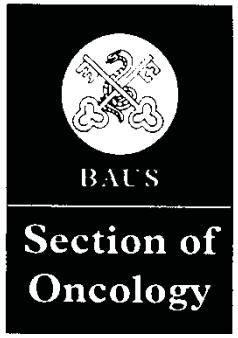


THE BRITISH ASSOCIATION OF

UROLOGICAL SURGEONS

SECTION of ONCOLOGY

Analyses of Cystectomy Dataset

January 1st – 31st December 2011

June 2012

MEMBERS OF THE EXECUTIVE COMMITTEE

G Boustead	S Brewster	D Cahill	J Cresswell
J Crew	A McNeill	T O'Brien	V Srinivasin

PRODUCED FOR BAUS SECTION OF ONCOLOGY

by

Sarah Fowler

Manager BAUS data & audit project

CONTENTS

GENERAL INTRODUCTION

Once again Sarah Fowler has done an exceptional job in producing the complex operations datasets for 2011. This is the first full years analysis of the updated datasets. As you will see the format and presentation has been updated and centres have been offered their own charts if they want these. This has been facilitated by introduction of Tableau™ software making the cross referenced analysis much easier.

The improvements made to the datasets with the introduction of more pull down menus seems to have improved data quality overall which is most pleasing.

The nephrectomy and radical prostatectomy datasets are particularly impressive in terms of the data quality. Seeing more complete and meaningful outcome data for example on potency and continence rates after RP is a positive development. The more detailed recording of complications and introduction of the Clavien- Dindo classification of surgical complications is a further good example and is particularly useful to monitor trends over time. Unfortunately large robotic centres are still disappointingly underrepresented. Overall the follow up data remains disappointing.

As always we encourage section members to view the poster presentations on the datasets at BAUS and to feed back to committee members or via Sarah about their ideas for improvements. Hopefully with revalidation almost upon us, contributing surgeons will be able to use their personal or centre data to good effect.

Greg Boustead

June 2012

AUDIT RESULTS SUMMARY - Cystectomy dataset (January 1st – December 31st 2011)

- 659 Cystectomies reported by 78 consultants from 48 centres (including 3 private patients from 3 consultants)
  - 89% of the data (587/659)was individually entered by hand as oppose to being bulk imported
  - 92% (609) entered using the new dataset launched in April 2011
  - 20% have 1 or more follow up recorded
  - Median per consultant = 7, range 1 – 37
  - Median per centre = 8, range 1 – 53
  - 70% males (420/604 recorded) ; Median age at Operation 69, Range 16 - 88

How were the data analysed?

All the data presented here are a summary of the data extracted from the web-based database on 28th May 2012 and relate to operations performed during the whole of 2011. Once extracted the data was transferred to an Access™ database for validation before being imported into Tableau™ for generation of the analyses. The validation mainly comprised checks for duplicate and / or empty entries and invalid / inappropriate dates.

For each of the ranked charts the individual consultant or centre identification numbers were removed and replaced with rank numbers starting at 1. A unique, confidential "Ranking Sheet" has been prepared for each surgeon to enable them to identify their rank in every chart. For those charts where overall figures for the entire database are shown the ranking sheet displays the consultant's individual figures. No one else can identify the results of an individual consultant. The ranked charts comprise single bars and are ranked from left to right in the ascending order of the data item being measured. Where percentages are included figures have been rounded up to one decimal point.

