**Additional file 4** Factors associated with confirmed urinary tract infections\(^a\) using univariate logistic regression

| Confirmed urinary tract infections (UTIs) | No of residents | | | | |
|------------------------------------------|----------------|----------------|----------------|----------------|
|                                           | without a UTI | with a UTI | OR (95% CI) | p-value |
| **Age**                                  |               |             |             |         |
| 65-74 years                              | 4             | 2           | Ref.        |         |
| 75-84 years                              | 37            | 8           | 0.4 (0.1-2.8) | p=0.38 |
| 85+ years                                | 80            | 6           | 0.2 (0.0-1.0) | p=0.049 |
| **Gender**                               |               |             |             |         |
| Female                                   | 98            | 14          | Ref.        |         |
| Male                                     | 23            | 2           | 0.6 (0.1-2.9) | p=0.53 |
| **Resident’s care load\(^b\)**           |               |             |             |         |
| Category 1                               | 6             | 3           | Ref.        |         |
| Category 2                               | 37            | 7           | 0.4 (0.1-1.9) | p=0.24 |
| Category 3                               | 19            | 3           | 0.3 (0.0-2.0) | p=0.22 |
| Category 4                               | 50            | 2           | 0.1 (0.0-0.6) | p=0.012 |
| **Fever (reported sign) or rigors**      |               |             |             |         |
| No                                       | 114           | 16          | Ref.        |         |
| Yes                                      | 7             | 0           | /           | /       |
| **Acute change in mental or functional status** |               |             |             |         |
| No                                       | 76            | 13          | Ref.        |         |
| Yes                                      | 45            | 3           | 0.4 (0.1-1.4) | p=0.16 |
| **Acute dysuria**                        |               |             |             |         |
| No                                       | 110           | 5           | Ref.        |         |
| Yes                                      | 11            | 11          | 22.0 (6.5-74.9) | p<0.001 |
| **Acute costovertebral angle pain or tenderness** |               |             |             |         |
| No                                       | 116           | 15          | Ref.        |         |
| Yes                                      | 5             | 1           | 1.5 (0.2-14.1) | p=0.70 |
| **Acute suprapubic pain**                |               |             |             |         |
| No                                       | 117           | 10          | Ref.        |         |
| Yes                                      | 4             | 6           | 17.6 (4.2-72.6) | p<0.001 |

\(^a\) New or marked increase in frequency, urgency or incontinence
| Condition                                             | No   | Yes  | Ref.          | OR (95% CI) | p-value |
|-------------------------------------------------------|------|------|---------------|-------------|---------|
| Gross hematuria                                        |      |      |               |             |         |
| No                                                    | 115  | 6    | Ref.          | 1.6 (0.5-4.8) | 0.40    |
| Yes                                                   | 13   | 1    |               | 1.3 (0.1-11.4) | 0.83    |
| Change in character of urine (excl. blood)            |      |      |               |             |         |
| No                                                    | 101  | 14   | Ref.          | 0.7 (0.2-3.4) | 0.68    |
| Yes                                                   | 20   | 2    |               | 0.4 (0.1-1.4)  | 0.14    |
| Strong or foul smelling urine                         |      |      |               |             |         |
| No                                                    | 75   | 13   | Ref.          | 0.4 (0.1-1.4) | 0.14    |
| Yes                                                   | 46   | 3    |               |              |         |
| Purulent discharge around catheter                    |      |      |               |             |         |
| No                                                    | 119  | 16   | Ref.          | /            | /       |
| Yes                                                   | 2    | 0    |               |              |         |
| Marked loss of appetite, tiredness or fatigue         |      |      |               |             |         |
| No                                                    | 91   | 12   | Ref.          | 1.0 (0.3-3.4) | 0.99    |
| Yes                                                   | 30   | 4    |               |              |         |
| Marked restlessness or agitation                       |      |      |               |             |         |
| No                                                    | 97   | 14   | Ref.          | 0.6 (0.1-2.7) | 0.49    |
| Yes                                                   | 24   | 2    |               |              |         |
| Combined nitrite and leukocyte esterase dipstick test performed in the nursing home |      |      |               |             |         |
| Both negative                                         | 24   | 1    | Ref.          | /            | /       |
| One or both positive                                  | 92   | 15   |               | 3.9 (0.5-31.1) | 0.20    |
| C-reactive protein via point-of-care test             |      |      |               |             |         |
| <5 mg/L                                               | 59   | 6    | Ref.          | /            | /       |
| ≥5 mg/L                                               | 57   | 9    |               | 1.6 (0.5-4.6)  | 0.43    |

*Confirmed urinary tract infections (UTIs): UTIs corresponding to the definition of a UTI as described in an article of Stone MD et al, i.e. presence of enough urinary signs and/or symptoms and a positive urine culture [24]; * Category 1: physically independent and oriented in time and space, category 2: physically independent and disoriented in time and space OR mild physical dependence without disorientation in time and space, category 3: severe physical dependence without disorientation in time and space, category 4: severe physical dependence and disorientation in time and space OR diagnosis of dementia; CI: confidence interval