

Patient-reported outcomes in the ProtecT trial over six years

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The ProtecT trial: 1999-2008

(Prostate testing for cancer and Treatment)



- 200,000 men invited, aged 50-69 years
- 82,429 PSA tested
- 2,965 prostate cancer
- 1,643 randomised to active monitoring, radical prostatectomy or radiotherapy with neo-adjuvant hormone therapy

Baseline characteristics (randomised)

	Active monitoring (n=545)	Radiotherapy (n=545)	Radical prostatectomy (n=553)
Age at invitation (years)			
49-54	58 (11%)	62 (11%)	69 (12%)
55-59	140 (26%)	141 (26%)	137 (25%)
60-64	184 (34%)	176 (32%)	172 (31%)
65-69	163 (30%)	166 (30%)	175 (32%)
Median age (range)	62 (50-69)	62 (49*-69)	62 (50-69)
PSA (µg/L)			
3.0-5.9	373 (68%)	373 (68%)	371 (67%)
6.0-9.9	116 (21%)	121 (22%)	123 (22%)
≥10.0	56 (10%)	51 (9%)	59 (11%)
Median PSA (range; µg/L)	4.6 (3.0-20.9)†	4.6 (3.0-18.8)	4.7 (3.0-18.4)
Gleason score			
6	421 (77%)	423 (78%)	422 (76%)
7	111 (20%)	108 (20%)	120 (22%)
8-10	13 (2%)	14 (3%)	10 (2%)
Missing	0	0	1 (<1%)
Clinical stage			
T1c	410 (75%)	429 (79%)	410 (74%)
T2	135 (25%)	116 (21%)	143 (26%)

Methods - PROMs

- ProtecT study questionnaire completed by men in the active monitoring, radiotherapy and surgery groups
- Validated patient-reported outcome measures (PROMs)
- Assessed at
 - Baseline (before diagnosis)
 - Six and 12 months after randomisation
 - Annually thereafter
- CONSORT-PRO guidelines followed



Patient-reported outcomes in the ProtecT randomized trial of clinically localized prostate cancer treatments: study design, and baseline urinary, bowel and sexual function and quality of life

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A.L. and C.M. contributed equally to the paper.
ProtecT Study group members are given in Appendix 1.

Objectives

To present the baseline patient-reported outcome measures (PROMs) in the Prostate Testing for Cancer and Treatment (ProtecT) randomized trial comparing active monitoring, radical prostatectomy and external-beam conformal radiotherapy for localized prostate cancer and to compare results with other populations.

Materials and Methods

A total of 1643 randomized men, aged 50–69 years and

Results

A total of 1438 participants completed biopsy questionnaires (88%) and 77–88% of these were analysed for individual PROMs. Fewer than 1% of participants were using pads daily (5/754). Storage lower urinary tract symptoms were frequent (e.g. nocturia 22%, 312/1423). Bowel symptoms were rare, except for loose stools (16%, 118/754). One third of participants reported erectile dysfunction (241/735) and for 16% (118/731) this was a moderate or large problem. Depression was infrequent (80/1399, 6%) but 20% of participants (278/1403) reported anxiety. Sexual function and bother were markedly worse in older men (65–70 years), whilst urinary bother and physical health were

Patient-reported outcomes

- Validated patient-completed outcome measures
 - Urinary symptoms and impact on quality of life
 - ICIQ, ICSmaleSF, EPIC-50
 - Sexual and bowel function symptoms and impact on quality of life
 - EPIC-50
 - Psychological status (anxiety, depression)
 - HADS
 - Generic health status
 - SF-12, EQ-5D
 - Cancer-specific quality of life
 - EORTC QLQ-C30



The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Patient-Reported Outcomes after Monitoring, Surgery, or Radiotherapy for Prostate Cancer

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ABSTRACT

BACKGROUND

Robust data on patient-reported outcome measures comparing treatments for clinically localized prostate cancer are lacking. We investigated the effects of active monitoring, radical prostatectomy, and radical radiotherapy with hormones on patient-reported outcomes.

The authors' full names, academic degrees, and affiliations are listed in the appendix. Address reprint requests to J.L. Donovan at the School of Social and Community Medicine, University of