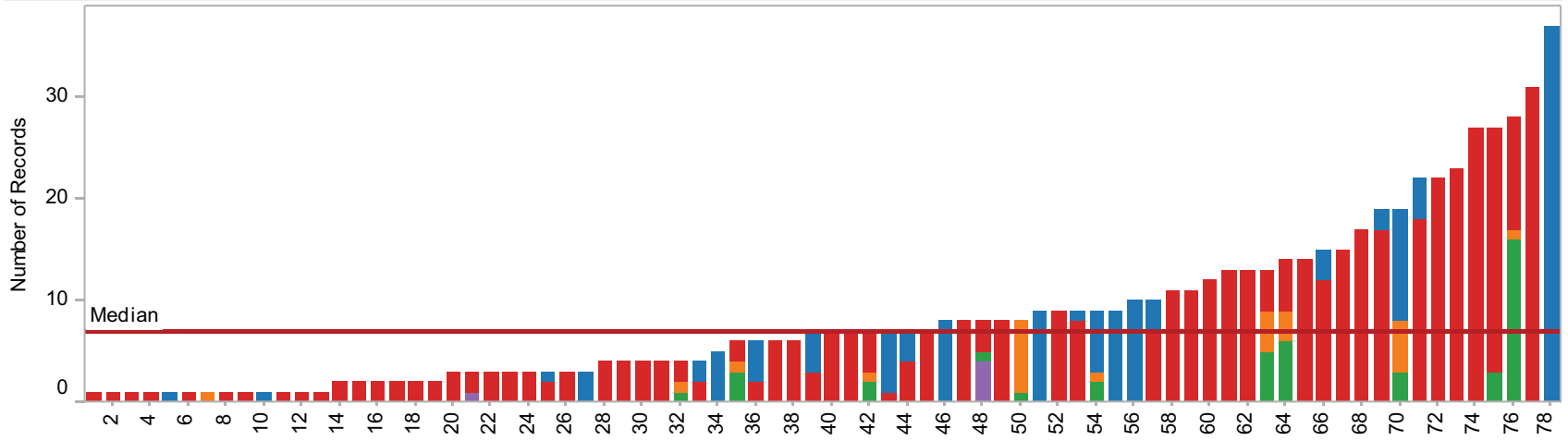
A personal ranking sheet for each consultant registering three or more tumours is available individually to go with this document. Centres or cancer networks that have returned sufficient data may request a copy of these analyses filtered to contain only that data.

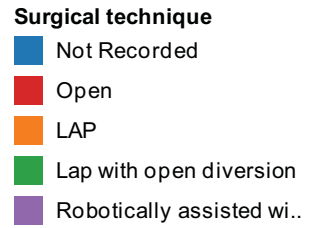
Sarah Fowler
BAUS Data & Audit Project Manager

June 2012

1

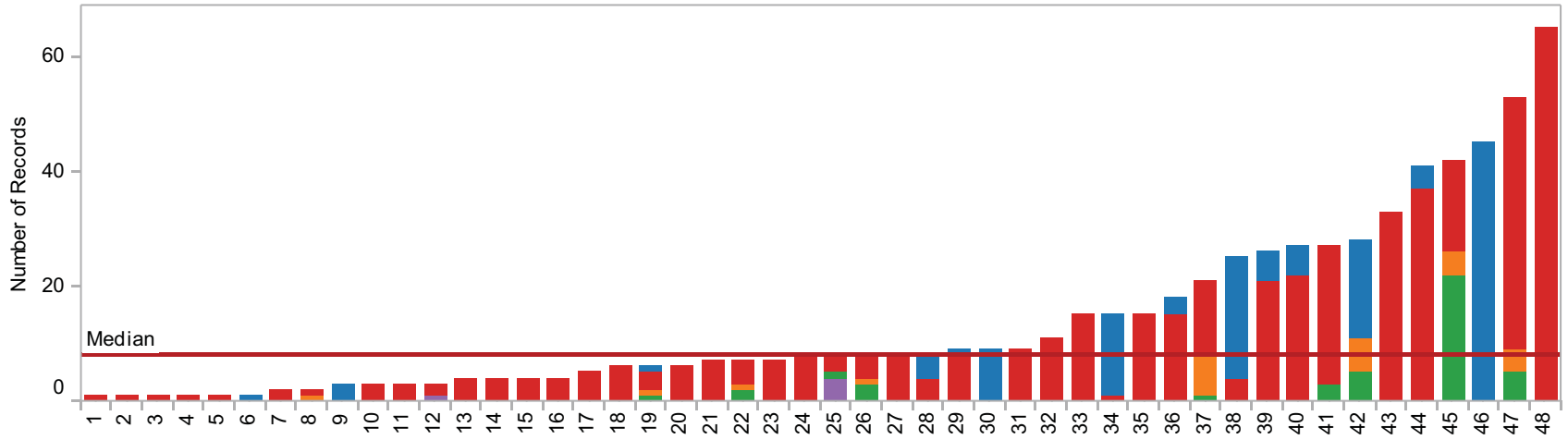
Total Number of Cystectomies reported per Consultant by Surgical Technique
Median: 7 (Interquartile range 3 - 10)





2

Total Number of Cystectomies reported per Centre by Surgical Technique (excluding private patients)
Median: 8 (Interquartile range 3 - 19)



