Determinants of self-reported functional status (EPIC-26) in prostate cancer patients prior to treatment

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Online Resource 8: Sensitivity analysis: Results of linear multilevel analyses for pretherapeutic functional status (model 3) for centers documenting the number of comorbidities

|  | Urinary incontinence(2133 patients, 28 centers) | Urinary irritative/obstructive(2075 patients, 28 centers) | Bowel(2081 patients, 28 centers) | Sexual(2160 patients, 28 centers) | Hormonal(2130 patients, 28 centers) |
| --- | --- | --- | --- | --- | --- |
|  | Estimate (95% CI); p-value | Estimate (95% CI); p-value | Estimate (95% CI); p-value | Estimate (95% CI); p-value | Estimate (95% CI); p-value |
| (Intercept) | 102.8 (96.73-108.87) | 95.55 (88.6-102.49) | 94.38 (90.45-98.32) | 144.32 (132.6-156.04) | 74.95 (69.02-80.89) |
| **Patient characteristics** |  |
| *Sociodemographic information* |  |
| Age | **-0.17 (-0.25--0.08);****<0.001\*** | **-0.12 (-0.21--0.02);****0.015\*** | 0.01 (-0.04-0.07);0.631 | **-1.33 (-1.49--1.17);****<0.001\*** | **0.25 (0.17-0.33);****<0.001\*** |
| Nationality |  |  |  |  |  |
|  German | Reference | Reference | Reference | Reference | Reference |
|  Other  | -1.67 (-5.09-1.75);0.338 | -2.15 (-6.02-1.73);0.277 | 1.37 (-0.88-3.62);0.234 | 1.83 (-4.72-8.38);0.583 | 1.65 (-1.68-4.99);0.331 |
| Insurance |  |  |  |  |  |
|  Statutory | Reference | Reference | Reference | Reference | Reference |
|  Private | 1.04 (-0.49-2.57);0.185 | 0.81 (-0.92-2.53);0.358 | 0.41 (-0.61-1.43);0.431 | 1.88 (-1.03-4.78);0.205 | **1.55 (0.02-3.07);****0.047\*** |
| School-leaving qualification |  |  |  |  |  |
|  Lower secondary school | Reference | Reference | Reference | Reference | Reference |
|  Intermediate secondary school | 1.42 (-0.22-3.06);0.091 | 1.27 (-0.58-3.12);0.177 | 0.68 (-0.42-1.77);0.226 | **3.57 (0.48-6.66);****0.023\*** | **2.56 (0.92-4.2);****0.002\*** |
|  FHSRa | 0.65 (-1.33-2.64);0.520 | -0.26 (-2.49-1.97);0.819 | -0.51 (-1.85-0.82);0.450 | **6.98 (3.22-10.74);****<0.001\*** | 0.56 (-1.43-2.56);0.580 |
|  University entrance certificate | 0.37 (-1.39-2.12);0.683 | 0.57 (-1.4-2.55);0.570 | 0.26 (-0.91-1.43);0.665 | **8.1 (4.77-11.43);****<0.001\*** | **2.02 (0.27-3.77);****0.024\*** |
|  Other | 0.97 (-3.81-5.76);0.690 | -2.31 (-7.69-3.07);0.400 | 0.54 (-2.55-3.62);0.733 | -2.24 (-11.36-6.89);0.631 | 0.61 (-4.19-5.4);0.805 |
|  None | 0.54 (-7.28-8.35);0.893 | -7.64 (-16.6-1.33);0.095 | -3.3 (-8.28-1.69);0.195 | -7.65 (-22.02-6.72);0.297 | 0.12 (-7.72-7.95);0.977 |
| *Disease information*  |  |
| Comorbidities |  |  |  |  |  |
|  0 | Reference | Reference | Reference | Reference | Reference |
|  1 | 0.21 (-1.2-1.61);0.772 | 0.75 (-0.86-2.36);0.364 | -0.35 (-1.27-0.57);0.455 | **-4.93 (-7.64--2.21);****<0.001\*** | **-2.08 (-3.46--0.69);****0.003\*** |
|  ≥ 2 | 1.08 (-1.1-3.26);0.330 | -1.5 (-3.97-0.97);0.234 | **-1.67 (-3.11--0.24);****0.022\*** | **-9.00 (-13.19--4.81);****<0.001\*** | **-4.36 (-6.53--2.19);****<0.001\*** |
