

## APPENDICES

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## APPENDIX A DATA CLEANING

### Data Cleaning

Data cleaning is the process of checking the data for inconsistencies and inaccuracies before undertaking the analysis. The data files that were provided for the validity analysis were formed by linking three files: the priority form scoring file, the booking file, and the surgery performed file. Limited cleaning of known problems and data quality checks were initially done by the Research Officer. The following issues were noted and discrepancies were discussed with the Research Officer and the Manager of the Patient Surgical Registry. The steps taken to improve the data quality are included in italics.

- Due to the linking of the three files, there was a duplication of data for most variables (e.g., 3 different variables for date of birth). Data for variables measuring the same attributes were not always consistent (e.g., age, procedure). *Age variables were cross-checked and where 2 values were consistent, that value was used.*
- Not all dates were logically consistent (e.g., date of surgery before booking date, or date of birth after date of surgery). Thus, in some cases the derivation of variables based on dates produced negative values or scores outside of an acceptable range. *Negative values and values outside an acceptable range were not used (e.g., age of 120).*
- Most datasets included some procedures, services, and surgeons that were inconsistent with the priority criteria tool (e.g., orthopedic cases in the urology dataset). *Services, surgeons, and procedures were cross-checked for each data set. Data that were inconsistent with the priority tool were not used for the analysis.*
- There was no variable to identify cases that were backscored. *In consultation with the Research and Evaluation Working Group, it was decided to use data for patients booked from January 1, 2004 to October 12, 2004 for the validity analysis.*

- In some cases the same procedures were scored using different tools depending on the specialty of the surgeon.
- For some cases all items had weights of 0. It was not clear whether 0 was the default value or if these weights were valid values.
- Some cases had a priority score of 0 but no item values for priority criteria. *Only cases with at least one priority criteria value were used.*
- It was not known if missing item responses were actually missing or if the lowest value for that item was intended (e.g., no pain with a weight of 0). The scoring algorithm assumed that these item scores were weighted 0.
- Item scores outside of the valid range of responses (e.g., score of 5 in a 4 level item) were coded with a weight of 0.
- MAWT values consisted of 2 variables: day/week/month to identify the category and a number for days, weeks, or months. Some cases had MAWT values for day/week/month or a number but not both. *Only cases with both variables were used to calculate a MAWT.*
- MAWT values were entered as a string (text) variable. *A syntax was written to recode each variation (e.g., '6', '<6', 'less than 6', '6 or fewer', '2-6', '2 – 6' '2 to 6') into a numeric variable prior to the calculation of a MAWT. Each data file had approximately 80-100 variations. The maximum value was used for the analysis (e.g., '2-6' was coded as a 6).*
- Not all cases had a booking date. *Only cases with a booking date were used.*
- There was no variable to identify emergency cases. *Only patients who were either still waiting for surgery or patients who had an actual waiting time of greater than 1 day (booking date minus surgery date) were used to reduce the inclusion of emergency cases.*
- The data for vascular – thoracic outlet syndrome included only 5 valid cases. The priority scores were not included in the empirical analysis.
- The cataract PCS was calculated incorrectly. Only the highest value for the surgery or non-surgery eye was used. *Cataract scores were recalculated.*
- A small number of cataract cases had a negative PCS due to negative weights for age-related macular degeneration.

- Priority scores, VAS urgency, and MAWT were checked for variation within and between surgeons. One surgeon had constant values for all urgency variables (PCS, MAWT, and VAS Urgency). *Data from that surgeon were not used in the analysis.*
- Two cataract files were provided – one for the left eye and one for the right eye. There was no unique identifier so the files could not be merged. *Only the data for the right eye was used in the analysis.*
- It was pointed out that the urgency categories may be changed in some cases when surgery is imminent. *Convergent validity results using urgency categories were compared with 2 groups of patients: those on the waiting list and those who had surgery.*
- Data for the priority form cancer variable were available for 67% of the cases and the coding for cancer (i.e., yes or no) was not always consistent with the coding of cancer for the Saskatoon urgency categories. *A new cancer variable was calculated using the data from the priority forms and the Saskatoon urgency categories. Where values differed, the priority form cancer variable was used. The new cancer variable provided data for 87% of cases.*
- The range of the SASKCOR was not always consistent with the range of the SSCN urgency profile. *The SASKCOR was used for the analysis but was recalculated for cancer patients (see next point).*
- Although the urgency profile for all cancer cases (suspected and confirmed) is 80 – 100, the SASKCOR did not include an adjustment for this profile; SASKCORs for cancer cases ranged from 1 to 100. (However the urgency profile for cancer was accounted for in the target time frame). *A ‘SASKCOR adjusted for cancer’ was calculated as follows: The PCS was transformed to an 80 – 100 scale. The SASKCOR adjusted for cancer is referred to in this document as the ‘SASKCOR adjusted’. Both the SASKCOR and the SASKCOR adjusted were used for the validity analysis.*
- For some cases the primary procedure code and associated urgency profile differed with the variables provided by the 3 linked files.

In summary, to ensure data quality, the criteria used to select the sample for the validity analysis were:

- Cases booked from January 1, 2004 to October 12, 2004.
- Cases with a minimum of one priority criteria value.
- Cases who were either still waiting for surgery or those who had an actual waiting time of greater than 1 day.
- Cases with valid data values.

## APPENDIX B URGENCY PROFILES

Table A1 Urgency Profiles

<i>Urgency Profile</i>	<i>Frequency</i>
1-29	523
1-35	988
1-40	1089
1-49	12
1-50	465
1-79	1558
1-80	58
1-95	4642
10-20	222
10-30	1
10-50	29
10-65	55
10-70	10
10-80	2685
10-90	9
10-95	1
20-30	22
20-40	65
20-50	251
20-60	100
20-94	28
25-100	3215
25-79	61
25-97	403
29-79	31
30-100	977
30-49	847
30-50	74
30-60	437
30-64	43
30-70	7
30-75	325
30-79	1203
30-80	494
30-90	139
30-94	136
30-95	341
35-100	28
35-79	18
40-60	76
40-64	103

<i>Urgency Profile</i>	<i>Frequency</i>
40-85	300
40-95	1493
5-50	89
5-60	6
50-100	104
50-60	24
50-70	2
50-75	3
50-79	42
50-80	413
50-84	9
50-85	726
50-90	1
50-94	179
50-95	2388
60-100	8
60-70	20
60-90	14
65-100	519
65-79	58
65-80	91
65-90	7
65-94	2
70-100	54
70-80	20
70-90	1
70-95	151
75-90	34
75-94	667
75-95	958
75-97	95
80-100	1227
80-90	12
80-94	533
80-95	38
80-97	340
80-99	55
85-100	19
85-95	2
90-100	1
90-95	19
95-100	31

Table A2 Urgency Profiles for Each Measure

Priority Tool		Frequency	Percent
Hip and Knee	10-80	2076	100.00
Cataract	1-95	4441	100.00
Surgery	1-95	25	0.41
	1-29	35	0.58
	1-40	268	4.43
	1-50	11	0.18
	1-79	131	2.16
	20-50	20	0.33
	20-94	16	0.26
	25-100	3079	50.85
	25-79	61	1.01
	25-97	397	6.56
	30-100	11	0.18
	30-49	5	0.08
	30-60	12	0.20
	30-79	9	0.15
	30-95	5	0.08
	50-80	7	0.12
	50-85	43	0.71
	50-94	34	0.56
	50-95	18	0.30
	65-100	519	8.57
	70-95	82	1.35
	75-94	667	11.02
	80-100	98	1.62
	80-94	264	4.36
	80-95	4	0.07
	80-97	209	3.45
	85-100	5	0.08
95-100	20	0.33	
	Total	6055	100.00
Orthopedic	10-80	463	11.21
	1-29	327	7.92
	20-50	82	1.98
	30-49	759	18.37
	30-79	15	0.36
	30-95	303	7.33
	50-80	17	0.41
	80-100	7	0.17
	80-94	7	0.17
	80-97	106	2.57
	10-20	205	4.96
10-30	1	0.02	

Priority Tool	Frequency	Percent	
10-50	8	0.19	
10-65	47	1.14	
10-70	2	0.05	
10-90	1	0.02	
10-95	1	0.02	
20-30	15	0.36	
20-40	65	1.57	
20-60	54	1.31	
30-50	17	0.41	
35-79	3	0.07	
40-60	21	0.51	
40-95	1493	36.14	
50-60	24	0.58	
50-70	2	0.05	
60-90	12	0.29	
65-90	7	0.17	
70-80	15	0.36	
75-97	40	0.97	
80-90	10	0.24	
85-95	2	0.05	
Total	4131	100.00	
-----			
Gynecology/Obstetrics	1-95	8	0.13
	1-40	581	9.54
	1-50	38	0.62
	1-79	9	0.15
	25-97	6	0.10
	30-100	966	15.86
	30-79	842	13.82
	50-85	683	11.21
	50-95	1121	18.40
	80-100	896	14.71
	80-94	38	0.62
	95-100	11	0.18
	30-64	43	0.71
	30-80	427	7.01
	40-64	103	1.69
	40-85	300	4.93
	60-70	19	0.31
	Total	6091	100.00
-----			
Urology	1-95	159	6.44
	1-29	39	1.58
	1-50	8	0.32
	30-49	56	2.27
	30-79	38	1.54
	50-94	115	4.66
	50-95	1240	50.20

Priority Tool	Frequency	Percent
	80-100	35 1.42
	80-94	177 7.17
	30-80	8 0.32
	1-35	6 0.24
	1-49	12 0.49
	29-79	23 0.93
	30-75	325 13.16
	30-94	136 5.51
	50-100	23 0.93
	50-79	6 0.24
	50-84	9 0.36
	80-99	55 2.23
	Total	2470 100.00
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Otolaryngology	1-29	20 0.60
	1-79	1332 39.69
	25-100	11 0.33
	30-79	195 5.81
	50-80	11 0.33
	50-94	23 0.69
	80-95	34 1.01
	85-100	7 0.21
	1-35	684 20.38
	50-79	33 0.98
	30-90	40 1.19
	75-95	956 28.49
	90-100	1 0.03
	90-95	9 0.27
	Total	3356 100.00
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Plastic	10-80	5 0.27
	1-95	9 0.48
	1-29	91 4.87
	1-40	59 3.16
	1-50	408 21.85
	1-79	81 4.34
	20-50	147 7.87
	20-94	12 0.64
	25-100	2 0.11
	30-49	26 1.39
	30-60	5 0.27
	30-79	61 3.27
	30-95	33 1.77
	50-80	27 1.45
	50-94	1 0.05
	50-95	8 0.43
	70-95	69 3.70
	80-100	23 1.23

Priority Tool	Frequency	Percent
	80-94	14 0.75
	80-97	25 1.34
	85-100	7 0.37
	10-20	17 0.91
	10-50	21 1.12
	10-65	8 0.43
	10-70	8 0.43
	10-90	8 0.43
	20-30	7 0.37
	20-60	8 0.43
	35-79	15 0.80
	40-60	55 2.95
	60-90	2 0.11
	70-80	5 0.27
	75-97	55 2.95
	80-90	2 0.11
	30-80	59 3.16
	60-70	1 0.05
	1-35	296 15.85
	29-79	8 0.43
	50-100	3 0.16
	50-79	1 0.05
	30-90	33 1.77
	75-95	2 0.11
	90-95	10 0.54
	30-70	7 0.37
	5-50	89 4.77
	5-60	6 0.32
	50-90	1 0.05
	65-79	27 1.45
	Total	1867 100.00
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OMFS	10-80	141 20.11
	1-29	11 1.57
	1-79	5 0.71
	30-60	411 58.63
	80-94	1 0.14
	20-60	38 5.42
	1-35	2 0.29
	50-79	2 0.29
	65-79	31 4.42
		1 0.14
	1-80	58 8.27
	Total	701 100.00
-----		
Neurosurgery Head	20-50	2 2.33
	30-60	9 10.47
	80-100	61 70.93

Priority Tool		Frequency	Percent
	30-90	4	4.65
	50-75	3	3.49
	70-100	7	8.14
	Total	86	100.00
Neurosurgery Spine	30-79	43	7.49
	50-80	351	61.15
	80-100	1	0.17
	30-50	57	9.93
	35-100	28	4.88
	65-80	91	15.85
	65-94	2	0.35
	70-90	1	0.17
	Total	574	100.00
Thoracic	25-100	123	44.40
	30-49	1	0.36
	50-94	6	2.17
	50-95	1	0.36
	80-100	106	38.27
	80-94	32	11.55
	60-100	8	2.89
	Total	277	100.00
Vascular AAA	70-100	47	100.00
Vascular CEA	30-90	62	100.00
Vascular Infrainguinal	50-100	73	83.91
	75-90	14	16.09
	Total	87	100.00
Vascular Other	50-100	5	20.00
	75-90	20	80.00
	Total	25	100.00
Vascular Veins	1-40	181	100.00

## APPENDIX C GENERAL SURGERY

Table A1 List of Procedures

Procedure	Frequency	Percent	Cumulative Percent
CHOLECYSTECTOMY	1211	20.00	20.00
REPAIR INGUINAL HERNIA	1055	17.42	37.42
BIOPSY BREAST	626	10.34	47.76
REPAIR UMBILICAL HERNIA	292	4.82	52.58
REPAIR INCISIONAL HERNIA	261	4.31	56.90
MASTECTOMY	171	2.82	59.72
VEIN LIGATION/STRIPPING	163	2.69	62.41
HEMORRHOIDECTOMY	127	2.10	64.51
THYROIDECTOMY	98	1.62	66.13
ANTERIOR RESECTION	97	1.60	67.73
REPAIR VENTRAL HERNIA	95	1.57	69.30
MASTECTOMY SIMPLE	92	1.52	70.82
HEMICOLECTOMY	91	1.50	72.32
EXCISION SOFT TISSUE - NON SPECIFIED	82	1.35	73.67
GASTROPLASTY/GASTRIC STAPLING	78	1.29	74.96
EXCISION SKIN LESION	73	1.21	76.17
RECTAL EXAM UNDER ANESTHESIA	69	1.14	77.31
AXILLARY NODE DISSECTION	64	1.06	78.36
BIOPSY SENTINEL LYMPH NODE	59	0.97	79.34
LARGE BOWEL RESECTION	50	0.83	80.17
NISSEN'S FUNDOPLICATION	49	0.81	80.97
ANAL FISTULECTOMY	47	0.78	81.75
EXCISION LIPOMA	44	0.73	82.48
CLOSURE COLOSTOMY	44	0.73	83.20
PARATHYROIDECTOMY	42	0.69	83.90
EXCISION PILONIDAL CYST	42	0.69	84.59
ABDOMINAL PERINEAL RESECTION	41	0.68	85.27
COLONOSCOPY	39	0.64	85.91
REPAIR EPIGASTRIC HERNIA	38	0.63	86.54
INSERTION VENOUS ACCESS CATHETER, PORTA CATH, HICKMAN, HEMOCATH	38	0.63	87.17
BREAST LUMPECTOMY	38	0.63	87.80
SPHINCTEROTOMY	37	0.61	88.41
EXCISION GANGLION WRIST	26	0.43	88.84
EXAM UNDER ANAES EXCEPT - GYN OR RECTAL	25	0.41	89.25
BIOPSY LESION OF NOSE	24	0.40	89.64
LAPAROSCOPIC BOWEL RESECTION	21	0.35	89.99
REPAIR HIATAL HERNIA	20	0.33	90.32
ANAL FISSURECTOMY	20	0.33	90.65
RELEASE CARPAL TUNNEL(GENERAL SURGERY)	20	0.33	90.98
TOTAL COLECTOMY	19	0.31	91.30

Procedure	Frequency	Percent	Cumulative Percent
APPENDECTOMY	18	0.30	91.59
GASTROSCOPY	18	0.30	91.89
INSERTION PERITONEAL DIALYSIS CATHETER	17	0.28	92.17
PARTIAL COLON RESECTION	17	0.28	92.45
CLOSURE ILEOSTOMY	16	0.26	92.72
SMALL BOWEL RESECTION	16	0.26	92.98
ESOPHAGEAL DILATATION	15	0.25	93.23
GASTRECTOMY	15	0.25	93.48
EXCISION SUBMANDIBULAR GLAND	14	0.23	93.71
WHIPPLE OPERATION	14	0.23	93.94
SIGMOIDOSCOPY	13	0.21	94.15
LAPAROSCOPIC NISSEN FUNDOPLICATION	12	0.20	94.35
REPAIR FEMORAL HERNIA	12	0.20	94.55
EXCISION WARTS	12	0.20	94.75
COLOSTOMY	12	0.20	94.95
Excision Rectal/Anal Lesion	11	0.18	95.13
HYDROCELECTOMY	11	0.18	95.31
TRANSANAL POLYPECTOMY	9	0.15	95.46
REMOVAL INGROWN TOENAIL/ZEDLIC PROCEDURE	9	0.15	95.61
EXCISION THYROGLOSSAL CYST	9	0.15	95.76
ARTERY/VEIN LIGATION	9	0.15	95.90
EXCISION SINUS	9	0.15	96.05
REPAIR RECTAL PROLAPSE	9	0.15	96.20
LAPAROSCOPIC SPLENECTOMY	9	0.15	96.35
LAPAROSCOPIC SIGMOID RESECTION	8	0.13	96.48
THYROIDECTOMY RIGHT	8	0.13	96.61
BRONCHOSCOPY	7	0.12	96.73
AXILLARY NODE DISSECTION RIGHT	6	0.10	96.83
INCISION & DRAINAGE PILONIDAL CYST	6	0.10	96.93
AXILLARY NODE DISSECTION LEFT	6	0.10	97.03
EXC/FULGURATION ANAL/PERIANAL CONDYLOMA	6	0.10	97.13
EXCISION SEBACEOUS CYST	6	0.10	97.23
FLEXIBLE SIGMOIDOSCOPY	6	0.10	97.32
GASTROSTOMY	6	0.10	97.42
EXCISION GANGLION (GENERAL)	6	0.10	97.52
ANAL DILATATION	5	0.08	97.61
RIPSTEIN RECTOPEXY	5	0.08	97.69
GASTRIC BYPASS	5	0.08	97.77
NECK EXPLORATION	5	0.08	97.85
REMOVAL FOREIGN BODY	5	0.08	97.94
REPAIR ABDOMINAL DIAPHRAMATIC HERNIA	5	0.08	98.02
EXCISION ZENKER'S DIVERTICULUM	5	0.08	98.10
COLOSTOMY REPAIR/REVISION	4	0.07	98.17
DEBRIDEMENT ABDOMINAL WALL	4	0.07	98.23

