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Supplementary material

Team Familiarity within Urological Oncology: Peri-operative outcomes from radical surgery for renal, bladder and prostate cancer with respect to team composition

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Supplementary Table 1. Participants and cases, stratified by Familiarly Score (dichotomised around the mean) and in total.

		Low FS		High FS		Total		p value chi sq.
		Count	%	Count	%	Count	%	
Sex	Male	499	55.2%	405	44.8%	904	86.7%	0.05
	Female	89	64.0%	50	36.0%	139	13.3%	
Age	Mean ($\pm$ SD)	65.27 $\pm$ 9.726		63.73 $\pm$ 8.925		64.60 $\pm$ 9.411		0.009*
	$\leq$ 64 years	268	53.6%	232	46.4%	500	47.9%	
	65+ years	320	58.9%	223	41.1%	543	52.1%	
Specialty	Renal	109	51.9%	101	48.1%	210	20.1%	<0.001
	Bladder	194	74.0%	68	26.0%	262	25.1%	
	Prostate	285	49.9%	286	50.1%	571	54.7%	
Procedure	Radical nephrectomy/NU	21	67.7%	10	32.3%	31	3.0%	<0.001
	Partial nephrectomy	88	49.2%	91	50.8%	179	17.2%	
	Radical cystoprostatectomy	147	73.1%	54	26.9%	201	19.3%	
	Anterior pelvic exenteration	47	77.0%	14	23.0%	61	5.8%	
	Radical prostatectomy	285	49.9%	286	50.1%	571	54.7%	
Type of Surgery	Robotic	384	49.9%	386	50.1%	770	73.8%	<0.001
	Laparoscopic	12	92.3%	1	7.7%	13	1.2%	
	Open	192	73.8%	68	26.2%	260	24.9%	
Admission	Theatre admissions unit	565	56.0%	444	44.0%	1009	96.7%	0.2
	Hospital ward	23	67.6%	11	32.4%	34	3.3%	
After theatre	Standard hospital ward	449	55.4%	361	44.6%	810	80.0%	0.013
	Critical care	41	73.2%	15	26.8%	56	5.5%	
	Discharged to home	74	50.3%	73	49.7%	147	14.5%	
First Case of Day	First case on list	278	54.9%	230	45.5%	506	48.5%	0.25
	Not first case	312	58.1%	225	41.9%	537	51.5%	
Total		600		443		1043		

* ANOVA P value. Abbreviations: NU = Nephroureterectomy (n=2); FS = Familiarity Score; chi sq. = Chi squared test

Supplementary table 2. Characteristics of each type of surgical procedure.

	Renal Surgery			Radical Cystectomy			Radical Prostatectomy			Total			p value*
	n	Mean (mins)	SD	n	Mean (mins)	SD	n	Mean (mins)	SD	n	Mean (mins)	SD	
Duration until Anaesthetic Starts ¹	209	3.67	4.46	262	3.24	3.11	571	3.27	2.26	1042	3.34	3.04	0.205
Duration in Anaesthetic Room	210	37.71	12.34	262	37.02	13.18	571	31.15	9.46	1043	33.95	11.51	< 0.001
Delay to Start Surgery	210	5.88	4.40	260	10.13	23.49	571	5.43	3.42	1041	6.70	12.32	< 0.001
Duration of Operation	204	137.33	37.14	255	212.30	76.03	548	155.82	34.24	1007	166.38	56.05	< 0.001
Delay Leaving Theatre	204	16.89	10.66	248	17.65	11.41	548	14.46	8.09	1000	15.75	9.65	< 0.001
Total Case Minutes ²	209	197.38	39.32	262	277.06	82.96	571	206.59	35.66	1042	222.46	61.20	< 0.001
Length of Stay	210	3.16	4.40	262	10.22	9.33	571	1.22	1.38	1043	3.87	6.39	< 0.001
Readmission	n	%		n	%		n	%		n	%		
- No	201	95.7%		225	85.9%		532	93.2%		958	91.9%		
- Within 30 days	7	3.3%		31	11.8%		28	4.9%		66	6.3%		
- Within 90 days	9	4.3%		34	13.0%		33	5.8%		76	7.3%		
Yes	9	4.3%		37	14.1%		39	6.8%		85	8.1%		< 0.001

Footnotes: 1. Time in room until starting anaesthesia (mins), 2. Time from anaesthesia starting to patient leaving theatre (mins). * Statistical tests: ANOVA for all times, except Length of stay (we used Mann Whitney U as it is non-parametric). Chi squared test for readmission.

