Quality of life outcomes after primary treatment for clinically localised prostate cancer: A systematic review

LARDAS, Michael, LIEW, Matthew, VAN DEN BERGH, Roderick C., DE SANTIS, Maria, BELLMUNT, Joaquim, VAN DEN BROECK, Thomas, CORNFORD, Philip, CUMBERBATCH, Marcus G., FOSSATI, Nicola, GROSA, Tobias, HENRY, Ann M., BOLLA, Michel, BRIERS, Erik, JONIAU, Steven, LAM, Thomas B., MASON, Malcolm D., MOTTET, Nicolas, VAN DER POEL, Henk G., ROUVIERE, Olivier, SCHOOTS, Ivo G., WIEGEL, Thomas, WILLEMSE, Peter-Paul M., YUAN, Cathy Yuhong and BOURKE, Liam

Available from Sheffield Hallam University Research Archive (SHURA) at:
http://shura.shu.ac.uk/16531/

This document is the author deposited version. You are advised to consult the publisher's version if you wish to cite from it.

Published version


Copyright and re-use policy

See http://shura.shu.ac.uk/information.html
Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacon 2001 UCLA-PCI</td>
<td>Radical prostatectomy</td>
<td>421</td>
<td></td>
<td>NR</td>
<td>Age adjusted cross-sectional UCLA-PCI quality of life outcomes (95% CI) Higher values refer to better function</td>
<td>Multivariate UCLA-PCI cross-sectional outcomes</td>
</tr>
<tr>
<td></td>
<td>EBRT</td>
<td>221</td>
<td></td>
<td>Up to 60 months</td>
<td>Sexual function 26 (23–29) Sexual bother 43 (39–47) Urinary function 76 (74–78) Urinary bother 82 (80–85) Bowel function 86 (85–88) Bowel bother 86 (84–89)</td>
<td>Reference</td>
</tr>
<tr>
<td></td>
<td>Brachytherapy</td>
<td>69</td>
<td></td>
<td></td>
<td>Sexual function 36 (30–42) Sexual bother 54 (45–64) Urinary function 87 (82–92) Urinary bother 75 (68–81) Bowel function 80 (76–84) Bowel bother 72 (66–78)</td>
<td></td>
</tr>
</tbody>
</table>

  | Sexual function 34 (30–38) Sexual bother 51 (46–57) Urinary function 89 (86–92) Urinary bother 83 (80–87) Bowel function 81 (78–83) Bowel bother 78 (75–82) | Sexual function 36 (30–42) Sexual bother 54 (45–64) Urinary function 87 (82–92) Urinary bother 75 (68–81) Bowel function 80 (76–84) Bowel bother 72 (66–78) | Sexual function 26 (23–29) Sexual bother 43 (39–47) Urinary function 76 (74–78) Urinary bother 82 (80–85) Bowel function 86 (85–88) Bowel bother 86 (84–89) | Sexual function <0.05 favouring EBRT Sexual bother <0.05 favouring EBRT Urinary function <0.05 favouring EBRT Urinary bother NSS Bowel function NSS favouring RP Bowel bother NSS favouring RP |