Procedure	Frequency	Percent	Cumulative Percent
REMOVAL VENOUS ACCESS CATHETER, PORTA CATH, HEMOCATH, HICKMAN, ETC	4	0.07	98.30
LIVER LOBE RESECTION	4	0.07	98.36
REPAIR/REVISION ILEOSTOMY	4	0.07	98.43
THYROIDECTOMY LEFT	4	0.07	98.50
ANOPLASTY	4	0.07	98.56
REPAIR INCARCERATED HERNIA	4	0.07	98.63
INCISION AND DRAINAGE	3	0.05	98.68
SPLENECTOMY	3	0.05	98.73
PERCUTANEOUS BREAST BIOPSY	3	0.05	98.78
INCISION & DRAINAGE PERIRECTAL ABSCESS	3	0.05	98.83
PARTIAL PANCREATECTOMY	3	0.05	98.88
REMOVAL PAROTID DUCT STONE	3	0.05	98.93
THORACOTOMY	3	0.05	98.98
HARTMANN'S COLOSTOMY	3	0.05	99.03
BIOPSY SCALENE / NECK NODE	3	0.05	99.08
BOWEL ANASTOMOSIS	3	0.05	99.12
PANCREATICOJEJUNOSTOMY ROUX-EN-Y	2	0.03	99.16
LAPAROSCOPIC GASTRIC SEROMYOTOMY	2	0.03	99.19
ROUX-EN-Y OPERATION BILE DUCT	2	0.03	99.22
EXCISION LYMPH NODE	2	0.03	99.26
REMOVAL INGROWN TOENAIL/WEDGE RESECTION TOENAIL/ZEDLIC PROCEDURE BILATERAL	2	0.03	99.29
ILEOSTOMY	2	0.03	99.32
EXCISION GANGLION FOOT	2	0.03	99.36
EXCISION LYMPH NODE GROIN	2	0.03	99.39
REMOVAL CATHETER	2	0.03	99.42
TRANS HIATAL ESOPHAGECTOMY	2	0.03	99.45
BIOPSY LIVER	2	0.03	99.49
DISSECTION RADICAL GROIN	2	0.03	99.52
INSERTION ANAL SETON SUTURE	1	0.02	99.54
EXCISION VILLENOUS ADENOMA	1	0.02	99.55
EXCISION PENILE LESION	1	0.02	99.57
TOTAL PANCREATECTOMY	1	0.02	99.59
THORACOTOMY LEFT	1	0.02	99.60
EXCISION SCROTAL LESION	1	0.02	99.62
EXPLORATION PANCREATIC DUCT	1	0.02	99.64
RECTAL TUMOR ABLATION	1	0.02	99.65
CLOSURE GASTRIC ULCER	1	0.02	99.67
EXCISION GYNECOMASTIA LEFT	1	0.02	99.69
TOTAL LIVER RESECTION	1	0.02	99.70
ESOPHAGOGASTRECTOMY	1	0.02	99.72
THYROIDECTOMY BILATERAL	1	0.02	99.74
BIOPSY LIVER LAPAROSCOPIC	1	0.02	99.75
LAPAROSCOPIC FEEDING GASTRO-JEJUNOSTOMY	1	0.02	99.77

<b>Procedure</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
EXCISION GYNECOMASTIA RIGHT	1	0.02	99.79
REMOVAL INGROWN TOENAIL/WEDGE RESECTION TOENAIL/ZEDLIC PROCEDURE RIGHT	1	0.02	99.80
PYLOROPLASTY	1	0.02	99.82
EXCISION HAND MASS	1	0.02	99.83
REPAIR SUTURE	1	0.02	99.85
WOUND DEHISCENCE	1	0.02	99.87
INJECTION SCLEROTHERAPY & FLUSH LIGATION	1	0.02	99.88
LOOP ILEOSTOMY	1	0.02	99.90
EXCISION GANGLION FOOT BILATERAL	1	0.02	99.92
REMOVAL PERITONEAL CATHETER	1	0.02	99.93
CHOLECYSTOJEJUNOSTOMY ROUX-EN-Y	1	0.02	99.95
RELEASE BOWEL OBSTRUCTION	1	0.02	99.97
EXCISION GYNECOMASTIA BILATERAL	1	0.02	99.98
CHOLECYSTOSTOMY	1	0.02	100.00
Total	6055	100.00	

Table A2 Descriptive Statistics

	VAS	PCS	SASKCOR	SASKCOR <i>adjusted</i>	MAWT <i>(weeks)</i>	
Mean	52.72	32.33	54.77	57.76	11.68	
SD	26.23	18.64	23.15	24.55	11.77	
Percentiles	25	30.00	18.00	39.00	39.00	3.00
	50	60.00	30.00	51.00	53.00	8.00
	75	70.00	45.00	78.00	84.00	12.90

Table A3 Correlation Matrix of Priority Scores with VAS Urgency and Maximum Acceptable Waiting Time (MAWT)

	VAS	PCS	SASKCOR	SASKCOR <i>adjusted</i>
PCS	0.48			
SASKCOR	0.46	0.64		
SASKCOR adjusted	0.51	0.64	0.90	
MAWT (weeks)	-0.45	-0.37	-0.38	-0.44

Table A4 Correlation Matrix of the VAS Urgency and Priority Criteria Items

	VAS	Q1 Freq pain suffer	Q2 pain	Q3a nausea	Q3b fatigue	Q3c itching	Q3d stress	Q3e other	Q4 Impair usual activities	Q5 History/physi cal/test	Q6 LE Impl
Q1 Freq of pain/suffering	-0.01										
Q2 Intensity pain	0.01	0.73									
Q3a Intensity nausea	0.10	0.27	0.45								
Q3b Intensity fatigue	0.04	0.16	0.20	0.39							
Q3c Intensity itching	0.02	0.13	0.13	0.16	0.37						
Q3d Intensity stress	0.29	-0.01	-0.04	0.08	0.23	0.16					
Q3e Intensity other	0.12	0.13	0.08	0.11	0.16	0.10	0.07				
Q4 Impairment usual activities	0.11	0.50	0.45	0.26	0.34	0.17	0.11	0.21			
Q5 History/physical/test	0.24	0.05	0.09	0.13	0.12	0.04	0.21	0.15	0.10		
Q6 Life expectancy (LE) implications	0.39	-0.20	-0.23	0.01	0.19	0.07	0.37	0.05	0.05	0.23	
Q7 Expected improvement LE	0.42	-0.19	-0.19	0.06	0.16	0.03	0.32	0.06	-0.01	0.32	0.72

Table A5 Factor Structure using all Priority Criteria

<i>Criteria</i>	<i>Factor</i>		
	1	2	3
Q2 Intensity pain	0.88		
Q1 Freq of pain/suffering	0.86		
Q4 Impairment usual activities	0.71		
Q3a Intensity nausea	0.56		
Q3e Intensity other	0.30		
Q7 Expected improvement life expectancy		0.86	
Q6 Life expectancy implications		0.85	
Q5 History/physical/test		0.63	
Q3d Intensity stress		0.55	0.36
Q3c Intensity itching			0.82
Q3b Intensity fatigue			0.69

Table A6 Factor Structure using the ombined symptom scores

<i>Criteria</i>	<i>Factor</i>	
	1	2
Q1 Freq of pain/suffering	0.90	
Q2 Intensity pain	0.88	
Q4 Impairment usual activities	0.74	
Q7 Expected improvement life expectancy		0.86
Q6 Life expectancy implications		0.84
Q5 History/physical/test		0.63
Q3 Intensity other suffering	0.31	0.61

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax.

Coefficients <0.30 are not shown.

Table A7 A List of Procedures for Cases that were Identified as Outliers (VAS > 75<sup>th</sup> percentile and SASKCOR adjusted <25<sup>th</sup> percentile)

	Frequency
VEIN LIGATION/STRIPPING	6
REPAIR INGUINAL HERNIA	6
CHOLECYSTECTOMY	6
EXCISION SKIN LESION	3
EXAM UNDER ANAES EXCEPT - GYN OR RECTAL	2
RECTAL EXAM UNDER ANESTHESIA	2
REPAIR UMBILICAL HERNIA	2
ARTERY/VEIN LIGATION	2
REPAIR INCISIONAL HERNIA	2
HEMORRHOIDECTOMY	1
EXCISION LIPOMA	1
SPHINCTEROTOMY	1
EXC/FULGURATION ANAL/PERIANAL CONDYLOMA	1
REPAIR FEMORAL HERNIA	1
MASTECTOMY SIMPLE	1
Total	37

Figure A1 Distribution of Priority Scores for all cases

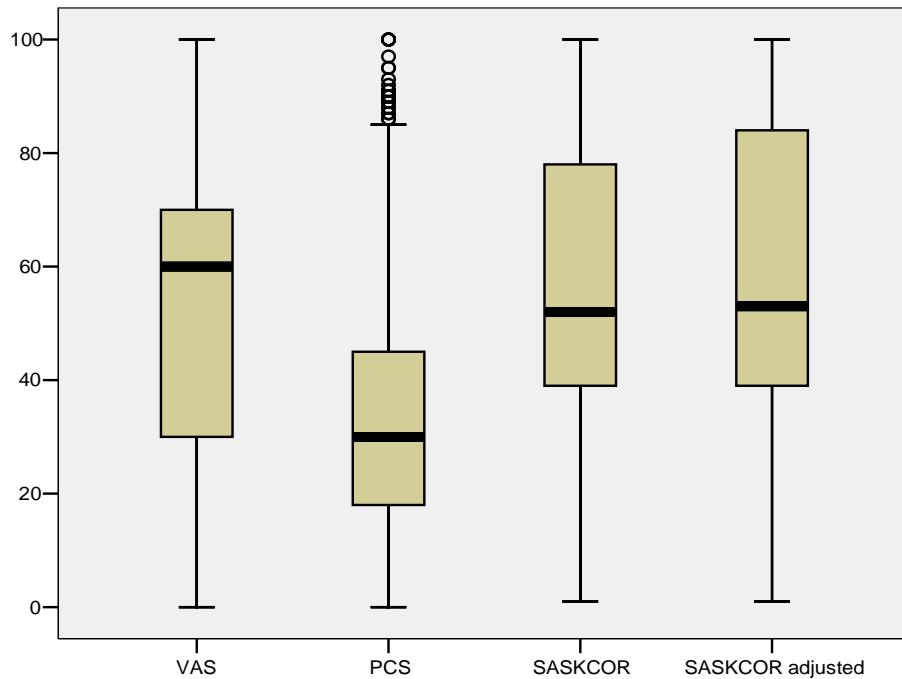
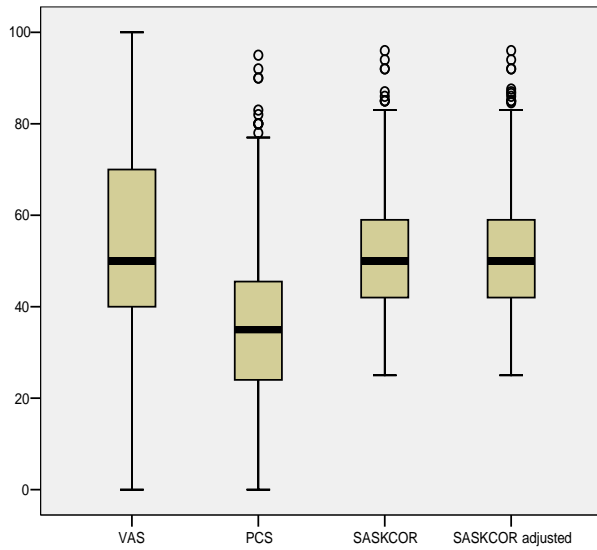
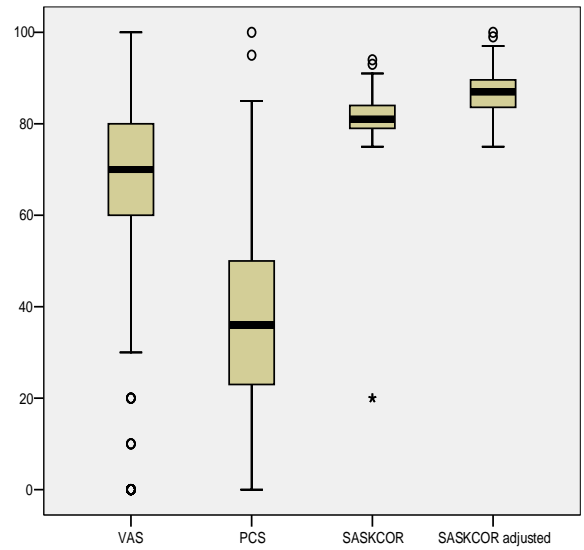


Figure A2 Distribution of the VAS and Priority Scores for the most common procedures

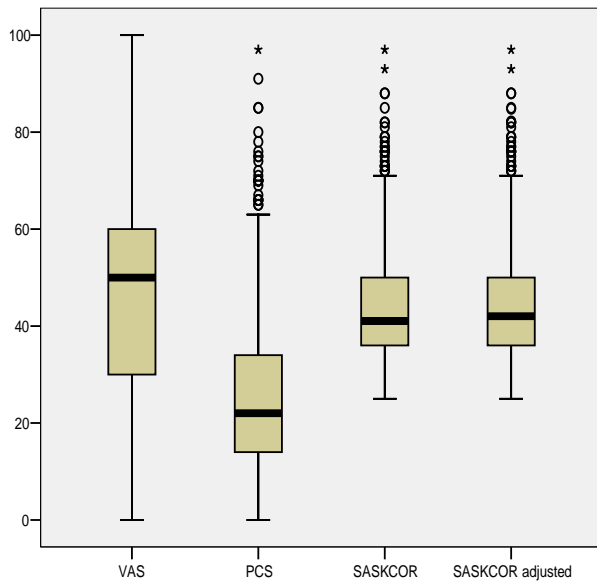
Cholecystectomy (urgency profile 25 – 100)



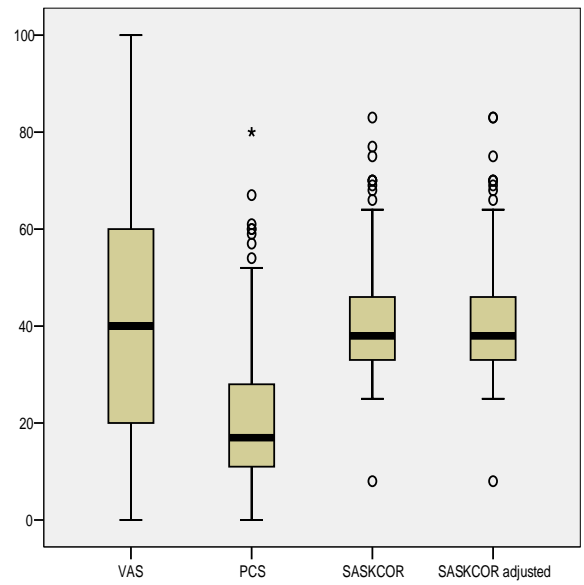
Biopsy Breast (urgency profile 75 – 94) cancer 92%



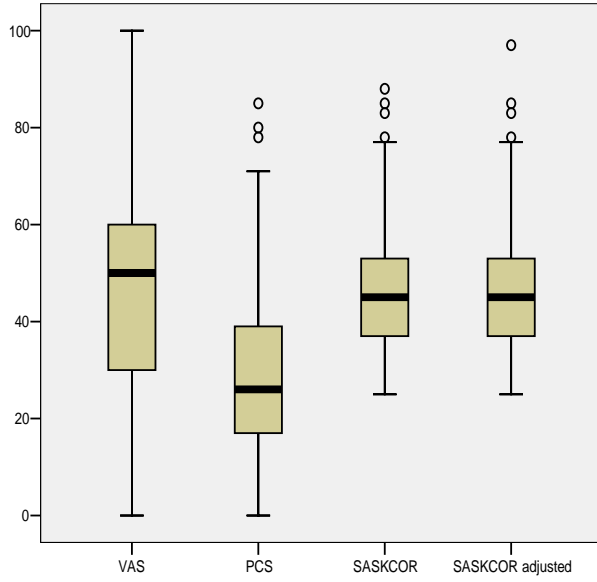
Inguinal Hernia (urgency profile 25 - 100)



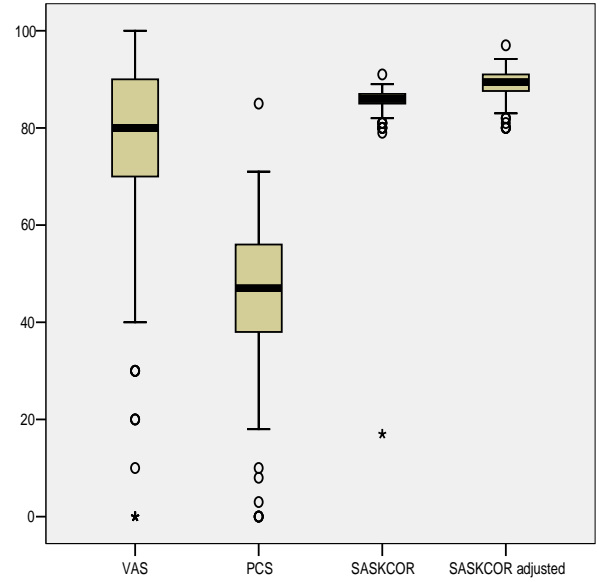
Umbilical Hernia (urgency profile 25 – 100)



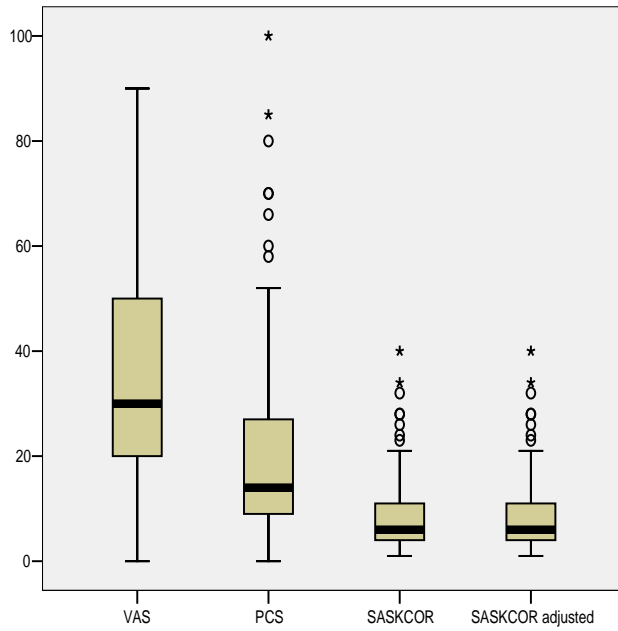
Incisional hernia (urgency profile 25 – 100)



Mastectomy (urgency profile 80 – 94) Cancer 94%



Vein/stripping (urgency profile 1 – 40)



Hemorrhoidectomy (urgency profile 25 – 97)

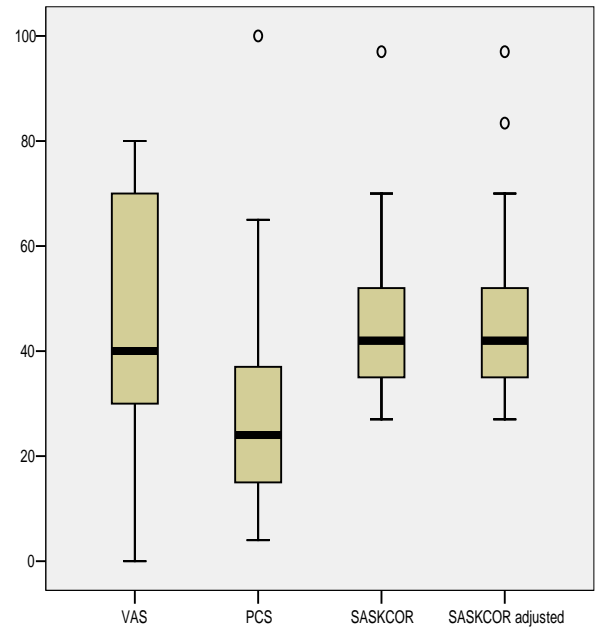
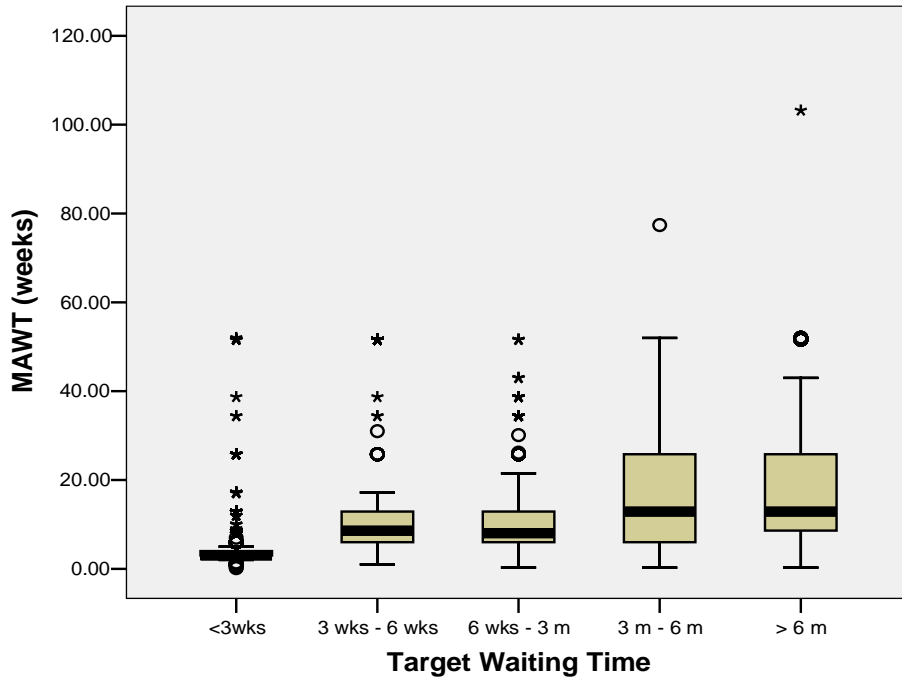