Supplementary table 3. Readmission details.

Type	Readmission Total			Men	Age	Wound problem		Infective		Stoma/ Catheter		Pain		Other (NOS)		Renal problem		Vascular/ Bleeding		Neuro		Pulmonary Embolus		GI tract issue		Myocardial Infarction	
	n	n	%		Mean	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	85	75	88%		66.7	3	4%	25	29%	9	11%	8	9%	17	20%	6	7%	6	7%	3	4%	0	0%	6	7%	2	2%
Renal	9	6	67%		58.8	0	0%	2	22%	0	0%	0	0%	4	44%	1	11%	2	22%	0	0%	0	0%	0	0%	0	0%
Bladder	37	30	81%		70.8	2	5%	12	32%	4	11%	5	14%	4	11%	4	11%	1	3%	2	5%	0	0%	3	8%	0	0%
Prostate	39	39	100%		64.7	1	3%	11	28%	5	13%	3	8%	9	23%	1	3%	3	8%	1	3%	0	0%	3	8%	2	5%

Supplementary table 4. Peri-operative times with respect to high and low familiarity teams for all cases.

	Team Familiarity							p value *
	Low Familiarity			High Familiarity			Difference in means	
All cases (Total)	n	Mean	SD	n	Mean	SD		
Duration until Anaesthetic Starts ¹	600	3.18	2.71	443	3.56	3.43	0.38	0.041
Duration in Anaesthetic Room	600	35.48	12.59	443	31.86	9.52	-3.62	< 0.001
Delay to Start Surgery	600	7.55	15.90	443	5.51	3.64	-2.04	0.008
Duration of Operation	600	180	63.74	443	147.98	36.21	-32.02	< 0.001
Delay Leaving Theatre	600	16.44	10.60	443	14.82	8.14	-1.62	0.009
Total Case Minutes ²	600	239.08	70.09	443	200.08	36.18	-39.00	< 0.001
Length of Stay	600	3.00	5	443	1.00	1		<0.001

		n	%	n	%	p-value
Readmission: 30 days	No	552	92.0%	425	95.9%	0.01
	Yes	48	8.0%	18	4.1%	
Readmission: 90 days	No	549	91.5%	418	94.4%	0.08
	Yes	51	8.5%	25	5.6%	
Readmission	No	545	90.8%	413	93.2%	0.16
	Yes	55	9.2%	30	6.8%	

Footnotes: 1. Time in room until starting anaesthesia (mins), 2. Time from anaesthesia starting to patient leaving theatre (mins). * Statistical tests: ANOVA for all times, except Length of stay (we used Mann Whitney U as it is non-parametric). Chi squared test for readmission.

Supplementary table 5. Peri-operative times with respect to high and low familiarity teams for each type of procedure.