Sexual function <0.05 favouring EBRT Sexual bother <0.05 favouring EBRT Urinary function <0.05 favouring EBRT Urinary bother NSS Bowel function NSS favouring RP Bowel bother NSS favouring RP
<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Unadjusted mean (95% CI) EPIC score at 12 months</td>
<td></td>
<td>Unadjusted mean (95% CI) EPIC score at 36 months</td>
<td>P value for differences in EPIC scores at 12 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Higher values refer to better function</td>
<td></td>
<td>Higher values refer to better function</td>
<td></td>
</tr>
<tr>
<td>Barocas 2017 EPIC</td>
<td>Radical prostatectomy</td>
<td>152</td>
<td>Urinary incontinence: 86.7 (85.5-87.8) Urinary irritative: 83.2 (82.3-84.1) Sexual function: 65.2 (63.5-66.9) Bowel function: 94.0 (93.3-94.6) Hormone function: 89.8 (89.1-90.5)</td>
<td>40 months (38-45)</td>
<td>Urinary incontinence: 70.7 (69.2-72.1) Urinary irritative: 89.6 (88.9-90.3) Sexual function: 37.1 (35.4-38.7) Bowel function: 94.8 (94.2-95.4) Hormone function: 88.5 (0.4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EBRT</td>
<td>598</td>
<td>Urinary incontinence: 88.2 (86.7-89.6) Urinary irritative: 82.3 (80.9-83.7) Sexual function: 52.3 (49.6-55.0) Bowel function: 93.4 (92.5-94.3) Hormone function: 86.7 (85.3-88.0)</td>
<td></td>
<td>Urinary incontinence: 85.3 (83.4-87.1) Urinary irritative: 85.9 (84.6-87.3) Sexual function: 38.9 (35.8-42.0) Bowel function: 90.3 (89.1-91.6) Hormone function: 87.1 (0.7)</td>
<td></td>
</tr>
</tbody>
</table>
## Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
</table>
| Borchers 2004 EORTC-QLQ-C30 | NS Radical prostatectomy | 38 | Physical 95  
Role 81  
Emotional 61  
Cognitive 86  
Social 75  
Sexual 75  
Overall 68 | 12 | Physical 93  
Role 90  
Emotional 81  
Cognitive 82  
Social 80  
Sexual 56  
Overall 75 | Physical 0.16  
Role 0.26  
Emotional <0.001  
Cognitive 0.13  
Social 0.49  
Sexual 0.001  
Overall 0.15 | Physical RP vs NS 0.77  
Role RP vs BT 0.94  
Emotional RP vs BT 0.84 | Physical RP vs NS 0.10  
Role RP vs BT 0.28  
Emotional RP vs BT 0.32  
Social RP vs BT 0.21 | Physical RP vs NS 0.03  
Role RP vs BT 0.35  
Emotional RP vs BT 0.21 | Physical RP vs NS 0.15  
Role RP vs BT 0.015  
Emotional RP vs BT 0.17  
Social RP vs BT 0.78 | Physical RP vs NS 0.76  
Role RP vs NS 0.14  
Emotional RP vs NS 0.015  
Social RP vs NS 0.47  
Sexual RP vs NS 0.55 | Physical RP vs NS 0.45  
Role RP vs NS 0.10  
Emotional RP vs NS 0.015  
Social RP vs NS 0.47  
Sexual RP vs NS 0.55 | Physical RP vs NS 0.45  
Role RP vs NS 0.10  
Emotional RP vs NS 0.015  
Social RP vs NS 0.47  
Sexual RP vs NS 0.55 |
| Non-NS Radical prostatectomy | 42 | Physical 91  
Role 93  
Emotional 65  
Cognitive 91  
Social 83  
Sexual 66  
Overall 65 | Physical 91  
Role 87  
Emotional 78  
Cognitive 86  
Social 74  
Sexual 42  
Overall 70 | Physical 0.92  
Role 0.26  
Emotional 0.02  
Cognitive 0.14  
Social 0.16  
Sexual <0.001  
Overall 0.30 | Physical RP vs NS 0.32  
Role RP vs NS 0.03  
Emotional RP vs NS 0.87  
Social RP vs BT 0.79  
Emotional RP vs BT 0.21  
Social RP vs BT 0.73 | Physical RP vs NS 0.03  
Role RP vs NS 0.35  
Emotional RP vs NS 0.21  
Social RP vs NS 0.03  
Emotional RP vs NS 0.35  
Social RP vs NS 0.21  | Physical RP vs NS 0.03  
Role RP vs NS 0.35  
Emotional RP vs NS 0.21  
Social RP vs NS 0.03  
Emotional RP vs NS 0.35  
Social RP vs NS 0.21  | Physical RP vs NS 0.03  
Role RP vs NS 0.35  
Emotional RP vs NS 0.21  
Social RP vs NS 0.03  
Emotional RP vs NS 0.35  
Social RP vs NS 0.21 | Physical RP vs NS 0.03  
Role RP vs NS 0.35  
Emotional RP vs NS 0.21  
Social RP vs NS 0.03  
Emotional RP vs NS 0.35  
Social RP vs NS 0.21 | Physical RP vs NS 0.03  
Role RP vs NS 0.35  
Emotional RP vs NS 0.21  
Social RP vs NS 0.03  
Emotional RP vs NS 0.35  
Social RP vs NS 0.21 |
| Brachytherapy | 52 | Physical 91  
Role 90  
Emotional 67  
Cognitive 87  
Social 77  
Sexual 61  
Overall 65 | Physical 90  
Role 90  
Emotional 76  
Cognitive 86  
Social 77  
Sexual 53  
Overall 66 | Physical 0.76  
Role 1.0  
Emotional 0.08  
Cognitive 0.63  
Social 1.0  
Sexual 0.17  
Overall 0.78 | Physical RP vs NS 1.0  
Role RP vs BT 0.45  
Emotional RP vs BT 0.14  
Social RP vs BT 0.015  
Emotional RP vs BT 0.015  
Social RP vs BT 0.015  | Physical RP vs NS 1.0  
Role RP vs BT 0.45  
Emotional RP vs BT 0.14  
Social RP vs BT 0.015  
Emotional RP vs BT 0.015  
Social RP vs BT 0.015  | Physical RP vs NS 1.0  
Role RP vs BT 0.45  
Emotional RP vs BT 0.14  
Social RP vs BT 0.015  
Emotional RP vs BT 0.015  
Social RP vs BT 0.015 | Physical RP vs NS 1.0  
Role RP vs BT 0.45  
Emotional RP vs BT 0.14  
Social RP vs BT 0.015  
Emotional RP vs BT 0.015  
Social RP vs BT 0.015 | Physical RP vs NS 1.0  
Role RP vs BT 0.45  
Emotional RP vs BT 0.14  
Social RP vs BT 0.015  
Emotional RP vs BT 0.015  
Social RP vs BT 0.015 |

Higher values refer to better function.
Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
<th>multivariate models of domain score change from baseline to 2-years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evans 2015 EPIC</td>
<td>Brachytherapy</td>
<td>262</td>
<td>Bowel: 96 / 100 ± 8.3</td>
<td></td>
<td></td>
<td>Bowel: -7.01 (15,10)</td>
<td>Brachytherapy vs. IMRT 0.48</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual: 67 / 75 ± 29</td>
<td></td>
<td></td>
<td>Hormone: -2.91 (11,89)</td>
<td>SBRT vs. IMRT 0.00014 favouring SBRT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hormone: 93 / 100 ± 11</td>
<td></td>
<td></td>
<td>Sexual: -14.88 (22,03)</td>
<td>SBRT vs. Brachy 0.001 in favouring SBRT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary incontinence: 94 / 100 ± 12</td>
<td></td>
<td></td>
<td>Urinary incontinence: -4.41 (16,60)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary obstruction: 90 / 94 ± 13</td>
<td></td>
<td></td>
<td>Urinary obstruction: -8.68 (16,95)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IMRT</td>
<td>160</td>
<td>Bowel: 94 / 100 ± 11</td>
<td>24</td>
<td></td>
<td>Bowel: -6.77 (16,48)</td>
<td>Brachytherapy vs. IMRT 0.78</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual: 61 / 67 ± 29</td>
<td></td>
<td></td>
<td>Hormone: -2.20 (12,24)</td>
<td>SBRT vs. IMRT 0.84</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hormone: 92 / 95 ± 12</td>
<td></td>
<td></td>
<td>Sexual: -13.43 (22,83)</td>
<td>SBRT vs. Brachy 0.63</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary incontinence: 93 / 100 ± 13</td>
<td></td>
<td></td>
<td>Urinary incontinence: -3.74 (15,55)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SBRT</td>
<td>381</td>
<td>Bowel: 95 / 100 ± 9.1</td>
<td></td>
<td></td>
<td>Urinary obstruction: 1.03 (15,74)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual: 55 / 58 ± 31</td>
<td></td>
<td></td>
<td>Urinary obstruction: 86 / 88 ± 14</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hormone: 94 / 100 ± 10</td>
<td></td>
<td></td>
<td>Bowel: -3.39 (11,28)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary incontinence: 92 / 100 ± 13</td>
<td></td>
<td></td>
<td>Hormone: -0.84 (9,54)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary obstruction: 87 / 88 ± 12</td>
<td></td>
<td></td>
<td>Sexual: -7.11 (20,42)</td>
<td></td>
</tr>
</tbody>
</table>

