**Supplementary material**

Supplementary Figure 1. Inclusion of patients with cT2-T4aN0M0 urothelial bladder carcinoma who underwent radical cystectomy followed by pelvic lymph node dissection in the Netherlands, stratified per cohort (NCR: 1995-2013, and NCR-BlaZIB: November 2017-October 2019)

| All patients with bladder cancer who underwent radical cystectomy with curative intent as primary | NCR cohort: 1995-2013 | NCR-BlaZIB cohort: 1 November 2017-31 October 2019 |
|---|---|---|
| cT2-4aN0M0 bladder cancer | 10338 | 1094 (no cTa or cM+ in BlaZIB) |
| Urothelial carcinoma | 5948 | 811 |
| PLND performed | 5517 | 782 |
| Total: 4657 | | 760 |

Total: 5417
Supplementary Table 1. Baseline characteristics of patients with cT2-4aN0M0 urothelial bladder cancer without evidence of residual muscle-invasive disease at radical cystectomy

|                              | Cohort                                      |       |       |       |
|------------------------------|---------------------------------------------|-------|-------|-------|
|                              |                                             | Total | NCR (1995-2013) | NCR-BlaZIB (2017-2019) |
|                              |                                             | N     | (%)   | N     | (%)   |
| Total                        |                                             | 5417  | (100.0) | 4657  | (86.0) | 760  | (14.0) |
| Gender                       |                                             |       |       |       |       |
| Male                         |                                             | 4116  | (76.0) | 3565  | (76.6) | 551  | (72.5) |
| Female                       |                                             | 1301  | (24.0) | 1092  | (23.4) | 209  | (27.5) |
| Age at diagnosis (median, IQR) |                                             | 67.0  | (60.0-73.0) | 67.0  | (60.0-73.0) | 70.0  | (63.0-75.0) |
| Age at diagnosis             |                                             |       |       |       |       |
| <60 years                    |                                             | 1244  | (23.0) | 1125  | (24.2) | 119  | (15.7) |
| 60-70 years                  |                                             | 2003  | (37.0) | 1757  | (37.7) | 246  | (32.4) |
| 70-80 years                  |                                             | 1882  | (34.7) | 1533  | (32.9) | 349  | (45.9) |
| 80+ years                    |                                             | 288   | (5.3)  | 242   | (5.2)  | 46   | (6.1)  |
| Clinical T-stage             |                                             |       |       |       |       |
| cT2                          |                                             | 4342  | (80.2) | 3808  | (81.8) | 534  | (70.3) |
| cT3-4a                       |                                             | 1075  | (19.8) | 849   | (18.2) | 226  | (29.7) |
| Neo-adjuvant chemotherapy    |                                             |       |       |       |       |
| Yes                          |                                             | 513   | (9.5)  | 298   | (6.4)  | 215  | (28.3) |
| No                           |                                             | 4904  | (90.5) | 4359  | (93.6) | 545  | (71.7) |
| Neo-adjuvant radiotherapy    |                                             |       |       |       |       |
| Yes                          |                                             | 108   | (2.0)  | 104   | (2.2)  | 4    | (0.5)  |
| No                           |                                             | 5309  | (98.0) | 4553  | (97.8) | 756  | (99.5) |

Abbreviations: IQR, Interquartile range.