Team Familiarity (derived from all cases)								
Renal surgeries	Low Familiarity			High Familiarity			P value*	Diff. in means
	n	Mean	SD	n	Mean	SD		
Duration until Anaesthetic Starts	121	3.29	2.47	88	4.20	6.22	0.14	0.91
Duration in Anaesthetic Room	122	38.71	13.21	88	36.32	10.95	0.15	-2.39
Delay to Start Surgery	122	5.89	4.60	88	5.86	4.14	0.97	-0.03
Duration of Operation	118	145.99	36.39	86	125.45	34.99	<0.001	-20.54
Delay Leaving Theatre	118	17.26	11.80	86	16.38	8.91	0.55	-0.88
Total Case Minutes	122	207.22	39.05	87	183.59	35.55	<0.001	-23.63
Length of Stay (Median, Days)	122	2.00	2.00	88	2.00	2.00	0.00	0.00
	n	%		n	%			
Readmission within 30 days	No	118	96.70	85	96.60		0.96	
	Yes	4	3.30	3	3.40			
Readmission: 90 days	No	118	96.70	83	94.30		0.40	
	Yes	4	3.30	5	5.70			
Readmission	No	118	96.70	83	94.30		0.40	
	Yes	4	3.30	5	5.70			
Radical cystectomy								
	n	Mean	SD	n	Mean	SD		
Duration until Anaesthetic Starts	143	3.33	3.51	119	3.13	2.55	0.60	-0.20
Duration in Anaesthetic Room	143	37.92	35.93	119	35.93	13.84	0.22	-1.99
Delay to Start Surgery	141	11.16	26.79	119	8.90	18.89	0.44	-2.26
Duration of Operation	137	233.49	80.97	118	187.70	61.57	<0.001	-45.79
Delay Leaving Theatre	133	19.50	13.37	115	15.50	8.13	0.00	-4.00
Total Case Minutes	143	301.47	87.57	119	247.72	66.38	<0.001	-53.75
Length of Stay (Median, Days)	143	7.00	6.00	119	7.00	6.00	0.10	
	n	%		n	%			
Readmission: 30 days	No	128	89.50	103	86.60		0.46	
	Yes	15	10.50	16	13.40			
Readmission: 90 days	No	126	88.10	102	85.70		0.57	
	Yes	17	11.90	17	14.30			
Readmission	No	124	86.70	101	84.90		0.67	
	Yes	19	13.30	18	15.10			
Radical prostatectomy								
	n	Mean	SD	n	Mean	SD		
Duration until Anaesthetic Starts	302	3.14	2.41	269	3.41	2.09	0.16	0.27
Duration in Anaesthetic Room	302	31.62	9.95	269	30.62	8.86	0.21	-1.00
Delay to Start Surgery	302	5.72	3.56	269	5.11	3.23	0.03	-0.61
Duration of Operation	287	160.84	35.46	261	150.30	32.00	<0.001	-10.54
Delay Leaving Theatre	287	14.22	7.93	261	14.71	8.26	0.48	0.49
Total Case Minutes	302	211.67	36.94	269	200.90	33.33	<0.001	-10.77
Length of Stay (Median, Days)	302	1.00	0.00	269	1.00	0.00	0.80	
	n	%		n	%			
Readmission: 30 days	No	286	94.70	257	95.50		0.64	
	Yes	16	5.30	12	4.50			
Readmission: 90 days	No	286	94.70	252	93.70		0.60	
	Yes	16	5.30	17	6.30			
Readmission	No	284	94.00	248	92.20		0.38	
	Yes	18	6.00	21	7.80			

All durations are minutes, unless stated otherwise. Abbreviations: Diff. = Difference; * Statistical tests: ANOVA for all times, except Length of stay (we used Mann Whitney U as it is non-parametric). Chi squared test for readmission.

Supplementary table 6. Peri-operative times with respect to high and low familiarity teams (calculated for each procedure separately) for each type of procedure.

		Team Familiarity (renal, bladder and prostate surgery separately)							Diff. in means
		Low Familiarity			High Familiarity				
Renal surgeries		n	Mean	SD	n	Mean	SD	p value*	
Duration until Anaesthetic Starts		130	3.34	2.45	79	4.23	6.53	0.16	0.89
Duration in Anaesthetic Room		131	38.54	13.32	79	36.33	10.45	0.21	-2.21
Delay to Start Surgery		131	5.95	4.59	79	5.76	4.10	0.77	-0.19
Duration of Operation		126	146.44	36.55	78	122.63	33.36	< 0.001	-23.81
Delay Leaving Theatre		126	17.21	11.71	78	16.38	8.75	0.59	-0.83
Total Case Minutes		130	207.58	38.65	79	180.61	34.56	< 0.001	-26.97
Length of Stay (Median, Days)		131	2.00	2	79	2.00	2	<0.001	
		n	%		n	%			
Readmission within 30 days	No	126	96.20%		77	97.50%		0.62	
	Yes	5	3.80%		2	2.50%			
Readmission: 90 days	No	126	96.20%		75	94.90%		0.67	
	Yes	5	3.80%		4	5.10%			
Readmission	No	126	96.20%		75	94.90%		0.67	
	Yes	5	3.80%		4	5.10%			
Radical cystectomy		n	Mean	SD	n	Mean	SD		
Duration until Anaesthetic Starts		232	3.23	3.23	30	3.3	2.02	0.91	0.07
Duration in Anaesthetic Room		232	37.62	13.32	30	32.4	11.18	0.04	-5.22
Delay to Start Surgery		230	10.5	24.92	30	7.23	3.73	0.47	-3.27
Duration of Operation		225	216.13	78.36	30	183.6	47.19	0.03	-32.53
Delay Leaving Theatre		218	18.04	1.85	30	14.83	6.87	0.15	-3.21
Total Case Minutes		232	282.1	85.49	30	238.07	44.22	0.01	-44.03
Length of Stay (Median, Days)		232	7.00	6	30	6.50	6	0.34	
		n	%		n	%			
Readmission: 30 days	No	203	87.50%		28	93.30%		0.35	
	Yes	29	12.50%		2	6.70%			
Readmission: 90 days	No	200	86.20%		28	93.30%		0.27	
	Yes	32	13.80%		2	6.70%			
Readmission	No	198	85.30%		27	90.00%		0.49	
	Yes	34	14.70%		3	10.00%			
Radical prostatectomy		n	Mean	SD	n	Mean	SD		
Duration until Anaesthetic Starts		237	3.03	2.24	334	3.43	2.27	0.04	0.40
Duration in Anaesthetic Room		237	31.7	10.29	334	30.76	8.82	0.24	-0.94
Delay to Start Surgery		237	5.62	3.33	334	5.3	3.48	0.26	-0.32
Duration of Operation		229	162.76	36.57	319	150.83	31.59	< 0.001	-11.93
Delay Leaving Theatre		229	14.48	8.13	319	14.44	8.07	0.96	-0.04
Total Case Minutes		237	214.08	38.35	334	201.28	32.66	< 0.001	-3.21
Length of Stay (Median, Days)		237	1.00	0	334	1.00	0	0.43	
		n	%		n	%			
Readmission: 30 days	No	223	94.10%		320	95.80%		0.35	
	Yes	14	5.90%		14	4.20%			
Readmission: 90 days	No	223	94.10%		315	94.30%		0.91	
	Yes	14	5.90%		19	5.70%			
Readmission	No	221	93.20%		311	93.10%		0.95	
	Yes	16	6.80%		23	6.90%			