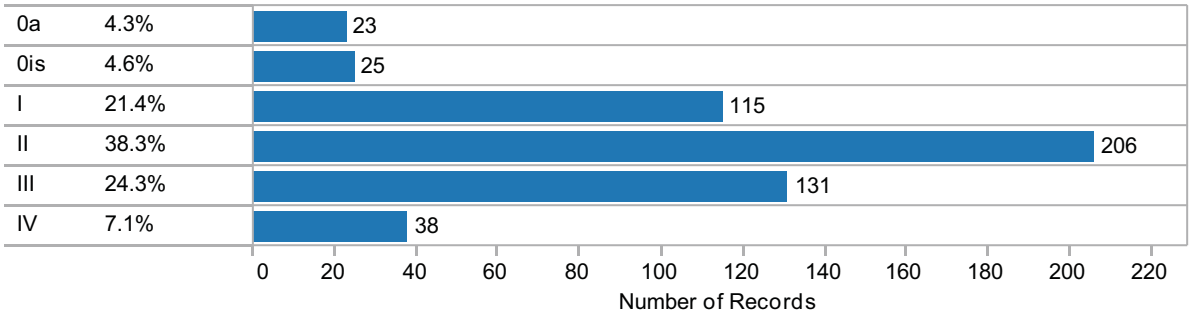
3

Indication for Cystectomy

Indication for Cystectomy	N	% of Total
Muscle invasive TCC	382	58.0%
Uncontrolled non-muscle invasive disease	114	17.3%
Primary CIS	30	4.6%
Squamous cell Ca	33	5.0%
Salvage after radiotherapy	18	2.7%
Primary adenocarcinoma	10	1.5%
Gynaecological Ca	3	0.5%
Sarcoma	3	0.5%
Secondary adenocarcinoma	1	0.2%
Other	43	6.5%
Not recorded	22	3.3%
Grand Total	659	100.0%

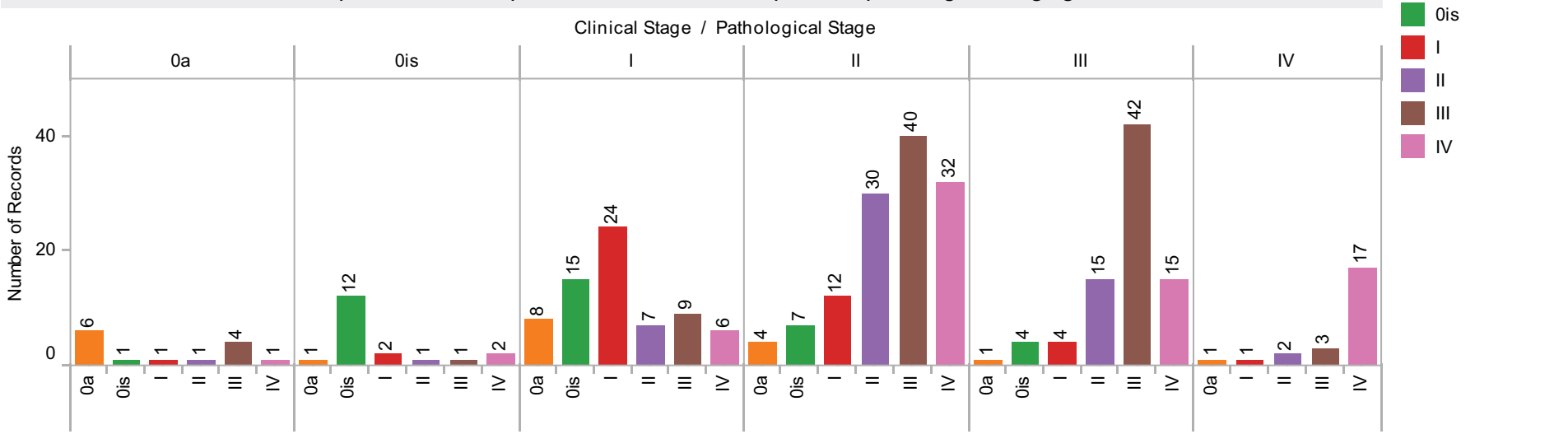
4

Pre-operative Clinical Staging
Staging could be estimated in 84% (538/643)