Response rates

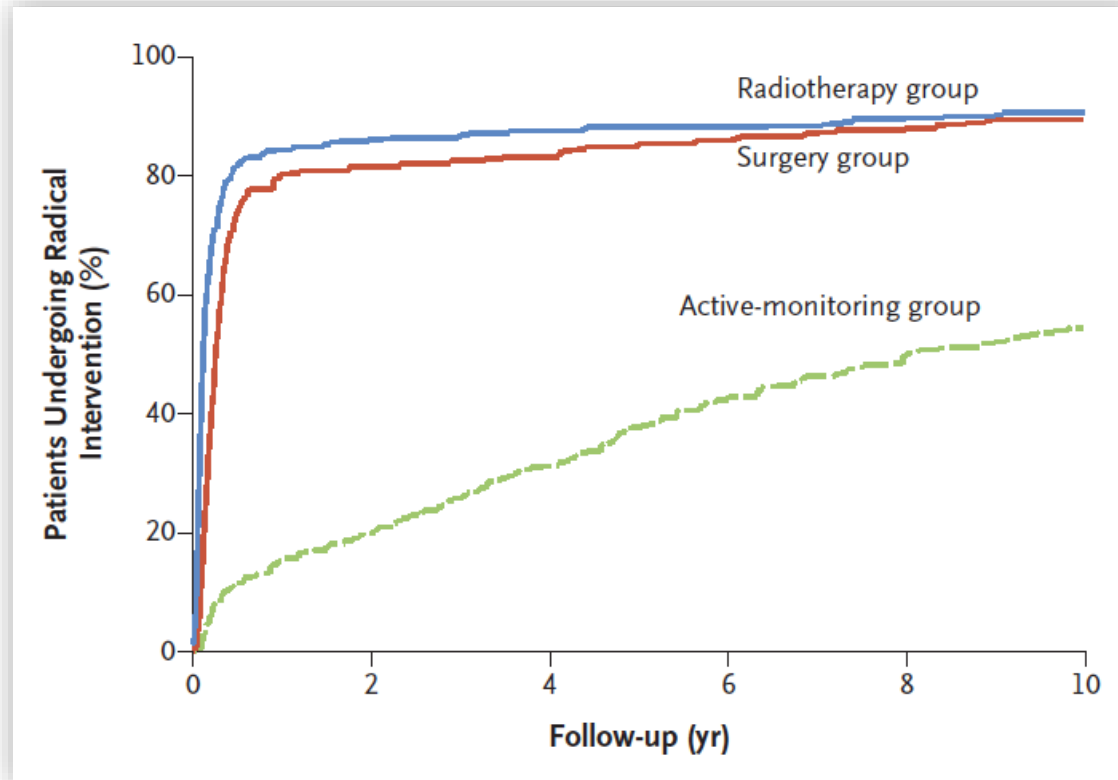


Assessment point	ICIQ score*	EPIC sexual function score*	HADS anxiety
	Complete / expected (%)	Complete / expected (%)	Complete / expected (%)
Baseline	1244/1539 (81%)	726/1011 (72%)	1591/1643 (97%)
6 months	1405/1572 (89%)	1013/1140 (89%)	1428/1638 (87%)
12 months	1377/1612 (85%)	1029/1214 (85%)	1422/1633 (87%)
24 months	1379/1624 (85%)	1131/1362 (83%)	1411/1625 (87%)
36 months	1386/1614 (86%)	1257/1479 (85%)	1410/1614 (87%)
48 months	1383/1602 (86%)	1325/1542 (86%)	1419/1602 (89%)
60 months	1384/1589 (87%)	1367/1587 (86%)	1413/1589 (89%)
72 months	1369/1572 (87%)	1352/1572 (86%)	1388/1572 (88%)

