

## PD63-07

# Patient-reported urinary incontinence following radical prostatectomy and its association with undergoing incontinence surgery: a national population-based study

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# Introduction

- Patient-reported outcomes (PROs) are increasingly important for assessing the impact of medical conditions and their treatment.
- Modern trials use PROs to provide a more comprehensive assessment of trial outcomes, side effects & patient satisfaction.
- The National Prostate Cancer Audit (NPCA) has collected surveys on over 45,000 men in England and Wales to better understand the impact of prostate cancer and its treatments.

# Aim

- To investigate the relationship between PROs for urinary incontinence and utilization of incontinence surgery among a cohort of prostate cancer survivors.

# Methods

- Our study used English Cancer Registry and Hospital Episode Statistics data to identify men diagnosed with prostate cancer between April 2014 & January 2016 who underwent surgery.
- Men were excluded if they received post-prostatectomy radiotherapy, were survey non-responders or ineligible.
- We also excluded men with missing urinary incontinence scores (n=355), those who had already undergone incontinence surgery (n=161) and those with <6 months follow-up (n=1,649).
- The data set was linked to the NPCA national patient survey which included the EPIC-26 and a specific question about patient satisfaction.

# Methods

- HES procedure codes (M642, M643 & M646) were used to identify patients who were treated with incontinence surgery.
- EPIC urinary incontinence scores were stratified by whether a urinary incontinence procedure was performed within 6 months of the survey.
- Non-parametric receiver operating characteristic (ROC) curves were constructed for urinary incontinence scores to assess the ability to discriminate between patients who did and did not undergo incontinence surgery.
- Positive predictive values (PPV) were also plotted according to urinary incontinence scores (0-100).

# Methods

- A secondary analysis of men with high ( $\geq 75$ ) and low ( $\leq 25$ ) EPIC urinary incontinence scores was performed.
- We stratified patient satisfaction and urinary bother scores by whether incontinence surgery was performed within 6 months of the patient survey.

# Results

- 5,044 men (77.4%) of the 9,286 eligible men responded.
- The median time from surgery to survey was 18.7 months (inter-quartile range: 16.5 to 23.8 months), with 0.7% (n=35) being treated with incontinence surgery.
- The median urinary incontinence score for men undergoing incontinence surgery within 6 months was very low at 8.25 (IQR 0-14.50), where all scores were  $\leq 25$ , versus 77.25 (IQR 52.25-100) among men who did not undergo incontinence surgery.
- Urinary incontinence scores were associated with incontinence surgery within 6 months (area under the curve [AUC] 0.973; 95% confidence interval [CI] 0.965 to 0.981;  $P < 0.001$ ).