5

Comparison of Pre-operative clinical & Post-operative pathological staging



6

Pre-operative imaging

Pre-operative imaging	N	% of Total
CT alone	267	40.5%
CT & Other combination(s)	209	31.7%
MRI alone	45	6.8%
IVU alone	1	0.2%
MRI & Other combination(s)	14	2.1%
PET alone	1	0.2%
Other alone	2	0.3%
None	22	3.3%
Not recorded	96	14.6%
MRI; IVU; USS; Other	1	0.2%
MRI; USS; Other	1	0.2%
Grand Total	659	100.0%

8

Status Upper Tracts

Status upper tracts	N	% of Total
Normal	396	60.1%
Unilateral hydronephrosis	92	14.0%
Bilateral hydronephrosis	27	4.1%
TCC	13	2.0%
RCC	2	0.3%
Non functioning kidney	5	0.8%
Other	7	1.1%
Null	117	17.8%
Grand Total	659	100.0%

7

Pre-operative Serum Creatinine

	N	% of Total
0 - 120	462	70.1%
121 - 200	69	10.5%
> 200	8	1.2%
Null	120	18.2%
Grand Total	659	100.0%

9

Grade of Main Operating Surgeon With numbers and % being reported as being a supervised training operation

GradeSurgeon	Supervised training op	N	% of Total
Consultant	Yes	168	25.5%
	No	378	57.4%
	Not recorded	89	13.5%
	Total	635	96.4%
SpR	Yes	17	2.6%
	No	2	0.3%
	Not recorded	1	0.2%
	Total	20	3.0%
Not recorded	Yes	1	0.2%
	No	2	0.3%
	Not recorded	1	0.2%
	Total	4	0.6%
Grand Total		659	100.0%

10

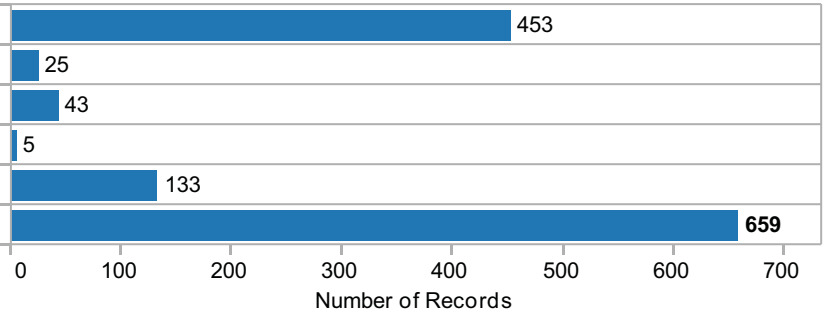
ASA Grade

ASA Grade	N	% of Total
1	82	12.4%
2	373	56.6%
3	116	17.6%
Not recorded	88	13.4%
Grand Total	659	100.0%

11

Surgical Technique

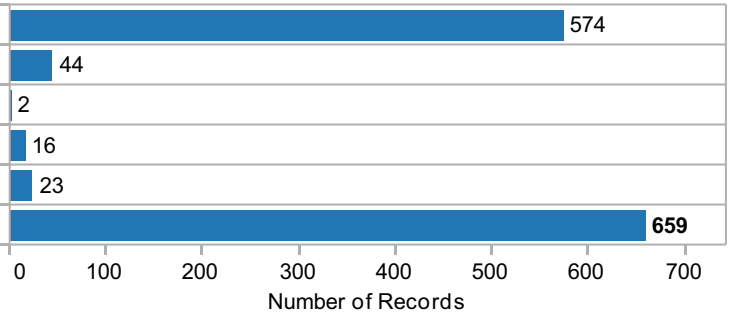
Surgical technique	% of Total..
Open	68.7%
LAP	3.8%
Lap with open diversion	6.5%
Robotically assisted with open diversion	0.8%
Not Recorded	20.2%
Grand Total	



12

Diversion procedure

Diversion Procedure	% of Total..
Ileal Conduit	87.1%
Orthotopic	6.7%
Continent Cutaneous diversion	0.3%
Other	2.4%
Null	3.5%
Grand Total	



13

Conversion

Conversion	N	% of Total
Yes	2	2.9%
No	63	92.6%
Null	3	4.4%
Grand Total	68	100.0%

14

Lymph Node Dissection

Lymph node dissection (group)	N	% of Total
None	61	9.3%
Above iliac bifurcation	96	14.6%
Below bifurcation of common iliac	35	5.3%
External iliac	41	6.2%
External iliac; Internal iliac	3	0.5%
Internal iliac	36	5.5%
Obturator	36	5.5%
Obturator; External iliac	42	6.4%
Obturator; External iliac; Internal iliac	166	25.2%
Obturator; External iliac; Internal iliac; Above i..	11	1.7%
Obturator; External iliac; Internal iliac; Presac..	28	4.2%
Obturator; External iliac; Internal iliac; Presac..	15	2.3%
Obturator; Internal iliac	11	1.7%
Not Recorded	78	11.8%
Grand Total	659	100.0%

