is generally recognised that it is an area that needs to be further researched. A reference list is below of some useful articles/information.

REFERENCES: -

- Smith, HS (2008) Peripherally-acting opioids Pain Physician11:S121-132
- Ribeiro, MD et al (2004) The bioavailability of morphine applied topically to cutaneous ulcers Journal of Pain and Symptom management 27:434-439.
- Zeppetella, G; Ribeiro, MD (2005) Morphine in intrasite gel applied topically to painful ulcers Journal of Pain and Symptom management. 29:118-119
- Flock, P (2003) Pilot study to determine the effectiveness of diamorphine gel to control pressure ulcer pain. Journal of Pain & Symptom Management. 25 (6) pp547-554
- Cialkowska-Rysz, A; Dzierzanowski, T (2019) Topical morphine for treatment of cancer related painful mucosal and cutaneous lesions:a double blind, placebo-controlled cross over clinical trial. Archives of medical science:AMS. 15:146-151
- Twillman, R. Long, T. Cathers, T. Mueller, D (1999) Treatment of painful skin ulcers with topical opioids. Journal of Pain & Symptom management. 17 (4) pp288-292.

- Wilcock, A. Howard, P. Charlesworth, S. (2020) Palliative care Formulary 7th ed. P 404
- www.palliativesdrugs.com documents library guidance written by St Christopher's Hospice, 2015 and East Lancashire Medicine Management Board, 2013.

Any other queries please contact your local Palliative Care Team on

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