* ICIQ introduced in 2001, EPIC in 2005

Patients receiving treatments

Hamdy et al, N Eng J Med 2016

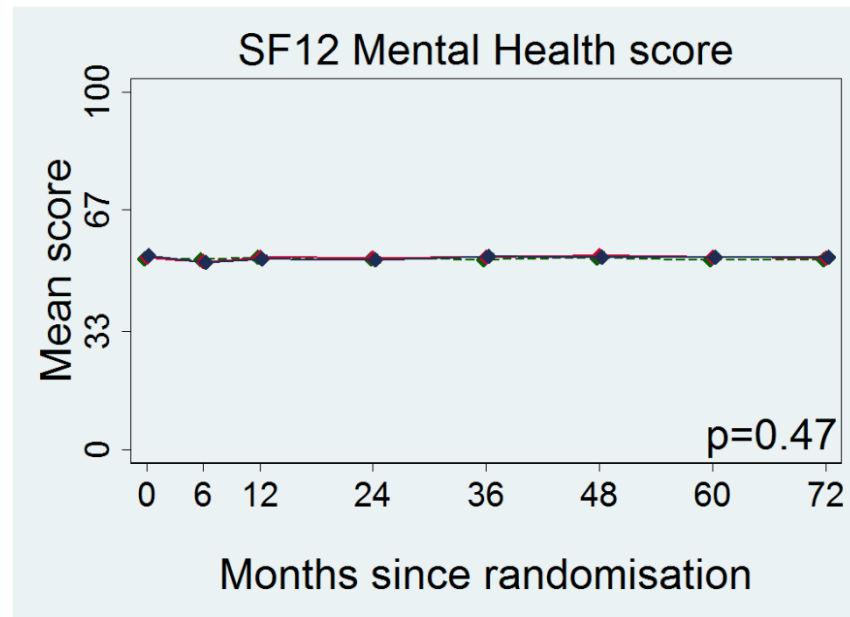
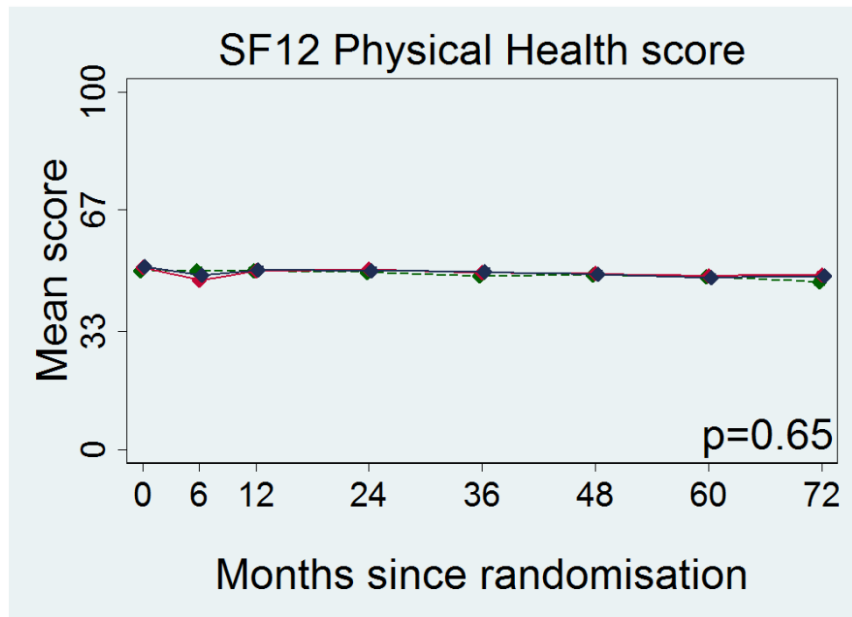


- More than half of men starting AM had received treatment by 10 years
- 44% of men on AM avoided treatment