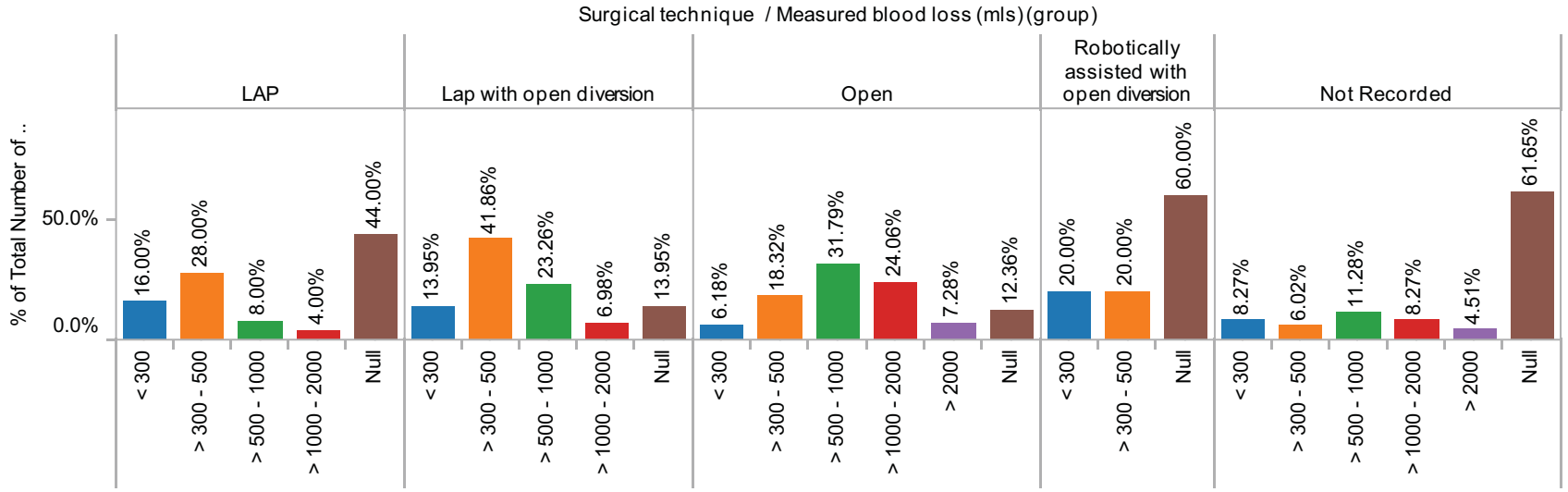
15

Duration of operation by Technique

Duration of op..	Surgical technique	N	% of Total
< 3 hours	Open	21	4.4%
3 - 4 hours	Open	131	27.6%
	Lap with open diversion	8	1.7%
4 - 5 hours	Open	138	29.1%
	LAP	7	1.5%
	Lap with open diversion	18	3.8%
	Robotically assisted with open diversion	1	0.2%
5 - 6 hours	Open	89	18.7%
	LAP	4	0.8%
	Lap with open diversion	6	1.3%
	Robotically assisted with open diversion	1	0.2%
> 6 hours	Open	37	7.8%
	LAP	7	1.5%
	Lap with open diversion	6	1.3%
	Robotically assisted with open diversion	1	0.2%
Grand Total		475	100.0%

