# Articles of Interest
# Literature Review

**Reviewers**

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## The Paths from Research to Improved Health Outcomes

**Authors:** Glasziou P, Haynes B

**Publication:** *Evidence-Based Medicine*. 2005;10:4-7.

**Reviewer:** Heather L. Orsted, RN, BN, ET, MSc

What happens when McMaster meets Oxford? This is an interesting discussion paper on how evidenced-based medicine (EBM) "should not just be concerned with clinical content but also about the processes of changing care and systems of care." Glasziou and Haynes simply ask clinicians to look at two aspects of EBM: you need to get the evidence *straight* and you need to get the evidence *used*.

One key point in this paper is that the discussion does not end with clinicians getting the information; it also involves getting patients to adhere to practice based on the evidence. This paper also includes a diagram depicting the research-to-practice pipeline, which is appealing for visual learners.

This is a very useful paper for the clinician struggling to support a shift toward best practice.

Further to this article, Glasziou and Haynes are on the team that has recently published *Evidenced-Based Medicine: How to Practice and Teach EBM*, Third Edition.*

*Straus S, Scott Richardson W, Glasziou P, Haynes RB. *Evidence-Based Medicine*, Third Edition. Edinburgh: Elsevier Churchill Livingstone. 2005.

## Analgesic Effects of Topical Methadone: A Report of Four Cases

**Authors:** Gallagher RE, Arndt DR, Hunt KL

**Publication:** *Clinical Journal of Pain*. 2005;21(2):190-192.

**Reviewer:** Leah Shapera, RN, MSN, GNC(c)

The objective of this case series was to find both an opioid and a delivery system that would provide lasting pain relief between dressing changes for patients with open wounds. While studies have shown that topical morphine (often mixed with a gel) can be applied to open wounds to achieve a degree of pain relief, there is significant variation reported in the duration of pain relief achieved. This means that relief will not consistently last between daily dressing changes, which makes it generally unsuitable for the palliative care population.

In this study, four cases are presented. In each case, methadone powder (100 mg) mixed in absorbent protective powder (10 g) is sprinkled on the open wound once daily at the time of each dressing change.

The authors found that the best results were achieved when using the topical preparation on more exudative wounds with exposed tissue. Drier wounds with eschar showed less positive response, as the powder mixture tended to adhere to the wound beds. There were no reported or observed adverse effects from the topical methadone, nor did the mixture interfere with wound healing. As the authors point out, it has been noted that opioids may actually reduce wound inflammation, which would help with both pain and tissue repair.

In the last case presented, the patient did not experience any analgesic effect from the methadone mixture (after multiple attempts). This same patient had no significant improvement with oral methadone either. In this case the authors presumed that the patient did not have opioid receptors sensitive to methadone, and point out how this illustrates that "peripheral opioid receptors of an individual are from the same population as that individual's central receptors."

In summary, this short case series demonstrates that topical methadone is absorbed and can be effective in controlling pain in exudating wounds with exposed tissue. The degree of topical absorption is variable and likely somewhat dependent upon the site of the wound, the amount of eschar, and the degree of local peri-wound circulation.

It would be important for this study to be replicated with a larger sample size. Additionally, studying the effects of the topical methadone mixture used could be extended to populations other than palliative care. Nonetheless, the authors are to be commended for their innovative efforts in searching for new and more effective methods of pain management, as these are desperately needed to improve the comfort and quality of life for patients with wounds.

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## Processus de validation d'une traduction française … *suite de la page 28*


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