TITLE: Cannabinoids for the Treatment of Post-Traumatic Stress Disorder: A Review of the Clinical Effectiveness and Guidelines

DATE: 27 June 2012

CONTEXT AND POLICY ISSUES

In 2009, CADTH reviewed the clinical effectiveness and guidelines regarding the use of cannabinoids for the treatment of post-traumatic stress disorder.¹ This report included one uncontrolled, open label study, and three evidence-based guidelines. In the open label study, the authors concluded that the synthetic cannabinoid nabilone was effective in treating patients with post-traumatic stress disorder who were experiencing treatment-resistant nightmares. Approximately 70% of patients experienced a reduction in frequency or intensity, or a complete cessation of nightmares while taking nabilone (average dose 0.5 mg, range 0.2 mg to 4 mg before bedtime). None of the three guidelines discussed the use of cannabinoids in the management of post-traumatic stress disorder. The conclusion, based on these reports, was that the evidence regarding the clinical effectiveness of cannabinoids for the treatment of post-traumatic stress disorder was limited.¹

This report will update the literature search to determine if any new evidence has been published since 2009.

RESEARCH QUESTIONS

1. What is the clinical effectiveness of cannabinoids for the treatment of post-traumatic stress disorder?

2. What are the guidelines regarding the use of cannabinoids for the treatment of post-traumatic stress disorder?

KEY MESSAGE

In this update to a previous report, no new clinical studies or guidelines regarding the use of cannabinoids for the treatment of post-traumatic stress disorder were identified.

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METHODS

Literature Search Strategy

A limited literature search was conducted on key resources including Ovid MEDLINE, EMBASE, PsycINFO, PubMed, The Cochrane Library (2012, Issue 5), University of York Centre for Reviews and Dissemination (CRD), ECRI (Health Devices Gold) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No methodological filters were applied to limit 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, 2009 and May 30, 2012.

Selection Criteria and Methods

One reviewer screened the titles and abstracts of the retrieved publications and evaluated the full-text publications for the final article selection, according to the selection criteria presented in Table 1.

Table 1: Selection Criteria

<table>
<thead>
<tr>
<th>Population</th>
<th>Adults with a diagnosis of post-traumatic stress disorder (PTSD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Cannabinoids</td>
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<tr>
<td>Comparator</td>
<td>Placebo</td>
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<td></td>
<td>Usual care</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Clinical effectiveness: Anxiety relief, stress reduction, reduction of nightmares</td>
</tr>
<tr>
<td></td>
<td>Guidelines</td>
</tr>
<tr>
<td>Study Designs</td>
<td>HTA, systematic review, meta-analysis, randomized controlled trial, non-randomized trial, guidelines</td>
</tr>
</tbody>
</table>

HTA=health technology assessment

Exclusion Criteria

Studies were excluded if they did not meet the selection criteria, were duplicate publications, or were published prior to 2009.

SUMMARY OF EVIDENCE

Quantity of Research Available

The selection of studies is summarized in Appendix 1. The literature search yielded 162 citations. Three additional reports were identified by searching the grey literature. After screening of abstracts, five potentially relevant studies were selected for full text review. None of the five reports met the inclusion criteria.
CONCLUSIONS AND IMPLICATIONS FOR DECISION OR POLICY MAKING

No clinical studies or guidelines published since 2009 were identified in the literature search. Thus, there is no new information regarding the use of cannabinoids for the treatment of post-traumatic stress disorder.

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REFERENCES

APPENDIX 1: Selection of Included Studies

- 162 citations identified from electronic literature search and screened
  - 160 citations excluded
  - 2 potentially relevant articles retrieved for scrutiny (full text, if available)
    - 3 potentially relevant reports retrieved from other sources (grey literature, hand search)
    - 5 potentially relevant reports
      - 5 reports excluded: irrelevant intervention (4)
      - already included in the previous CADTH report (1)

- 0 reports included in review