**Reported Results**

- **difference from baseline (SD) to 12 months**
- **from baseline (SD) to 24 months**
- **EPIC mean score difference from baseline at 24 months 95% CI**
- **multivariate models of domain score change from baseline to 2-years**

<table>
<thead>
<tr>
<th>Adjusted Mean Differences in EPIC scores</th>
<th>Adjusted Mean Differences in EPIC scores between RP</th>
<th>P value for differences</th>
<th>P value for differences</th>
</tr>
</thead>
</table>

*Note: Values are listed for Bowel, Hormone, Sexual, Urinary incontinence, and Urinary obstruction.*
### Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results between RP and AS patients at 1 year Mean (95% CI)</th>
<th>Reported Results and AS patients at 2 years Mean (95% CI)</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radical Prostatectomy</td>
<td>228</td>
<td></td>
<td>Urinary function: 95 ± 10 Urinary bother: 85 ± 16 Sexual function: 62 ± 22 Sexual bother: 79 ± 29 Bowel function: 93 ± 8 Bowel bother: 94 ± 11 Hormone function: 91 ± 11 Hormone bother: 95 ± 9</td>
<td>36 ± 17</td>
<td>Urinary function: -9 (-15, -3) Urinary bother: -1 (-6, 5) Sexual function: -14 (-21, -7) Sexual bother: -19 (-31, -7) Bowel function: -1 (-5, 4) Bowel bother: -1 (-5, 3) Hormone function: -1 (-6, 4) Hormone bother: -2 (-5, 1)</td>
<td>Urinary function: -1 (-4, 3) Urinary bother: 2 (-3, 6) Sexual function: -2 (-7, 4) Sexual bother: -3 (-11, 5) Bowel function: 2 (-1, 4) Bowel bother: 1 (-2, 3) Hormone function: -2 (-5, 2) Hormone bother: -1 (-4, 1)</td>
<td>Urinary function: 0.046 favouring AS Urinary bother: 1 Sexual function: 0.01 Sexual bother: 1 Bowel function: 1 Bowel bother: 1 Hormone function: 1 Hormone bother: 1</td>
</tr>
</tbody>
</table>

**Adjusted Mean Differences in EPIC scores between RP and AS patients at 3 years Mean (95% CI)**

<table>
<thead>
<tr>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results between RP and AS patients at 3 years Mean (95% CI)</th>
<th>Reported Results and AS patients at 2 years Mean (95% CI)</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Surveillance</td>
<td>77</td>
<td>Urinary function: -9 (-15, -3) Urinary bother: -1 (-6, 5) Sexual function: -14 (-21, -7) Sexual bother: -19 (-31, -7) Bowel function: -1 (-5, 4) Bowel bother: -1 (-5, 3) Hormone function: -1 (-6, 4) Hormone bother: -2 (-5, 1)</td>
<td></td>
<td>Urinary function: -1 (-4, 3) Urinary bother: 2 (-3, 6) Sexual function: -2 (-7, 4) Sexual bother: -3 (-11, 5) Bowel function: 2 (-1, 4) Bowel bother: 1 (-2, 3) Hormone function: -2 (-5, 2) Hormone bother: -1 (-4, 1)</td>
<td></td>
<td>Urinary function: 1 Urinary bother: 1 Sexual function: 1 Sexual bother: 1 Bowel function: 1 Bowel bother: 1 Hormone function: 1 Hormone bother: 1</td>
</tr>
<tr>
<td>Author, year, PROM tool used</td>
<td>Interventions</td>
<td>N at baseline</td>
<td>Baseline QoL mean scores (SD)</td>
<td>Follow up (months)</td>
<td>Reported Results</td>
<td>Reported p-values or Hazard Ratios with confidence intervals</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------</td>
<td>--------------</td>
<td>-------------------------------</td>
<td>-------------------</td>
<td>-----------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>cont.</td>
<td>Radical Prostatectomy</td>
<td>228</td>
<td></td>
<td></td>
<td></td>
<td>Urinary function: −15 (−19, −11) urinary bother: −2 (−6, 1) sexual function: −31 (−36, −26) sexual bother: −34 (−41, −27) bowel function: −1 (−3, 1) bowel bother: 0 (−3, 2) hormone function: −4 (−7, −1) hormone bother: −2 (−4, 1)</td>
</tr>
<tr>
<td>Jeldres cont.</td>
<td>Active Surveillance</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
<td>Urinary function: 1 (−3, 5) urinary bother: 1 (−4, 5) sexual function: −4 (−11, 2) sexual bother: −6 (−17, 6) bowel function: 0 (−2, 3) bowel bother: 2 (−1, 4) hormone function: −2 (−6, 2) hormone bother: 0 (−3, 3)</td>
</tr>
<tr>
<td></td>
<td>Radical Prostatectomy</td>
<td>228</td>
<td></td>
<td></td>
<td></td>
<td>Urinary function: −14 (−18, −11) urinary bother: 0 (−4, 3) sexual function: −24 (−29, −19) sexual bother: −26 (−33, −19) bowel function: 0 (−2, 2) bowel bother: 1 (−1, 4) hormone function: −2 (−5, 1) hormone bother: 1 (−4, 1)</td>
</tr>
</tbody>
</table>