All durations are minutes, unless stated otherwise. Abbreviations: Diff. = Difference; * Statistical tests: ANOVA for all times, except Length of stay (we used Mann Whitney U as it is non-parametric). Chi squared test for readmission.

Supplementary table 7. Summary of key findings from the multiple regression analysis of peri-operative predictive factors and total case minutes

Dependent Variable: Total case minutes		95% CI		
Parameter	B	Lower	Upper	Sig.
Age (years)	-0.26	-0.61	0.09	0.14
Familiarity Score (FS)	-1.77	-2.25	-1.29	<.001
Gender: Male vs. Female	92.55	-119.80	304.90	0.39
Admission ward: TAU vs. Hospital ward	-74.20	-187.12	38.72	0.20
First Case of Day: Yes vs. No	97.72	-57.80	253.25	0.22
OPERATION Group Renal vs. Prostate	61.79	-129.18	252.75	0.53
OPERATION Group Bladder vs. Prostate	311.95	93.54	530.36	0.005
OPERATION: SPECIFIC PROCEDURE	-149.39	-354.57	55.79	0.15
Route: Robotic vs. Open	180.96	26.88	335.05	0.02
Route: Lap. vs. Open	59.29	-40.28	158.85	0.24
[GenderM0F1=0] * [WardFromTAU0AllwardsexceptTAU1=0]	35.33	-23.41	94.06	0.24
[GenderM0F1=0] * [FirstCaseofDayYes0No1=0]	-85.14	-287.29	117.02	0.41
[GenderM0F1=0] *	-56.02	-199.97	87.92	0.45
[OPERATIONGroupbySPECIALTYRenal0Bladder1Prostate2=0]				
[GenderM0F1=0] *	-39.60	-119.57	40.37	0.33
[OPERATIONGroupbyPROCEDURERNincNU0PN1RCP2APE3RP4=0]				
[GenderM0F1=0] * [Rob1Lap2Open3=1]	-57.78	-201.43	85.88	0.43
[WardFromTAU0AllwardsexceptTAU1=0] *	-5.12	-92.50	82.26	0.91
[FirstCaseofDayYes0No1=0]				
[WardFromTAU0AllwardsexceptTAU1=0] *	11.10	-91.39	113.58	0.83
[OPERATIONGroupbySPECIALTYRenal0Bladder1Prostate2=1]				
[FirstCaseofDayYes0No1=0] *	-10.30	-31.08	10.48	0.33
[OPERATIONGroupbySPECIALTYRenal0Bladder1Prostate2=0]				
[FirstCaseofDayYes0No1=0] *	-95.26	-226.83	36.32	0.16
[OPERATIONGroupbySPECIALTYRenal0Bladder1Prostate2=1]				
[FirstCaseofDayYes0No1=0] *	-61.69	-150.71	27.34	0.17
[OPERATIONGroupbyPROCEDURERNincNU0PN1RCP2APE3RP4=0]				
[FirstCaseofDayYes0No1=0] *	77.16	-102.78	257.10	0.40
[OPERATIONGroupbyPROCEDURERNincNU0PN1RCP2APE3RP4=2]				
[FirstCaseofDayYes0No1=0] * [Rob1Lap2Open3=1]	-73.80	-198.22	50.63	0.25
[OPERATIONGroupbySPECIALTYRenal0Bladder1Prostate2=0] *	-12.43	-166.12	141.26	0.87
[Rob1Lap2Open3=1]				
[GenderM0F1=0] * [WardFromTAU0AllwardsexceptTAU1=0] *	26.72	-70.87	124.30	0.59
[FirstCaseofDayYes0No1=0]				
[GenderM0F1=0] * [FirstCaseofDayYes0No1=0] *	58.82	-49.90	167.54	0.29
[OPERATIONGroupbyPROCEDURERNincNU0PN1RCP2APE3RP4=0]				
[GenderM0F1=0] * [FirstCaseofDayYes0No1=0] *	52.49	-121.88	226.87	0.56
[Rob1Lap2Open3=1]				