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General quality of life

General quality of life



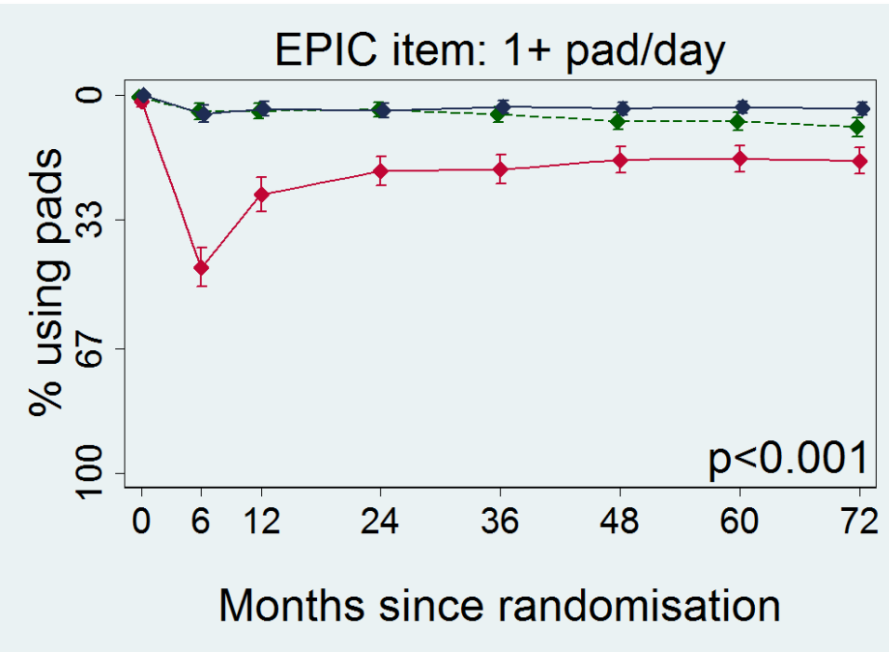
Better ↑
↓ Worse

Active monitoring —
Prostatectomy —
Radiotherapy —

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Urinary incontinence

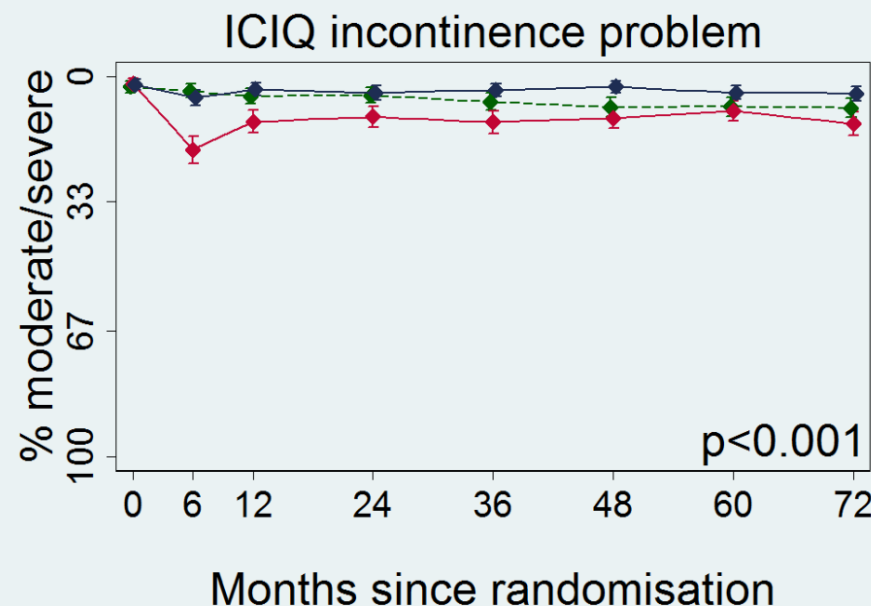
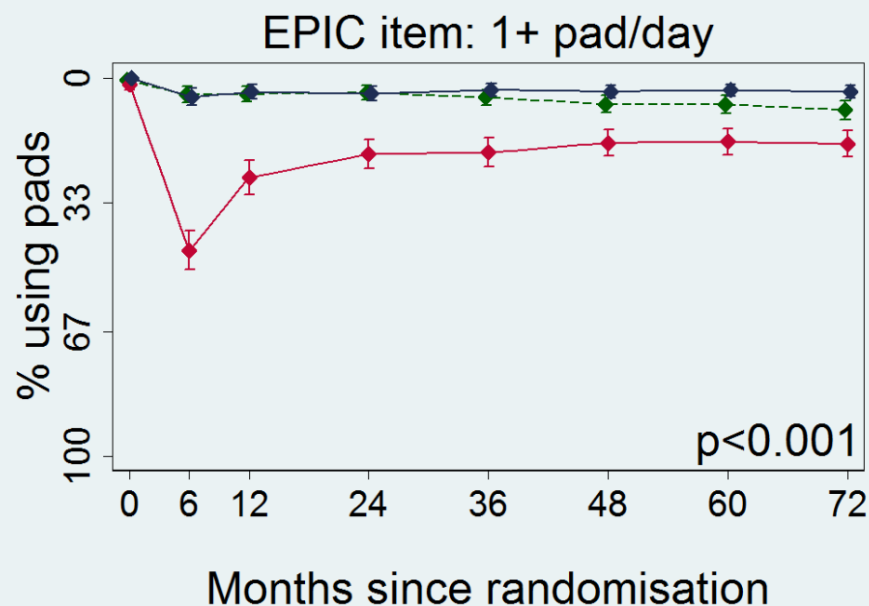
Urinary incontinence



Better ↑
↓ Worse

Active monitoring —
Prostatectomy —
Radiotherapy —

Urinary incontinence and impact



“In the early days I couldn’t hold anything in, it was hopeless... I still wear a small pad, just in case, because you don’t want to have a damp patch or accident.”

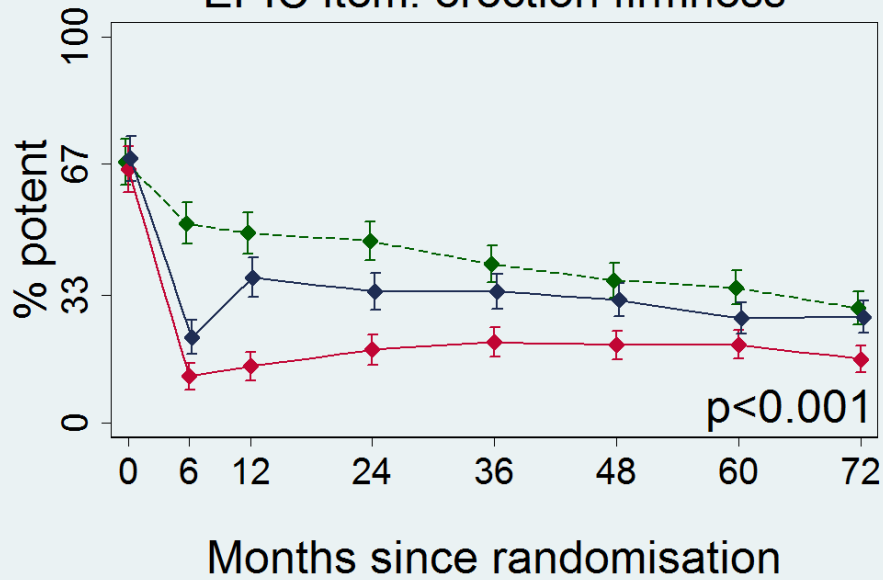
“I used the pads and they were OK, discrete, and then I stopped using them and I’m absolutely fine.”

