

## Supplementary

**Table S1** Patients with bladder recurrence after nephroureterectomy

Patient	Intravesical agent during RNU	History of bladder cancer	Time to recurrence (months)	Recurrence grade	Recurrence stage	Subsequent local therapy	Systemic treatments
1	Adriamycin	No	4	HG	Ta	BCG/IFN	
2	Mitomycin	No	12	HG	Ta	BCG	
3	Adriamycin	No	12	HG	Ta		AVETAZ clinical trial (avelumab and docetaxel) for metastatic disease time of RNU
4	Mitomycin	No	3	HG	Ta	BCG	
5	Adriamycin	Yes	23	HG	CIS	Valrubicin/docetaxel	
6	Adriamycin	Yes	3	LG	Ta		Pembrolizumab for metastatic disease
7	Mitomycin	Yes	13	HG	T1		Pembrolizumab for metastatic disease
8	Mitomycin	Yes	11	LG	Ta	Gemcitabine/docetaxel	
9	Adriamycin	No	18	HG	Ta	Gemcitabine/docetaxel	
10	Adriamycin	No	5	HG	Ta	Gemcitabine/docetaxel	Avelumab and docetaxel for metastatic disease after recurrence
11	Mitomycin	Yes	3	HG	T1	BCG	
12	Mitomycin	No	10	HG	T1	BCG	
13	Mitomycin	No	10	HG	T1	BCG	
14	Gemcitabine	No	10	LG	Ta	Gemcitabine/docetaxel	
15	Gemcitabine	Yes	8	LG	Ta	Gemcitabine/docetaxel	
16	Gemcitabine	Yes	6	HG	T1	Gemcitabine/docetaxel, then valrubicin/docetaxel, then cystectomy (end-stage bladder)	
17	Gemcitabine	Yes	13	HG	Ta	gemcitabine/docetaxel, then valrubicin/docetaxel	
18	Gemcitabine	Yes	13	HG	Ta	Contralateral RNU with concurrent cystectomy	
19	Gemcitabine	No	11	LG	Ta	BCG	PGV-001 (personalized genome vaccine), atezolizumab

RNU, radical nephroureterectomy; mo, months; HG, high grade; LG, low grade; BCG, bacillus Calmette-Guerin; IFN, interferon; CIS, carcinoma in situ.