**UCLA-PCI scores (mean) at 12 months**
<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kobuke 2009 UCLA-PCI</strong></td>
<td>Radical prostatectomy</td>
<td>37</td>
<td>Urinary function: 86.44&lt;br&gt;Urinary bother: 87.16&lt;br&gt;Bowel function: 91.40&lt;br&gt;Bowel bother: 90.70&lt;br&gt;Sexual function: 37.07&lt;br&gt;Sexual bother: 81.75</td>
<td>12</td>
<td>Urinary function: 65.34&lt;br&gt;Urinary bother: 87.09&lt;br&gt;Bowel function: 92.03&lt;br&gt;Bowel bother: N/A&lt;br&gt;Sexual function: 9.97&lt;br&gt;Sexual bother: 62.09</td>
<td>Urinary function: NSS&lt;br&gt;Urinary bother: NSS&lt;br&gt;Bowel function: NSS&lt;br&gt;Bowel bother: NSS&lt;br&gt;Sexual function: &lt; 0.05 favouring BT&lt;br&gt;Sexual bother: NSS</td>
</tr>
<tr>
<td></td>
<td>Brachytherapy</td>
<td>36</td>
<td>Urinary function: 89.77&lt;br&gt;Urinary bother: 87.5&lt;br&gt;Bowel function: 86.33&lt;br&gt;Bowel bother: 93.75&lt;br&gt;Sexual function: 35.77&lt;br&gt;Sexual bother: 75</td>
<td>36</td>
<td>Urinary function: 82.06&lt;br&gt;Urinary bother: 85&lt;br&gt;Bowel function: 86.21&lt;br&gt;Bowel bother: N/A&lt;br&gt;Sexual function: 38.13&lt;br&gt;Sexual bother: 75.89</td>
<td></td>
</tr>
<tr>
<td><strong>Malcolm 2010</strong></td>
<td>Open Radical prostatectomy</td>
<td>135</td>
<td>Urinary function: 89 (18)&lt;br&gt;Urinary bother: 92 (15)&lt;br&gt;Sexual function: 74 (18)&lt;br&gt;Sexual bother: 86 (20)&lt;br&gt;Bowel function: 87 (14)&lt;br&gt;Bowel bother: 92 (15)</td>
<td>36</td>
<td>Urinary function: 79&lt;br&gt;Urinary bother: 84&lt;br&gt;Sexual function: 43&lt;br&gt;Sexual bother: 40&lt;br&gt;Bowel function: 102&lt;br&gt;Bowel bother: 99</td>
<td>Urinary function: 82&lt;br&gt;Urinary bother: 85&lt;br&gt;Sexual function: 48&lt;br&gt;Sexual bother: 46&lt;br&gt;Bowel function: 103&lt;br&gt;Bowel bother: 100</td>
</tr>
</tbody>
</table>

UCLA-PCI scores (Average percent baseline scores) at 12 months
 outcomes were compared with Kruskal-Wallis rank test using PBS (calculated by dividing follow-up function or bother score by baseline function or bother score)
Higher values refer to better function

UCLA-PCI scores (Average percent baseline scores) at 18 months
 outcomes were compared with Kruskal-Wallis rank test using PBS (calculated by dividing follow-up function or bother score by baseline function or bother score)
Higher values refer to better function

P value at 12 months*  
P value at 18 months*
<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCLA-PCI</td>
<td>Robotic Radical prostatectomy</td>
<td>447</td>
<td>Urinary function: 92 (13)</td>
<td></td>
<td>Urinary function: 74</td>
<td>which we have not included in our review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary bother: 93 (14)</td>
<td></td>
<td>Urinary bother: 81</td>
<td>which we have not included in our review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual function: 73 (17)</td>
<td></td>
<td>Sexual function: 40</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual bother: 84 (20)</td>
<td></td>
<td>Sexual bother: 47</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel function: 88 (14)</td>
<td></td>
<td>Bowel function: 103</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel bother: 94 (13)</td>
<td></td>
<td>Bowel bother: 100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brachytherapy</td>
<td>122</td>
<td>Urinary function: 90 (16)</td>
<td></td>
<td>Urinary function: 94</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary bother: 89 (17)</td>
<td></td>
<td>Urinary function: 88</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual function: 64 (19)</td>
<td></td>
<td>Sexual function: 71</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual bother: 80 (21)</td>
<td></td>
<td>Sexual bother: 63</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel function: 84 (16)</td>
<td></td>
<td>Bowel function: 103</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel bother: 88 (18)</td>
<td></td>
<td>Bowel bother: 99</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Open Radical prostatectomy</td>
<td>135</td>
<td>UCLA-PCI scores (Average percent baseline scores) at 24 months Higher values refer to better function</td>
<td></td>
<td>UCLA-PCI scores (Average percent baseline scores) at 30 months Higher values refer to better function</td>
<td>P value at 24 months*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary function: 84</td>
<td></td>
<td>Urinary function: 82</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary bother: 87</td>
<td></td>
<td>Urinary bother: 88</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual function: 46</td>
<td></td>
<td>Sexual function: 50</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual bother: 52</td>
<td></td>
<td>Sexual bother: 54</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel function: 104</td>
<td></td>
<td>Bowel function: 102</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel bother: 102</td>
<td></td>
<td>Bowel bother: 96</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Robotic Radical prostatectomy</td>
<td>447</td>
<td>Urinary function: 76</td>
<td></td>
<td>Urinary function: 75</td>
<td>*authors report p values taking into consideration the cryotherapy arm which we have not included in our review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary bother: 83</td>
<td></td>
<td>Urinary bother: 85</td>
<td>*authors report p values taking into consideration the cryotherapy arm which we have not included in our review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual function: 45</td>
<td></td>
<td>Sexual function: 41</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual bother: 48</td>
<td></td>
<td>Sexual bother: 52</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel function: 101</td>
<td></td>
<td>Bowel function: 102</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel bother: 97</td>
<td></td>
<td>Bowel bother: 99</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brachytherapy</td>
<td>122</td>
<td>Urinary function: 90</td>
<td></td>
<td>Urinary function: 90</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary bother: 94</td>
<td></td>
<td>Urinary bother: 91</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual function: 74</td>
<td></td>
<td>Sexual function: 67</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual bother: 78</td>
<td></td>
<td>Sexual bother: 67</td>
<td></td>
</tr>
</tbody>
</table>
## Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bowel function: 110</td>
<td></td>
<td>Bowel function: 109</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Bowel bother: 101</td>
<td></td>
<td>Bowel bother: 100</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>UCLA-PCI scores (Average percent baseline scores) at 36 months</td>
<td></td>
<td>Higher values refer to better function</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td>Malcolm cont.</td>
<td>Open Radical prostatectomy 135</td>
<td></td>
<td>Urinary function: 83</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary bother: 88</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual function: 48</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual bother: 58</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel function: 101</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel bother: 99</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Robotic Radical prostatectomy 447</td>
<td></td>
<td>Urinary function: 88</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary bother: 86</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual function: 46</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual bother: 45</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel function: 102</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel bother: 94</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Brachytherapy 122</td>
<td></td>
<td>Urinary function: 88</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Urinary bother: 90</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual function: 73</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sexual bother: 85</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel function: 107</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bowel bother: 99</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>UCLA-PCI scores (mean) at 12 months</td>
<td></td>
<td>Orcz</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>P value</td>
<td></td>
<td>-</td>
<td>-</td>
<td>Orcz</td>
<td>-</td>
</tr>
</tbody>
</table>