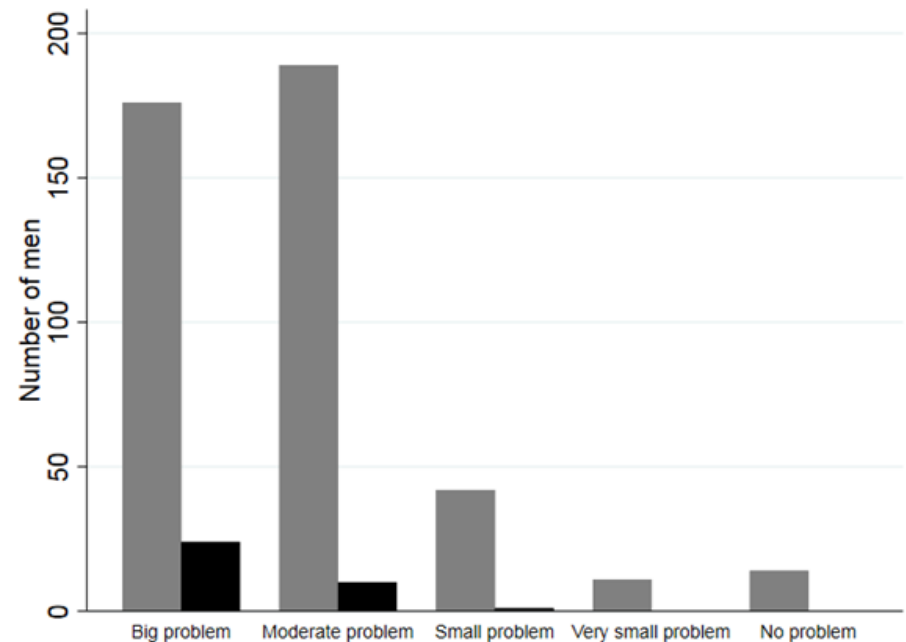
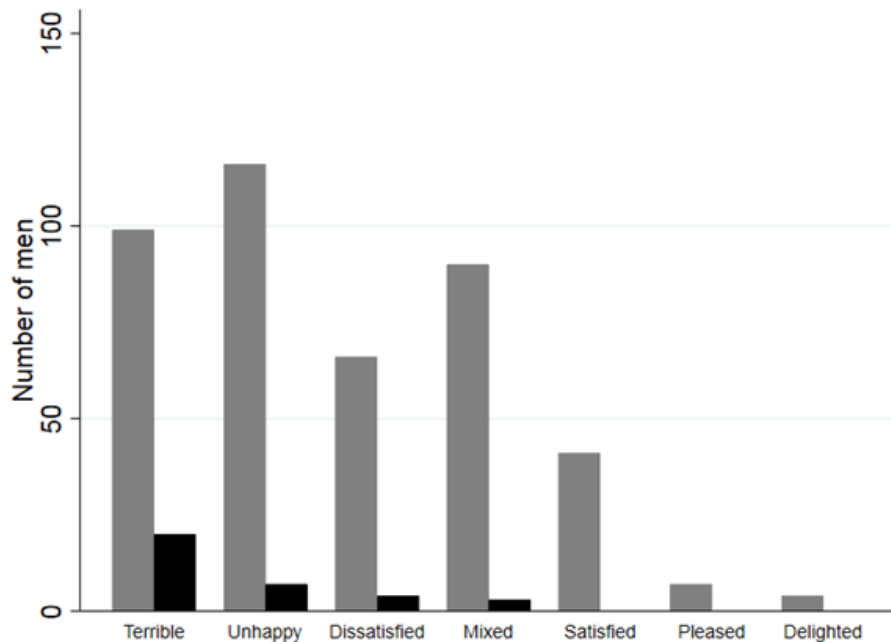
# Results

- PPV decreases as urinary incontinence scores increase; 85.5% of men with the worst urinary incontinence score were potentially 'under-treated' and did not go on to have incontinence surgery.
- 521 patients (10.3%) had bad urinary incontinence scores ( $\leq 25$ ), and 2,559 patients (50.7%) had good urinary incontinence scores ( $\geq 75$ ).
- All patients who underwent incontinence surgery had low satisfaction scores and 97.1% had a high urinary bother ('moderate'/'big problem').