Supplementary table 8. Summary of key findings from the multiple regression analysis of peri-operative predictive factors and length of stay

Dependent Variable: Length Of Stay (Days)		95% CI		
Parameter	B	Lower	Upper	Sig.
Age (years)	0.02	-0.01	0.06	0.24
Familiarity Score (FS)	-0.03	-0.07	0.02	0.30
Gender: Male vs. Female	-4.05	-25.52	17.43	0.71
Admission ward: TAU vs. Hospital ward	-9.73	-21.15	1.69	0.10
First Case of Day: Yes vs. No	-19.75	-35.48	-4.03	0.01
OPERATION Group Renal vs. Prostate	5.40	-13.91	24.71	0.58
OPERATION Group Bladder vs. Prostate	15.53	-6.56	37.62	0.17
OPERATION: SPECIFIC PROCEDURE	-0.82	-8.07	6.44	0.83
Route: Robotic vs. Open	-1.52	-17.10	14.07	0.85
Route: Lap. vs. Open	0.41	-9.66	10.48	0.94
[GenderM0F1=0] * [WardFromTAU0AllwardsexceptTAU1=0]	9.83	3.89	15.77	0.001
[GenderM0F1=0] * [FirstCaseofDayYes0No1=0]	23.14	2.70	43.58	0.03
[GenderM0F1=0] *	-6.11	-20.67	8.44	0.41
[OPERATIONGroupbySPECIALTYRenal0Bladder1Prostate2=0]				
[GenderM0F1=0] *	0.89	-7.20	8.98	0.83
[OPERATIONGroupbyPROCEDURERNincNU0PN1RCP2APE3RP4=0]				
[GenderM0F1=0] * [Rob1Lap2Open3=1]	1.01	-13.52	15.54	0.89
[WardFromTAU0AllwardsexceptTAU1=0] * [FirstCaseofDayYes0No1=0]	17.33	8.49	26.17	<.001
[WardFromTAU0AllwardsexceptTAU1=0] *	-3.10	-13.46	7.27	0.56
[OPERATIONGroupbySPECIALTYRenal0Bladder1Prostate2=1]				
[FirstCaseofDayYes0No1=0] *	-1.12	-3.21	0.98	0.30
[OPERATIONGroupbySPECIALTYRenal0Bladder1Prostate2=0]				
[FirstCaseofDayYes0No1=0] *	3.40	-9.91	16.70	0.62
[OPERATIONGroupbySPECIALTYRenal0Bladder1Prostate2=1]				
[FirstCaseofDayYes0No1=0] *	5.93	-3.08	14.93	0.20
[OPERATIONGroupbyPROCEDURERNincNU0PN1RCP2APE3RP4=0]				
[FirstCaseofDayYes0No1=0] *	-6.43	-24.62	11.77	0.49
[OPERATIONGroupbyPROCEDURERNincNU0PN1RCP2APE3RP4=2]				
[FirstCaseofDayYes0No1=0] * [Rob1Lap2Open3=1]	3.19	-9.40	15.77	0.62
[OPERATIONGroupbySPECIALTYRenal0Bladder1Prostate2=0] *	3.02	-12.52	18.56	0.70
[Rob1Lap2Open3=1]				
[GenderM0F1=0] * [WardFromTAU0AllwardsexceptTAU1=0] *	-18.51	-28.37	-8.64	<.001
[FirstCaseofDayYes0No1=0]				
[GenderM0F1=0] * [FirstCaseofDayYes0No1=0] *	-5.32	-16.32	5.67	0.34
[OPERATIONGroupbyPROCEDURERNincNU0PN1RCP2APE3RP4=0]				
[GenderM0F1=0] * [FirstCaseofDayYes0No1=0] * [Rob1Lap2Open3=1]	-5.93	-23.57	11.70	0.51