* authors report p values taking into consideration the cryotherapy arm which we have not included in our review
Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
</table>
| Namiki 2006 UCLA-PCI         | Radical prostatectomy    | 67            | Urinary function: 92.9 ± 18.1  
Urinary bother: 92.3 ± 27.1  
Bowel function: 87.9 ± 15.1  
Bowel bother: 93.1 ± 20.9  
Sexual function: 37.9 ± 24.7  
Sexual bother: 71.8 ± 27.4 | 12 | Urinary function: 75.7 ± 20.4  
Urinary bother: 85.2 ± 20.5  
Bowel function: 86.1 ± 13.7  
Bowel bother: 87.5 ± 15.9  
Sexual function: 10.2 ± 15.2  
Sexual bother: 55.4 ± 33.2 | Urinary function: <0.001 favoring BT  
Urinary bother: NSS  
Bowel function: NSS  
Bowel bother: NSS  
Sexual function: <0.001 favoring BT  
Sexual bother: 0.032 favoring BT |
|                              | Brachytherapy            | 70            | Urinary function: 88.8 ± 14.6  
Urinary bother: 81.2 ± 25.6  
Bowel function: 87.7 ± 13.9  
Bowel bother: 88.3 ± 17.8  
Sexual function: 34.4 ± 23.3  
Sexual bother: 72.2 ± 21.4 | | Urinary function: 92.4 ± 19.2  
Urinary bother: 88.9 ± 24.2  
Bowel function: 88.8 ± 10.6  
Bowel bother: 86.1 ± 21.5  
Sexual function: 32.0 ± 12.6  
Sexual bother: 69.1 ± 34.8 | |

Mean changes in EPIC scores from baseline to 3 years mean (SD)
Negative values refer to worse function

| Radical prostatectomy | | | | | Non-nerve sparing  
Urinary incontinence: -26.3 (28.8)  
Urinary obstruction: -1.8 (14.4)  
Bowel: 1.3 (3.1)  
Sexual: -23.4 (25.7)  
Hormonal: -1.7 (12.8)  
Nerve sparing  
Urinary incontinence: -21.4 | | | | |
## Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pardo 2010 EPIC</td>
<td>EBRT</td>
<td>127</td>
<td>Urinary incontinence: 96.3   (9.9) Urinary obstruction: 95.5 (9.5) Bowel: 97.8 (4.5) Sexual: 54.1 (23.2) Hormonal: 95.7 (8.4)</td>
<td>36</td>
<td>(25.2) Urinary obstruction: 7.0 (13.1) Bowel: 1.7 (4.5) Sexual: −25.3 (28.2) Hormonal: 2.4 (15.5)</td>
<td>Urinary incontinence: &lt;0.001 favouring EBRT and BT over RP Urinary obstruction: 0.002 favouring NSRP only over EBRT and BT Bowel: 0.006 favouring non-NSRP and BT only over EBRT Sexual: &lt;0.001 favouring EBRT and BT over RP Hormonal: 0.034 favouring NSRP only over EBRT</td>
</tr>
<tr>
<td></td>
<td>Brachytherapy</td>
<td>185</td>
<td>Urinary incontinence: 96.1 (11.1) Urinary obstruction: 94.4 (11.1) Bowel: 96.5 (7.2) Sexual: 55.9 (23.3) Hormonal: 95.5 (8.0)</td>
<td></td>
<td>Urinary incontinence: −7.4 (20.7) Urinary obstruction: −5.9 (21.0) Bowel: 0.3 (11.8) Sexual: −9.9 (23.5) Hormonal: −2.0 (10.7)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>EPIC mean function and bother scores at median 16 months</th>
<th>Mean difference on EPIC scores from baseline to 16 months (bold numbers indicate significant differences between treatment groups)</th>
<th>P value for EPIC mean scores at 16 months</th>
<th>P value for mean difference on EPIC scores between same group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brachytherapy</td>
<td>Urinary function: 97 (100;100;100)</td>
<td>Urinary function: 91 (89;100;100) Urinary incontinence: 90 (83;100;100) Urinary obstructive/irritative: 93 (100;100;100) Urinary bother: 82 (68;89;100) Urinary incontinence bother: 86 (94;100;100) Urinary obstructive/irritative bother: 82 (66;87;100)</td>
<td>Urinary function: 6 (0;0;11) Urinary incontinence: 5 (0;0;10) Urinary obstructive/irritative: 7 (0;0;0) Urinary bother: 8 (0;4;21) Urinary incontinence bother: 11 (0;0;0) Urinary obstructive/irritative bother: 7 (−4.5;15)</td>
<td>Urinary function: p &lt; 0.01 Urinary incontinence: NSS Urinary obstructive/irritative: p &lt; 0.01 Urinary bother: p &lt; 0.01 Urinary incontinence bother: p &lt; 0.01</td>
</tr>
</tbody>
</table>

Higher values refer to better function.
### Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
</table>
| Pinkawa 2009 EPIC           | EBRT          | 52                            | 16                | Bowel function: 93 (92;96;100)  
Bowel bother: 93 (92;100;100)  
Sexual function: 42 (25;41;59)  
Sexual bother: 61 (31;63;88)  
Hormonal function: 92 (88;100;100)  
Hormonal bother: 92 (88;100;100)  
Urinary function: 94 (94;100;100)  
Urinary incontinence: 90 (90;100;100)  
Urinary obstructive/irritative: 98 (100;100;100)  
Urinary bother: 83 (68;89;96)  
Urinary incontinence bother: 94 (100;100;100)  
Urinary obstructive/irritative bother: 82 (70;87;95)  
Bowel function: 93 (88;96;100)  
Bowel bother: 95 (93;100;100)  
Sexual function: 43 (29;44;56)  
Sexual bother: 67 (44;81;100)  
Hormonal function: 87 (75;94;100)  
Hormonal bother: 89 (83;96;100) | | | |

| | | | | Bowel function: 1 (−3;0;4)  
Bowel bother: 2 (−3;0;4)  
Sexual function: 7 (−3;6;18)  
Sexual bother: 12 (−6;6;38)  
Hormonal function: −1 (−6;0;5)  
Hormonal bother: 1 (0;0;4) | | |

