TITLE: Dehydroepiandrosterone for the Treatment of Menopausal or Andropausal Symptoms: Clinical Effectiveness and Safety

DATE: 25 February 2015

RESEARCH QUESTION

What is the clinical effectiveness and safety of dehydroepiandrosterone (DHEA) for the treatment of menopausal or andropausal symptoms?

KEY FINDINGS

Two systematic reviews, two randomized controlled trials, and one non-randomized study were identified regarding the clinical effectiveness and safety of DHEA for the treatment of menopausal symptoms; no evidence was identified regarding DHEA for the treatment of andropausal symptoms.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2015, Issue 2), 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, 2010 and February 12, 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.
### Table 1: Selection Criteria

<table>
<thead>
<tr>
<th>Population</th>
<th>Women or men experiencing menopausal or andropausal symptoms (e.g., hot flashes, mood swings)</th>
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</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Dehydroepiandrosterone (DHEA)</td>
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<tr>
<td>Comparator</td>
<td>Hormone replacement therapy</td>
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<td></td>
<td>Other standards of care</td>
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<tr>
<td>Outcomes</td>
<td>Clinical benefit (menopausal or andropausal symptom relief)</td>
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<tr>
<td></td>
<td>Clinical harm</td>
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<tr>
<td>Study Designs</td>
<td>Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies</td>
</tr>
</tbody>
</table>

## 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 (RCTs) and non-randomized studies.

Two systematic reviews, two RCTs, and one non-randomized study were identified regarding the clinical effectiveness and safety of DHEA for the treatment of menopausal symptoms; no evidence was identified regarding DHEA for the treatment of andropausal symptoms.

Additional references of potential interest are provided in the appendix.

## OVERALL SUMMARY OF FINDINGS

Two systematic reviews assessed the effectiveness and safety of DHEA for women experiencing menopausal symptoms. The Cochrane review of peri- and postmenopausal women reported that both oral and intravaginal DHEA improved sexual function compared with placebo, but reported that there was no evidence that DHEA improved quality of life or was associated with a decrease in other menopausal symptoms. DHEA was associated with androgenic side effects, particularly acne, compared with placebo. A second systematic review focused on postmenopausal women with normal adrenal function. This review reported no significant impact on sexual symptoms and no serious adverse effects with DHEA therapy.

One RCT compared oral DHEA to other hormone replacement therapies (HRTs) and oral vitamin D for early postmenopausal women. The study found that all treatments, except for vitamin D, provided a significant improvement from baseline in sexual function. Another RCT compared intravaginal DHEA with placebo in postmenopausal women who had dyspareunia (a symptom of vaginal atrophy). Intravaginal DHEA resulted in a significant decrease in pain during sexual activity compared with placebo.

A non-randomized study compared DHEA with other HRTs. DHEA was found to be effective for reducing climacteric symptoms and showed a positive effect on psychological symptoms, but caused androgenic side effects.

No studies were found regarding the effectiveness and safety of DHEA for the treatment of andropausal symptoms in men; therefore, no summary can be provided.
DHEA for the Treatment of Menopausal Symptoms

REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses


Randomized Controlled Trials


Non-Randomized Studies


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APPENDIX – FURTHER INFORMATION:

Non-Randomized Study – Surrogate Outcomes


Pilot Study


Guidelines and Recommendations


Review Articles