TITLE: Treatment versus Active Surveillance in Men with Low Risk Prostate Cancer: Clinical Effectiveness and Guidelines

DATE: 08 April 2015

RESEARCH QUESTIONS

1. What is the clinical effectiveness of treatment with radiation or surgery compared with active surveillance for low risk prostate cancer patients?

2. What are the evidence-based guidelines for treatment with radiation or surgery compared with active surveillance for low risk prostate cancer patients?

KEY FINDINGS

Three systematic reviews, two randomized controlled trials, and two evidence-based guidelines were identified regarding treatment with radiation or surgery compared with active surveillance for low risk prostate cancer patients.

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, 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 26, 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>Patients with low-risk prostate cancer (T1/T2, PSA &lt; 10 ng/ml, Gleason score &lt;7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Treatment with surgery or radiation</td>
</tr>
<tr>
<td>Comparator</td>
<td>Active surveillance</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Clinical effectiveness (benefits and harms)</td>
</tr>
<tr>
<td>Study Designs</td>
<td>Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, evidence-based guidelines.</td>
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</table>

PSA = prostate specific antigen.

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, two randomized controlled trials, and two evidence-based guidelines were identified regarding treatment with radiation or surgery compared with active surveillance for low risk prostate cancer patients. No relevant health technology assessments were identified.

Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

Three systematic reviews, two randomized controlled trials, and two evidence-based guidelines were identified regarding treatment with radiation or surgery compared with active surveillance for low risk prostate cancer patients.

One systematic review concluded that there was an important role for active surveillance in select groups of men and that this may also avoid overtreatment. A second systematic review reported limited evidence to suggest that watchful waiting was less effective than treatment. A third systematic review reported insufficient evidence for the relative beneficial and harmful effects of surgery versus watchful waiting in men with localized prostate cancer.

One randomized trial reported beneficial effects of radical prostatectomy over watchful waiting on long-term mortality while a second randomized trial reported no benefit of prostatectomy over observation on long-term mortality.

Cancer Care Ontario guidelines state that active surveillance is the preferred disease management strategy in men with low risk (Gleason score less than or equal to 6) localized prostate cancer. The National Institute for Health and Clinical Excellence (NICE) guideline for
prostate cancer recommends that active surveillance be offered to men with low-risk prostate cancer who are eligible for radiotherapy or prostatectomy.

REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses


Randomized Controlled Trials


Guidelines and Recommendations

See: Active surveillance, pages 17-18

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APPENDIX – FURTHER INFORMATION:

Non-Randomized Studies


Clinical Practice Guidelines – Unclear Methodology


Review Articles


Additional References

Survey