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Sexual function/life

Erectile function

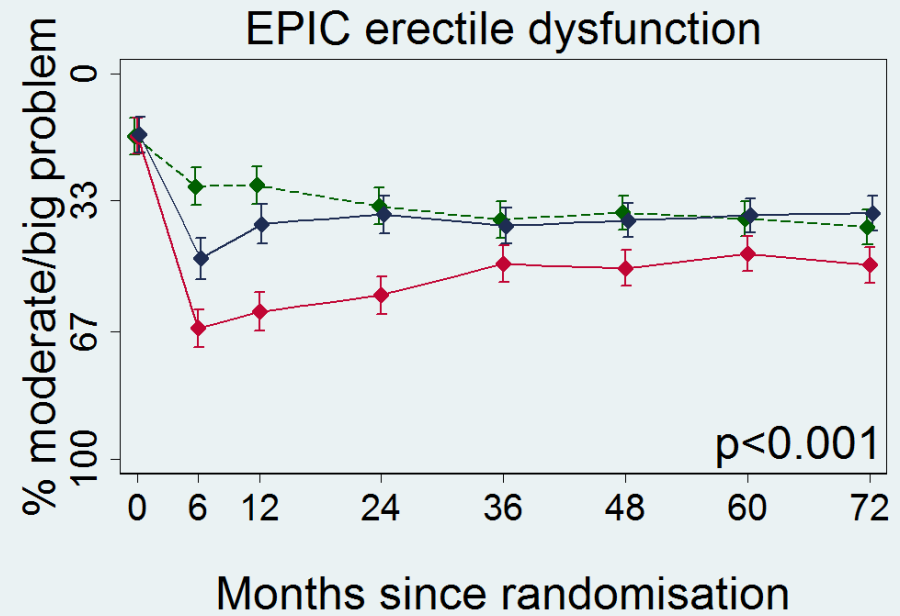
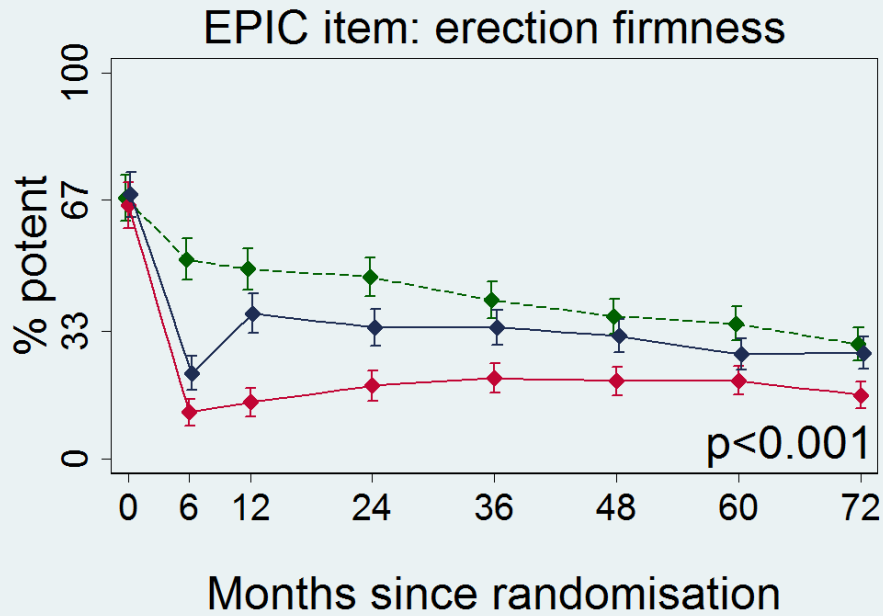
EPIC item: erection firmness