Figure A3 The Distribution of Maximum Acceptable Waiting Times (MAWT) for levels of Target Waiting Time



## APPENDIX D ORTHOPEDIC GENERAL

Table A1 List of Procedures

Procedure	Frequency	Percent	Cumulative Percent
ARTHROSCOPY KNEE	1444	34.96	34.96
REMOVAL HARDWARE	325	7.87	42.82
REPAIR SHOULDER ROTATOR CUFF	295	7.14	49.96
ARTHROSCOPY SHOULDER	279	6.75	56.72
ARTHROSCOPIC ACL REPAIR	233	5.64	62.36
BUNIONECTOMY	160	3.87	66.23
ARTHROSCOPIC SHOULDER REPAIR BANKHART/PUTTI PLATT	98	2.37	68.60
ARTHROPLASTY TOTAL SHOULDER	96	2.32	70.93
RELEASE CARPAL TUNNEL	82	1.98	72.91
REPAIR SHLDR ACROMIOCLAVICULAR SEPARATION	69	1.67	74.58
KNEE MENISCECTOMY	63	1.53	76.11
ANKLE FUSION	50	1.21	77.32
KNEE ARTHROSCOPY POSSIBLE ARTHROTOMY	49	1.19	78.50
PIP JOINT FUSION	46	1.11	79.62
EXCISION BONE SPUR	43	1.04	80.66
RELEASE TRIGGER FINGER	42	1.02	81.68
SHLDR ACROMIOCLAVICULAR SEPARATION REPAI	32	0.77	82.45
ILIAC CREST BONE GRAFT	30	0.73	83.18
METATARSAL OSTEOTOMY	26	0.63	83.81
EXCISION BURSA	25	0.61	84.41
MANIPULATION JOINT	24	0.58	84.99
RELEASE TENNIS ELBOW	24	0.58	85.57
REPAIR HAMMERTOE	22	0.53	86.11
RELEASE DUPUYTREN'S CONTRACTURE	21	0.51	86.61
BONE GRAFT	20	0.48	87.10
DISCOTOMY	17	0.41	87.51
ORIF WRIST FRACTURE	16	0.39	87.90
REPAIR TENDON (ORTHO)	16	0.39	88.28
ORIF HAND FRACTURE	16	0.39	88.67
TIBIA OSTEOTOMY	14	0.34	89.01
DECOMPRESSION NERVE	14	0.34	89.35
RELEASE TENDON	13	0.31	89.66
LENGTHENING HEEL CORD	12	0.29	89.95
EXCISION MORTON'S NEUROMA	12	0.29	90.24
SHOULDER PUTTI PLATT	12	0.29	90.53
ORIF RADIUS/ULNA FRACTURE	11	0.27	90.80
EXCISION BAKER'S CYST	11	0.27	91.07
ORIF ANKLE FRACTURE	10	0.24	91.31
ORIF ELBOW FRACTURE	10	0.24	91.55

Procedure	Frequency	Percent	Cumulative Percent
DWYER PROCEDURE	10	0.24	91.79
EXCISION DISTAL END CLAVICLE RIGHT	9	0.22	92.01
CHEVRON OSTEOTOMY	8	0.19	92.21
WRIST ARTHRODESIS	8	0.19	92.40
ELBOW ARTHROPLASTY TOTAL	8	0.19	92.59
ANKLE ARTHRODESIS	8	0.19	92.79
ORIF SHOULDER FRACTURE	8	0.19	92.98
RELEASE CLUBFOOT	8	0.19	93.17
OSTEOTOMY METATARSAL	8	0.19	93.37
EXCISION DISTAL END CLAVICLE LEFT	7	0.17	93.54
EXCISION DISTAL END CLAVICLE	7	0.17	93.71
SPINAL FUSION	7	0.17	93.88
BIOPSY BONE	7	0.17	94.05
ORIF HUMERUS FRACTURE	7	0.17	94.21
WRIST ARTHROSCOPY	6	0.15	94.36
REPAIR COLLATERAL KNEE LIGAMENT	5	0.12	94.48
REPAIR HAMMERTOE LEFT	5	0.12	94.60
FEMUR OSTEOTOMY	5	0.12	94.72
ELBOW ARTHROSCOPY	5	0.12	94.84
REPAIR MUSCLE	5	0.12	94.96
ELBOW ARTHROTOMY	5	0.12	95.09
SHOULDER BANKHART OPER ARTHROSCOPIC	4	0.10	95.18
PATELLA REALIGNMENT LEFT	4	0.10	95.28
FEMUR FRACTURE CLOSED REDUCTION I-M NAIL	4	0.10	95.38
DISLOCATED HIP OPEN REDUCTION	4	0.10	95.47
REPAIR LIGAMENT (ORTHO)	4	0.10	95.57
EXCISION BURSA RIGHT	4	0.10	95.67
ARTHRODESIS FINGER/TOE/THUMB (ORTHO)	4	0.10	95.76
ULNA OSTEOTOMY	4	0.10	95.86
TOE ARTHRODESIS	4	0.10	95.96
RELEASE DEQUERVAIN	4	0.10	96.05
ARTHRODESIS METATARSOPHALANGEAL	4	0.10	96.15
ANKLE ARTHROTOMY	4	0.10	96.25
CHANGE LENGTH TENDON/MUSCLE/FASCIA	4	0.10	96.34
ORIF FINGER FRACTURE	4	0.10	96.44
REPAIR LIGAMENT LEFT	4	0.10	96.54
TRIPLE ARTHRODESIS	4	0.10	96.64
REPAIR HAMMERTOE RIGHT	3	0.07	96.71
ORIF FOOT FRACTURE	3	0.07	96.78
REPAIR LIGAMENT RIGHT	3	0.07	96.85
ARTHRODESIS METATARSOPHALANGEAL LEFT	3	0.07	96.93
FOOT ARTHRODESIS	3	0.07	97.00
ELMSLIE TRILLAT	3	0.07	97.07

Procedure	Frequency	Percent	Cumulative Percent
KNEE ARTHROTOMY	3	0.07	97.14
TOTAL WRIST ARTHROPLASTY	3	0.07	97.22
ANKLE ARTHROSCOPY	3	0.07	97.29
EXCISION METATARSAL HEAD	3	0.07	97.36
EXCISION BURSA LEFT	3	0.07	97.43
OPEN REDUCTION INTERNAL FIXATION CLAVICLE RIGHT	3	0.07	97.51
REPAIR ACHILLES TENDON LEFT	3	0.07	97.58
FIBULA OSTEOTOMY	2	0.05	97.63
EXCISION BONE SPUR RIGHT	2	0.05	97.68
ORIF TIBIA FRACTURE	2	0.05	97.72
REPAIR ANKLE LIGAMENT RIGHT	2	0.05	97.77
FOOT/TOE ARTHROPLASTY	2	0.05	97.82
INSERTION ANTIBIOTIC BEADS - HIP	2	0.05	97.87
OSTEOTOMY TIBIA RIGHT	2	0.05	97.92
FEMUR DCS PLATING	2	0.05	97.97
RELEASE ADDUCTOR HAMSTRING BILATERAL	2	0.05	98.02
ORIF PELVIS FRACTURE	2	0.05	98.06
TIBIA FRACTURE CLOSED REDUCTION	2	0.05	98.11
PATELLECTOMY LEFT	2	0.05	98.16
PATELLA REALIGNMENT RIGHT	2	0.05	98.21
RELEASE PALMAR FASCIA	2	0.05	98.26
TIBIA BONE GRAFT	2	0.05	98.31
TRANSPLANT/TRANSFER HAND TENDON	2	0.05	98.35
CLAVICLE OPEN REDUCTION INTERNAL FIXATION	2	0.05	98.40
RADIUS OSTEOTOMY	2	0.05	98.45
DWYER PROCEDURE RIGHT	2	0.05	98.50
ARTHROPLASTY ANKLE TOTAL RIGHT	2	0.05	98.55
OSTEOTOMY PELVIC	2	0.05	98.60
LUMBAR FUSION/ILIAC GRAFT	2	0.05	98.64
HIP ADDUCTOR TENOTOMY	2	0.05	98.69
FINGER JOINT FUSION LEFT	2	0.05	98.74
OSTEOTOMY WRIST LEFT	2	0.05	98.79
OSTEOTOMY FINGER RIGHT	1	0.02	98.81
OPEN REDUCTION INTERNAL FIXATION CLAVICLE LEFT	1	0.02	98.84
REPAIR TENDON RIGHT	1	0.02	98.86
ASPIRATION CYST	1	0.02	98.89
AMPUTATION FOOT LEFT	1	0.02	98.91
ARTHRODESIS HAND RIGHT	1	0.02	98.93
HIP PINNING RIGHT	1	0.02	98.96
SYNOVECTOMY	1	0.02	98.98
REPAIR COLLATERAL KNEE LIGAMENT RIGHT	1	0.02	99.01
HIP PINNING	1	0.02	99.03
REVISION AMPUTATION	1	0.02	99.06

Procedure	Frequency	Percent	Cumulative Percent
CLOSED REDUCTION FINGER FRACTURE LEFT	1	0.02	99.08
CARPAL METACARPAL BONE GRAFT	1	0.02	99.10
ORIF FEMUR FRACTURE	1	0.02	99.13
BIOPSY SYNOVIAL	1	0.02	99.15
RELEASE PALMAR FASCIA RIGHT	1	0.02	99.18
RELEASE DEQUERVAIN RIGHT	1	0.02	99.20
EXCISION CARPAL BONE	1	0.02	99.23
REPAIR ACHILLES TENDON RIGHT	1	0.02	99.25
OPEN REDUCTION INTERNAL FIXATION CLAVICLE BILATERAL	1	0.02	99.27
INSERTION K WIRE	1	0.02	99.30
AMPUTATION FOOT	1	0.02	99.32
ARTHRODESIS TOE RIGHT	1	0.02	99.35
ARTHROPLASTY FOOT/TOE RIGHT	1	0.02	99.37
APPLICATION CAST	1	0.02	99.39
INJECTION BONE CYST	1	0.02	99.42
KNEE ARTHRODESIS	1	0.02	99.44
CLOSED I-M ROD TIBIA FRACTURE RIGHT	1	0.02	99.47
ARTHROSCOPY ANKLE RIGHT	1	0.02	99.49
ARTHRODESIS HAND LEFT	1	0.02	99.52
ORIF TOE FRACTURE	1	0.02	99.54
EXCISION NEUROMA	1	0.02	99.56
MENISCECTOMY OPEN KNEE RIGHT	1	0.02	99.59
HUMERUS FRACTURE CLOSED REDUCTION-IM ROD	1	0.02	99.61
RADIUS/ULNA FRACTURE CLOSED REDUCTION	1	0.02	99.64
SEQUESTRECTOMY CARPAL-METACARPAL	1	0.02	99.66
OSTEOTOMY TIBIA LEFT	1	0.02	99.69
TIBIA FRACTURE CLOSED I-M ROD	1	0.02	99.71
FOOT FRACTURE CLOSED REDUCTION	1	0.02	99.73
ARTHROPLASTY HIP HEMI LEFT (AUSTIN MOORE)	1	0.02	99.76
FINGER BONE GRAFT	1	0.02	99.78
EXCISION BONE SPUR LEFT	1	0.02	99.81
REPAIR SLIPPED HIP EPIPHYSIS	1	0.02	99.83
ARTHRODESIS FOOT RIGHT	1	0.02	99.85
AMPUTATION FINGER(S) LEFT	1	0.02	99.88
FINGER OSTEOTOMY	1	0.02	99.90
CLOSED REDUCTION FINGER FRACTURE RIGHT	1	0.02	99.93
TENOLYSIS	1	0.02	99.95
ARTHRODESIS WRIST LEFT	1	0.02	99.98
AMPUTATION FINGER(S) RIGHT	1	0.02	100.00
Total	4131	100.00	

Table A2 Descriptive Statistics

	VAS	PCS	SASKCOR	SASKCOR adjusted	MAWT (weeks)
Mean	58.39	55.48	52.43	52.52	17.36
SD	25.61	25.71	23.47	23.51	13.29
Percentiles	25	50.00	34.00	36.00	6.00
	50	60.00	55.00	52.00	12.90
	75	80.00	78.00	70.00	25.80

Table A3 Correlation Matrix of Priority Scores with VAS Urgency and Maximum Acceptable Waiting Time (MAWT)

	VAS	PCS	SASKCOR	SASKCOR adjusted
PCS	<b>0.72</b>			
SASKCOR	<b>0.37</b>	0.43		
SASKCOR adjusted	<b>0.37</b>	0.43	1.00	
MAWT (weeks)	<b>-0.68</b>	-0.59	-0.35	-0.35

Table A4 Correlation Matrix of the VAS Urgency and Priority Criteria Items

	VAS	Q1 Intensity Pain	Q2 Freq Pain	Q3 Intensity Other	Q4 Expected Improvement	Q5 Abnormal Findings	Q6 Potential for Progression
Q1 Intensity Pain	0.50						
Q2 Freq Pain	0.50	0.75					
Q3 Intensity Other	0.55	0.52	0.59				
Q4 Expected Improvement	0.45	0.45	0.58	0.40			
Q5 Abnormal Findings	0.33	0.44	0.37	0.28	0.40		
Q6 Potential for Progression	0.71	0.60	0.64	0.64	0.60	0.43	
Q7 Threat to Role/Independence	0.61	0.55	0.47	0.47	0.31	0.26	0.61

Table A5 Factor Structure using all Priority Criteria

Priority Criteria Items	Component
Q6 Potential for Progression	0.87
Q2 Freq Pain	0.85
Q1 Intensity Pain	0.82
Q3 Intensity Other	0.75
Q4 Expected Improvement	0.71
Q7 Threat to Role and Independence	0.70
Q5 Abnormal Findings Physical	0.57

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax.  
 Coefficients <0.30 are not shown.

Table A7 A List of Procedures for Cases that were Identified as Outliers (VAS > 75<sup>th</sup> percentile and SASKCOR adjusted <25<sup>th</sup> percentile)

REMOVAL HARDWARE	6
PIP JOINT FUSION	4
ANKLE FUSION	3
ANKLE FUSION RIGHT	3
EXCISION BONE SPUR	3
SHOULDER PUTTI PLATT	3
ELBOW ARTHROPLASTY TOTAL	2
EXCISION BURSA	2
ILIAC CREST BONE GRAFT	2
RELEASE CARPAL TUNNEL RIGHT	2
ANKLE ARTHROSCOPY	1
BUNIONECTOMY RIGHT	1
EXCISION BAKER'S CYST	1
EXCISION DISTAL END CLAVICLE	1
EXCISION DISTAL END CLAVICLE LEFT	1
EXCISION NEUROMA	1
KNEE ARTHROSCOPY	1
MANIPULATION JOINT	1
METATARSAL OSTEOTOMY	1
OPEN REDUCTION INTERNAL FIXATION CLAVICLE BILATERAL	1
REPAIR HAMMERTOES	1
UNILATERAL BUNIONECTOMY	1
Total	42

Figure A1 Distribution of the VAS and Priority Scores for all Cases

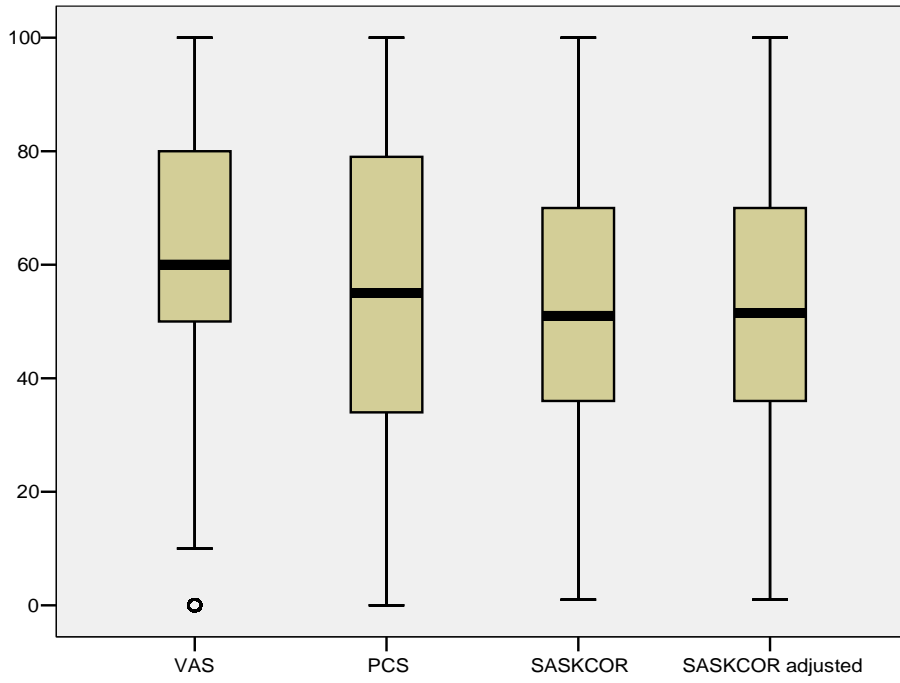
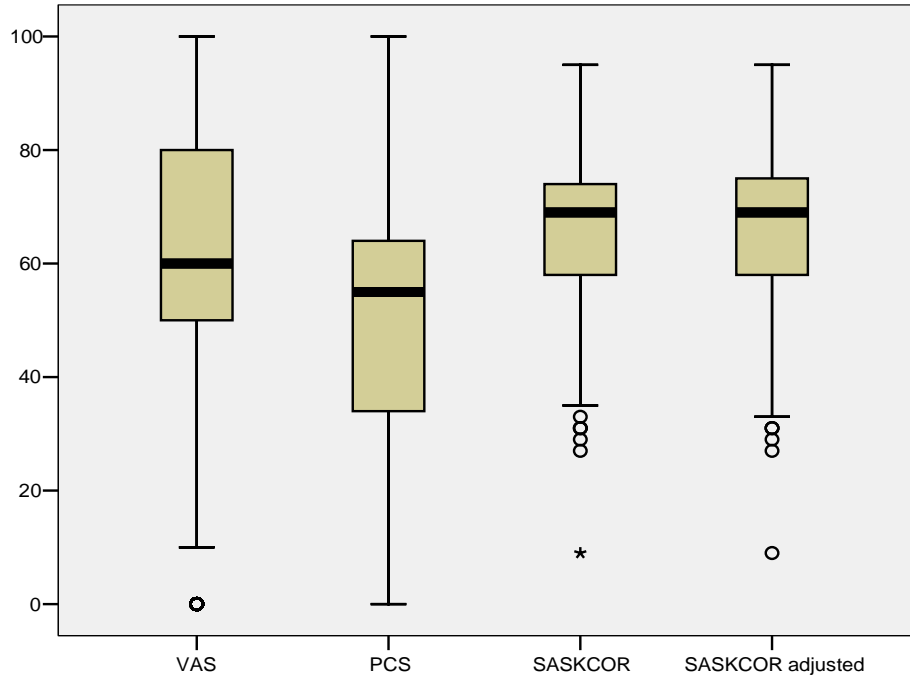