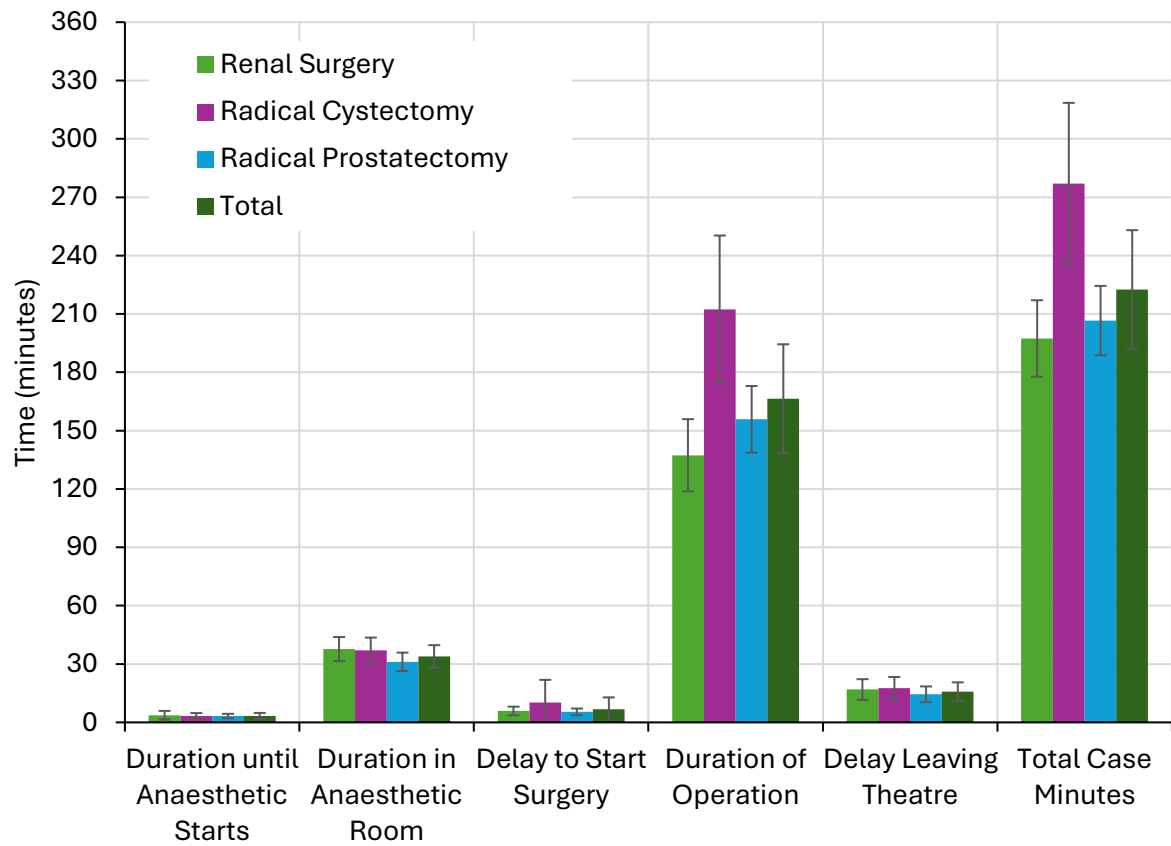
Supplementary table 9. Summary of key findings from the multiple regression analysis of team dyads and total case minutes

