

## An Overview of Systematic Reviews on Palliative Care for Cancer Pain

Nisha Rani Jamwal<sup>1</sup>, Senthil P Kumar<sup>2</sup>

**Author's Affiliation:** <sup>1</sup>Post-graduate student,<sup>2</sup>Professor & Principal, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation (MMIPR), Maharishi Markandeshwar University (MMU), Mullana University Road, Mullana, Ambala, Haryana- 133 207.

**Corresponding Author:** Senthil P. Kumar, Professor & Principal, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation (MMIPR), Maharishi Markandeshwar University (MMU), Mullana University Road, Mullana, Ambala, Haryana- 133 207

E-mail: [senthilparamasivamkumar@gmail.com](mailto:senthilparamasivamkumar@gmail.com)

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### Abstract

This article sought to determine the evidence summary for palliative care of cancer pain through a descriptive overview of published systematic reviews. There were systematic reviews found on chronic pain management in breast cancer, opioids (spinal opioids), oral morphine, quality of life concerns and reporting status in journals. The few included systematic reviews provide insufficient evidence to base recommendations for evidence-based palliative care for cancer patients with pain.

**Keywords:** Evidence-Based Oncology; Evidence-Based Palliative Care; Evidence-Based Anesthesiology; Pain Management.

### Breast cancer

The Steering Committee on Clinical Practice Guidelines for the Care and Treatment of Breast Cancer, Canadian Society of Palliative Care Physicians and Canadian Association of Radiation Oncologists [1] provided recommendations for optimal chronic pain management strategies in breast cancer based upon a systematic review as follows:

"The nature and severity of pain should be carefully evaluated using the history and physical examination. Psychosocial and emotional factors must also be identified. Adequacy of pain control should be evaluated regularly. The first objective in the management of pain due to cancer is to identify the cause and treat it whenever feasible. The first priority of treatment is to control pain rapidly and

completely, as judged by the patient. The second priority is to prevent recurrence of pain. The administration of analgesic medication should be based on a regular schedule, around the clock, with additional doses for breakthrough pain when necessary. When drug therapy is necessary, the World Health Organization (WHO) 3-step approach to the use of analgesics is recommended. The oral route should be the first choice for opioid administration. If the oral route fails, transdermal or rectal administration should be considered. When parenteral administration is necessary, the intravenous or subcutaneous routes can be used according to circumstances. Intramuscular administration of opioids is not recommended. Careful observation and titration are required when switching from 1 opioid to another, particularly when the patient is already receiving a high dosage. When converting a patient from long-term oral use of morphine or hydromorphone to parenteral use, a ratio of 3:1 should usually be employed. (This ratio increases to 6:1 for opioid-naïve patients.) After initiating morphine or making any change of dose or route of administration, the dosage should be evaluated after approximately 24 hours. Tolerance to opioids must not be confused with physical dependence or psychological dependence (so-called "addiction"). Patients should be made aware of possible side effects of medications and should be encouraged to maintain a diary for recording medications taken, dosages and adverse events. Adjuvant analgesics should be administered, when necessary, with an opioid or non-opioid analgesic. Noninvasive measures such as psychosocial interventions and physical modalities may bring significant relief. Neuro-invasive procedures are

rarely required and should only be considered when other interventions have failed.”

## Opioids

King et al [2] performed a systematic literature review for developing guidelines for opioid use in renal impairment and cancer pain as part of the European Palliative Care Research Collaborative Opioid Guidelines project. The authors searched Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials, MedLine, EMBASE and CINAHL Opioids considered for review were morphine, diamorphine, codeine, dextropropoxyphene, dihydrocodeine, oxycodone, hydromorphone, buprenorphine, tramadol, alfentanil, fentanyl, sufentanil, remifentanil, pethidine and methadone. The authors identified 15 original articles- eight prospective and seven retrospective clinical studies, and no randomized controlled trials. No results were found for diamorphine, codeine, dihydrocodeine, buprenorphine, tramadol, dextropropoxyphene, methadone or remifentanil. The authors concluded by identifying Fentanyl, alfentanil and methadone as the least likely to cause harm when used appropriately. Morphine was hypothesized to be associated with toxicity in patients with renal impairment.

## Spinal opioids

Kurita et al [3] undertook a systematic review to revise European Association for Palliative Care guidelines on the use of opioids for cancer pain, by searching PubMed, Embase and Cochrane and selected 44 articles—nine randomized controlled trials (RCTs), two non-randomized cohort studies, 28 uncontrolled prospective studies, and five case series. Relief of pain and/or side effects were reported in 42 articles, most of them of poor quality thereby providing weak recommendation for using spinal opioids in adult cancer patients.

### Oral morphine

Caraceni et al [4] performed a systematic review within the European Palliative Care Research Collaborative guidelines by searching on MedLine, EMBASE and Cochrane Central Register of Controlled Trials databases, and included 17 eligible studies, on a total of 2053 patients, for meta-analysis.

Oral morphine, oxycodone and hydromorphone were found to have similar efficacy and toxicity in this patient population.

## Quality of life concerns

Payne et al [5] performed a qualitative literature review to identify racial disparities in the palliative care of patients with cancer and their impact on quality of life for African-American women by searching Medline and concluded that there were differences in treatment patterns, pain management, and the use of hospice care between African-American women and women in other ethnic groups.

## Research

Kumar [6] performed a systematic review and a quantitative analysis of research publications in palliative care journals on cancer pain by searching MEDLINE and CINAHL and found 92 articles on cancer pain out of selected 1,569 articles published in the journals at only 5.86%.

There were systematic reviews found on chronic pain management, opioids (spinal opioids), oral morphine, quality of life concerns and reporting status in journals. The few included systematic reviews provide insufficient evidence to base recommendations for evidence-based palliative care for cancer patients with pain.

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