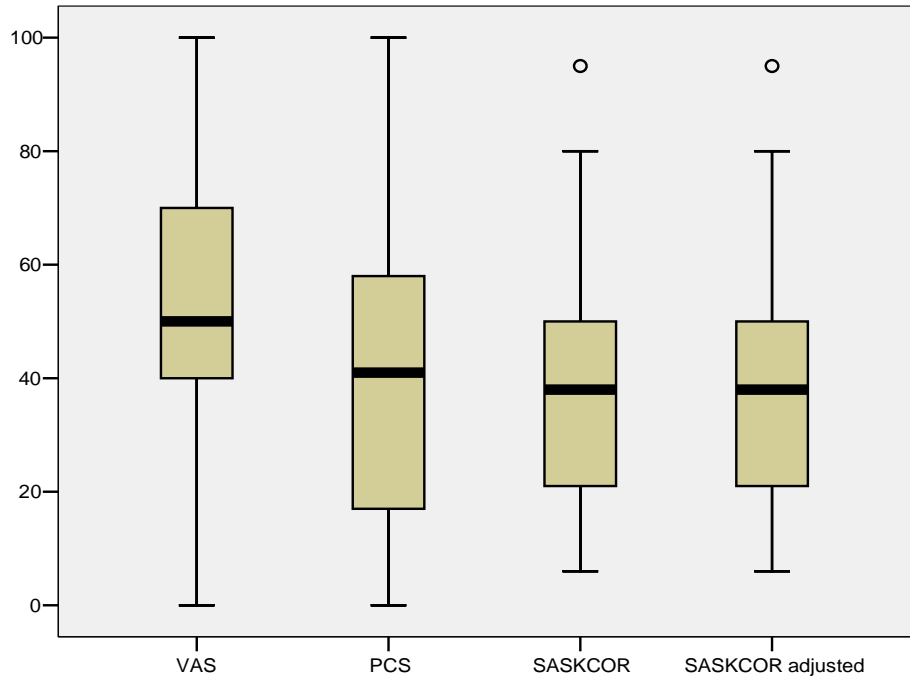
Figure A2 Distribution of the VAS and Priority Scores for the most common procedures

Arthroscopy knee (40 – 95)



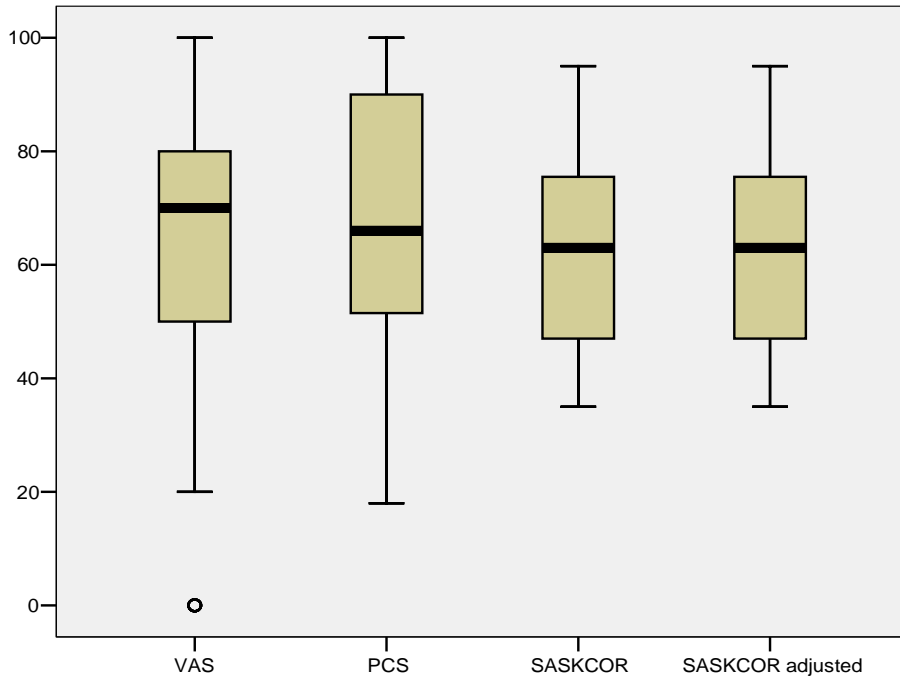
Note: Outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of procedures with accompanying urgency profiles (e.g., case 59841: procedures were arthroscopy and bunionectomy (urgency profile 1 – 29))

Removal hardware (Urgency profile 10 – 80)

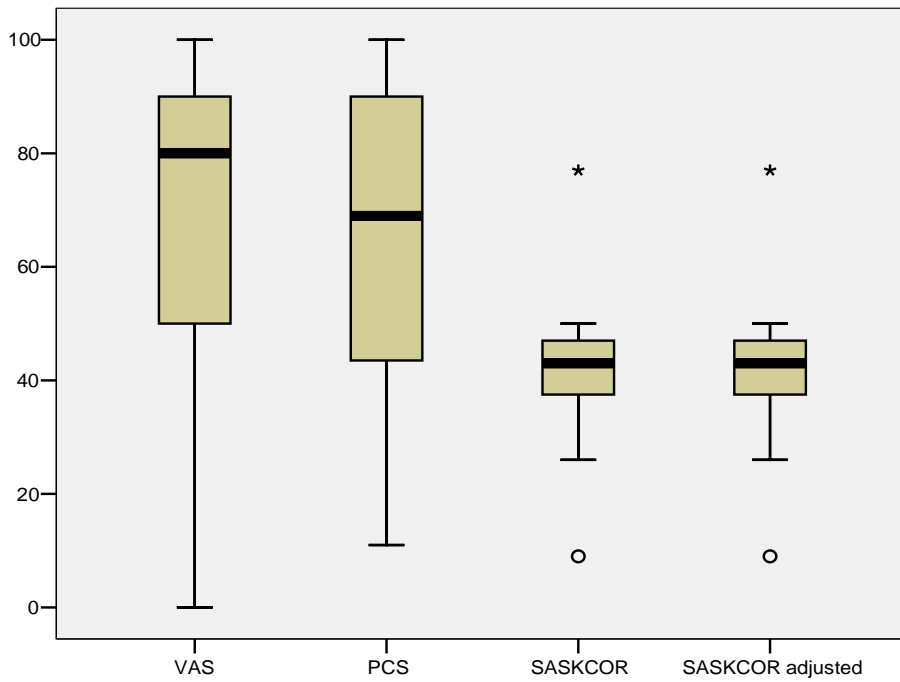


Note: Outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of procedures with accompanying urgency profiles (e.g., case 48951: procedures were removal hardware and arthroscopy knee (urgency profile 40 – 95))

Repair shoulder rotator cuff (urgency profile 30 – 95)

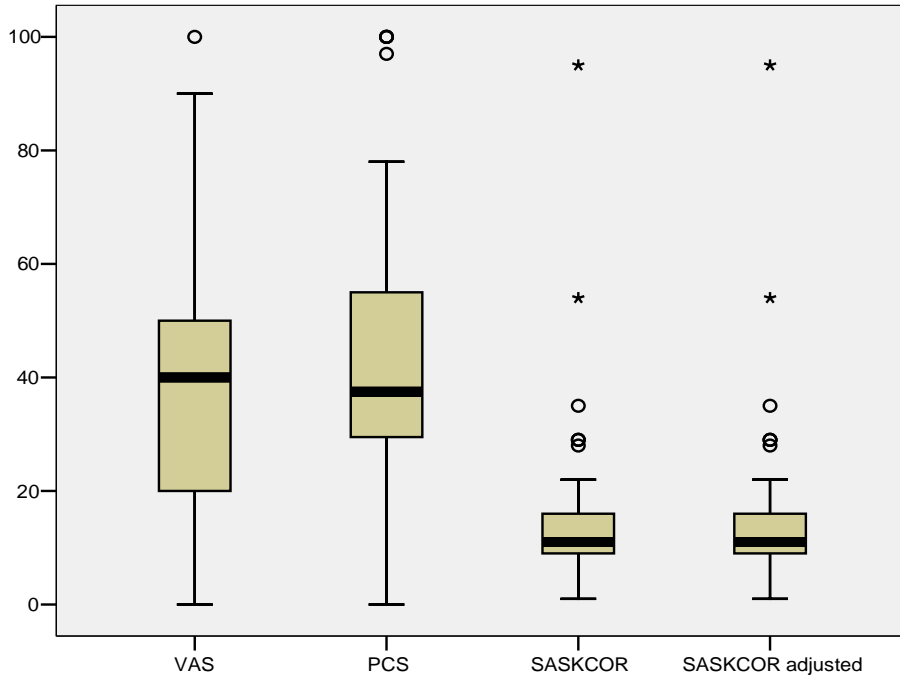


Shoulder arthroplasty (urgency profile 30 – 49)



Note: Outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of procedures with accompanying urgency profiles (e.g., case 44412: procedures were shoulder arthroplasty and excision distal end clavicle (urgency profile 1 – 29))

Bunionectomy (urgency profile 1 – 29)



Note: Outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of procedures with accompanying urgency profiles (e.g., case 53448: procedures were bunionectomy and insertion K wire (urgency profile 10 – 90))

Arthroscopic shoulder repair bankhart putti plat (urgency profile 30 – 49)

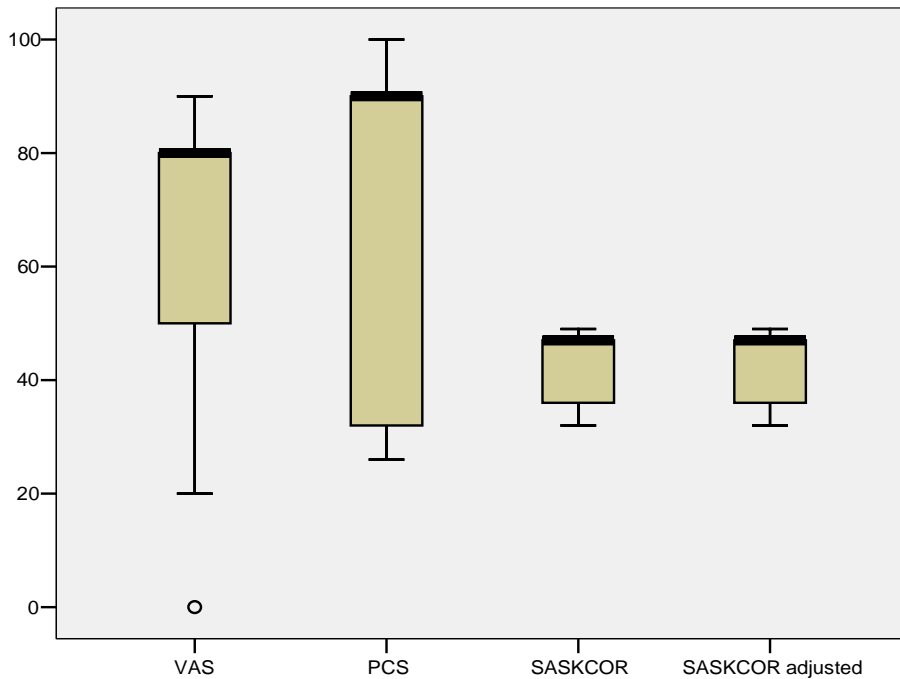
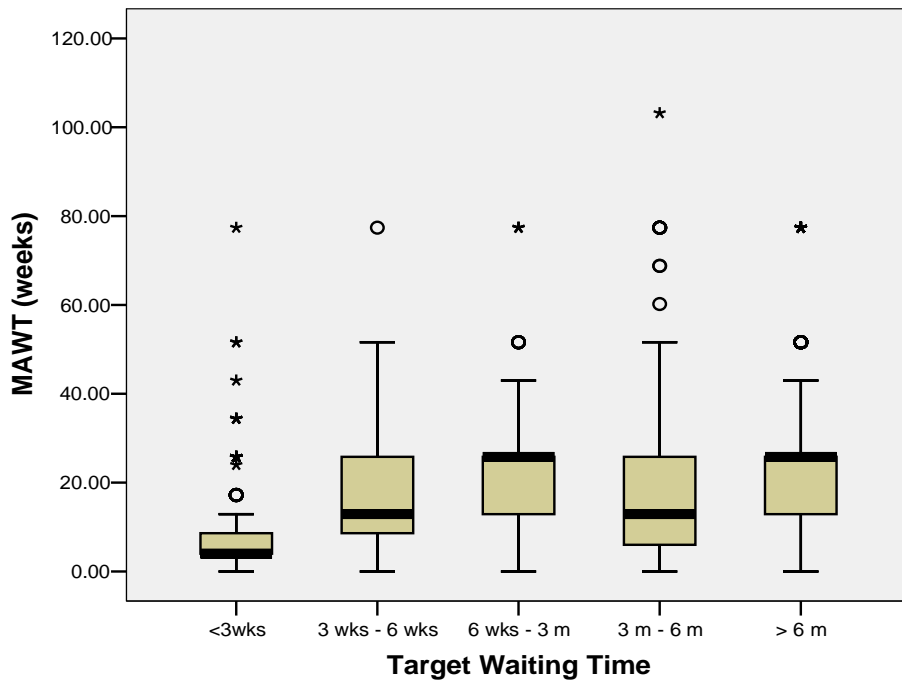


Figure A3 The Distribution of Maximum Acceptable Waiting Times (MAWT) for levels of Target Waiting Time



## APPENDIX E GYNECOLOGY/OBSTETRICS

Table A1 List of Procedures

PROCEDURE	Frequency	Percent	Cumulative Percent
<b>HYSTERECTOMY</b>	<b>1075</b>	<b>17.65</b>	<b>17.65</b>
<b>D &amp; C, HYSTEROSCOPY</b>	<b>683</b>	<b>11.21</b>	<b>28.86</b>
<b>OPEN TUBAL LIGATION/MINI LAPAROTOMY</b>	<b>580</b>	<b>9.52</b>	<b>38.38</b>
<b>THERAPEUTIC ABORTION</b>	<b>556</b>	<b>9.13</b>	<b>47.51</b>
<b>BLADDER SUSPENSION</b>	<b>431</b>	<b>7.08</b>	<b>54.59</b>
<b>ENDOMETRIAL ABLATION</b>	<b>427</b>	<b>7.01</b>	<b>61.60</b>
<b>LAPAROSCOPY</b>	<b>406</b>	<b>6.67</b>	<b>68.26</b>
<b>LOOP EXCISION ELECTRO SURGICAL PROCEDURE</b>	<b>167</b>	<b>2.74</b>	<b>71.01</b>
<b>C-SECTION</b>	<b>159</b>	<b>2.61</b>	<b>73.62</b>
<b>D &amp; C</b>	<b>137</b>	<b>2.25</b>	<b>75.87</b>
LAPAROSCOPIC CONS SURG FOR ENDOMETRIOSIS	125	2.05	77.92
VAGINAL VAULT SUSPENSION/REPAIR/COLPOPEXY	118	1.94	79.86
ANTERIOR/POSTERIOR REPAIR	108	1.77	81.63
CERVICAL CONIZATION	99	1.63	83.25
LAPAROTOMY	97	1.59	84.85
LAPAROSCOPY, INJECTION METHYLENE BLUE	92	1.51	86.36
CERVICAL/VULVA/LABIA CO2 VAPORIZATION	91	1.49	87.85
REPAIR POSTERIOR	67	1.10	88.95
ANTERIOR REPAIR	60	0.99	89.94
LAPAROSCOPIC OVARIAN CYSTECTOMY	60	0.99	90.92
LYSIS ADHESIONS	43	0.71	91.63
LAPAROSCOPIC SALPINGO-OOPHORECTOMY UNILA	42	0.69	92.32
TUBAL REANASTOMOSIS	33	0.54	92.86
SALPINGO-OOPHORECTOMY BILATERAL	23	0.38	93.24
REMOVAL BARTHOLIN CYST	23	0.38	93.61
OOPHORECTOMY	21	0.34	93.96
D&C, WITH LAPAROSCOPY,OR LAPAROTOMY	21	0.34	94.30
REPAIR RECTOCELE	18	0.30	94.60
LARGE LOOP EXCISION TRANSFORMATION ZONE	17	0.28	94.88
EXCISION LABIAL CYST	17	0.28	95.16
HYSTERECTOMY RADICAL WERTHEIM'S	15	0.25	95.40
UNILATERAL SALPINGO-OOPHORECTOMY	15	0.25	95.65
BIOPSY VULVA	15	0.25	95.90
SIMPLE VULVECTOMY	14	0.23	96.13
REPAIR ENTEROCELE	14	0.23	96.36
EXCISION CERVICAL POLYP	14	0.23	96.59
PERINEAL WART FULGURATION	12	0.20	96.78
INSERTION/REMOVAL SHIRODKAR SUTURE	11	0.18	96.96
MYOMECTOMY	11	0.18	97.14

PROCEDURE	Frequency	Percent	Cumulative Percent
MARSHALL MARCHETTI	10	0.16	97.31
BIOPSY CERVIX	9	0.15	97.46
CAUTERIZATION GENITAL WARTS	9	0.15	97.60
DISSECTION PELVIC LYMPH NODE	8	0.13	97.73
GYNECOLOGY EXAM UNDER ANAESTHESIA	8	0.13	97.87
VAGINAL LACERATION SUTURE	8	0.13	98.00
REPAIR CYSTOCELE	8	0.13	98.13
INSERTION OF IUD	7	0.11	98.24
EXCISION VAGINAL MASS	7	0.11	98.36
COLPORRHAPHY UNSPECIFIED	6	0.10	98.46
EXCISION OVARIAN CYST RIGHT	6	0.10	98.56
RE-IMPLANTATION FALLOPIAN TUBE	5	0.08	98.64
SALPINGO-OOPHORECTOMY RIGHT	5	0.08	98.72
LAPAROSCOPY/LASER	5	0.08	98.80
BIOPSY ENDOMETRIAL	5	0.08	98.88
OMENECTOMY	5	0.08	98.97
RADICAL VULVECTOMY	5	0.08	99.05
BIOPSY VAGINAL	4	0.07	99.11
EXCISION OVARIAN CYST	4	0.07	99.18
PERINEORRHAPHY	4	0.07	99.24
EXCISION ADNEXAL MASS	3	0.05	99.29
SALPINGO-OOPHORECTOMY LEFT	3	0.05	99.34
OOPHORECTOMY BILATERAL	3	0.05	99.39
HYMENECTOMY	3	0.05	99.44
UNILATERAL SALPINGECTOMY	3	0.05	99.49
SALPINGOSTOMY	2	0.03	99.52
UTERINE SUSPENSION	2	0.03	99.56
REPAIR RECTOVAGINAL FISTULA	2	0.03	99.59
SALPINGOPLASTY	2	0.03	99.62
EXCISION ADNEXAL MASS RIGHT	2	0.03	99.66
COLPOSCOPY	2	0.03	99.69
INCISION & DRAINAGE VULVA ABSCESS	2	0.03	99.72
REPAIR OBSTETRICAL LACERATION	2	0.03	99.75
OOPHORECTOMY LEFT	2	0.03	99.79
EXCISION OVARIAN CYST LEFT	2	0.03	99.82
REMOVAL IUD	1	0.02	99.84
SALPINGOSTOMY BILATERAL	1	0.02	99.85
LAPAROSCOPIC EXCISION ADNEXAL MASS	1	0.02	99.87
SALPINGECTOMY BILATERAL	1	0.02	99.89
CERVICAL LACERATION SUTURE	1	0.02	99.90
LAPAROSCOPIC OVARIAN DRILLING (YAG)	1	0.02	99.92
SALPINGOLYSIS	1	0.02	99.93
EPISIOTOMY /C EPISORRHAPHY	1	0.02	99.95

PROCEDURE	Frequency	Percent	Cumulative Percent
COLPECTOMY	1	0.02	99.97
SALPINGECTOMY LEFT	1	0.02	99.98
VAGINAL RECONSTRUCTION	1	0.02	100.00
Total	6091	100.00	

Table A2 Descriptive Statistics

		VAS	PCS	SASKCOR	SASKCOR adjusted	MAWT (weeks)
Mean		55.49	36.49	58.12	60.21	15.07
SD		29.67	20.64	22.22	23.47	12.45
Percentiles	25	40.00	21.90	48.00	49.00	4.30
	50	60.00	38.10	60.00	62.00	12.90
	75	80.00	51.43	74.00	80.00	25.80

Table A3 Correlation Matrix of Priority Scores with VAS Urgency and Maximum Acceptable Waiting Time (MAWT)

	VAS	PCS	SASKCOR	SASKCOR adjusted
VAS				
PCS	<b>0.45</b>			
SASKCOR	<b>0.30</b>	0.52		
SASKCOR adjusted	<b>0.31</b>	0.49	0.95	
MAWT (weeks)	<b>-0.22</b>	-0.02	-0.30	-0.35