Dependent Variable: Total case minutes		95% CI		
Parameter	B	Lower	Upper	Sig.
Age (years)	-0.21	-0.58	0.16	0.27
Surgeon#1/Surgeon#2	-0.17	-0.25	-0.10	<.001
Surgeon#1/Anaethetist#1	-0.58	-0.88	-0.28	<.001
Surgeon#1/ Scrub#1	-0.20	-0.48	0.08	0.17
Anaethetist#1/Scrub#1	0.02	-1.03	1.08	0.96
Anaethetist#1/Anaes. Asstn#1	-0.22	-0.87	0.43	0.51
Gender	62.32	-160.33	284.96	0.58
Admission ward: TAU vs. Hospital ward	-80.12	-192.42	32.19	0.16
First Case of Day: Yes/No	60.57	-109.00	230.14	0.48
OPERATION Group Renal vs. Prostate	77.28	-112.35	266.91	0.42
OPERATION Group Bladder vs. Prostate	272.02	44.15	499.89	0.02
OPERATION SPECIFIC PROCEDURE	-115.29	-331.05	100.47	0.30
Route: Robotic vs. Open	140.84	-27.24	308.92	0.10
Route: Lap. vs. Open	55.22	-43.23	153.67	0.27

Supplementary table 10. Summary of key findings from the multiple regression analysis of team dyads and length of stay

Dependent Variable: Length Of Stay (Days)				
Parameter	B	95% CI		Sig.
Age (years)	0.02	-0.02	0.05	0.34
Surgeon#1/Surgeon#2	0.00	-0.01	0.01	0.84
Surgeon#1/Anaethetist#1	0.00	-0.03	0.03	0.80
Surgeon#1/ Scrub#1	-0.01	-0.04	0.02	0.38
Anaethetist#1/Scrub#1	0.16	0.05	0.26	0.003
Anaethetist#1/Anaes. Asstn#1	0.00	-0.06	0.07	0.93
Gender	-5.53	-27.60	16.54	0.62
Admission ward: TAU vs. Hospital ward	-9.60	-20.73	1.53	0.09
First Case of Day: Yes/No	-22.67	-39.48	-5.86	0.01
OPERATION Group Renal vs. Prostate	2.43	-16.37	21.23	0.80
OPERATION Group Bladder vs. Prostate	13.62	-8.97	36.20	0.24
OPERATION: SPECIFIC PROCEDURE	-0.92	-7.97	6.12	0.80
Route: Robotic vs. Open	-1.32	-17.98	15.34	0.88
Route: Lap. vs. Open	1.04	-8.73	10.79	0.84
[GenderM0F1=0] * [WardFromTAU0AllwardsexceptTAU1=0]	9.25	3.34	15.16	0.00
[GenderM0F1=0] * [FirstCaseofDayYes0No1=0]	25.39	4.23	46.55	0.02
[GenderM0F1=0] *				
[OPERATIONGroupbySPECIALTYRenal0Bladder1Prostate2=0]	-4.83	-19.12	9.46	0.51
[GenderM0F1=0] *				
[OPERATIONGroupbyPROCEDURERNincNU0PN1RCP2APE3RP4=0]	2.27	-5.60	10.15	0.57
[GenderM0F1=0] * [Rob1Lap2Open3=1]	0.54	-15.11	16.19	0.95
[WardFromTAU0AllwardsexceptTAU1=0] *				
[FirstCaseofDayYes0No1=0]	18.27	9.66	26.88	<.001
[GenderM0F1=0] * [WardFromTAU0AllwardsexceptTAU1=0] *				
[FirstCaseofDayYes0No1=0]	-19.26	-29.00	-9.53	<.001
[GenderM0F1=0] * [FirstCaseofDayYes0No1=0] *				
[OPERATIONGroupbyPROCEDURERNincNU0PN1RCP2APE3RP4=0]	-6.88	-17.59	3.83	0.21
[GenderM0F1=0] * [FirstCaseofDayYes0No1=0] *				
[Rob1Lap2Open3=1]	-6.12	-24.63	12.38	0.52

Supplementary Figure 1. Time in minutes (mean $\pm$ standard deviation) for each of the operative stages for the three types of surgery.



Supplementary Figure 2. Scatter plot of FS versus total case minutes for each individual operation reveals negative correlations for all cases (n = 1043, Pearson correlation (r) -0.36, $p < 0.001$).