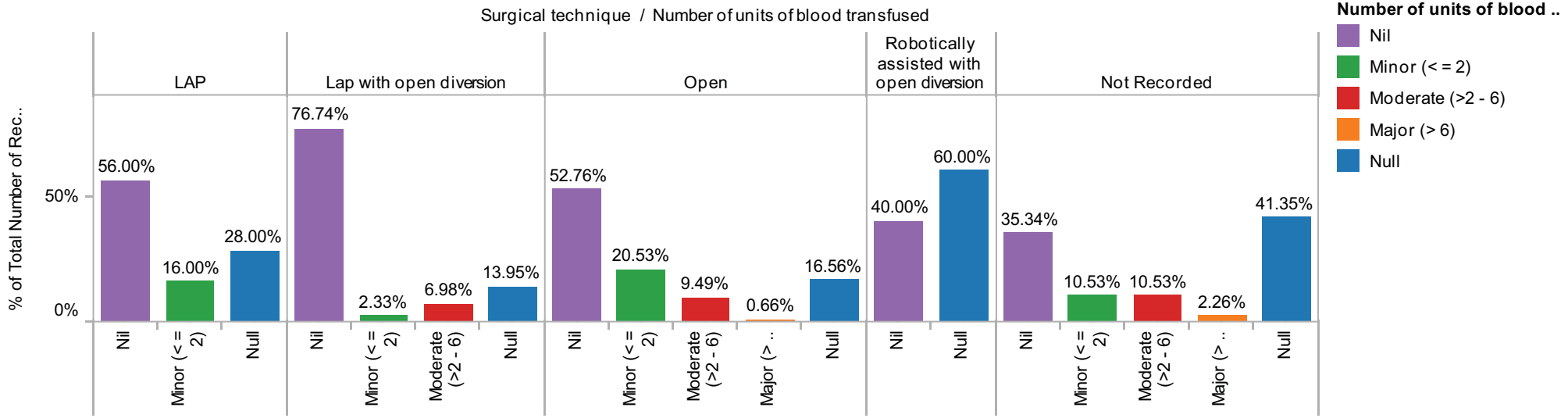
16

Blood Loss



17

Blood Transfused



18

Intra-operative Complications by technique

Surgical technique	Intraopcomps	N	% of Total Number of Recor..
Open	None	403	89.0%
	Adhesions	11	2.4%
	Adhesions; Unresectable tumour	1	0.2%
	Haemorrhage / Bleeding	13	2.9%
	Other	1	0.2%
	Rectal injury	4	0.9%
	Unresectable tumour	1	0.2%
	Vascular injury	2	0.4%
	Null	17	3.8%
	Total	453	100.0%
LAP	None	14	56.0%
	Null	11	44.0%
	Total	25	100.0%
Lap with open diversion	None	36	83.7%
	Nerve injury	1	2.3%
	Null	6	14.0%
	Total	43	100.0%
Robotically assisted with op..	None	5	100.0%
	Total	5	100.0%
Grand Total		526	100.0%

19

Post-operative Complications by Technique

Surgical technique	Postopcomps (group)	N	% of Total Nu..
Open	None	271	59.8%
	Not recorded	75	16.6%
	Anastomotic leak	5	1.1%
	Bleeding / haemorrhage	1	0.2%
	Bowel obstruction	4	0.9%
	Chest Infection	15	3.3%
	Intra-abdominal infection	11	2.4%
	Lymphocoele	4	0.9%
	Other	2	0.4%
	Prolonged ileus	29	6.4%
	Urine leak	3	0.7%
	Wound dehiscence	11	2.4%
	Wound infection +/- others	22	4.9%
	Total	453	100.0%
LAP	None	9	36.0%
	Not recorded	12	48.0%
	Anastomotic leak	1	4.0%
	Bleeding / haemorrhage	2	8.0%
	Wound dehiscence	1	4.0%
	Total	25	100.0%
Lap with open diversion	None	25	58.1%
	Not recorded	9	20.9%
	Bowel obstruction	1	2.3%
	Chest Infection	1	2.3%
	Prolonged ileus	6	14.0%
	Wound infection +/- others	1	2.3%
	Total	43	100.0%
Robotically assisted with open diversion	None	2	40.0%
	Not recorded	2	40.0%
	Urine leak	1	20.0%
	Total	5	100.0%
Grand Total		526	100.0%

20
Clavien Dindo Grade of Recorded Complications by Technique

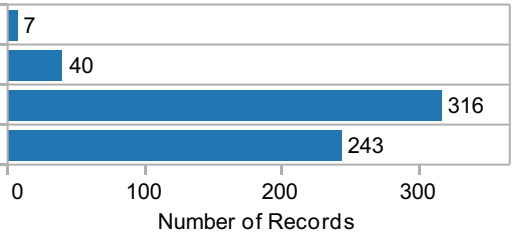
ClavienDindo	Surgical technique	N	% of Total
Grade I	Open	50	43.9%
	Lap with open diversion	5	4.4%
Grade II	Open	28	24.6%
	LAP	1	0.9%
	Lap with open diversion	4	3.5%
Grade IIIa	Open	6	5.3%
	Robotically assisted with open diversion	1	0.9%
Grade IIIb	Open	5	4.4%
	LAP	1	0.9%
	Robotically assisted with open diversion	1	0.9%
Grade IVa	Open	1	0.9%
Grade IVb	Open	3	2.6%
Grade V (death)	Open	5	4.4%
	Lap with open diversion	3	2.6%
Grand Total		114	100.0%