Better ↑
↓ Worse

Active monitoring —
Prostatectomy —
Radiotherapy —

Erectile function and impact



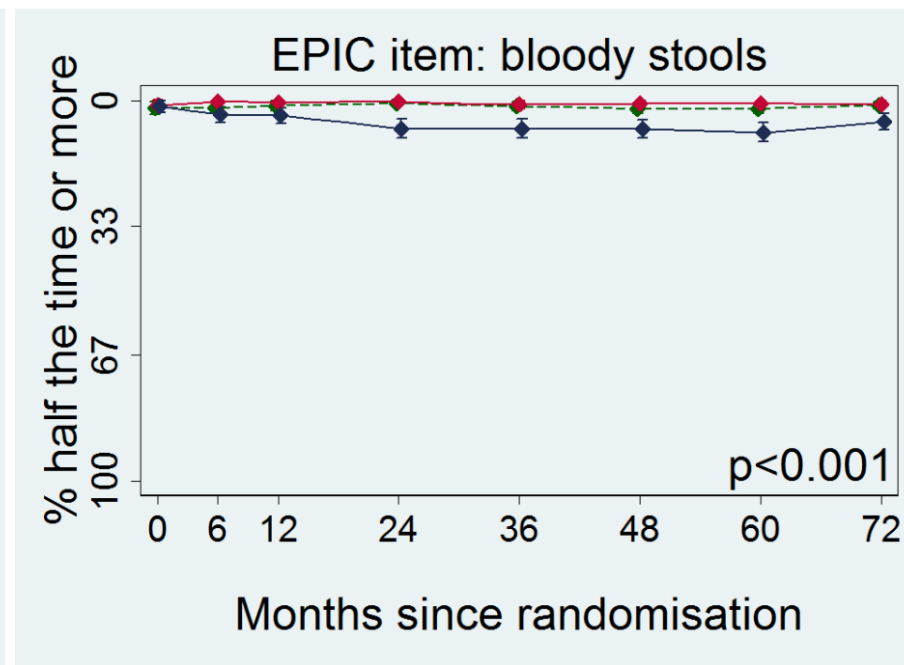
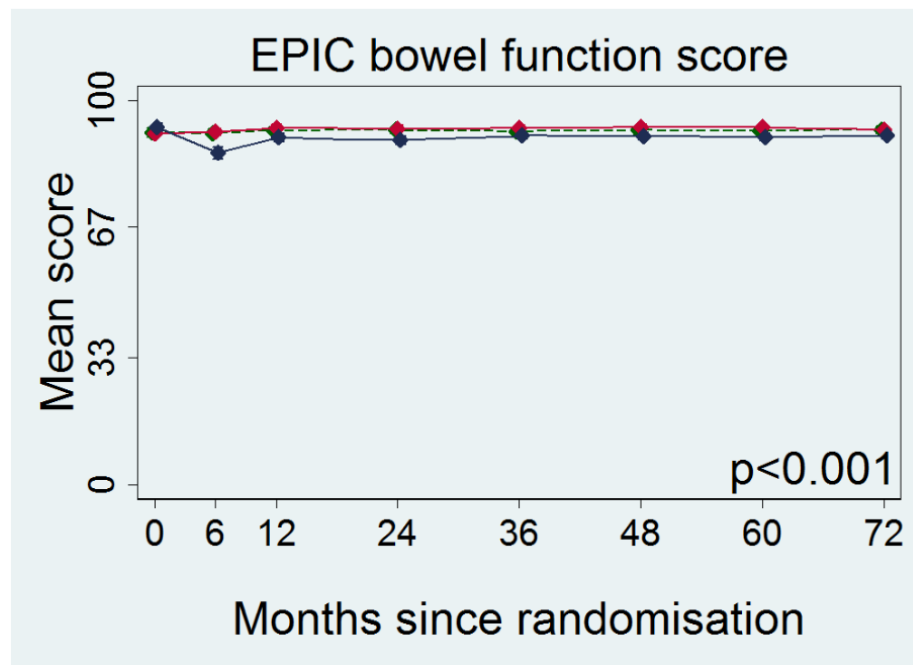
“I can’t get erections any more... Now that has been an impairment. I would like to get back to normal.”

“How much is it age and how much the treatment? I’m not a young buck any more, so it doesn’t really worry me.”

