BAUS Management of the Lower End in Nephroureterectomy Audit
National Summary Results – August 2022

1458 transitional cell cancer (TCC) datasets were received across 132 surgical sites and from 285 surgeons with a median follow-up of 21 months

- There were 3136 recorded nephroureterectomies in the BAUS Nephrectomy Registry (1 January 2017 to 31 December 2020)
- These were combined with follow-up data and additional data items from this focused management of the lower end in nephroureterectomy audit
- This gave 1458 transitional cell cancer (TCC) cases with a median follow-up of 21 months for outcome data analysis

Technique and Perioperative Data

Technique

- The technique of the lower end was recorded in 2145 out of 3136 cases
- The modified group refers to cases dealt with endoscopically where particular attention had been made to secure the ureteric orifice, for example with an endoloop
- The lower end was not removed in 66 (3%) of cases

Perioperative Data

- An open approach was associated with a longer length of stay (LOS), operating time, blood loss and a higher complication rate. This was true even when correcting for T stage or ureteric location.

Technique lower end	Op time <2 hours	Op time >4 hours	Av Blood loss (ml)	LOS (days)	Clavien >/=2	Clavien >/= 3
Open	49 (5.7%)	211 (24.5%)	289	5	97 (11.3%)	44 (5.1%)
Lap	18 (4.3%)	80 (19.2%)	153	4	26 (6.2%)	8 (1.9%)
Robotic	5 (1.6%)	36 (11.5%)	148	3	16 (5.1%)	4 (1.3%)
cystoscopic	46 (12.4%)	50 (13.5%)	184	4	32 (8.6%)	11 (3.0%)
Modified	49 (12.4%)	55 (13.9%)	140	3	28 (7.1%)	9 (2.3%)

Outcomes Data

- Overall Survival was 80% (Ta:91%, T1:86%, T2: 76%, T3:69%, T4:40%)
- Disease specific survival was 87% (Ta:93%, T1:90%, T2: 87%, T3:78%, T4:61%)
- There was no significant difference between technique of the lower end and overall or disease specific survival
- The bladder recurrence rate was 19%; open 79/449 (17.6%), laparoscopic 72/393 (18.3%), robotic, 72/340 (21.2%), cystoscopic 30/156 (19.2%), modified 10/64 (15.6%)
- Local recurrence rate was 1.8%; open 11/449 (2.4%), laparoscopic 11/393 (2.8%), robotic 3/340 (0.9%), cystoscopic 1/156 (0.6%), modified 0/64 (0%)
- Using cox regression multivariate analysis the only predictors of progression were increasing T stage ($p<0.1$) and ureteric location ($p=0.25$), with lower ureteric tumours having the poorest prognosis

Conclusions

- Very good engagement and returns for the audit
- There are limitations with the nature of retrospective, incomplete, self-reported datasets
- Open lower end associated with longer op times, blood loss, LOS and complications
- T stage and tumour location were the only significant predictors of progression
- No technique of lower end management was shown to be clearly superior

Information for Trust Audit Departments

Quality Accounts & Reporting

- This audit is included in the Quality Accounts List 2020/21
- The national summary results were presented at the BAUS 2022 Annual Scientific Meeting in June 2022 and uploaded onto the BAUS website in August 2022
- The audit collected peri-operative and outcomes data for the different surgical techniques used for management of the lower end in nephroureterectomy

Data Collection

- Data was collected on nephroureterectomy procedures performed between 1 January 2017 and 31 December 2019 in the BAUS Nephrectomy Registry. Follow-up data on these cases and a small number of additional data fields were captured in this focused lower end snapshot audit
- Data submission took place between 1 August 2020 and 31 December 2021
- 1458 transitional cell cancer (TCC) datasets were submitted from 132 surgical sites in the UK