

Supplementary File

Table S1. Length of stay after surgery

No.	Author	Length of stay
1	De Nunzio et al. 2013	TUU = 12 (6–119) days; IC = 13 (6–60) days Orthotopic neobladder = 14 (6–35) days p < 0.036 (no post-hoc analysis reported)
2	Kadoriku et al., 2022	TUU = 21 (16–29) days; IC = 26 (20–35) days p = 0.093
3	Kilciler et al. 2006	TUU = 7 (5–25) days; IC = 11 (7–34) days p = significant (the p value number was not mentioned)
4	Adamczyk et al., 2021	IC correlated with a higher risk of long hospital stay (> 7 days) compared to TUU, with the odds ratio of 6.13 [(95% CI, 3.40–11.39), p < 0.001]
5	Suzuki et al., 2019	TUU = 30 (16–122) days; IC = 30 (13–161) days p = 0.925
6	Deliveriotis et al. 2005	TUU = 8.6 (6–18) days; IC = 16.09 (8–32) days p < 0.001 Specifically in the intensive care unit: TUU = 3 (1–5) days; IC = 7 (3–12) days p = 0.030
7	Knaps et al. 2004	TUU = 18 (9–62) days; IC = 18 (18–19) days p-value was not mentioned
8	Fuschi et al., 2022	TUU = 6.5 ± 0.55 days; IC = 9.2 ± 0.67 days p = 0.002 Specifically in the intensive care unit: TUU = 1.6 ± 0.05 days; IC = 1.4 ± 0.07 days p = 0.151
9	Longo et al. 2016	TUU = 8.8 ± 1.0 days; IC = 13.2 ± 1.7 days p < 0.001 Specifically in the intensive care unit: TUU = 2.2 ± 0.7 days; IC = 2.5 ± 0.9 days p = 0.16

No.	Author	Length of stay
10	Khalilullah et al 2021	TUU = 8.5 ± 2.1 days; IC = 13.7 ± 8.0 days p = 0.002 (independent T-test analysis)

Table S2. Major complications categorized as CDCS grade ≥ 3

No.	Author	Major complication
1	De Nunzio et al. 2013	TUU = 11/138 patients; IC = 35/217 patients Orthotopic neobladder = 19/112 patients
2	Fuschi et al., 2022	TUU = 5/41 patients; IC = 10/27 patients p = 0.0041
3	Adamczyk et al., 2021	No major postoperative complication risk difference between IC and TUU [OR = 1.30 (95% CI, 0.68–2.46), p = 0.417]
4	Arman et al. 2020	TUU = 1/25 patients; DSCU = 1/23 patients; IC = 2/22 patients p = 0.711
5	Kadoriku et al., 2022	<i>90 days postoperatively</i> TUU = 3/25 patients; IC = 1/25 patients p = 0.609
		<i>30 days postoperatively</i> TUU = 5/25 patients; IC = 6/25 patients p = 1,000
6	Suzuki et al., 2019	TUU = 13/87 patients; IC = 15/87 patients p = 0.837
7	Wuethrich et al. 2016	TUU = 6/11 patients; IC = 48/178 patients
8	Xie et al. 2021	No major postoperative complication risk difference between IC and TUU [OR = 2.121 (95% CI, 0.600–7.501), p = 0.243]

Table S3. Studies have reported other late surgical complications

No.	Author	Late surgical complications (*)
1	Deliveriotis et al. 2005	<p><i>Overall complication</i> TUU = 5/29 patients; IC = 14/25 patients; p = 0.004</p> <p><i>Stone formation</i> TUU = 0/29 patients; IC = 2/25 patients</p>
2	Khalilullah et al 2021	<p>TUU = 6/22 patients (5 stoma stenoses and 1 anastomotic stricture) IC = 2/30 patients (1 anastomotic stricture and 1 enterocutaneous fistula)</p>
3	Longo et al. 2016	<p><i>Wound dehiscence</i> TUU = 2/35 patients; IC = 2/35 patients; p = 0.60</p> <p><i>Urinary leakage</i> TUU = 0/35 patients; IC = 5/35 patients; p = 0.06</p> <p><i>Pelvic hematoma</i> TUU = 1/35 patients; IC = 1/35 patients; p = 0.47</p> <p><i>Pneumonia</i> TUU = 2/35 patients; IC = 3/35 patients; p = 1.00</p> <p><i>death</i> TUU = 1/35 patients; IC = 1/35 patients; p = 0.47</p>
4	Pycha et al. 2008	<p><i>Overall complication</i> TUU = 25/41 patients (3 stomal stenosis and 22 renal complications) IC = 41/55 patients (12 digestive-related complications, 1 stomal stenosis, and 28 renal complications)</p> <p><i>Stone formation</i> TUU = 22/41 patients; IC = 28/55 patients</p>

No.	Author	Late surgical complications (*)
5	Kilciler et al. 2006	TUU = 6/34 patients (2 stomal stenoses, 3 anastomotic stricture, and 1 pyelonephritis) IC = 14/67 patients (5 stomal stenoses, 4 anastomotic stricture, 1 pyelonephritis, and 4 ileus)
6	Nishikawa et al. 2014	<i>Stone formation</i> TUU = 1/42 patients; IC = 1/40 patients

(*) Any late surgically-related complications not classified using CDCS.

