

Supplemental Digital Content 2. Procedure-specific estimates of the risk factors (age, gender, preoperative chronic pain intensity) for the development of worst postoperative pain intensity (numeric rating scale, NRS 0-10) directly derived from the random-effect model; obtained by combining fixed and random effects for each procedure.

| Type of surgery                     | Regression coefficient (95% CI)      |      |      |               |       |       |               |      |      |
|-------------------------------------|--------------------------------------|------|------|---------------|-------|-------|---------------|------|------|
|                                     | Preoperative chronic pain (NRS 0-10) |      |      | Age (decades) |       |       | Female gender |      |      |
| Shoulder ligaments (open)           | <b>0.16</b>                          | 0.14 | 0.19 | <b>-0.17</b>  | -0.22 | -0.13 | <b>0.34</b>   | 0.26 | 0.42 |
| Tonsillectomy                       | <b>0.09</b>                          | 0.06 | 0.11 | <b>-0.27</b>  | -0.31 | -0.23 | <b>0.27</b>   | 0.19 | 0.35 |
| Appendectomy (open)                 | <b>0.13</b>                          | 0.10 | 0.15 | <b>-0.24</b>  | -0.28 | -0.19 | <b>0.29</b>   | 0.21 | 0.37 |
| Cholecystectomy (open)              | <b>0.10</b>                          | 0.07 | 0.12 | <b>-0.26</b>  | -0.31 | -0.22 | <b>0.27</b>   | 0.19 | 0.35 |
| Total knee replacement              | <b>0.24</b>                          | 0.22 | 0.27 | <b>-0.30</b>  | -0.34 | -0.25 | <b>0.25</b>   | 0.17 | 0.33 |
| Incisional hernia repair (open)     | <b>0.09</b>                          | 0.07 | 0.12 | <b>-0.27</b>  | -0.31 | -0.23 | <b>0.26</b>   | 0.18 | 0.34 |
| Vertical sleeve gastrectomy (lap)   | <b>0.15</b>                          | 0.12 | 0.18 | <b>-0.31</b>  | -0.35 | -0.26 | <b>0.24</b>   | 0.16 | 0.32 |
| Hysterectomy (open)                 | <b>0.19</b>                          | 0.16 | 0.22 | <b>-0.31</b>  | -0.36 | -0.27 | -             | -    | -    |
| Appendectomy (lap)                  | <b>0.07</b>                          | 0.04 | 0.09 | <b>-0.25</b>  | -0.30 | -0.21 | <b>0.29</b>   | 0.21 | 0.37 |
| Shoulder ligaments (arthroscopic)   | <b>0.13</b>                          | 0.11 | 0.16 | <b>-0.31</b>  | -0.35 | -0.26 | <b>0.25</b>   | 0.17 | 0.33 |
| Total hip replacement               | <b>0.17</b>                          | 0.14 | 0.19 | <b>-0.21</b>  | -0.25 | -0.16 | <b>0.33</b>   | 0.25 | 0.41 |
| Hysterectomy (vaginal)              | <b>0.17</b>                          | 0.14 | 0.20 | <b>-0.40</b>  | -0.44 | -0.35 | -             | -    | -    |
| Cholecystectomy (lap)               | <b>0.07</b>                          | 0.04 | 0.10 | <b>-0.31</b>  | -0.36 | -0.27 | <b>0.24</b>   | 0.16 | 0.32 |
| Spinal decompression                | <b>0.18</b>                          | 0.15 | 0.20 | <b>-0.18</b>  | -0.23 | -0.14 | <b>0.35</b>   | 0.27 | 0.43 |
| Plastic reconstruction nasal septum | <b>0.19</b>                          | 0.16 | 0.21 | <b>-0.38</b>  | -0.42 | -0.33 | <b>0.20</b>   | 0.12 | 0.28 |
| Laminectomy (lumbar 1-2 seg)        | <b>0.10</b>                          | 0.08 | 0.13 | <b>-0.11</b>  | -0.16 | -0.07 | <b>0.41</b>   | 0.33 | 0.49 |
| Inguinal hernia repair (open)       | <b>0.20</b>                          | 0.17 | 0.23 | <b>-0.25</b>  | -0.29 | -0.20 | <b>0.30</b>   | 0.22 | 0.38 |
| Thyroidectomy                       | <b>0.18</b>                          | 0.16 | 0.21 | <b>-0.31</b>  | -0.35 | -0.27 | <b>0.25</b>   | 0.17 | 0.33 |
| Umbilical hernia repair (open)      | <b>0.14</b>                          | 0.11 | 0.17 | <b>-0.19</b>  | -0.24 | -0.15 | <b>0.34</b>   | 0.26 | 0.42 |
| Closure anal fistula                | <b>0.24</b>                          | 0.21 | 0.26 | <b>-0.27</b>  | -0.31 | -0.23 | <b>0.29</b>   | 0.21 | 0.37 |
| Mastectomy                          | <b>0.18</b>                          | 0.15 | 0.21 | <b>-0.31</b>  | -0.36 | -0.27 | -             | -    | -    |
| Inguinal hernia repair (endoscopic) | <b>0.16</b>                          | 0.13 | 0.18 | <b>-0.42</b>  | -0.47 | -0.38 | <b>0.17</b>   | 0.09 | 0.25 |
| Inguinal hernia repair (lap)        | <b>0.16</b>                          | 0.14 | 0.19 | <b>-0.37</b>  | -0.41 | -0.32 | <b>0.21</b>   | 0.13 | 0.29 |
| Pilonidal sinus surgery             | <b>0.14</b>                          | 0.11 | 0.16 | <b>-0.20</b>  | -0.24 | -0.15 | <b>0.36</b>   | 0.28 | 0.44 |
| BCT (seg. or quadrant resection)    | <b>0.15</b>                          | 0.13 | 0.18 | <b>-0.23</b>  | -0.28 | -0.19 | -             | -    | -    |
| BCT (local. ductal. lump resection) | <b>0.21</b>                          | 0.19 | 0.24 | <b>-0.17</b>  | -0.21 | -0.12 | -             | -    | -    |
| Transvaginal sling suspension       | <b>0.16</b>                          | 0.14 | 0.19 | <b>-0.21</b>  | -0.25 | -0.17 | -             | -    | -    |
| Varicose veins surgery              | <b>0.17</b>                          | 0.14 | 0.20 | <b>-0.24</b>  | -0.28 | -0.19 | <b>0.33</b>   | 0.25 | 0.41 |

|                                     |             |      |      |              |       |       |             |      |      |
|-------------------------------------|-------------|------|------|--------------|-------|-------|-------------|------|------|
| Transurethral resection of prostate | <b>0.16</b> | 0.14 | 0.19 | <b>-0.25</b> | -0.29 | -0.20 | -           | -    | -    |
| Transurethral resection of bladder  | <b>0.26</b> | 0.23 | 0.28 | <b>-0.27</b> | -0.31 | -0.22 | <b>0.30</b> | 0.23 | 0.38 |

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Age categories: 18-20. 21-30. 31-40. 41-50. 51-60. 61-70. 71-80. and > 80years

BCT = breast conservative therapy

lap = laparoscopic

NRS = numeric rating scale

seg = segmental