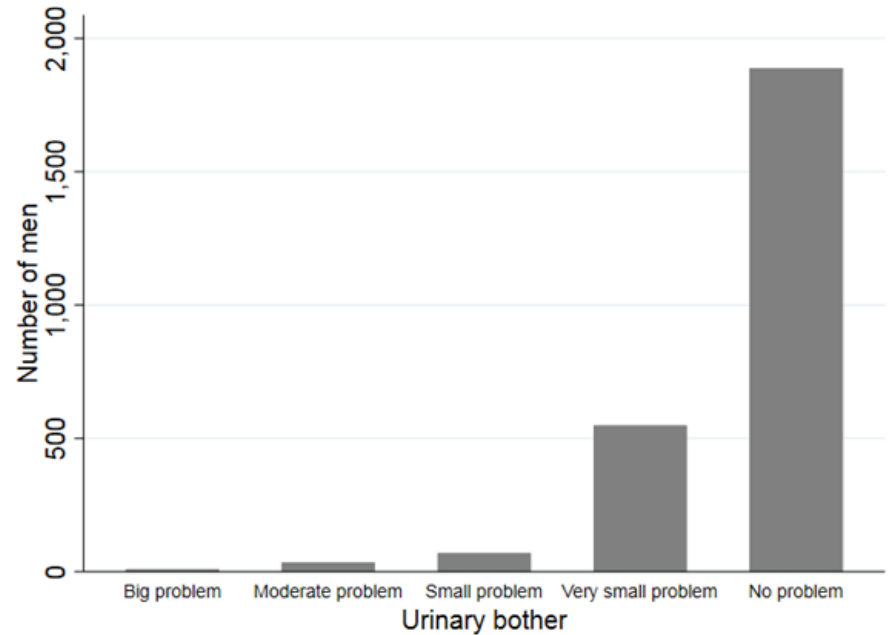
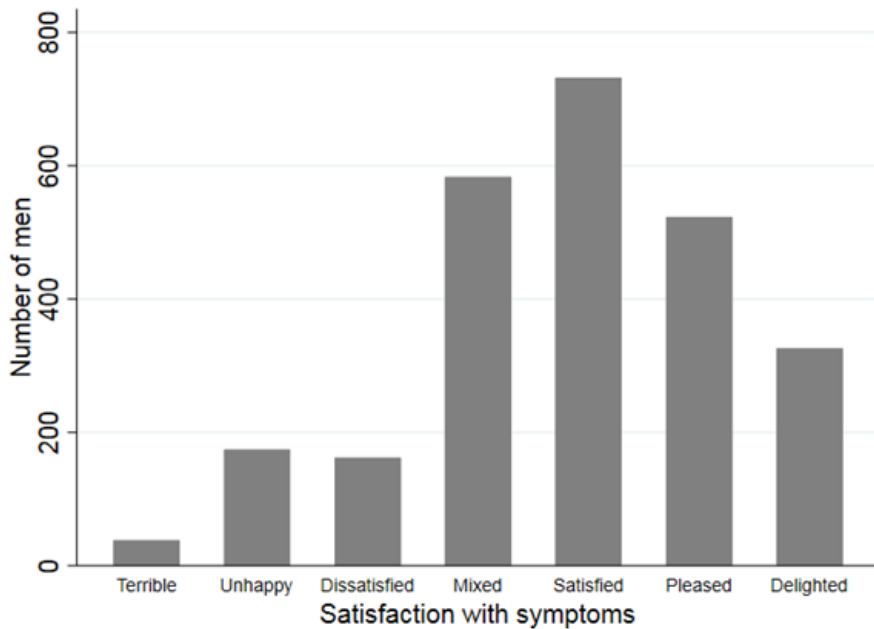
# Patient satisfaction after RP for men with low urinary incontinence scores (EPIC-26 score $\leq 25$ ), stratified by whether a man underwent a urinary incontinence procedure within 6 months of patient survey.

Low urinary incontinence EPIC-26 domain score ( $\leq 25$ )



**Patient satisfaction after RP for men with high urinary incontinence scores (EPIC-26 score  $\geq 75$ ), stratified by whether a man underwent a urinary incontinence procedure within 6 months of patient survey.**

High urinary incontinence EPIC-26 domain score ( $\geq 75$ )



Legend:  No procedure  Incontinence procedure

# Results

- In summary, of all men who underwent a radical prostatectomy, nearly 1 in 10 (7.9%) had bad urinary incontinence EPIC-26 scores associated with a moderate/big problem at 19 months.

# Conclusions

- Low (i.e., bad) EPIC urinary continence scores were predictive of men subsequently treated with urinary incontinence surgery.
- Most men with bad EPIC urinary scores also had low satisfaction and high urinary bother, but did not undergo incontinence surgery.
- >400 men/yr may be afflicted with incontinence but remain untreated.
- There is potential for EPIC-26 to be used as a screening tool to identify which men could benefit from incontinence surgery