Table A4 Correlation Matrix of the VAS Urgency and Priority Criteria Items

	VAS	Q1 Freq Pain/s	Q2 Int Pain	Q3a1 Int Menstrual	Q3a2 Int Menses	Q3a3 Int Urination	Q3a4 Int Nocturia	Q3a5 Int Incont	Q3a6 Int Sexual	Q3a7 Int Stress	Q3a8 Int Other	Q3b1 Freq Menstr	Q3b2 Freq Mens	Q3b3 Freq Urinat	Q3b4 Freq Nocturia	Q3b5 Freq Incont	Q3b6 Freq Sexual	Q3b7 Freq Stress	Q3b8 Freq Other	Q4 History/phys	Q5 LE	Q6 Exp QOL
Q1 Freq Pain/Suffering	0.11																					
Q2 Intensity Pain	0.13	0.87																				
Q3a1 Menstrual Irregularity	0.22	0.24	0.23																			
Q3a2 Menses	0.18	0.29	0.29	0.77																		
Q3a3 Urination	0.08	0.14	0.12	0.09	0.12																	
Q3a4 Nocturia	0.06	0.12	0.10	0.01	0.04	0.76																
Q3a5 Incont	0.00	0.06	0.03	-0.08	-0.03	0.50	0.58															
Q3a6 Sexual	0.21	0.35	0.37	0.22	0.20	0.22	0.21	0.16														
Q3a7 Stress	0.38	0.15	0.18	0.18	0.14	0.13	0.12	0.06	0.44													
Q3a8 Other	0.08	0.11	0.10	0.05	0.03	0.02	-0.01	0.00	0.08	0.18												
Q3b1 Freq Menst	0.22	0.23	0.25	0.92	0.75	0.10	0.04	-0.05	0.25	0.20	0.06											
Q3b2 Freq Menses	0.19	0.27	0.30	0.73	0.92	0.14	0.08	0.00	0.23	0.16	0.04	0.79										
Q3b3 Freq Urination	0.10	0.14	0.13	0.09	0.13	0.91	0.74	0.49	0.22	0.14	0.02	0.13	0.17									
Q3b4 Freq Nocturia	0.07	0.13	0.12	0.02	0.05	0.74	0.91	0.56	0.21	0.11	0.00	0.05	0.09	0.77								
Q3b5 Freq Incontinence	0.02	0.08	0.06	-0.06	-0.01	0.49	0.58	0.92	0.17	0.07	0.00	-0.02	0.04	0.51	0.59							
Q3b6 Freq Sexual dys	0.22	0.34	0.36	0.23	0.21	0.23	0.22	0.17	0.94	0.44	0.08	0.26	0.24	0.24	0.23	0.19						
Q3b7 Freq Stress	0.38	0.15	0.18	0.19	0.15	0.14	0.13	0.07	0.45	0.93	0.17	0.22	0.18	0.16	0.14	0.08	0.46					
Q3b8 Freq Other	0.08	0.12	0.12	0.06	0.04	0.02	0.00	0.01	0.12	0.17	0.90	0.08	0.06	0.03	0.01	0.01	0.10	0.19				
Q4 History/phys/test	0.24	0.03	0.03	0.11	0.04	0.05	0.02	-0.03	-0.02	0.08	0.02	0.10	0.04	0.04	0.03	-0.03	-0.02	0.08	0.02			
Q5 life expectancy	0.22	0.04	0.05	0.10	0.07	0.01	-0.01	-0.05	0.11	0.05	0.00	0.11	0.07	0.01	-0.01	-0.04	0.11	0.07	0.02	0.23		
Q6 Exp QOL improvement	0.35	0.28	0.28	0.18	0.17	0.15	0.14	0.19	0.17	0.30	0.13	0.18	0.18	0.15	0.15	0.20	0.17	0.30	0.13	0.15	0.17	
Q7 other factors	0.25	0.32	0.32	0.27	0.28	0.32	0.27	0.24	0.46	0.27	0.00	0.29	0.31	0.35	0.31	0.28	0.48	0.29	0.02	0.08	0.19	0.22

Table A5 Factor Structure using all Priority Criteria

Priority Criteria Items	Factors							
	1	2	3	4	5	6	7	8
Q3a3 Intensity Urination	0.91							
Q3b3 Freq Urination	0.91							
Q3a4 Intensity Nocturia	0.89							
Q3b4 Freq Nocturia	0.89							
Q3a2 Intensity Menses		0.92						
Q3b1 Freq Menstrual Irr		0.92						
Q3b2 Freq Menses		0.91						
Q3a1 Intensity Menstrual Irregularity		0.91						
Q3b6 Freq Sexual dysfunction			0.88					
Q3a6 Intensity Sexual dysfunction			0.88					
Q7 Other factors			0.55					
Q3a7 Intensity Psych Stress				0.92				
Q3b7 Freq Psych Stress				0.91				
Q1 Freq Pain/Suffering					0.92			
Q2 Intensity Pain					0.91			
Q3a8 Intensity Other						0.97		
Q3b8 Freq Other						0.97		
Q3a5 Intensity Incontinence	0.45						0.83	
Q3b5 Freq Incontinence	0.46						0.83	
Q6 Expected QOL improvement				0.42	0.38		0.43	0.33
Q5 Life expectancy								0.79
Q4 History/phys/test								0.73

Table A7 Factor structure with combined symptom items (Q3a and Q3b)

	Factors		
	1	2	3
Q3a Intensity of other suffering	0.94		
Q3b Frequency of other suffering	0.94		
Q6 Expected QOL improvement	0.59		
Q1 Freq Pain/Suffering		0.95	
Q2 Intensity Pain		0.94	
Q7 Other factors	0.35	0.40	
Q5 Life expectancy			0.79
Q4 History/phys/test			0.74

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax.

Coefficients <0.30 are not shown.

Table A7 A List of Procedures for Cases that were Identified as Outliers (VAS > 75<sup>th</sup> percentile and SASKCOR adjusted <25<sup>th</sup> percentile)

	Frequency
CERVICAL/VULVA/LABIA CO2 VAPORIZATION	19
OPEN TUBAL LIGATION/MINI LAPAROTOMY	7
LOOP EXCISION ELECTRO SURGICAL PROCEDURE	6
GYNECOLOGY EXAM UNDER ANAESTHESIA	2
LAPAROSCOPY, INJECTION METHYLENE BLUE	2
LYSIS ADHESIONS	1
CERVICAL CONIZATION	1
ENDOMETRIAL ABLATION	1
D & C, HYSTEROSCOPY	1
BLADDER SUSPENSION	1
PERINEAL WART FULGURATION	1
RE-IMPLANTATION FALLOPIAN TUBE	1
VAGINAL VAULT SUSPENSION/REPAIR/COLPOPEXY	1
EXCISION OVARIAN CYST RIGHT	1
TUBAL REANASTOMOSIS	1
Total	46

Figure A1 Distribution of the VAS and Priority Scores for all Cases

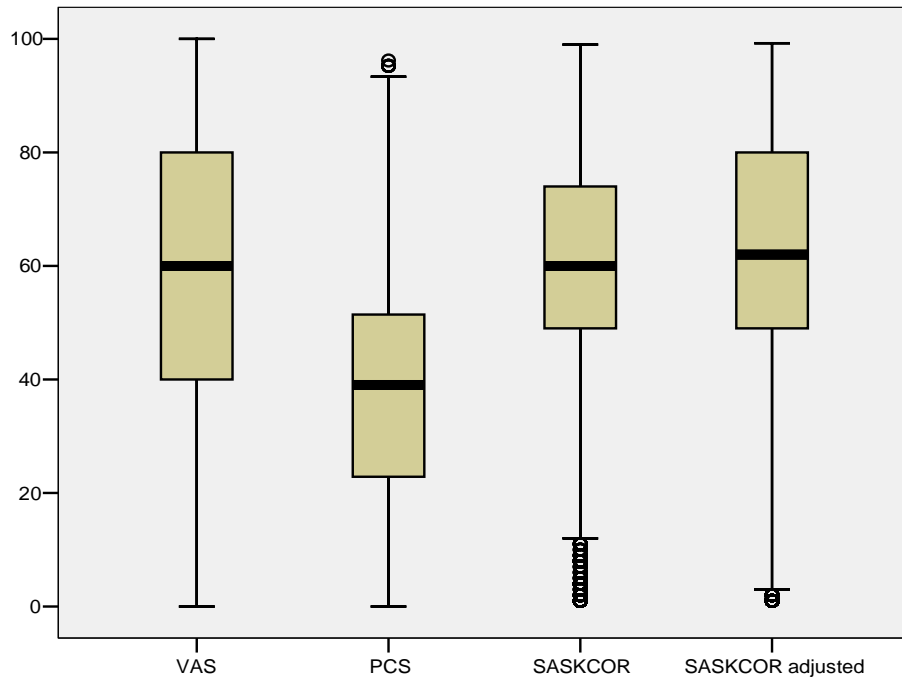
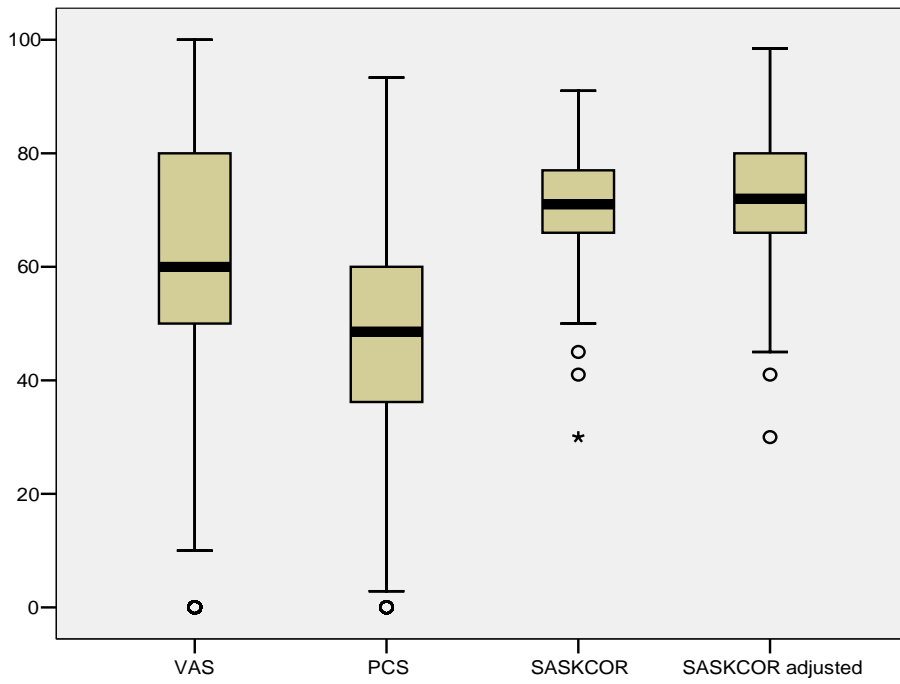


Figure A2 Distribution of the VAS and Priority Scores for the most common procedures

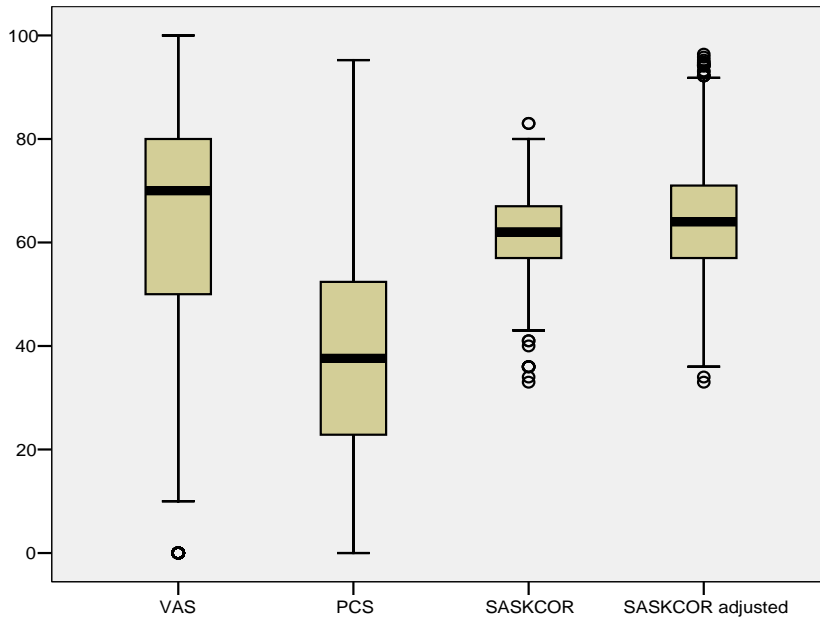
Hysterectomy (Urgency Profile 50 – 95)

Cancer = (120/863: 14%)

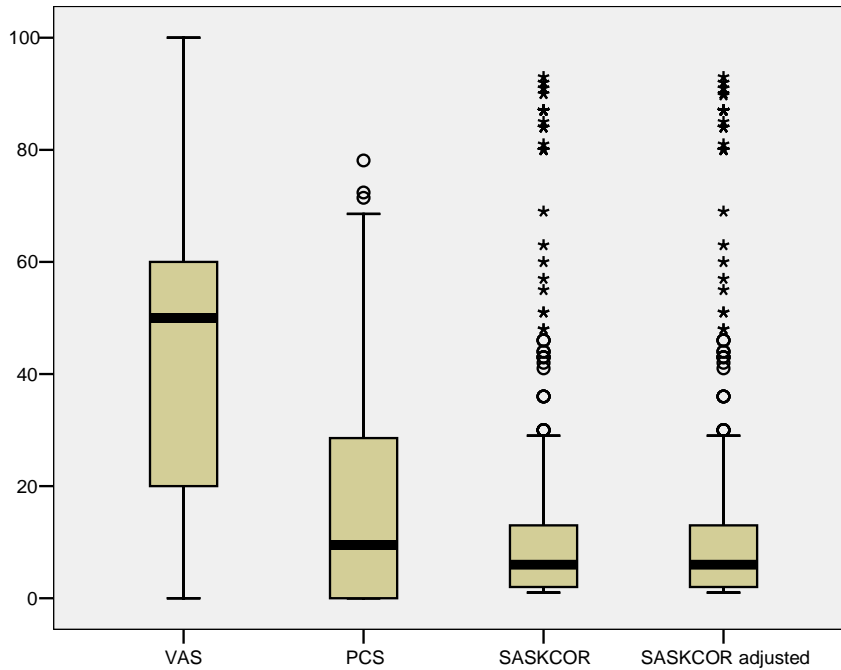


Note: outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of urgency profiles and primary procedures (eg. Hysterectomy (50 – 95) and laparoscopy (30 – 100 urgency profile).

D & C and Hysteroscopy (Urgency Profile 50 – 85)  
 Cancer = (78/594: 17%)

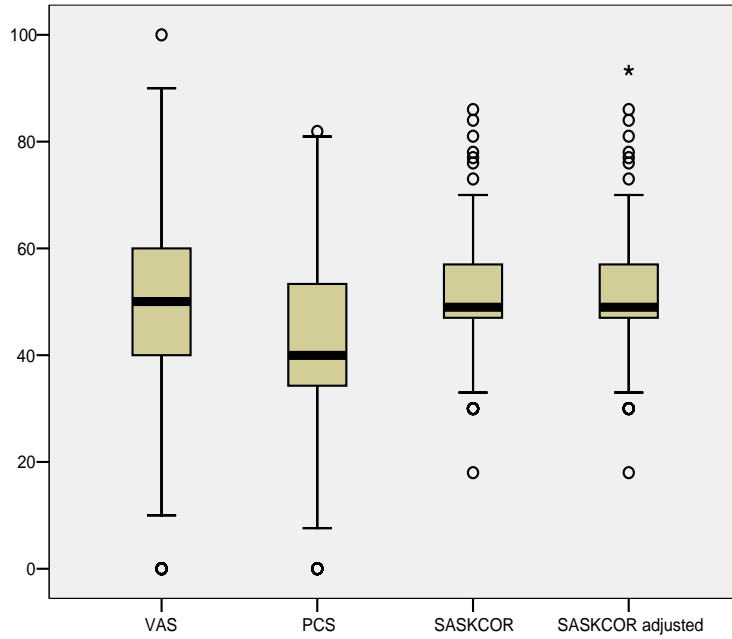


Open Tubal Ligation (mini laparotomy) (1 – 40 urgency profile)  
 Cancer (1/471: 0.2%)



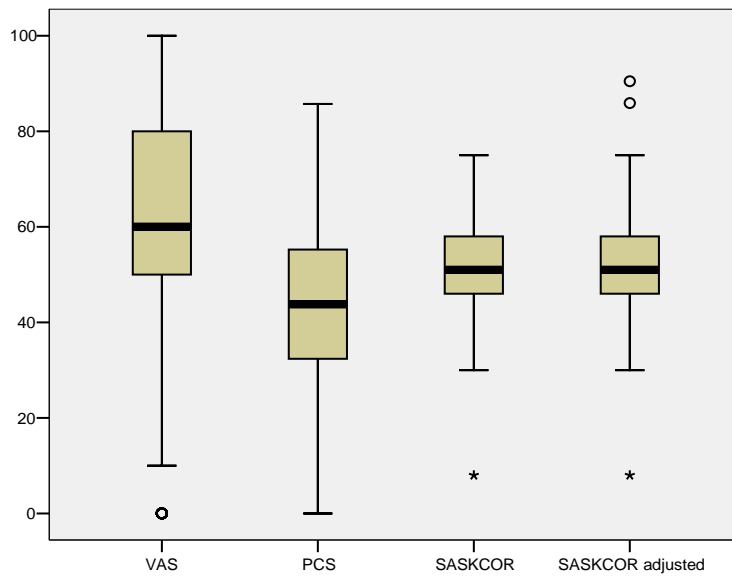
Note: outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of urgency profiles and primary procedures (eg. Case 46405: procedures were Tubal Ligation (mini laparotomy) and therapeutic abortion (urgency profiles 1 – 40 and 80 – 100).

