TITLE: Metered Pump Aerosolizing Devices for Opioid Administration: Clinical Effectiveness and Guidelines

DATE: 01 March 2016

RESEARCH QUESTIONS

1. What is the clinical effectiveness of metered pump aerosolizing devices for the administration of opioids for pain or dyspnea relief?

2. What are the evidence-based guidelines for the use of metered pump aerosolizing devices for the administration of opioids for pain or dyspnea relief?

KEY FINDINGS

No relevant studies or guidelines were identified regarding the use of metered pump aerosolizing devices for the administration of opioids for pain or dyspnea relief.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2011 and February 25, 2016. Internet links were provided, where available.

SELECTION CRITERIA

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.
Table 1: Selection Criteria

| Population                                                                 | Patients requiring opioids for: |
|                                                                           | - the prevention or relief of pain due to neoplastic disease |
|                                                                           | - the relief of dyspnea due to chronic pulmonary or cardiac disease |
|                                                                           | - the relief of dyspnea due to primary or metastatic pulmonary neoplastic disease |
| Intervention                                                               | Metered pump aerosolizing devices which deliver a fixed volume (e.g. 0.1 ml) per pump (available with nasal or pharyngeal attachments) for the administration of opioids |
| Comparator                                                                 | Mucosal atomization devices for the administration of opioids (dose measured by syringe); No comparator |
| Outcomes                                                                   | Q1: Clinical benefits and harms (e.g., impact on pain and dyspnea, opioid diversion, medication errors) |
|                                                                           | Q2: Evidence-based guidelines |
| Study Designs                                                               | Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines |

RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, or evidence-based guidelines were identified regarding the use of metered pump aerosolizing devices for the administration of opioids for pain or dyspnea relief.

References of potential interest are provided in the appendix.

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Randomized Controlled Trials
No literature identified.

Non-Randomized Studies
No literature identified.

Guidelines and Recommendations
No literature identified.
APPENDIX – FURTHER INFORMATION:

Randomized Controlled Trials

Method of Delivery Not Specified


Healthy Subjects


Review Articles