Unadjusted proportion of 3294 men who experienced a clinically meaningful improvement in QoL.
<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
</table>

Unadjusted proportion of 3294 men who experienced a clinically significant decline in UCLA-PCI score of at least

Adjusted likelihood of a clinically significant decline in UCLA-PCI score of at least half standard deviation from baseline to 2 years by primary treatment modality

n/n (%)

decline in UCLA-PCI score of at least half standard deviation from baseline to 5 years by primary treatment modality

n/n (%)
### Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punnen cont.</td>
<td>NS Radical prostatectomy</td>
<td>113</td>
<td>Sexual function: 96/137 (70) Sexual bother: 74/133 (56) Urinary function: 100/144 (69) Urinary bother: 49/142 (35) Bowel function: 30/142 (21) Bowel bother: 29/141 (21)</td>
<td>Sexual function: 1 Sexual bother: 1 Urinary function: 1 Urinary bother: 1 Bowel function: 1 Bowel bother: 1</td>
<td>Sexual function: 0.5 (0.4–0.7) Sexual bother: 0.7 (0.5–1.0) Urinary function: 0.4 (0.3–0.6) Urinary bother: 1.3 (1.0–1.8) Bowel function: 1.3 (1.0–1.8) Bowel bother: 1.6 (1.1–2.2)</td>
<td>P value for 2 years</td>
</tr>
<tr>
<td></td>
<td>Non NS Radical prostatectomy</td>
<td>860</td>
<td>Sexual function: 83/116 (72) Sexual bother: 53/115 (46) Urinary function: 68/115 (59) Urinary bother: 49/112 (44) Bowel function: 35/115 (30) Bowel bother: 32/116 (28)</td>
<td>Sexual function: 1.6 (1.2–2.1) Sexual bother: 1.0 (0.7–1.2) Urinary function: 1.0 (0.8–1.2) Urinary bother: 1.1 (0.8–1.4) Bowel function: 1.1 (0.8–1.4) Bowel bother: 1.0 (0.8–1.4)</td>
<td>Sexual function: 0.5 (0.4–0.7) Sexual bother: 0.7 (0.5–1.0) Urinary function: 0.4 (0.3–0.6) Urinary bother: 1.3 (1.0–1.8) Bowel function: 1.3 (1.0–1.8) Bowel bother: 1.6 (1.1–2.2)</td>
<td>Sexual function NSRP 1 Non-NSRP &lt;0.01 BT &lt;0.01 EBRT &lt;0.01 Sexual bother NSRP 1 Non-NSRP 0.7 BT 0.06 EBRT 0.07 Urinary function NSRP 1 Non-NSRP 0.7 BT &lt;0.01 EBRT &lt;0.01 Urinary bother NSRP 1 Non-NSRP 0.5 BT 0.08 EBRT 0.3 Bowel function NSRP 1 Non-NSRP 0.7 BT 0.08 EBRT &lt;0.01 Bowel bother NSRP 1 Non-NSRP 0.7 BT &lt;0.01 EBRT &lt;0.01</td>
</tr>
<tr>
<td></td>
<td>Brachytherapy</td>
<td>684</td>
<td>Sexual function: 53/80 (66) Sexual bother: 30/76 (39) Urinary function: 44/82 (54) Urinary bother: 33/85 (39) Bowel function: 28/84 (33) Bowel bother: 29/84 (35)</td>
<td>Sexual function: 0.5 (0.4–0.7) Sexual bother: 0.7 (0.5–1.0) Urinary function: 0.4 (0.3–0.6) Urinary bother: 1.3 (1.0–1.8) Bowel function: 1.3 (1.0–1.8) Bowel bother: 1.6 (1.1–2.2)</td>
<td>Sexual function: 0.5 (0.4–0.7) Sexual bother: 0.7 (0.5–1.0) Urinary function: 0.4 (0.3–0.6) Urinary bother: 1.3 (1.0–1.8) Bowel function: 1.3 (1.0–1.8) Bowel bother: 1.6 (1.1–2.2)</td>
<td>Sexual function NSRP 1 Non-NSRP &lt;0.01 BT &lt;0.01 EBRT &lt;0.01 Sexual bother NSRP 1 Non-NSRP 0.7 BT 0.06 EBRT 0.07 Urinary function NSRP 1 Non-NSRP 0.7 BT &lt;0.01 EBRT &lt;0.01 Urinary bother NSRP 1 Non-NSRP 0.5 BT 0.08 EBRT 0.3 Bowel function NSRP 1 Non-NSRP 0.7 BT 0.08 EBRT &lt;0.01 Bowel bother NSRP 1 Non-NSRP 0.7 BT &lt;0.01 EBRT &lt;0.01</td>
</tr>
<tr>
<td></td>
<td>EBRT</td>
<td>386</td>
<td>Sexual function: 18/34 (53) Sexual bother: 10/33 (30) Urinary function: 19/36 (53) Urinary bother: 17/36 (47) Bowel function: 15/35 (43) Bowel bother: 8/34 (24)</td>
<td>Sexual function: 0.5 (0.3–0.8) Sexual bother: 0.7 (0.4–1.0) Urinary function: 0.3 (0.2–0.4) Urinary bother: 0.8 (0.5–1.2) Bowel function: 1.8 (1.2–2.7) Bowel bother: 2.3 (1.5–3.5)</td>
<td>Sexual function: 0.5 (0.3–0.8) Sexual bother: 0.7 (0.4–1.0) Urinary function: 0.3 (0.2–0.4) Urinary bother: 0.8 (0.5–1.2) Bowel function: 1.8 (1.2–2.7) Bowel bother: 2.3 (1.5–3.5)</td>
<td>Sexual function NSRP 1 Non-NSRP &lt;0.01 BT &lt;0.01 EBRT &lt;0.01 Sexual bother NSRP 1 Non-NSRP 0.7 BT 0.06 EBRT 0.07 Urinary function NSRP 1 Non-NSRP 0.7 BT &lt;0.01 EBRT &lt;0.01 Urinary bother NSRP 1 Non-NSRP 0.5 BT 0.08 EBRT 0.3 Bowel function NSRP 1 Non-NSRP 0.7 BT 0.08 EBRT &lt;0.01 Bowel bother NSRP 1 Non-NSRP 0.7 BT &lt;0.01 EBRT &lt;0.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Meaningful decline in UCLA-PCI score of at least half standard deviation from baseline to 10 yr by primary treatment modality n/n (%)**

