### Supplementary material

**Table S1. A copy of the questionnaire translated from Swedish.**

After the biopsy, did you notice (circle your answer)

1. Fever above 38˚C? \hspace{1cm} YES \hspace{1cm} NO

2. Increased problems with discharge of urine \hspace{1cm} YES \hspace{1cm} NO

   urgency, burning sensation of pain?

The following question are only to be completed if you answered YES to question 1 or 2.

3. Did you see a doctor for these symptoms? \hspace{1cm} YES \hspace{1cm} NO

4. Did you receive antibiotics for your symptoms? \hspace{1cm} YES \hspace{1cm} NO

5. What antibiotics?.................................

   For how many days?.................................

6. Were you admitted to a hospital? \hspace{1cm} YES \hspace{1cm} NO

if YES, where?..........................................and when?.........................................
Table S2. Logistic regression model of the primary outcome.

|                | Bivariate |              |          | Multivariate |              |
|----------------|-----------|--------------|----------|--------------|--------------|
|                | Outcome   | OR (95% CI)  | p        | OR (95% CI)  | p            |
| Age            | -         | 0.99 (0.97-1.01) | .16      | 0.99 (0.97-1.01) | .19          |
| Time Period    |           |              |          |              |              |
| 2003-2007      | 33/2218   | 1            |          | 1            |              |
| 2008-2012      | 51/2798   | 1.23 (0.80-1.93) | .36      | 1.20 (0.74-1.98) | .47          |
| 2013-2017      | 103/3957  | 1.77 (1.21-2.67) | **.005** | 1.78 (1.14-2.87) | **.01**      |
| PSA            |           |              |          |              |              |
| <3             | 10/494    | 0.84 (0.41-1.54) | .61      | 1.02 (0.47-1.94) | .95          |
| 3-10           | 111/5258  | 1            |          | 1            |              |
| 10-20          | 37/1817   | 0.97 (0.65-1.41) | .88      | 1.03 (0.69-1.52) | .88          |
| >20            | 29/1387   | 0.95 (0.60-1.43) | .81      | 1.32 (0.80-2.11) | .26          |
| Volume         |           |              |          |              |              |
| 0-40           | 77/4355   | 1            |          | 1            |              |
| 40-100         | 95/4143   | 1.30 (0.96-1.77) | .09      | 1.28 (0.94-1.77) | .12          |
| ≥100           | 10/298    | 1.93 (0.93-3.59) | .054     | 1.88 (0.88-3.64) | .08          |
| PSA density    |           |              |          |              |              |
| <0.10          | 35/1347   | ref          |          | NA           |              |
| 0.10 – 0.15    | 46/1845   | 0.96 (0.62-1.50) | .85      | NA           |              |
| > 0.15         | 101/5595  | 0.69 (0.47-1.03) | .06      | NA           |              |

Table S3. Results of the questionnaires during the study period 2003–2017.

|                                | no infection, n = 8786 | infection, n = 187 |
|--------------------------------|------------------------|--------------------|
| Questionnaires submitted       | 4786 (55%)             | 109 (58%)          |
| Side effect reported*          | 887 (17%)              | 102 (94%)          |
| Fever*                         | 114 (2%)               | 88 (81%)           |
| Urinary urgency*               | 413 (8%)               | 64 (55%)           |
| Saw a doctor within 2 weeks*   | 142 (3%)               | 89 (76%)           |
| Prescribed additional antibiotics* | 122 (2%)             | 82 (70%)           |

* The denominator for percentage is submitted questionnaires
Table S4. Subgroup analysis of the final period 2013-2017 divided into two terms.

|                                      | 2013-2014 | 2015-2017 |
|--------------------------------------|-----------|-----------|
| Biopsies performed, n                | 1696      | 2261      |
| **Blood culture taken (%)**          |           |           |
| - Positive blood                     | 55 (3)    | 65 (3)    |
| **Urine culture taken (%)**          |           |           |
| - Positive urine                     | 57 (3)    | 83 (4)    |
| Age, median years (range)            | 67 (28-96)| 67 (31-95)|
| **Prophylaxis, n (%)**               |           |           |
| Single dose ciprofloxacin            | 1354 (80) | 1597 (71) |
| Extended course of ciprofloxacin     | 313 (19)  | 629 (28)  |
| Other type of antibiotic             | 29 (2)    | 35 (2)    |
| Missing, n                           | -         | -         |
| **Positive nitrite, n (%)**          | 33 (1)    | 32 (1)    |
| Missing, n                           | -         | -         |
| **PSA level, median µg/l (range)**   | 7.70 (0.11-23666) | 7.1 (0.1-17000) |
| Missing, n                           | -         | 2         |
| **Volume of prostate, median ml (range)** | 39 (1-300) | 42 (1-999) |
| Missing, n                           | 30        | 43        |
| **T-Stage, n (%)**                   |           |           |
| T0/T1                                | 1198 (71) | 1453 (64) |
| T2-T4                                | 498 (29.4)| 808 (36)  |
| Missing, n                           | -         | -         |
| **Biopsies cores taken, median (range)** | 10 (1-18) | 10 (1-22) |
| Missing, n                           | -         | 1         |
Figure S1. Annual trends for total number of biopsies, covariates and the primary outcome (blood and/or urine positivity rate). p values are from Mann-Kendall tests for continuous variables and from Cochrane-Armitage tests for proportions.