

APPENDIX

NMIBC risk stratification groups and criteria recommendations from the CUA, AUA and EAU guidelines (after Matulewicz and Steinberg 2020)			
Risk category	CUA	AUA	EAU
Low	Primary, solitary LG Ta, <3 cm PUNLMP	Solitary LG Ta tumor, ≤3 cm PUNLMP	Solitary LG Ta tumor, <3 cm PUNLMP
Intermediate	Patients without CIS who are not included in the other risk categories: - Recurrent, multifocal, and/or large (>3 cm) LG Ta – Consider sub-stratification: - Low-intermediate-risk: 0 factors* – consider treating as low-risk patients - Intermediate-risk: 1–2 factors - High-intermediate-risk: ≥3 factors – consider treating as high-risk patients *Multiple tumors, >3 cm, time to recurrence (<1 year), and frequency of recurrence (>1/year) - Primary, solitary, and small (<3 cm) HG Ta – Consider treating as high-risk patients	Recurrence within 1 year, LG Ta Solitary LG Ta >3 cm LG Ta, multifocal HG Ta, ≤3 cm LG T1	All tumors not defined as low or high risk

Kokorovic et al. Patient perception of high-risk non-muscle-invasive bladder cancer: Treatment burden and sex-specific differences

High	Any: 1. T1 2. Recurrent, or multiple, or ≥ 3 cm HG Ta 3. Presence of CIS (primary or concomitant) § Very high-risk: HG T1 with any of the following: a) Multiple and ≥ 3 cm b) Presence of concurrent CIS (in the bladder or prostatic urethra) c) Presence of LVI d) Variant histology (e.g., micropapillary, plasmacytoid, sarcomatoid, neuroendocrine)	HG T1 Any recurrent, HG Ta HG Ta, >3 cm Any CIS Any BCG failure in HG Any variant histology Any LVI Any HG prostatic urethral involvement	Any T1 Any HG tumor Any CIS Multiple, recurrent, >3 cm tumors T1HG with concurrent CIS Variant histology LVI
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CUA: Canadian Urological Association; AUA: American Urological Association; CIS: carcinoma in situ; EAU: European Association of Urology; HG: high-grade (G2, all G3); LG: low-grade (G1, some G2); LVI: lymphovascular invasion; NMIBC: non-muscle-invasive bladder cancer; PUNLMP: papillary urothelial neoplasm of low malignant potential.