Bladder suspension (30 – 79 urgency profile)  
 Cancer (1/330: 0.3%)



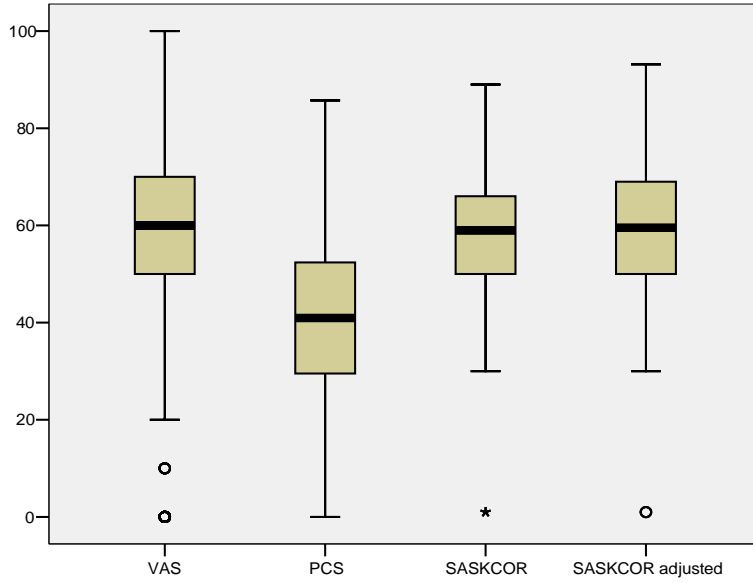
Note: outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of urgency profiles and primary procedures (eg. Case 35911: procedures were Bladder suspension and Tubal Ligation (mini laparotomy) and tubal Ligation (mini laparotomy (urgency profiles 30 – 79 and 1 – 40)

Endometrial ablation (30 – 80 urgency profile)  
 Cancer (2/339 0.6%)



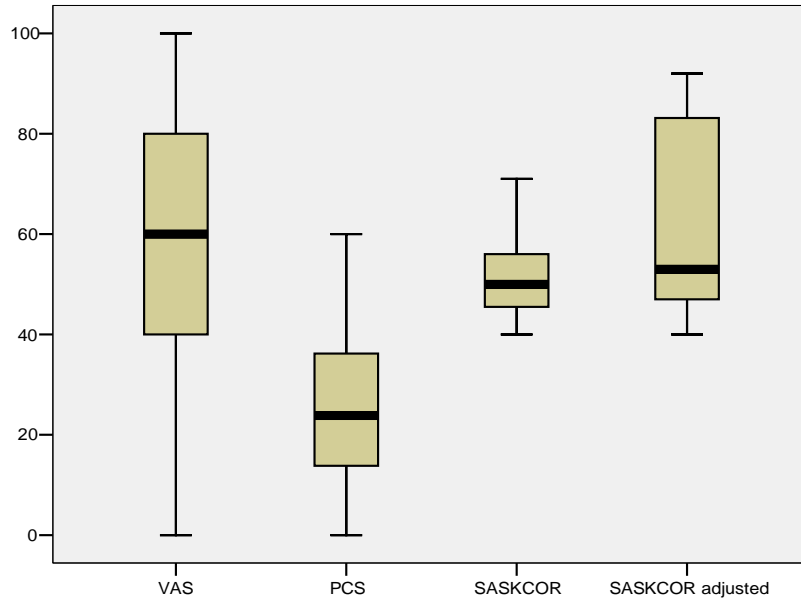
Note: outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of urgency profiles and primary procedures (eg. Case 41811: procedures were Endometrial ablation (urgency profile 30 – 80) and tubal ligation (mini laparotomy) (urgency profile 1 – 40)

Laparoscopy (urgency profile 30 – 100)  
 Cancer (16/358: 5%)

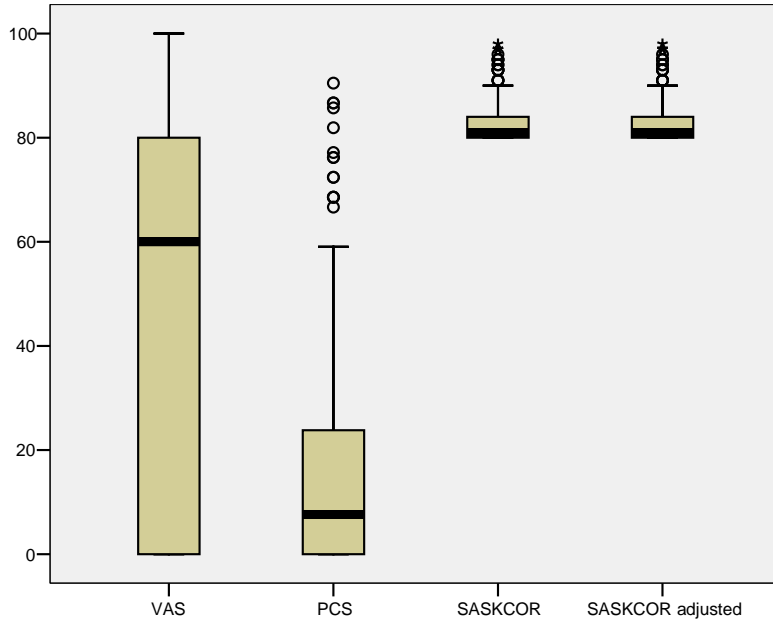


Note: The outlier for the SASKCOR and SASKCOR adjusted is due to inconsistent coding of urgency profiles and primary procedures (eg. Case 35379: procedures were laparoscopy (30 – 100) and tubal reanastomosis (urgency profile 1 – 50).

Loop excision electro surgical procedure (40 – 85)  
 Cancer (51/131 39%)



C-Section (urgency profile 80 – 100)  
 Cancer (1/106: 0.9%)



Note: outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of urgency profiles and primary procedures (eg. Case 34259: procedures were C-section (urgency profile 80 – 100) and laparoscopic tubal ligation/ D&C (urgency profile 1 – 40)

D & C (urgency profile 80 – 100)  
 Cancer (1/90: 1%)

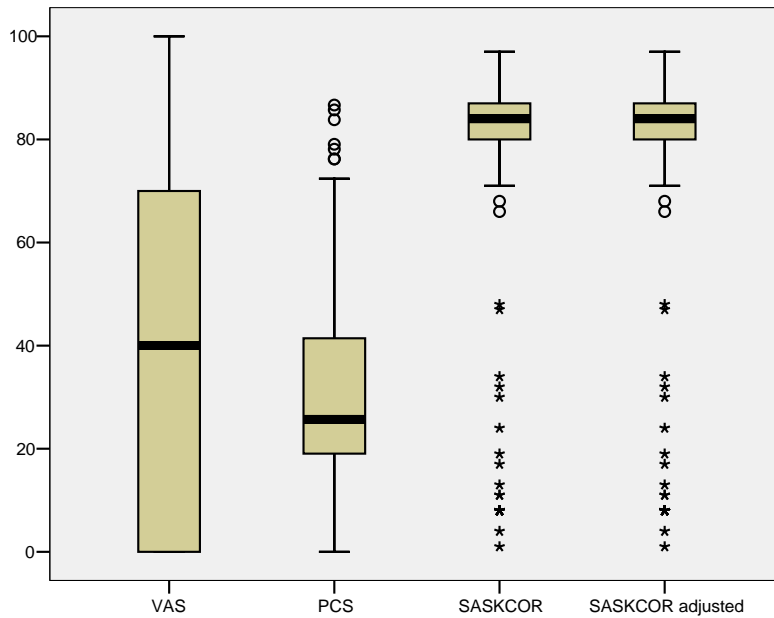
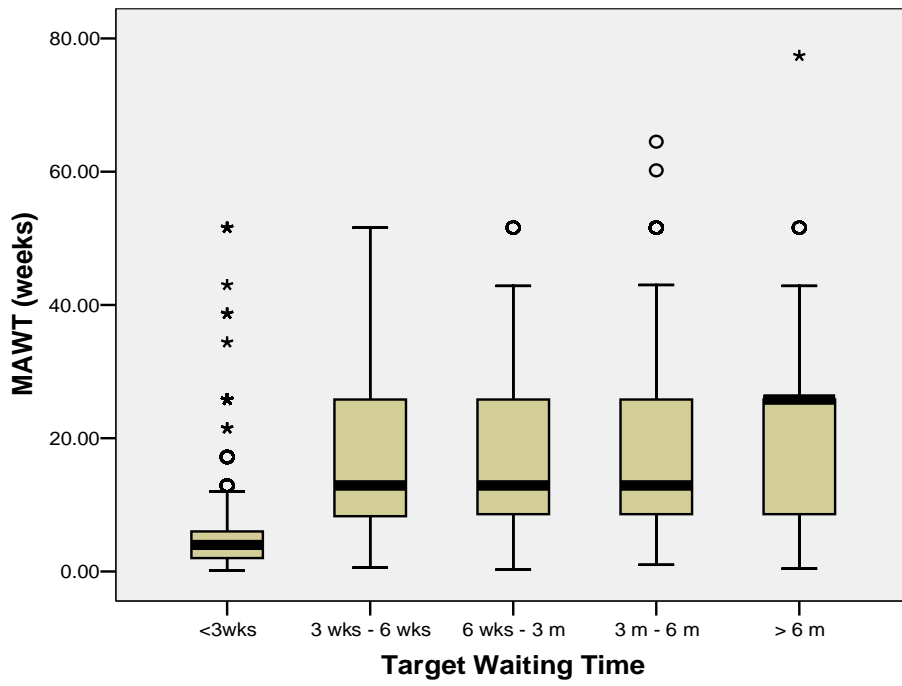


Figure A3 The Distribution of Maximum Acceptable Waiting Times (MAWT) for levels of Target Waiting Time



## APPENDIX F UROLOGY

Table A1 List of Procedures

PROCEDURE	Frequency	Percent	Cumulative Percent
CYSTOSCOPY W/VO SURGICAL INTERVENTION	842	34.09	34.09
TRANSURETHRAL RESECTION PROSTATE	319	12.91	47.00
TRANSURETHRAL RESECTION BLADDER	284	11.50	58.50
RADICAL PROSTATECTOMY	177	7.17	65.67
CIRCUMCISION	159	6.44	72.11
ORCHIDECTOMY	47	1.90	74.01
LAPAROSCOPIC NEPHRECTOMY	42	1.70	75.71
CYSTOSCOPY & BLADDER FULGURATION	40	1.62	77.33
CYSTOLITHOTRIPTY	38	1.54	78.87
INSERTION URETERAL STENTS	37	1.50	80.36
VASECTOMY	30	1.21	81.58
HYPOSPADIAS/REPAIR EPISPDIAS	28	1.13	82.71
UROLOGY LASER PROCEDURE	27	1.09	83.81
ORCHIDOPEXY	27	1.09	84.90
URETEROSCOPY	23	0.93	85.83
BIOPSY BLADDER	23	0.93	86.76
SPERMATOCELECTOMY	23	0.93	87.69
REMOVAL URETERAL STENTS	17	0.69	88.38
ORCHIDECTOMY BILATERAL	16	0.65	89.03
PYELOPLASTY	14	0.57	89.60
BLADDER FULGURATION TRANSURETHRAL	12	0.49	90.08
NESBIT PROCEDURE	11	0.45	90.53
INSERTION ARTIFICIAL URINARY SPHINCTER	11	0.45	90.97
NEPHRECTOMY	11	0.45	91.42
EXCISION EPIDIDYMAL MASS	10	0.40	91.82
TOTAL CYSTECTOMY & ILEAL CONDUIT	10	0.40	92.23
LITHOPEXY BLADDER NO INCISION	10	0.40	92.63
NEEDLE BIOPSY PROSTATE	9	0.36	93.00
PENIS RECONSTRUCTION	9	0.36	93.36
URETERAL REIMPLANT	9	0.36	93.72
CYSTO & URETEROSCOPIC STONE EXTRACTION	9	0.36	94.09
HYDROCELECTOMY (UROLOGY)	8	0.32	94.41
URETERAL MEATOTOMY	8	0.32	94.74
VARICOCELECTOMY	8	0.32	95.06
VASOVASOSTOMY	6	0.24	95.30
RADICAL CYSTECTOMY	6	0.24	95.55
EPIDIDYMECTOMY	6	0.24	95.79
URETHRAL DILATATION	6	0.24	96.03
RETROPUBIC PROSTATECTOMY	6	0.24	96.28

PROCEDURE	Frequency	Percent	Cumulative Percent
INSERTION TESTIS PROSTHESIS	5	0.20	96.48
VARICOCELECTOMY LEFT	4	0.16	96.64
LOOPOSCOPY CHANGE DJ STENT	4	0.16	96.80
PYELOSTOMY	4	0.16	96.96
CYSTOURETHROPLASTY	4	0.16	97.13
CYSTOLITHOPEXY	4	0.16	97.29
NEPHROURETERECTOMY	4	0.16	97.45
TESTIS BIOPSY	4	0.16	97.61
CYSTO & URETEROSCOPIC STONE EXTRACTION LEFT	4	0.16	97.77
PENIS AMPUTATION	4	0.16	97.94
NEPHRECTOMY RIGHT	4	0.16	98.10
NEPHROLITHOTOMY	3	0.12	98.22
URETHROPLASTY	3	0.12	98.34
CYSTO & URETEROSCOPIC STONE EXTRACTION RIGHT	3	0.12	98.46
INSERTION PENILE PROSTHESIS SOLID	3	0.12	98.58
CYSTOSCOPY INTERNAL URETHROTOMY	3	0.12	98.70
BIOPSY PENIS	2	0.08	98.79
ADRENALECTOMY	2	0.08	98.87
NEPHROLITHOTRIPTY	2	0.08	98.95
CYSTOLITHOTOMY	2	0.08	99.03
BLADDER RECONSTRUCTION	2	0.08	99.11
NEPHRECTOMY LEFT	2	0.08	99.19
NEPHROTOMY	2	0.08	99.27
ORCHIDOPEXY BILATERAL	1	0.04	99.31
EXCISION LESION URETHRA	1	0.04	99.35
URETERONEOCYSTOSTOMY	1	0.04	99.39
REPAIR URETHRAL	1	0.04	99.43
EXCISION GRANULOMA	1	0.04	99.47
KIDNEY BIOPSY	1	0.04	99.51
SCROTUM RECONSTRUCTION	1	0.04	99.55
URETHRAL FULGURATION	1	0.04	99.60
URETERECTOMY	1	0.04	99.64
LAPAROSCOPIC NODE SAMPLING	1	0.04	99.68
REPAIR BLADDER FISTULA	1	0.04	99.72
PARTIAL CYSTECTOMY	1	0.04	99.76
URETERAL STENTS	1	0.04	99.80
URETHRAL MEATOPLASTY	1	0.04	99.84
BIOPSY URETERAL	1	0.04	99.88
TESTIS BIOPSY RIGHT	1	0.04	99.92
ORCHIDECTOMY RIGHT	1	0.04	99.96
TRANSURETHRAL RESECTION OF BLADDER NECK	1	0.04	100.00
Total	2470	100.00	

Table A2 Descriptive Statistics

		VAS	PCS	SASKCOR	SASKCOR adjusted	MAWT (weeks)
Mean		59.66	30.70	56.66	64.00	12.50
SD		23.45	22.10	19.65	24.02	14.13
Percentiles	25	40.00	11.47	50.00	50.00	4.00
	50	70.00	28.44	58.00	65.00	8.00
	75	80.00	45.87	69.00	85.50	12.90

Table A3 Correlation Matrix of Priority Scores with VAS Urgency and Maximum Acceptable Waiting Time (MAWT)

	VAS	PCS	SASKCOR	SASKCOR adjusted
VAS				
PCS	<b>0.51</b>			
SASKCOR	<b>0.46</b>	0.63		
SASKCOR adjusted	<b>0.47</b>	0.55	0.87	
MAWT (weeks)	<b>-0.58</b>	-0.26	-0.43	-0.48

Table A4 Correlation Matrix of the VAS Urgency and Priority Criteria Items

	VAS	q1 freq pain/suffer	q2 intensity pain	q3 pot renal dam	Q4 Hemat	Q5 Fatigue	Q6 Wt Loss	Q7 Stress	Q8 Noct	Q9 Incont	Q10 Impair usual act	Q11 History	Q12 life exp
Q1 freq pain/suffering	0.09												
Q2 intensity pain	0.12	0.77											
Q3 potential renal damage	<b>0.33</b>	0.43	0.44										
Q4 Hematuria	0.21	0.25	0.27	0.35									
Q5 Fatigue	0.11	0.36	0.43	0.35	0.37								
Q6 Weight Loss	0.12	0.17	0.23	0.21	0.26	0.46							
Q7 Psychological Stress	0.15	0.17	0.13	0.19	0.13	0.18	0.00						
Q8 Nocturia	0.09	0.33	0.25	0.25	0.19	0.29	0.16	0.15					
Q9 Incontinence	0.01	0.31	0.20	0.19	0.16	0.25	0.22	0.05	0.48				
Q10 impairment usual act	0.22	0.60	0.59	0.43	0.29	0.43	0.27	0.16	0.38	0.35			
Q11 history	0.05	0.44	0.34	0.37	0.20	0.23	0.04	0.08	0.11	0.12	0.24		
Q12 life expectancy	<b>0.51</b>	0.01	0.03	0.44	0.23	0.17	0.21	0.25	0.04	0.03	0.17	0.10	
Q13 expected improvement	<b>0.44</b>	0.23	0.14	0.50	0.24	0.21	0.15	0.35	0.15	0.14	0.24	0.33	0.71

Table A5 Factor Structure using all Priority Criteria

Priority Criteria Items	Factors			
	1	2	3	4
Q1 freq pain/suffering	0.86			
Q2 intensity pain	0.81			
Q10 impairment usual act	0.53		0.32	0.35
Q11 history	0.45			
Q13 expected improvement		0.90		
Q12 life expectancy		0.78		
Q3 potential renal damage	0.42	0.49		
Q7 Psychological Stress		0.33		
Q6 Weight Loss			0.66	
Q5 Fatigue			0.62	
Q4 Hematuria			0.37	
Q8 Nocturia				0.72
Q9 Incontinence				0.60

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax.

Coefficients <0.30 are not shown.

Table A6 Factor Structure using the Combined Symptom Scores

	Factor	
	1	2
Q1 Freq Pain/Suffering	0.90	
Q2 Intensity Pain	0.85	
Q5 Impairment Usual Act	0.65	
Q6 History	0.41	
Q8 Expected improvement		0.90
Q7 Life expectancy		0.80
Q3 Potential Renal Damage	0.48	0.52
Q4 Intensity of other forms of suffering		0.37

Table A7 A List of Procedures for Cases that were Identified as Outliers (VAS > 75<sup>th</sup> percentile and SASKCOR adjusted <25<sup>th</sup> percentile)

	Frequency
CYSTOSCOPY W/WO SURGICAL INTERVENTION	12
TRANSURETHRAL RESECTION PROSTATE	5
CIRCUMCISION	4
INSERTION ARTIFICIAL URINARY SPHINCTER	1
CYSTOSCOPY & BLADDER FULGURATION	1
ORCHIDECTOMY	1
SPERMATOCELECTOMY	1
Total	25