**Half standard deviation from baseline to 2 yr by primary treatment modality among 3297 men in the study cohort OR (95% CI)**

**Adjusted likelihood of a clinically significant decline in UCLA-PCI score**

**Adjusted likelihood of a clinically significant decline in UCLA-PCI score of at least**
Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punnen cont.</td>
<td>NS Radical prostatectomy</td>
<td>113</td>
<td>9</td>
<td></td>
<td></td>
<td>Half standard deviation from baseline to 5 yr by primary treatment modality among 3297 men in the study cohort OR (95% CI)</td>
</tr>
<tr>
<td></td>
<td>Non NS Radical prostatectomy</td>
<td>860</td>
<td></td>
<td></td>
<td></td>
<td>Sexual function: 1 Sexual bother: 1 Urinary function: 1 Urinary bother: 1 Bowel function: 1 Bowel bother: 1</td>
</tr>
<tr>
<td></td>
<td>Brachytherapy</td>
<td>684</td>
<td></td>
<td></td>
<td></td>
<td>Sexual function: 2.0 (1.4–2.8) Sexual bother: 1.4 (1.0–1.9) Urinary function: 1.0 (0.7–1.3) Urinary bother: 0.8 (0.6–1.1) Bowel function: 1.1 (0.8–1.5) Bowel bother: 1.1 (0.7–1.5)</td>
</tr>
<tr>
<td></td>
<td>EBRT</td>
<td>386</td>
<td></td>
<td></td>
<td></td>
<td>Sexual function: 0.8 (0.5–1.2) Sexual bother: 1.2 (0.8–1.7) Urinary function: 0.5 (0.3–0.7) Urinary bother: 1.0 (0.7–1.5) Bowel function: 1.6 (1.0–2.3) Bowel bother: 1.1 (0.7–1.6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Percentage (%) of 5-year PCOS survey responders reporting bother on urinary, bowel, and sexual domain items</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Percentage (%) of 15-year PCOS survey responders reporting bother on urinary, bowel, and sexual domain items OR (95% CI) for responders reporting bother at 5 years OR for the prostatectomy group as compared with the radiotherapy group OR (95% CI) for responders reporting bother at 15 years OR for the prostatectomy group as compared with the radiotherapy group</td>
</tr>
<tr>
<td>Author, year, PROM tool used</td>
<td>Interventions</td>
<td>N at baseline</td>
<td>Baseline QoL mean scores (SD)</td>
<td>Follow up (months)</td>
<td>Reported Results</td>
<td>Reported p-values or Hazard Ratios with confidence intervals</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>-------------------------------</td>
<td>-------------------</td>
<td>-----------------</td>
<td>-------------------------------------------------</td>
</tr>
</tbody>
</table>
No control or frequent urinary leakage: 13.4  
Bothered by dripping or leaking urine: 12.9  
Sexual function  
Erection insufficient for intercourse: 75.7  
Bothered by sexual dysfunction: 46.7  
Bowel function  
Bowel urgency: 16.3  
Bothered by frequent bowel movements, pain, or urgency: 4.4 | Urinary incontinence  
No control or frequent urinary leakage: 18.3  
Bothered by dripping or leaking urine: 17.1  
Sexual function  
Erection insufficient for intercourse: 87  
Bothered by sexual dysfunction: 43.5  
Bowel function  
Bowel urgency: 21.9  
Bothered by frequent bowel movements, pain, or urgency: 5.2 |
| | EBRT | 491 | | | | | | Urinary incontinence  
No control or frequent urinary leakage: 4.4  
Bothered by dripping or leaking urine: 2.9  
Sexual function  
Erection insufficient for intercourse: 71.9  
Bothered by sexual dysfunction: 39.7  
Bowel function  
Bowel urgency: 31.3  
Bothered by frequent bowel movements, pain, or urgency: 5.8 |
| | | | | | | | | Urinary incontinence  
No control or frequent urinary leakage: 9.4  
Bothered by dripping or leaking urine: 18.4  
Sexual function  
Erection insufficient for intercourse: 93.9  
Bothered by sexual dysfunction: 37.7  
Bowel function  
Bowel urgency: 35.8  
Bothered by frequent bowel movements, pain, or urgency: 16.0 |
| | | | | | | | | Urinary incontinence  
No control or frequent urinary leakage: 5.10 (2.29–11.36)  
7.66 (2.97–19.89)  
Sexual function  
Erection insufficient for intercourse: 1.96 (1.05–3.63)  
1.48 (0.92–2.39)  
Bowel function  
Bowel urgency: 0.47 (0.26–0.84)  
0.93 (0.27–3.22)  |
| | | | | | | | | Urinary incontinence  
No control or frequent urinary leakage: 2.34 (0.88–6.23)  
0.87 (0.41–1.80)  
Sexual function  
Erection insufficient for intercourse: 0.38 (0.12–1.22)  
1.33 (0.58–3.03)  
Bowel Function  
Bowel urgency: 0.98 (0.45–2.14)  
0.29 (0.11–0.78)  |

