Why is this important?
Localized prostate cancer treatment remains controversial, with the risk-benefit balance in dispute.

Facts
Between 1989 and 2012, 695 men age 75 or less with prostate cancer were randomized to receive radical prostatectomy or watchful waiting in a trial conducted in Sweden, Finland, and Iceland. All had localized tumors with no other cancers and a life expectancy of at least 10 years.

- **IN THE RADICAL PROSTATECTOMY GROUP**, 63 men died from prostate cancer, with a cumulative incidence of death of 17.7% at 18 years of follow up. The incidence of death from all causes was 56.1%.

- **IN THE WATCHFUL WAITING GROUP**, 99 men died from prostate cancer, with a cumulative incidence of death of 28.7% at 18 years of follow-up. The incidence of death from all causes was 68.9%.

- **AMONG MEN < 65 YEARS OF AGE**, the mortality rate was lower with an absolute reduction of 25.5% in overall mortality (n=69 of 347 compared to 112 of 348), and 15.8% in death from prostate cancer (n=31 of 347 compared to 58 of 348).

- **AMONG MEN WITH INTERMEDIATE TUMOR RISK**, the mortality rate was lower, with an absolute reduction of 15.5% in overall mortality (n=87 of 347 compared to 95 of 348) and 24.2% in the rate of death from prostate cancer (n=24 of 347 compared to 50 of 348).

**The Bottom Line**
Use of radical prostatectomy among men diagnosed with early prostate cancer led to a significant mortality reduction in men younger than 65 and in those with intermediate tumor risk. There was no difference in mortality in those older than 65 or those in the lowest-risk group.
Strength of Evidence

(Adapted from Guyatt G BMJ, 26 April 2008)
This refers to the degree to which the findings of this study are likely to be free of bias.

<table>
<thead>
<tr>
<th>+ + + +</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ + + 0</td>
<td>Moderate</td>
</tr>
<tr>
<td>+ + 0 0</td>
<td>Low</td>
</tr>
<tr>
<td>+ 0 0 0</td>
<td>Very low</td>
</tr>
</tbody>
</table>

Tips for Discussion of Results with Patients

- Radical prostatectomy was associated with reduced overall and disease-specific mortality in patients diagnosed with clinically-evident prostate cancer before age 65.
- Because these patients were identified prior to the widespread use of PSA, the implications for patients with earlier stage disease identified by PSA is not clear.
- This study did not evaluate the effectiveness of alternate methods of treatment for prostate cancer including brachytherapy.

References


Written by the Evidence-Based Medicine Task Force

Zackary Berger, MD, PhD  Michael Bowen, MD, MPH  James Yeh, MD
Daniel Elliot, MD MSCE Ricardo Correa, MD, EsD Daniella Zipkin MD
KoKo Aung, MD, MPH Heather Sateia, MD
Rebecca J. Beyth, MD, MSc M.E. Beth Smith, DO

The Bottom Line summaries reflect the expertise and opinions of the SGiM EBM Task Force as of the date of release of this summary.