Table S4. Evaluation of renal function

No.	Author	Outcomes	Parameter
1	Suzuki et al., 2019	TUU = 60.7 (10.7–118.3) IC = 63.4 (26.1–131.7)	eGFR 3 months postoperatively
		TUU = 58.6 (13.0–120.0) IC = 61.7 (18.8–106.8)	eGFR 6 months postoperatively
		STU = 57.1 (12.3–114.0) IC = 57.4 (24.2–109.9)	eGFR 12 months postoperatively
		STU = 55.9 (14.4–111.3) IC = 56.8 (19.3–112.7)	eGFR 24 months postoperatively
		TUU was correlated with a higher risk of eGFR decrease compared to IC, with the adjusted OR of 2.13 (95% CI, 1.19–3.85), p = 0.010	Decline of renal function >20%
2	Nishikawa et al. 2014	TUU = 24/42 patients IC = 20/40 patients	Decline of renal function >25%
3	Pycha et al. 2008	TUU = 1/41 patients IC = 4/55 patients	Renal failure (need dialysis)
4	Wuethrich et al. 2016	TUU = 0/11 patients IC = 2/178 patients	
5	Deliveriotis et al. 2005	TUU = 2/29 patients	

No.	Author	Outcomes	Parameter
		IC = 0/25 patients	
6	Knaps et al. 2004	IC = 14/195 patients The TUU group was not reported	

Table S5. Quality of life

No.	Author	Outcomes	Parameter
1	Fuschi et al., 2022	TUU = 52.4 (95% CI: 50.3–54.5; ES: 1.62) IC = 52.2 (95% CI: 49.4–55.0; ES: 1.61)	Stoma QoL 3 months
		TUU = 63.6 (95% CI: 61.3–65.9; ES: 1.82) IC = 63.4 (95% CI: 59.2–67.6; ES: 1.84)	Stoma QoL 6 months
2	Arman et al. 2020	STU = 41.7 (33.3–45.8) DSCU = 50.0 (41.7–66.7) IC = 58.3 (56.3–67.0) p < 0.001 (no post hoc analysis was reported)	EORTC-QLQ-C30
		TUU = 101.0 (93–108) DSCU = 108.0 (96–118) IC = 115.5 (106–123) p < 0.027 (no post hoc analysis was reported)	FACT-BL-Cys
3	Gacci et al., 2013	TUU = 28.1 ± 8.7 IC = 21.5 ± 6.2 Orthotopic neobladder = 23 ± 2.2 p = not significant (no post hoc analysis was reported)	EORTC-QLQ-C30
		TUU = 7.3 ± 2.6 IC = 6.8 ± 2.0 Orthotopic neobladder = 6.7 ± 2.0 p = not significant (no post hoc analysis was reported)	EORTC QLQ BLM 30

No.	Author	Outcomes	Parameter
		TUU = 7.8 ± 2.3 IC = 6.2 ± 2.1 Orthotopic neobladder = 7.1 ± 1.4 p = not significant	FACT-BL
4	Longo et al. 2016	No significant difference between IC and TUU group	Urinary, sexual, and bowel functions
5	Saika et al. 2007	No significant difference between IC, neobladder, and TUU group	EORTC-QLQ-C30
6	Khalilullah et al 2021	TUU = 11.0 ± 3.21 IC = 12.1 ± 2.77 p = 0.285	>12 months overall satisfaction score

Table S6. Survival rates

No.	Author	Survival
Overall survival rate		
1	Deliveriotis et al. 2005	TUU = 14/29; IC = 11/25; p = 0.090
2	Kadoriku et al., 2022	TUU = 20/25; IC = 16/25; p = 0.107
3	Huang et al. 2021	There is no overall survival rate difference between TUU and IC [HR 1.044 (95% CI, 0.867–1.257)]
4	Kilciler et al. 2006	TUU = 24/34; IC = 57/67; p = not significant
5	Longo et al. 2016	TUU = 1/35 patients; IC = 1/35 patients; p = 0.47
6	Wuethrich et al. 2016	TUU has a lower overall survival rate [HR= 2.696 (95% CI, 1.306–5.569); p = 0.007]
Cancer-specific survival rate		
1	Deliveriotis et al. 2005	TUU = 12/29; IC = 9/25; p = 0.123

No.	Author	Survival
2	Kadoriku et al., 2022	TUU = 23/25; IC = 21/25; p = 0.193
3	Wuethrich et al. 2016	TUU has a lower cancer-specific survival rate [HR= 3.416 (95% CI:1.169–9.978); P= 0.025]
4	Huang et al. 2021	No cancer-specific survival rate difference between TUU and IC [HR 1.012 (95% CI, 0.748–1.368)]
Estimated overall survival time		
1	Wuethrich et al. 2016	TUU = 11 (95% CI, 8–15) months IC = 47 (95%CI, 38–56) months
2	Huang et al. 2021	TUU = 19 (95% CI, 15–26) months IC = 19 (95%CI, 16–24) months p = 0.652
Estimated cancer-specific survival time		
1	Wuethrich et al. 2016	TUU = 12 (95% CI, 9–16) months IC = 91 (95% CI, 76–106) months
2	Huang et al. 2021	Not significant (p = 0.936)