

Table S1. Clinical composition of the former and current EAU NMIBC prognostic factor risk groups based on the WHO1973 and WHO2004/2016 grading systems

Risk group	The 2019 EAU NMIBC prognostic factor risk groups	The 2021 EAU NMIBC prognostic factor risk groups based on the WHO1973 and WHO2004/2016 grading systems
Low risk	Primary, solitary, TaG1 (PUNLMP, LG), <3 cm, no CIS	<ul style="list-style-type: none"> ● A primary, single, Ta LG/G1 tumor ≤3 cm in diameter without CIS in a patient ≤70 yo ● A primary LG/G1 tumor with at most one of the following additional clinical risk factors: <ul style="list-style-type: none"> ◇ Age > 70 yo ◇ Multiple tumor ◇ Tumor diameter ≥ 3 cm ◇ T1 tumor
Intermediate risk	All tumours not defined in the other categories (between the category of low and high risk)	Patients without CIS who are not included in either the low-, high-, or very high-risk groups
High risk	<p>Any of the following:</p> <ul style="list-style-type: none"> ● T1 tumour ● HG/G3 tumour ● CIS ● Multiple, recurrent, and large (>3 cm) Ta LG/G1+2 tumours (all features must be present) 	<ul style="list-style-type: none"> ● All T1 HG/G3 without CIS, except those included in the very high-risk group <p>Stage, grade with additional clinical risk factors:</p> <ul style="list-style-type: none"> ● Ta LG/G2 or T1 G1, no CIS with all 3 risk factors ● Ta HG/G3 or T1 LG, no CIS with at least 2 risk factors ● T1 G2, no CIS with at least 1 risk factor ◇ Age > 70 yo ◇ Multiple tumor ◇ Tumor diameter ≥ 3 cm
Highest risk in the 2019 EAU model or Very high risk in the 2021 EAU model	<p>Subgroup in the high-risk group</p> <p>Any of the following:</p> <ul style="list-style-type: none"> ● T1 HG/G3 with concurrent bladder CIS ● Multiple and/or large and/or recurrent T1 HG/G3 ● T1 HG/G3 with CIS in the prostatic urethra ● Some forms of variant histology of urothelial carcinoma ● Lymphovascular invasion 	<p>Stage, grade with additional clinical risk factors:</p> <ul style="list-style-type: none"> ● Ta HG/G3 and CIS with all 3 risk factors ● T1 G2 and CIS with at least 2 risk factors ● T1 HG/G3 and CIS with at least 1 risk factor ● T1 HG/G3 no CIS with all 3 risk factors ◇ Age > 70 yo ◇ Multiple tumor ◇ Tumor diameter ≥ 3 cm ● Patients with CIS in the prostatic urethra, lymphovascular invasion, and micropapillary, plasmacytoid, sarcomatoid, or neuroendocrine variant histology should be included.

CIS, carcinoma in situ; EAU, European Association of Urology; HG, high grade; LG, low grade; NMIBC, non-muscle invasive bladder cancer; WHO, World Health Organization