



American  
Urological  
Association

Education & Research, Inc.

# AUA VIRTUAL EXPERIENCE



## **MP49-11 Global cost assessment of Robot assisted vs open radical cystectomy: hospital costs and patients' perspectives, two sides of the moon**

Mastroianni R, Tuderti G<sup>1</sup>, Anceschi U<sup>1</sup>, Bove A<sup>1</sup>, Brassetti A<sup>1</sup>, Ferriero M<sup>1</sup>, Ghiani E<sup>2</sup>, Guaglianone S<sup>1</sup>, Navanteri G<sup>1</sup>, Spano A<sup>1</sup>, Gallucci M<sup>2</sup>, Simone G<sup>1</sup>



**Background:** to perform a cost analysis from an ongoing RCT comparing ORC and RARC with totally intracorporeal UD (Clinical Trials: NCT03434132)

## **Material and Methods:**

**Study period:** from Jan 2018 to date

### **Inclusion criteria:**

- T2-4, N0-N1, M0 Bladder Cancer (BC)
- Recurrent high-grade non-muscle invasive BC
- No anesthesiologic contraindications to robotic surgery

**Variables of Randomisation:** gender, BMI, ASA score, preoperative Hgb, planned UD (intracorporeal ileal neobladder or conduit), neoadjuvant CT and clinical T-stage

### **Cost analysis:**

- Hospital costs: operative time (OT), length of stay (LoS), adherence to ERAS protocol and surgical procedure's costs.
- Individual costs: role functioning (RF) and financial difficulties (FI); self-assessed by questionnaires (European Organization for Research and Treatment of Cancer [EORTC] generic (QLQ-C30).



**Results:** interim analysis of first **58** consecutive patients (30 RARC, 28 ORC).

OT and surgical devices costs were significantly higher for robotic approach. Instead, any statistically significant difference between groups was found for adherence to ERAS protocol and LoS (Tab.1).

At 1-yr follow-up, ORC patients reported a significant reduction of RF and FI (Tab.2).

Table 1 - Hospital costs

Hospital costs	RARC (30) Mean $\pm$ SD N (%)	ORC (28) Mean $\pm$ SD N (%)	p Value
Operative Time (min)	302.5 $\pm$ 57.4	203.9 $\pm$ 48.5	< 0.001
Hospital length of stay (d)	10.4 $\pm$ 11.1	14.9 $\pm$ 32.1	0.464
ERAS	22 (73.3)	20 (71.4)	0.871
Surgical devices (€)	8578.6 $\pm$ 1591.5	1894.8 $\pm$ 609.6	< 0.001

Table 2 - EORTC Quality of Life - Longitudinal assessment at 1yr of follow-up

	RARC (15) Mean $\pm$ SD		p Value	ORC (18) Mean $\pm$ SD		p Value
	Baseline	1yr		Baseline	1yr	
Functional scales						
Role functioning	91.6 $\pm$ 15.3	79.9 $\pm$ 29.0	0.147	90.7 $\pm$ 24.4	74.1 $\pm$ 34.4	0.027
Symptoms scale						
Financial difficulties	13.3 $\pm$ 27.6	15.6 $\pm$ 27.8	0.711	11.1 $\pm$ 19.8	27.8 $\pm$ 36.6	0.045

**Conclusion:** we confirmed significantly higher hospital costs of RARC. These costs could be counterbalanced by a faster return to daily life and to job activities, and by lower incidence of financial difficulties. The impact of these items on global cost analysis for national health system requires further analysis with larger sample size and longer follow-up.