TITLE: Treatment of Older Adults with Insomnia, Agitation, or Delirium with Benzodiazepines: Clinical Effectiveness and Guidelines

DATE: 17 April 2015

RESEARCH QUESTIONS

1. What is the clinical effectiveness of the treatment of older adults with insomnia, agitation, or delirium with benzodiazepines or other sedative hypnotic agents?

2. What are the evidence-based guidelines for the treatment of older adults with insomnia, agitation, or delirium with benzodiazepines or other sedative hypnotic agents?

KEY FINDINGS

Three systematic reviews, three randomized controlled trials, and two evidence based guidelines were identified regarding the treatment of older adults with insomnia, agitation, or delirium with benzodiazepines or other sedative hypnotic agents.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2015, Issue 3), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI, Canadian and major international health technology agencies, as well as a focused Internet search. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2010 and March 30, 2015. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.
SELECTION CRITERIA

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

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<th>Table 1: Selection Criteria</th>
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<td><strong>Population</strong></td>
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| **Intervention**            | Benzodiazepines  
|                            | Other sedative hypnotics |
| **Comparator**              | Other treatments  
|                            | No benzodiazepines or other sedatives |
| **Outcomes**                | Clinical effectiveness (benefits and harms [fractures, falls, death hospitalizations]) |
| **Study Designs**           | Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, 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 and evidence-based guidelines.

Three systematic reviews, three randomized controlled trials (RCTs), and two evidence based guidelines were identified regarding the treatment of older adults with insomnia, agitation, or delirium with benzodiazepines or other sedative hypnotic agents. No relevant health technology assessments were identified.

Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

Three systematic reviews,\(^1\) three RCTs,\(^4\)\(^6\) and two evidence based guideline\(^7\)\(^8\) were identified regarding the treatment of older adults with insomnia, agitation, or delirium with benzodiazepines or other sedative hypnotic agents.

A systematic review with meta-analysis\(^1\) that examined the efficacy and safety of ramelteon in chronic insomnia reported significant improvements in polysomnographic sleep latency, total sleep time, and latency to rapid eye movement (REM) in all age groups combined. Subjective sleep latency was not reduced in patients over 65 years old and higher rates of adverse events were not observed when compared with control.\(^1\) Another systematic review with meta-analysis\(^2\) that looked at the risks of benzodiazepine use in elderly patients with anxiety and insomnia reported higher rates of adverse event with benzodiazepines compared with placebo. A third systematic review\(^3\) had reported on the effects of various drug treatments for insomnia, including benzodiazepines; however, details on their results were not provided in the abstract.

One RCT compared eszopiclone with placebo\(^4\) and reported a significantly greater improvement in subjective sleep latency with eszopiclone as well as a significantly greater decrease in wake time after sleep onset. No rebound effect was noted and unpleasant taste was the only adverse event more frequently reported in the treatment group.\(^4\) An RCT of ramelteon versus placebo\(^5\)
reported a statistically significant difference in objective sleep onset latency compared with placebo; however, no change was observed in subjective sleep onset latency. Adverse events were not considered to be related to treatment.\(^5\) Another identified RCT compared EVT 201\(^6\) with placebo and reported greater total sleep time, reduced wake after sleep onset, and reduced latency to persistent sleep in the treatment group.

A University of Texas guideline\(^7\) do not recommend the use of benzodiazepines for the treatment of insomnia in middle-aged and older adults. In addition, they only recommend limited and short-term use of non-benzodiazepine hypnotics.\(^7\) The Canadian Coalition for Seniors’ Mental Health\(^8\) does not recommend the routine use of pharmacological intervention in the prevention of delirium.
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses


Randomized Controlled Trials


Guidelines and Recommendations


See: Recommendations, page 4
APPENDIX – FURTHER INFORMATION:

Non-Randomized Studies

   PubMed: PM24070457


   PubMed: PM23145088

Guidelines and Recommendations – Unclear Methodology

   See: Prescribing, pages 3-4

   See: Recommendation 6.1.8, page 7

Consensus or Position Statements

   See: Old age, pages 4-5

   See: Pharmacological Management, pages 8-9
Review Articles