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Bowel function

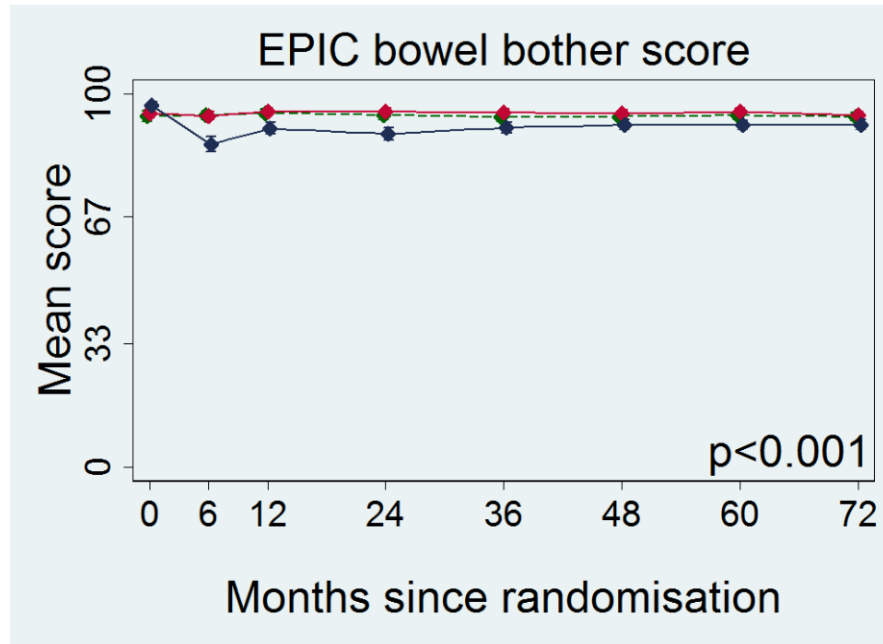
Bowel function



Better ↑
↓ Worse

Active monitoring — —
Prostatectomy — —
Radiotherapy — —

Bowel bother/impact



“I had a bit of bowel trouble, diarrhoea and urgency. That was a bit disconcerting... there were several times I nearly got caught out, which was a bit embarrassing. But I’ve become accustomed to it”

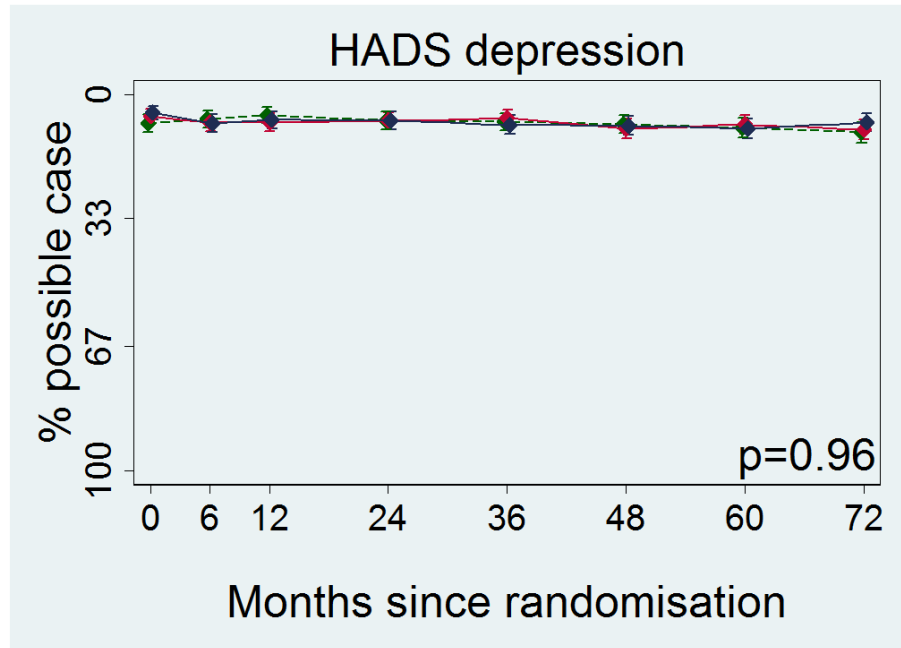
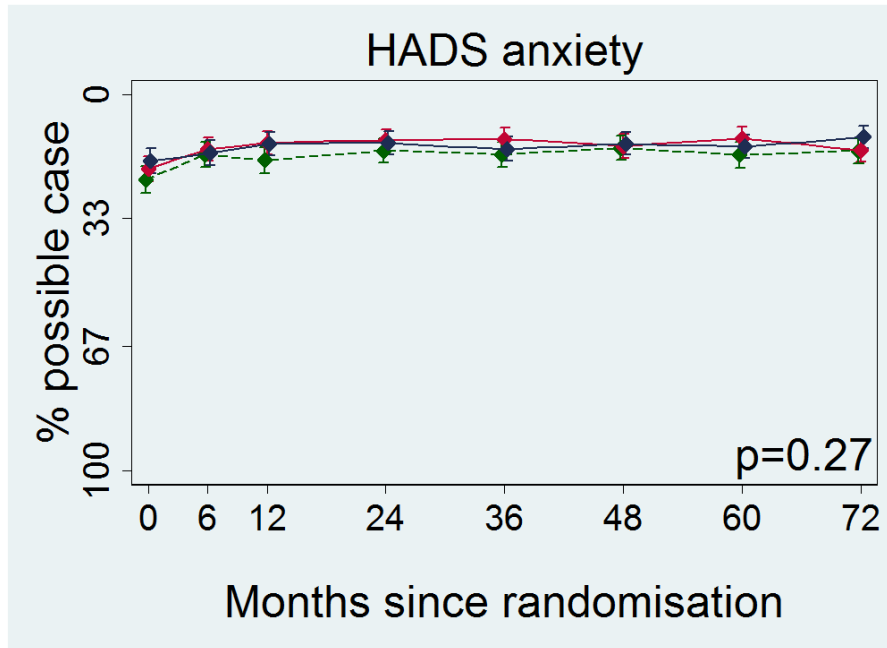
Better ↑
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Active monitoring —
Prostatectomy —
Radiotherapy —