Figure A1 The Distribution of Priority Scores for all cases

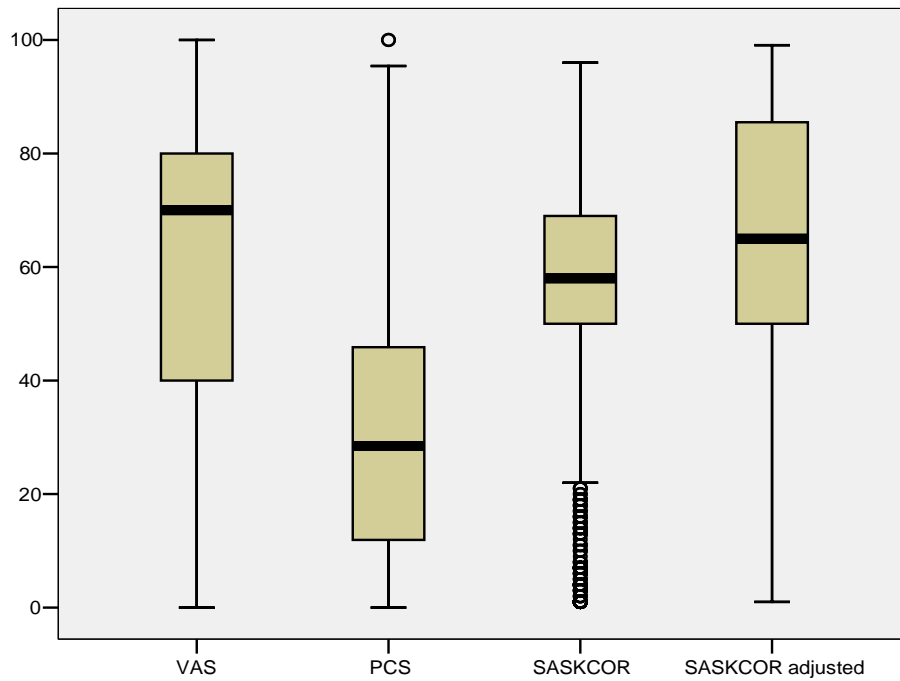
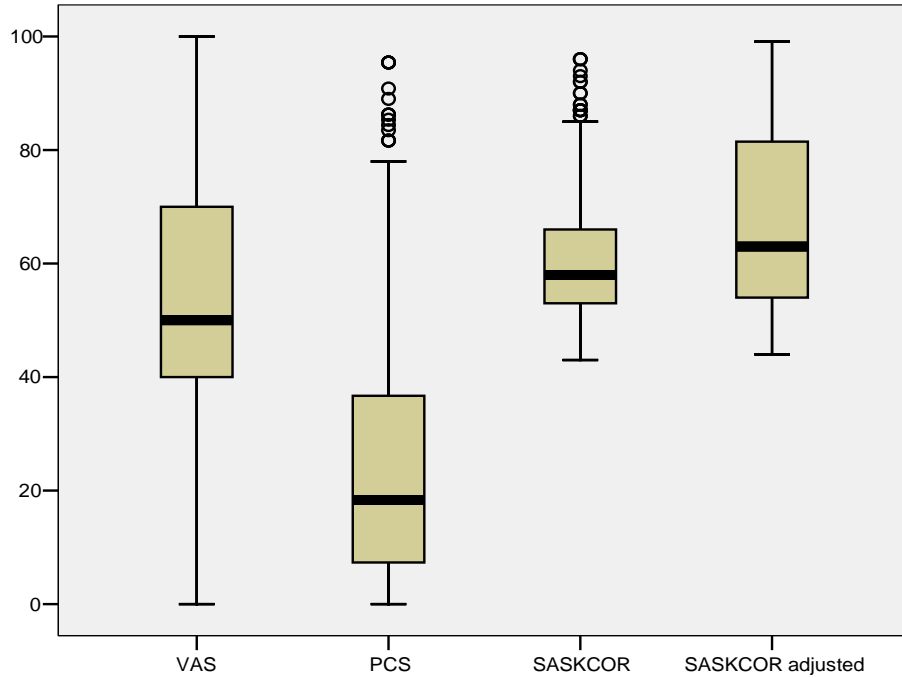
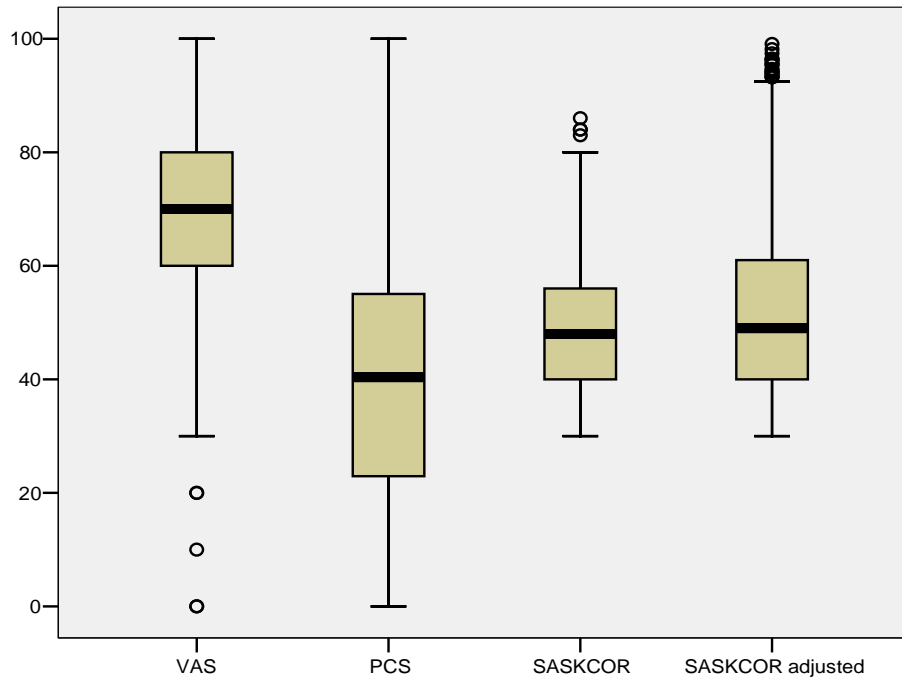


Figure A2 Distribution of the VAS and Priority Scores for the most common procedures

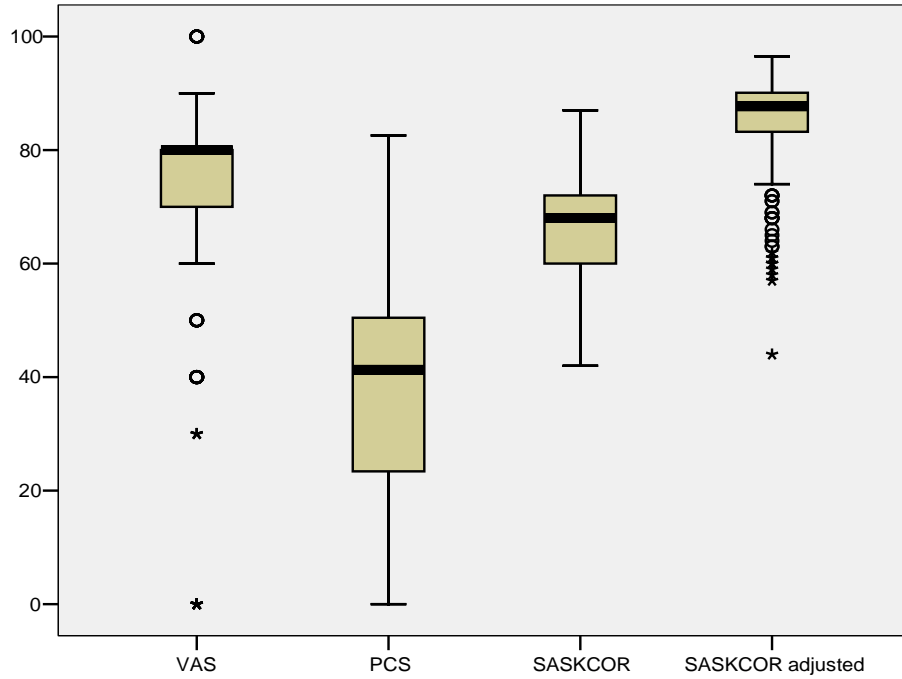
Cystoscopy w/wo surgical intervention (urgency profile 50 – 95) (28% cancer)



Transurethral resection prostate (urgency profile 30 – 75) Cancer 19%

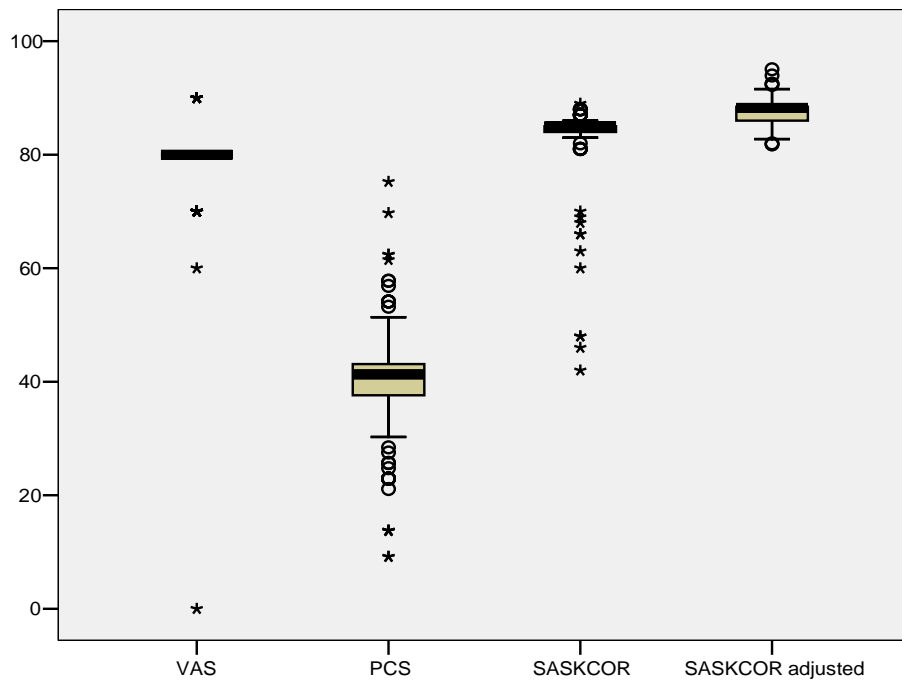


Transurethral resection bladder (urgency profile 50 – 95) cancer 89%

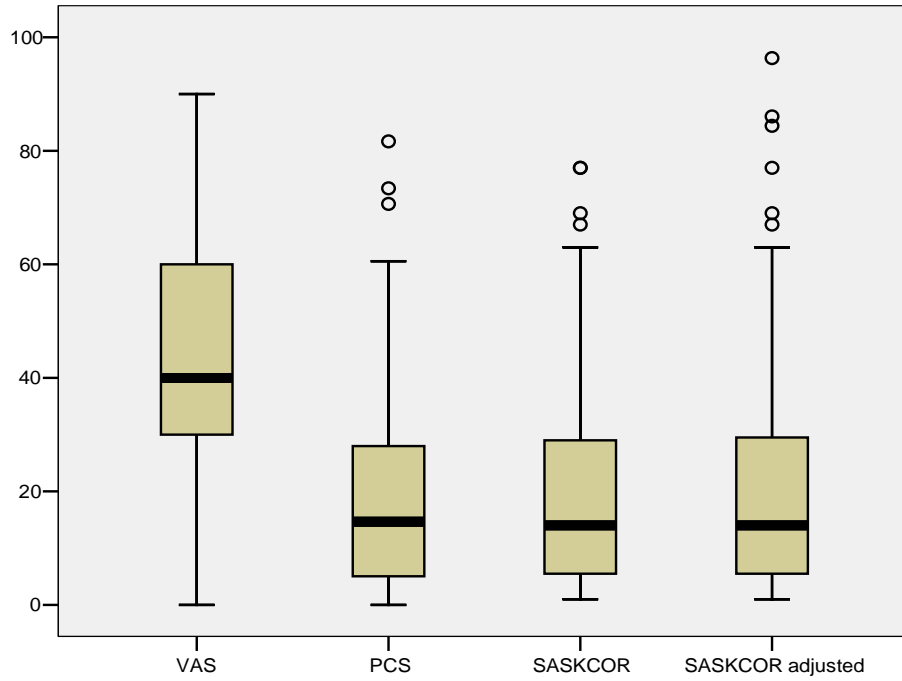


Note: Outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of procedures with accompanying urgency profiles (e.g., case 65004: procedures were transurethral resection bladder and transurethral resection prostate (urgency profile 30 – 75))

Radical prostatectomy (urgency profile 80 – 94) cancer 96%



Circumcision (urgency profile 1 – 95) cancer 2%; <12 45%, 12 – 17 8%, 18+ 48%



Orchidectomy (urgency profile 30 – 94) cancer 80%)

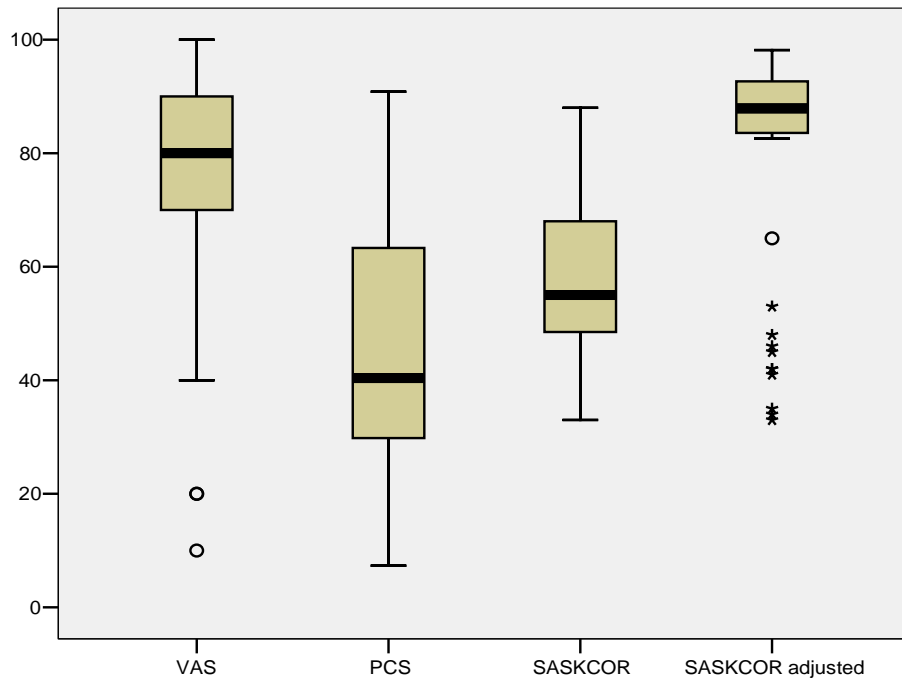
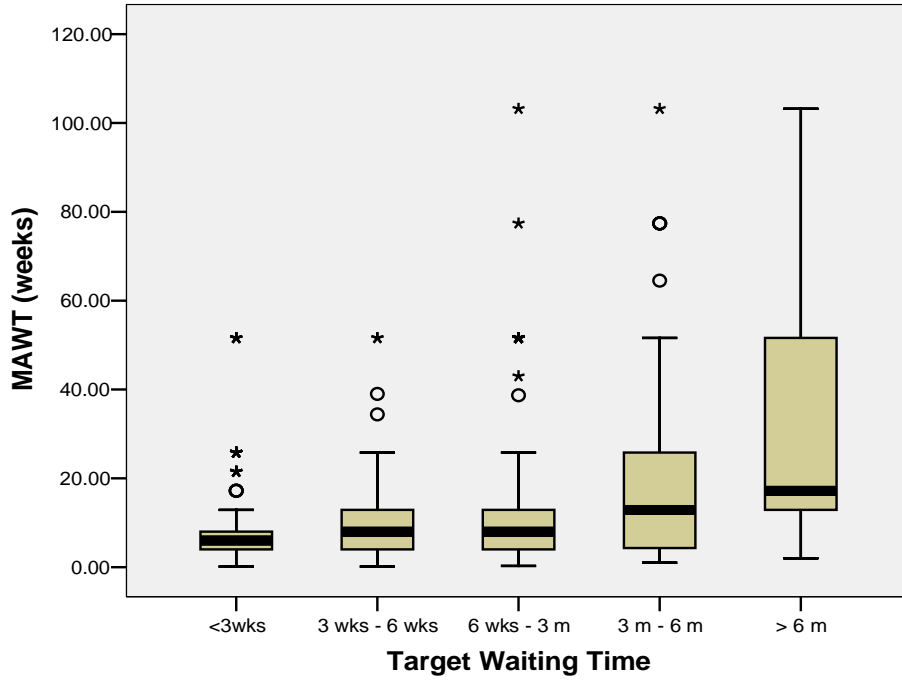


Figure A3 The Distribution of Maximum Acceptable Waiting Times (MAWT) for levels of Target Waiting Time



## APPENDIX G OTOLARYNGOLOGY

Table A1 List of Procedures

Procedure	Frequency	Percent	Cumulative Percent
myringotomy /c tubes	941	28.04	28.04
tonsillectomy	555	16.54	44.58
septoplasty	509	15.17	59.74
tonsillectomy and adenoidectomy	289	8.61	68.36
tympaanoplasty	165	4.92	73.27
septorhinoplasty	139	4.14	77.41
endoscopic sinus surgery	118	3.52	80.93
nasal polypectomy	110	3.28	84.21
myringoplasty	78	2.32	86.53
micro laryngoscopy	60	1.79	88.32
adenoidectomy	56	1.67	89.99
smr turbinates	36	1.07	91.06
tympaanomastoidectomy	26	0.77	91.84
turbinectomies	25	0.74	92.58
antrostomies	24	0.72	93.30
uvulopalatopharyngoplasty	23	0.69	93.98
biopsy larynx	16	0.48	94.46
myringotomy/tubes & adenoidectomy	14	0.42	94.87
ossicle reconstruction	14	0.42	95.29
tympaanotomy	14	0.42	95.71
laryngoscopy	11	0.33	96.04
parotidectomy (ent)	11	0.33	96.36
release tongue tie	10	0.30	96.66
biopsy mouth	9	0.27	96.93
closed reduction nasal fracture	9	0.27	97.20
mastoidectomy	9	0.27	97.47
excision lesion/tissue tongue	7	0.21	97.68
biopsy nasal sinus	6	0.18	97.85
cautery nasal septum	6	0.18	98.03
closure septal perforation	6	0.18	98.21
dissection radical neck	6	0.18	98.39
ethmoidectomy	6	0.18	98.57
atticotomy	5	0.15	98.72
caldwell luc procedure	5	0.15	98.87
control nasal hemorrhage	5	0.15	99.02
excision auricular cyst	5	0.15	99.17
biopsy tongue	4	0.12	99.28
stapedectomy	4	0.12	99.40
antrostomies/turbinectomies	3	0.09	99.49
hemiglossectomy	3	0.09	99.58

Procedure	Frequency	Percent	Cumulative Percent
nasopharyngeal biopsy	3	0.09	99.67
te fistula formation	3	0.09	99.76
biopsy pharyngeal	2	0.06	99.82
boyden flap frontal ethmoidectomy	1	0.03	99.85
laryngectomy	1	0.03	99.88
nasal antrum window	1	0.03	99.91
removal myringotomy tubes bilateral	1	0.03	99.94
sinus irrigation	1	0.03	99.97
tracheostomy	1	0.03	100.00
Total	3356	100.00	

Table A2 Descriptive Statistics

	VAS	PCS	SASKCOR	SASKCOR <i>adjusted</i>	MAWT <i>(weeks)</i>
Mean	59.44	23.43	35.18	36.89	18.54
SD	21.79	14.67	32.08	33.50	12.67
Percentiles	25	50.00	15.05	8.00	8.00
Median	50	50.00	15.05	12.00	13.00
	75	80.00	32.26	79.00	81.00

Table A3 Correlation Matrix of Priority Scores with VAS Urgency and Maximum Acceptable Waiting Time (MAWT)

	VAS	PCS	SASKCOR	SASKCOR <i>adjusted</i>
PCS	0.48			
SASKCOR	0.57	0.59		
SASKCOR <i>adjusted</i>	0.58	0.65	0.96	
MAWT	-0.76	-0.63	-0.72	-0.72

Table A4 Correlation Matrix of the VAS Urgency and Priority Criteria Items

	VAS	Q1 Freq Suffering	Q2 Intensity Suffering	Q3a Hearing	Q3b Speech	Q3c Airway Obs	Q3d Psych	Q3e Other	Q4 Impairment	Q5 History	Q6 LE
Q1 Freq Suffering	0.31										
Q2 Intensity Suffering	0.22	0.24									
Q3a Hearing	0.61	0.31	0.11								
Q3b Speech	0.54	0.31	0.19	0.88							
Q3c Airway Obs	-0.07	0.10	0.12	-0.09	-0.02						
Q3d Psych	0.09	0.26	0.15	-0.10	-0.07	0.46					
Q3e Other	-0.03	0.12	0.12	0.01	0.05	0.27	0.40				
Q4 Impairment	0.17	0.12	0.57	0.09	0.28	0.04	0.18	0.09			
Q5 History	0.45	0.45	0.10	0.75	0.78	0.12	0.22	0.15	0.18		
Q6 Life expectancy	0.20	0.28	0.08	-0.11	-0.10	0.24	0.79	0.20	0.15	0.14	
Q7 Expected improvement LE	0.18	0.27	0.08	-0.12	-0.09	0.31	0.88	0.26	0.14	0.16	0.93

Table A5 Factor Structure using all Priority Criteria

	1	2	3	4
Q11 expected improvement life expectancy	<b>0.96</b>			
Q10 life expectancy	<b>0.95</b>			
Qq3d intensity psychological stress	<b>0.85</b>			<b>0.40</b>
Qq3a intensity hearing		<b>0.93</b>		
Qq3b intensity speech		<b>0.92</b>		
Qq5 history/exam/test results		<b>0.91</b>		
Qq1 freq suffering	<b>0.37</b>	<b>0.50</b>		
Qq2 intensity suffering			<b>0.86</b>	
Qq4 impairment usual act			<b>0.86</b>	
Qq3e intensity other				<b>0.78</b>
Qq3c intensity airway obs				<b>0.76</b>

Table A6 Factor Structure using the Combined Symptom Scores

	1	2	3
Q5 history/exam/test results	<b>0.93</b>		
Q3 Intensity of other suffering	<b>0.84</b>		
Qq1 freq suffering	<b>0.69</b>		
Q6 life expectancy		<b>0.96</b>	
Q7 expected improvement life expectancy		<b>0.96</b>	
Q2 intensity suffering			<b>0.86</b>
Q4 impairment usual act			<b>0.86</b>

Table A7 A List of Procedures for Cases that were Identified as Outliers (VAS > 75<sup>th</sup> percentile and SASKCOR adjusted <25<sup>th</sup> percentile)

