Supplementary Materials: Consensus Definition and Prediction of Complexity in Transurethral Resection or Bladder Endoscopic Dissection of Bladder Tumours

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Supplementary Figure S1. First round distribution of the experts’ scores regarding the influence of the characteristics of the patient on the likelihood of complex TURBT, (1) age, (2) sex, (3) weight & body mass index (BMI), (4) patient’s history, (5) American Society of Anesthesiologists’ physical status classification (ASA), (6) tobacco smoking.
Supplementary Figure S2. First round distribution of the experts’ scores regarding the influence of the characteristics of the tumour on the likelihood of complex TURBT. (1) number, (2) location, (3) size, (4) structure, (5) environment.
Supplementary Figure S3. First round distribution of the experts’ scores regarding the influence on the likelihood of complex TURBT of bladder characteristics and access. (1) bladder capacity, (2) bladder structure, (3) prostate volume, (4) bladder neck, (5) other.
Supplementary Figure S4. First round distribution of the experts’ scores regarding the influence of the surgical environment on the risk of TURBT or En-Bloc resection resulting in either three situations; incomplete resection according to the operator, or prolonged surgery (>1hour) or significant intra (bleeding that requires transfusion, laparotomy) or postoperative (Clavien-Dindo Grade III and higher) (1) Anaesthesia, (2) energy, (3) operator, (4) bladder irrigation, (5) instruments.

Supplementary Table 1. Articles (English language, 4/2009-4/2019) found relevant to the definition of complexity in transurethral resection of bladder tumours.

| First Author [reference] | Year | Adequacy* | Intraoperative Events ** | Postoperative Events |
|--------------------------|------|-----------|--------------------------|----------------------|
| Mariappan [9]            | 2010 | +         |                          |                      |
| Gan [10]                 | 2013 | +         |                          |                      |
| Prasad [11]              | 2017 | +         |                          |                      |
| Skrzypczyk [12]          | 2017 | +         |                          |                      |
| DelRosso [13]            | 2013 | +         |                          |                      |
| Pan [14]                 | 2012 | +         | +                        |                      |
| Venkatramani [15]        | 2013 | +         | +                        | +                    |
| Wu [16]                  | 2016 | +         | +                        | +                    |
| Zhang [17]               | 2017 | +         |                          |                      |
| Herkommer [18]           | 2012 | +         |                          |                      |
| Authors      | Year | Adequacy | Intraoperative Time |
|-------------|------|----------|---------------------|
| Golan [19]  | 2011 | +        | +                   |
| Carmignani  | 2011 | +        | +                   |
| Zhao [21]   | 2016 | +        | +                   |
| Sugihara    | 2014 | +        | +                   |
| Allard [23] | 2015 | +        | +                   |
| Patel [24]  | 2015 | +        | +                   |
| Ghali [8]   | 2016 | +        | +                   |
| Avallone    | 2017 | +        | +                   |
| Rambachan   | 2014 |          | +                   |
| Matulewicz  | 2014 |          | +                   |
| Piccozzi    | 2014 |          | +                   |
| DeNunzio    | 2014 |          | +                   |
| Valero      | 2014 |          | +                   |
| Matulewicz  | 2015 |          | +                   |
| DiPaolo     | 2015 |          | +                   |
| Gregg [33]  | 2016 |          | +                   |
| Corru [34]  | 2016 |          | +                   |
| Bolat [35]  | 2016 |          | +                   |
| Bansal [36] | 2016 |          | +                   |
| Anderson    | 2016 |          | +                   |
| Konishi     | 2017 |          | +                   |
| Prader [39] | 2017 |          | +                   |
| Caras [40]  | 2017 |          | +                   |
| Naspro [41] | 2018 |          | +                   |
| Suskind     | 2018 |          | +                   |
| Pereira [4] | 2019 |          | +                   |

*Adequacy refers to the quality of the resected specimen, including visually complete resection and presence of muscle at the resection base.

** Intraoperative events, including operative time.

**Supplementary Table S2:** 150 scenarios constructed for univariate and multivariate analyses of clinical features in relation to complexity.