21
Operative Histology

Operative Histology	N	% of Total
No cancer	53	8.0%
TCC	316	48.0%
Squamous cell Ca	19	2.9%
Primary CIS	53	8.0%
Sarcoma	5	0.8%
Primary adenocarcinoma	6	0.9%
Gynaecological Ca	4	0.6%
Other	25	3.8%
Not recorded	178	27.0%
Grand Total	659	100.0%

22
Grade of Tumour

Grade of tumour	% of Total ..
G1	1.2%
G2	6.6%
G3	52.1%
Not recorded	40.1%



23
Lymph Nodes sampled / Lymph Nodes positive

Number of lymph nodes sampled	Number of positive lymph nodes	N	% of Total
1 to 5	0	45	10.7%
	1 - 5	14	3.3%
6 to 10	0	96	22.8%
	1 - 5	23	5.5%
	6 - 10	3	0.7%
	Null	8	1.9%
11 to 20	0	130	30.9%
	1 - 5	23	5.5%
	6 - 10	1	0.2%
	Null	7	1.7%
	11 to 20	1	0.2%
> 20	0	18	4.3%
	1 - 5	10	2.4%
	6 - 10	1	0.2%
	Null	2	0.5%
None	0	1	0.2%
	Null	38	9.0%
Grand Total		421	100.0%

24

Current status at most recent Follow up

	Time to FU in days									
	0 - 90		91 - 180		181 - 360		>360		**Grand Total**	
Currentstatus	N	% Total	N	% Total	N	% Total	N	% Total	N	% Total
Alive with no evidence of bladder cancer	70	59.8%	35	29.9%	9	7.7%	3	2.6%	117	100.0%
Alive with lymph node involvement by bladder cancer	1	33.3%	1	33.3%	1	33.3%			3	100.0%
Alive with metastatic disease	2	50.0%	2	50.0%					4	100.0%
Dead	1	33.3%	1	33.3%	1	33.3%			3	100.0%
Null	4	66.7%	2	33.3%					6	100.0%
Grand Total	78	58.6%	41	30.8%	11	8.3%	3	2.3%	133	100.0%

Participating Hospital Centres 2011

We are grateful to consultants from the following Centres / trusts who returned data for these analyses:

Aberdeen Royal Infirmary
Arrowe Park Hospital
Belfast City Hospital
Bristol Oncology Centre; United Bristol Health Care Trust
Castle Hill Hospital
Churchill Hospital
City Hospitals Sunderland NHS Foundation Trust
Colchester Hospital University NHS Foundation Trust
Derby Hospitals NHS Foundation Trust
Doncaster & Bassetlaw Hospitals NHS Trust
Dorset County Hospital
Freeman Hospital
Gartnavel General Hospital
Glan Clwyd Hospital
Guy's & Thomas's Hospital
Leicester General Hospital
Lincoln & Louth NHS Trust
Lister Hospital; Queen Elizabeth II Hospital, Welwyn
Medway Maritime Hospital
Morriston Hospital
New Cross Hospital, Wolverhampton
Norfolk & Norwich Hospital
Northampton General Hospital
Nottingham City Hospital
Pinderfields Hospital
Portsmouth Hospitals NHS Trust
Queen Elizabeth Hospital, B'ham
Queen Margaret Hospital
Raigmore Hospital
Royal Alexandra Hospital (Paisley)
Royal Hallamshire Hospital
Royal Liverpool University Hospital
Royal Preston Hospital
Salisbury District Hospital
Southampton General Hospital
Southend University Hospital NHS Foundation Trust
Southern General Hospital
St James's University Hospital
Stepping Hill Hospital
Stirling Royal Infirmary / Forth Valley Royal
Stobhill Hospital
Torbay Hospital
University Hospital of North Stafford
University Hospital Of Wales
Walsgrave Hospital
Western General Hospital, Edinburgh
Withington Hospital
Wrexham Maelor Hospital