| Risk classb |  |  |  |  |  |
|  High, localized | -0.26 (-2.15-1.63);0.789 | -2.13 (-4.26-0);0.050 | -1.16 (-2.43-0.12);0.076 | -0.28 (-3.89-3.34);0.881 | **-1.93 (-3.83--0.03);****0.047\*** |
|  Intermediate, localized | 0.56 (-1.24-2.36);0.539 | -0.42 (-2.46-1.63);0.690 | -0.54 (-1.76-0.67);0.381 | 2.87 (-0.56-6.3);0.101 | -0.50 (-2.31-1.32);0.591 |
|  Low, localized | Reference | Reference | Reference | Reference | Reference |
|  Locally advanced  | 1.23 (-1.96-4.42);0.449 | **-3.77 (-7.34--0.2);****0.039\*** | -1.22 (-3.31-0.88);0.255 | -0.42 (-6.43-5.58);0.890 | -0.95 (-4.17-2.27);0.563 |
|  Advanced (N1) | -4.02 (-10.68-2.64);0.237 | **-18.59 (-26.19--10.99);****<0.001\*** | **-8.59 (-13--4.17);****<0.001\*** | **-14.36 (-26.77--1.96);****0.023\*** | -6.26 (-12.61-0.1);0.054 |
|  |  |  |  |  |  |
| **Center characteristics** |  |
| Recruitment rate | -1.96 (-6.2-2.27);0.363 | -1.14 (-6.47-4.19);0.676 | **2.84 (0.21-5.47);****0.034\*** | -0.41 (-9.1-8.28);0.927 | -1.92 (-5.82-1.98);0.335 |
| Ownership |  |  |  |  |  |
|  Public | Reference | Reference | Reference | Reference | Reference |
|  Charitable | 1.79 (-0.5-4.07);0.125 | 0.6 (-2.32-3.51);0.687 | -0.52 (-1.92-0.88);0.470 | 0.23 (-4.5-4.95);0.924 | -0.14 (-2.22-1.94);0.894 |
| Urban status |  |  |  |  |  |
|  ≤ 100,000 | Reference | Reference | Reference | Reference | Reference |
|  > 100,000–1,000,000 | -0.46 (-2.7-1.78);0.687 | -1.99 (-4.81-0.83);0.167 | 0.7 (-0.71-2.11);0.328 | -0.89 (-5.47-3.69)0.704 | 1.14 (-0.95-3.23);0.286 |
|  > 1,000,000 | -3.54 (-7.63-0.54);0.089 | -4.6 (-9.62-0.43);0.073 | 0.24 (-2.29-2.77);0.854 | -1.06 (-9.47-7.36);0.806 | 2.8 (-1.1-6.7);0.160 |
| Teaching |  |  |  |  |  |
|  No | -0.98 (-4.56-2.6);0.592 | **-4.63 (-9.17--0.08);****0.046\*** | 0.84 (-1.39-3.08);0.459 | -2.6 (-9.99-4.8);0.491 | -1.59 (-4.93-1.76);0.352 |
|  Yes, non-university | Reference | Reference | Reference | Reference | Reference |
|  Yes, university | 0.73 (-2.12-3.59);0.614 | 1.76 (-1.95-5.46);0.353 | -0.76 (-2.47-0.95);0.383 | 0.90 (-5.12-6.92);0.769 | -0.41 (-2.96-2.14);0.754 |

Note: (1) Multilevel model 3 accounts for the clustering of patients (level 1) in PCCs (level 2) with a random intercept. Fixed effects for sociodemographic predictors, information on disease and treatment allocation and PCC characteristics are included. (2) Patient numbers vary between analyses of different scores due to the different number of missing values for the respective scores. (3) Results regarding the missing categories for categorical variables are not presented in this table. (4) These sensitivity analyses for model 3 were conducted after exclusion of centers that did not document comorbidities. Note that after exclusion of these centers, there were no more centers with charitable ownership included.

a FHSR: entrance certificate for a higher technical college/university of applied science

b Risk class according to d’Amico (D'Amico et al., 1998)

\*P < 0.05