<table>
<thead>
<tr>
<th>EPIC scores (mean ± SD) at 12 months</th>
<th>EPIC scores (mean ± SD) at 24 months</th>
<th>95% CI at 12 months</th>
<th>95% CI at 24 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher values refer to better function</td>
<td>Higher values refer to better function</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
</table>
| Sanda 2008 EPIC | Radical prostatectomy | 603 | **non-NSRP** | Urinary Incontinence: 94 ± 12
Urinary Irritative: 87 ± 14
Bowel: 95 ± 9
Sexual: 70 ± 27
Hormonal: 91 ± 12 | | non-NSRP | Urinary Incontinence: 73 ± 28
Urinary Irritative: 89 ± 17
Bowel: 92 ± 16
Sexual: 25 ± 29
Hormonal: 84 ± 22 | | non-NSRP | Urinary Incontinence: 73 ± 30
Urinary Irritative: 91 ± 12
Bowel: 94 ± 11
Sexual: 25 ± 28
Hormonal: 84 ± 22 |
| EBRT | 292 | **EBRT alone** | Urinary Incontinence: 92 ± 14
Urinary Irritative: 86 ± 13
Bowel: 94 ± 10
Sexual: 60 ± 28
Hormonal: 90 ± 12 | 30 | **EBRT alone** | Urinary Incontinence: 90 ± 17
Urinary Irritative: 88 ± 14
Bowel: 87 ± 17
Sexual: 49 ± 31
Hormonal: 90 ± 12 | | **EBRT alone** | Urinary Incontinence: 88 ± 16
Urinary Irritative: 89 ± 13
Bowel: 88 ± 17
Sexual: 48 ± 30
Hormonal: 90 ± 12 |
| | **EBRT and NHT** | Urinary Incontinence: 91 ± 13
Urinary Irritative: 87 ± 13
Bowel: 95 ± 7
Sexual: 56 ± 30
Hormonal: 93 ± 10 | | **EBRT and NHT** | Urinary Incontinence: 87 ± 15
Urinary Irritative: 87 ± 13
Bowel: 88 ± 16
Sexual: 29 ± 26
Hormonal: 82 ± 16 | | **EBRT and NHT** | Urinary Incontinence: 89 ± 15
Urinary Irritative: 86 ± 15
Bowel: 86 ± 19
Sexual: 25 ± 25
Hormonal: 85 ± 17 |
| Brachytherapy | 306 | **BT alone** | Urinary Incontinence: 93 ± 11
Urinary Irritative: 89 ± 12
Bowel: 96 ± 8 | | **BT alone** | Urinary Incontinence: 89 ± 16
Urinary Irritative: 81 ± 18
Bowel: 89 ± 16
Sexual: 52 ± 30 | | **BT alone** | Urinary Incontinence: 87 ± 18
Urinary Irritative: 84 ± 15
Bowel: 88 ± 16
Sexual: 48 ± 30 |
| | **EBRT alone** | Urinary Incontinence: 87-92
Urinary Irritative: 86-90
Bowel: 85-92
Sexual: 45-54
Hormonal: 88-92 | | **EBRT alone** | Urinary Incontinence: 87-92
Urinary Irritative: 86-90
Bowel: 85-92
Sexual: 45-54
Hormonal: 88-92 |
| | **EBRT and NHT** | Urinary Incontinence: 84-93
Urinary Irritative: 84-91
Bowel: 85-92
Sexual: 23-35
Hormonal: 78-85 | | **EBRT and NHT** | Urinary Incontinence: 84-93
Urinary Irritative: 84-91
Bowel: 85-92
Sexual: 23-35
Hormonal: 78-85 |
| | **BT alone** | Urinary Incontinence: 87-91
Urinary Irritative: 78-83 | | **BT alone** | Urinary Incontinence: 87-91
Urinary Irritative: 78-83 |

Note: SD = Standard Deviation.
### Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EBRT</td>
<td>42</td>
<td>12</td>
<td>Urinary function: 90 Urinary bother: 82 Sexual function: 58 Sexual bother: 64 Bowl function: 88 Bowl bother: 91</td>
<td>Urinary function: -27.8 Urinary bother: -15.3 Sexual function: -38.4 Sexual bother: -34.6 Bowl function: -0.5 Bowl bother: -4.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Baseline EPIC score mean (99% confidence interval)</th>
<th>EPIC scores at 1 year mean (99% confidence interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in UCLA-PCI scores between pre-treatment and 12 months</td>
<td>P values for change in EPIC scores from baseline to 12 months</td>
</tr>
</tbody>
</table>
Supplementary table 2: Summary of results for prospective studies

<table>
<thead>
<tr>
<th>Author, year, PROM tool used</th>
<th>Interventions</th>
<th>N at baseline</th>
<th>Baseline QoL mean scores (SD)</th>
<th>Follow up (months)</th>
<th>Reported Results</th>
<th>Reported p-values or Hazard Ratios with confidence intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symon 2006 EPIC</td>
<td>Radical prostatectomy</td>
<td>24</td>
<td>Urinary irritative: 87.7 (79.6–95.8) Urinary incontinence: 92.9 (85.6–100) Bowel: 92.6 (86.2–99.1) Sexual: 62.1 (47.7–77.5) Hormonal: 97.3 (81.9–92.7)</td>
<td>12</td>
<td>Urinary irritative: 91 (86.3–95.7) Urinary incontinence: 84.9 (74.2–95.5) Bowel: 95.6 (91.5–99.7) Sexual: 31.5 (16.8–46.1) Hormonal: 93.2 (88.1–98.3)</td>
<td>NR</td>
</tr>
<tr>
<td>EBRT</td>
<td></td>
<td>26</td>
<td>Urinary irritative: 86.2 (80.4–92) Urinary incontinence: 94.4 (88.9–99.9) Bowel: 95.7 (93.6–97.8) Sexual: 51.6 (38.6–64.7) Hormonal: 89 (81.5–96.5)</td>
<td></td>
<td>Urinary irritative: 82.9 (71.3–94.4) Urinary incontinence: 91.5 (82.8–100) Bowel: 88.9 (82.4–95.5) Sexual: 35.7 (23–48.5) Hormonal: 86.3 (79.5–93)</td>
<td></td>
</tr>
</tbody>
</table>

NR: Not reported  
NSS: Not statistically significant  
AS: Active surveillance  
RP: Radical prostatectomy  
NS: Nerve-sparing  
NSRP: Nerve-sparing radical prostatectomy  
EBRT: External beam radiotherapy  
SBRT: Stereotactic body radiotherapy  
IMRT: Intensity-modulated radiotherapy  
BT: Brachytherapy  
NHT: Neoadjuvant hormone therapy