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Other issues

Anxiety and depression

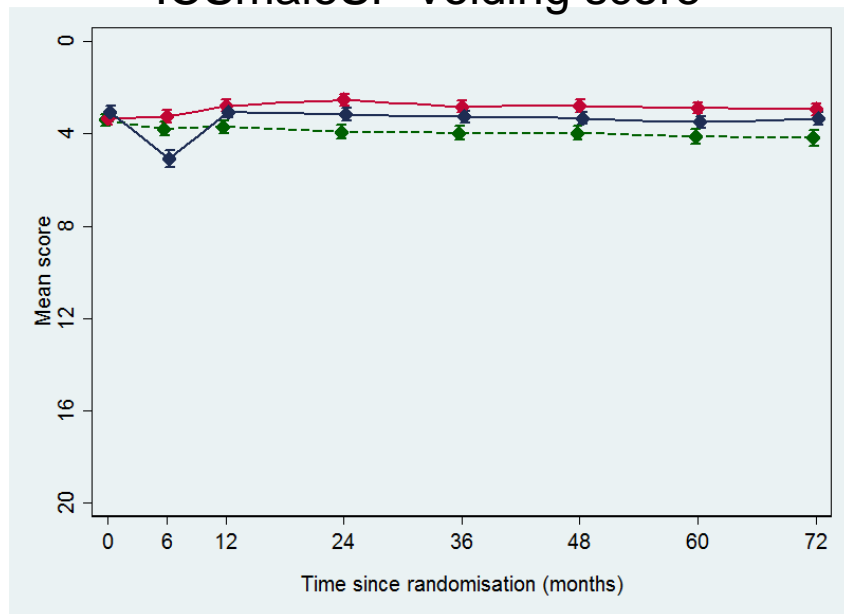


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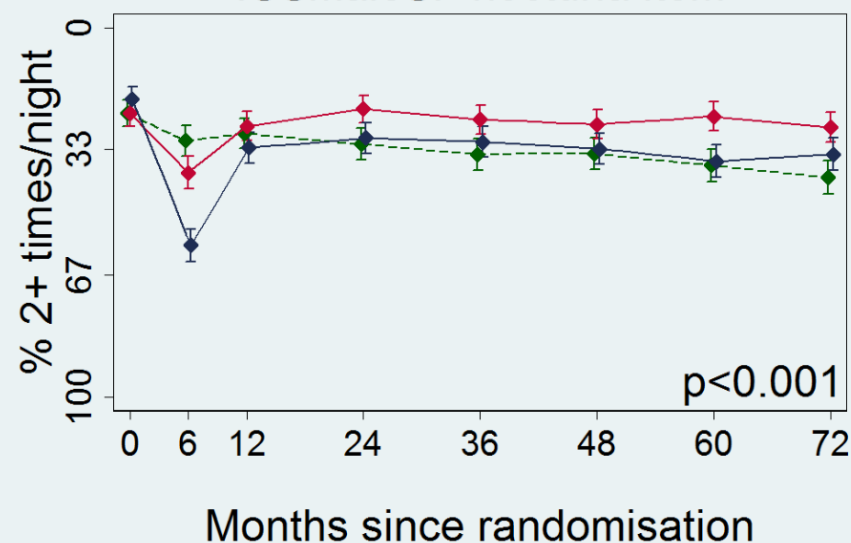
Active monitoring —
Prostatectomy —
Radiotherapy —

Urinary voiding (LUTs)

ICSmaleSF Voiding score



ICSmaleSF nocturia item



Better ↑
↓ Worse

Active monitoring
Prostatectomy
Radiotherapy

Conclusions: ProtecT PROMs

- Men had good physical and mental health throughout, but unpleasant and bothersome urinary, sexual and bowel symptoms varied in severity, recovery and decline between the groups
 - Surgery group: urine leakage and sexual difficulties were worse at six months and remained worse for some men over six years
 - Radiotherapy group: sexual, bowel and some urinary difficulties worse at six months; some longer term bowel symptoms
 - Active monitoring group: avoided side-effects if stayed on it, but some symptoms increased with changes of treatment and ageing

Conclusions: ProtecT PROMs

- Men had good physical and mental health throughout, but unpleasant and bothersome urinary, sexual and bowel symptoms varied in severity, recovery and decline between the groups
 - Surgery group: urine leakage and sexual difficulties were worse at six months and remained worse for some men over six years
 - Radiotherapy group: sexual, bowel and some urinary difficulties worse at six months; some longer term bowel symptoms
 - Active monitoring group: avoided side-effects if stayed on it, but some symptoms increased with changes of treatment and ageing
- Men and clinicians now have clear comparative information about men's experiences of treatments
- Men should be encouraged to take their time to consider these risks and benefits alongside data on mortality and cancer progression, to make an informed decision about treatment or testing