Procedure	Frequency
micro laryngoscopy	2
septoplasty	2
adenoidectomy	1
closure septal perforation	1
nasal polypectomy	1
tonsillectomy	1
tonsillectomy and adenoidectomy	1
Total	9

Figure A1 Distribution of the VAS and Priority Scores for all Cases

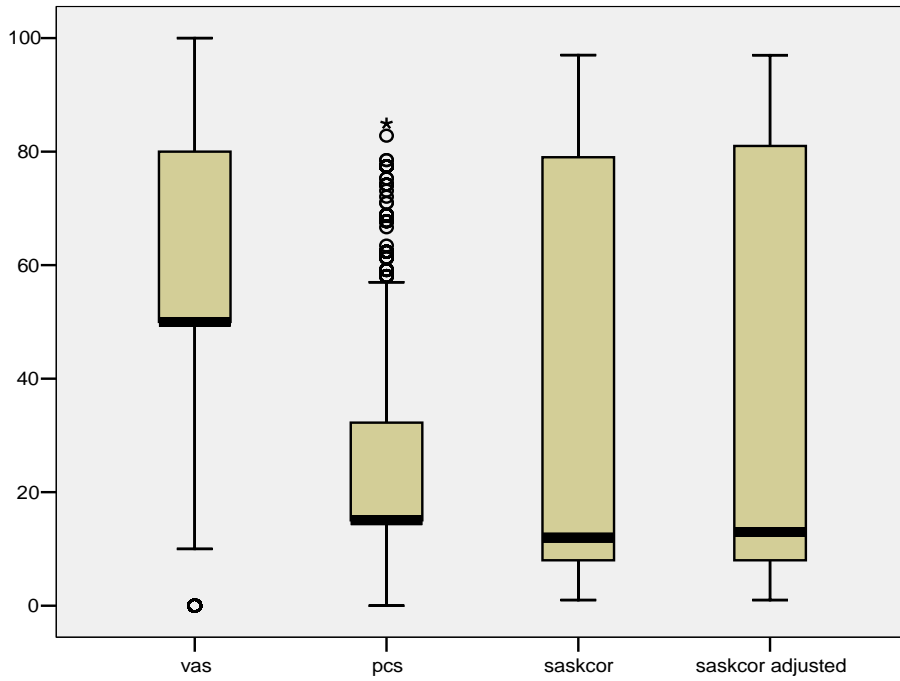
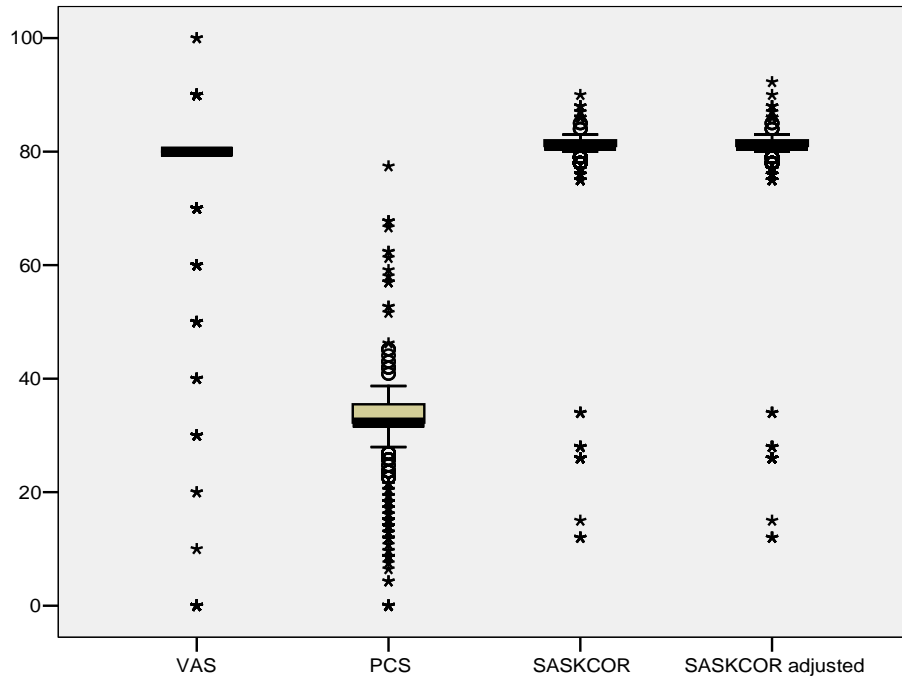


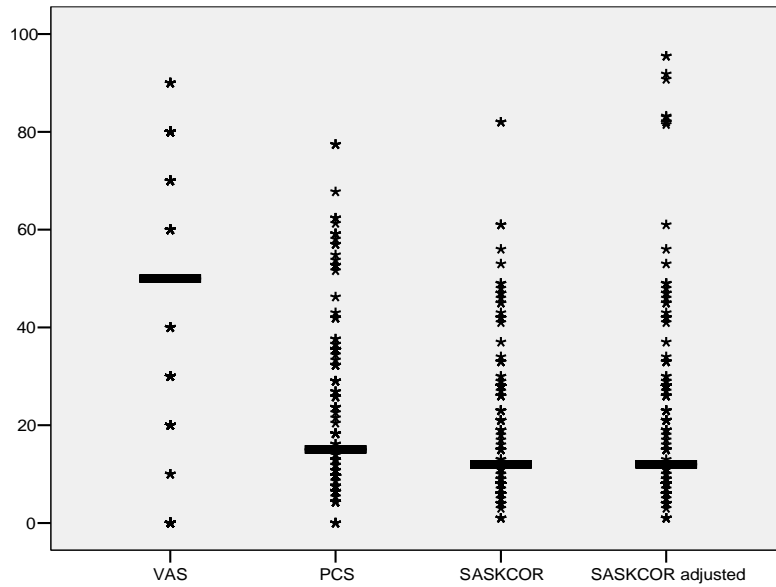
Figure A2 Distribution of the VAS and Priority Scores for the most common procedures

Myringotomy with tubes (75 – 97) Cancer n = 2.

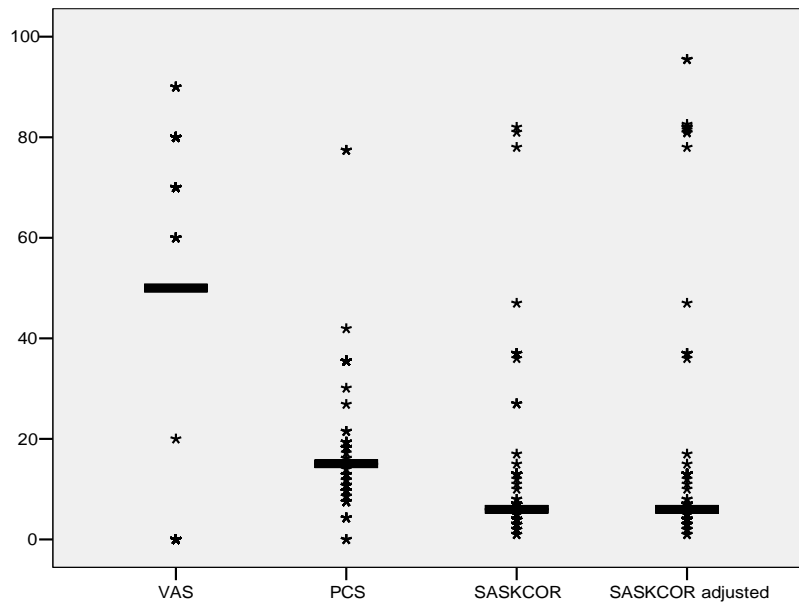


Note: outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of urgency profiles and primary procedures.

Tonsillectomy (n = 550) (urgency profile 1 – 79)



Septoplasty (n = 509, urgency profile 1 – 35; cancer = 8/474 (1.7%))



Note: 9 outliers for SASKCOR and SASKCOR adjusted outside of 1-35 range and 80+ range are due to inconsistent coding for urgency profiles and primary procedures.

Tonsillectomy and Adenoidectomy (n = 289) urgency profile 1 - 79

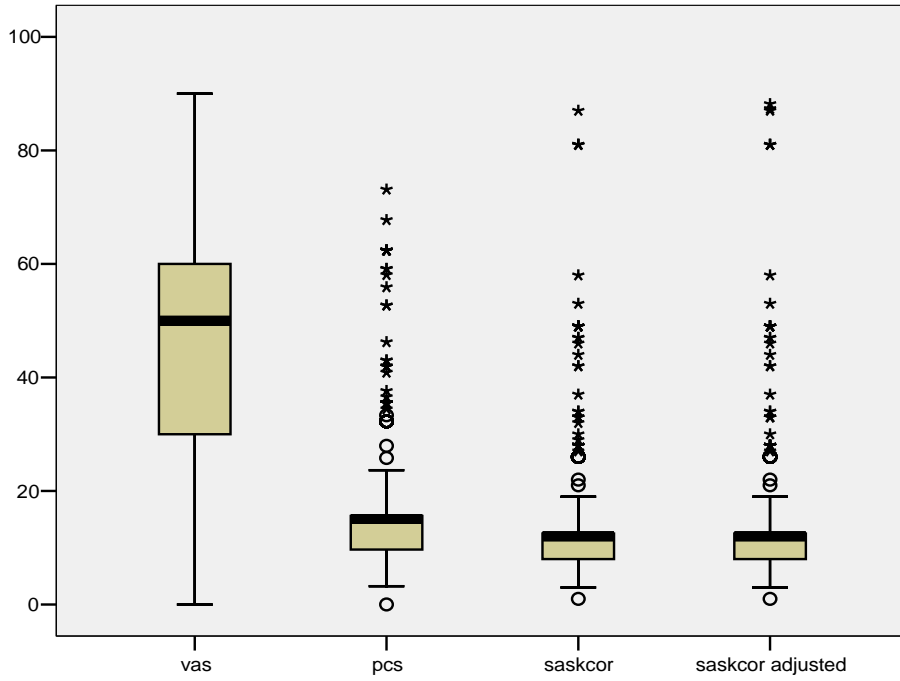
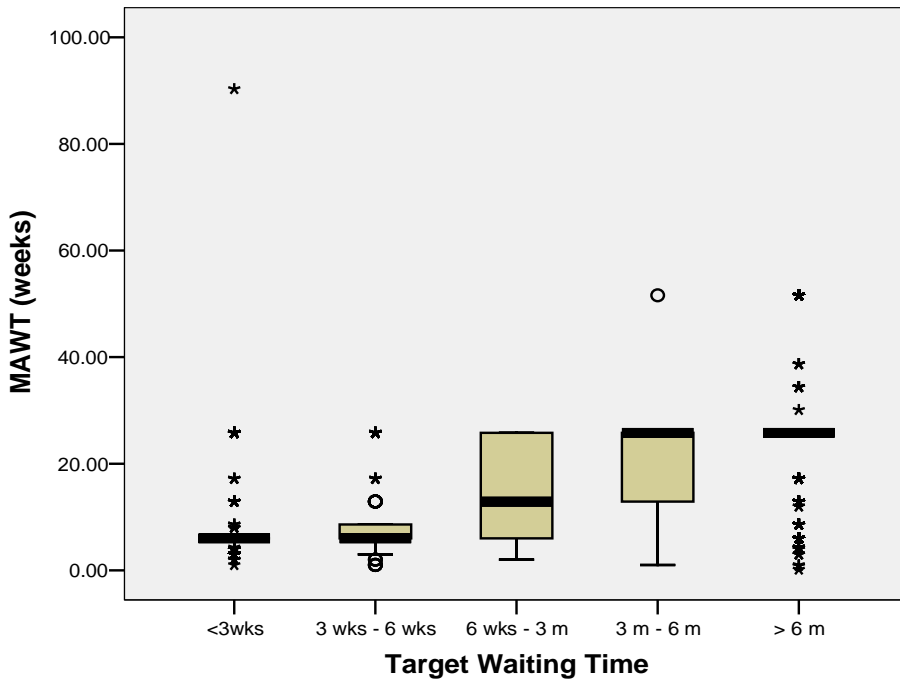


Figure A3 The Distribution of Maximum Acceptable Waiting Times (MAWT) for levels of Target Waiting Time



## APPENDIX H PLASTIC SURGERY

Table A1 List of Procedures

PROCEDURE	Frequency	Percent	Cumulative Percent
<b>MAMMOPLASTY REDUCTION</b>	405	21.69	21.69
<b>RELEASE CARPAL TUNNEL</b>	147	7.87	29.57
<b>LIPECTOMY</b>	96	5.14	34.71
<b>ABDOMINOPLASTY</b>	89	4.77	39.48
<b>EXCISION SOFT TISSUE - NON SPECIFIED</b>	69	3.70	43.17
<b>EXCISION GANGLION (PLASTICS)</b>	56	3.00	46.17
<b>RELEASE DUPUYTREN'S CONTRACTURE</b>	55	2.95	49.12
<b>INSERTION BREAST IMPLANT</b>	53	2.84	51.96
SEPTORHINOPLASTY	50	2.68	54.63
EXCISION SKIN LESION	42	2.25	56.88
INSERTION TISSUE EXPANDER	38	2.04	58.92
OTOPLASTY	37	1.98	60.90
SCAR REVISION	36	1.93	62.83
ULNAR NERVE TRANSPOSITION	28	1.50	64.33
EXCISION SWEAT GLAND	27	1.45	65.77
FINGER FRACTURE ORIF (PLASTICS)	23	1.23	67.01
SKIN GRAFT FULL THICKNESS	22	1.18	68.18
WIDE EXCISION WITH LOCAL FLAP	20	1.07	69.26
ARTHROPLASTY HAND/FINGER(S) (PLASTICS)	20	1.07	70.33
REPAIR FINGER TENDON	18	0.96	71.29
RHINOPLASTY	16	0.86	72.15
REPAIR FINGER TENDON (PLASTICS)	15	0.80	72.95
SIMPLE MASTECTOMY (GENERAL)	15	0.80	73.75
REPAIR CLEFT PALATE	14	0.75	74.50
PIP JOINT FUSION	14	0.75	75.25
MYEOCUTANEOUS FLAP	13	0.70	75.95
REPAIR CLEFT LIP	13	0.70	76.65
HYPOSPADIAS/REPAIR EPISPADIAS	12	0.64	77.29
MASTOPEXY	12	0.64	77.93
EXCISION LIPOMA	12	0.64	78.58
REMOVAL TISSUE EXPANDER	11	0.59	79.16
CAPSULOTOMY BREAST	11	0.59	79.75
BREAST RECONSTRUCTION	10	0.54	80.29
CLOSED REDUCTION NASAL FRACTURE	10	0.54	80.82
DEBRIDEMENT ABDOMINAL WALL	10	0.54	81.36
MAMMOPLASTY AUGMENTATION	9	0.48	81.84
REMOVAL PAROTID DUCT STONE	9	0.48	82.32
EXCISION HAND MASS	9	0.48	82.81
DEBRIDEMENT BURN	8	0.43	83.24

PROCEDURE	Frequency	Percent	Cumulative Percent
REPAIR NERVE	8	0.43	83.66
INSERTION K WIRE	8	0.43	84.09
TENOLYSIS	8	0.43	84.52
RELEASE PALMAR FASCIA	8	0.43	84.95
AMPUTATION FINGER(S)	8	0.43	85.38
SKIN GRAFT SPLIT THICKNESS	8	0.43	85.81
EXCISION NEVUS	8	0.43	86.23
RELEASE TRIGGER FINGER (ORTHO)	8	0.43	86.66
EXCISION BONE SPUR	7	0.37	87.04
SYNOVECTOMY	7	0.37	87.41
RELEASE PALMER FASCIA (PLASTICS)	7	0.37	87.79
REPAIR TENDON/NERVE	7	0.37	88.16
TRANSPLANT/TRANSFER HAND TENDON	6	0.32	88.48
MELOPLASTY	6	0.32	88.81
DISSECTION/LARYNGECTOMY RADICAL NECK	6	0.32	89.13
OPEN REDUCTION MAXILLA FRACTURE	6	0.32	89.45
REMOVAL FOREIGN BODY	6	0.32	89.77
REMOVAL BREAST IMPLANT	6	0.32	90.09
BLEPHAROPLASTY	5	0.27	90.36
EXCISION CYST/LESION - FACIAL BONE	5	0.27	90.63
BONE GRAFT	5	0.27	90.89
SYNDACTYLY CORRECTION	5	0.27	91.16
REPAIR TENDON (ORTHO)	5	0.27	91.43
VASOVASOSTOMY	5	0.27	91.70
PHARYNGEAL FLAP	5	0.27	91.97
REPAIR FINGER NERVE	5	0.27	92.23
REMOVAL INGROWN TOENAIL/ZEDLIC PROCEDURE	4	0.21	92.45
BLEPHAROPLASTY BILATERAL	4	0.21	92.66
HAND TENDON SUTURE	4	0.21	92.88
EXCISION SUBMANDIBULAR GLAND	4	0.21	93.09
EXCISION NEUROMA	4	0.21	93.30
EXCISION GYNECOMASTIA BILATERAL	4	0.21	93.52
DECOMPRESSION NERVE	4	0.21	93.73
NERVE TRANSPOSITION	3	0.16	93.89
OPEN REDUCTION MANDIBLE FRACTURE	3	0.16	94.05
GRAFT NERVE	3	0.16	94.22
WRIST ARTHROSCOPY	3	0.16	94.38
EXCISION GRANULOMA	3	0.16	94.54
CORRECTION PTOSIS	3	0.16	94.70
ZYGOMATIC FRACTURE OPEN REDUCTION	3	0.16	94.86
REMOVAL HARDWARE	3	0.16	95.02
NIPPLE RECONSTRUCTION	3	0.16	95.18
MANDIBLE/MAXILLA RESECTION	3	0.16	95.34

PROCEDURE	Frequency	Percent	Cumulative Percent
AMPUTATION TOE(S) (GENERAL)	3	0.16	95.50
ARTHRODESIS FINGER/TOE/THUMB (ORTHO)	3	0.16	95.66
SKIN GRAFT PEDICLE	3	0.16	95.82
FASCIOTOMY	3	0.16	95.98
DERMABRASION	3	0.16	96.14
REPAIR LIGAMENT RIGHT	3	0.16	96.30
POLYDACTYLY CORRECTION	3	0.16	96.46
HAND TENDON REPAIR/GRAFT	2	0.11	96.57
DEBULKING SKIN	2	0.11	96.68
BIOPSY LESION OF NOSE	2	0.11	96.79
REMOVAL HARDWARE MANDIBLE	2	0.11	96.89
MASTECTOMY SIMPLE BILATERAL	2	0.11	97.00
EXCISION GANGLION WRIST LEFT	2	0.11	97.11
RELEASE TONGUE TIE	2	0.11	97.21
PHARYNGOPLASTY	2	0.11	97.32
EXCISION SINUS	2	0.11	97.43
REPAIR MUSCLE	2	0.11	97.54
Batwing procedure	2	0.11	97.64
MYRINGOTOMY /C TUBES	2	0.11	97.75
EXCISION AURICULAR CYST	2	0.11	97.86
FINGER BONE GRAFT	2	0.11	97.96
DECUBITUS ULCER DEBRIDEMENT/FLAP	2	0.11	98.07
NEUROLYSIS	2	0.11	98.18
DRESSING CHANGE	2	0.11	98.29
EXCISION LESION/TISSUE TONGUE	1	0.05	98.34
CLOSED REDUCTION MAXILLA FRACTURE	1	0.05	98.39
REVISION AMPUTATION	1	0.05	98.45
PHARYNGECTOMY, LARYNGECTOMY	1	0.05	98.50
ARTHROPLASTY HAND/FINGER(S) LEFT	1	0.05	98.55
AMPUTATION FINGER(S) RIGHT	1	0.05	98.61
RELEASE TENDON	1	0.05	98.66
CHANGE LENGTH TENDON/MUSCLE/FASCIA	1	0.05	98.71
SHAVE LIP	1	0.05	98.77
ILIAC CREST BONE GRAFT	1	0.05	98.82
EXCISION CHALAZION	1	0.05	98.88
TESTIS BIOPSY	1	0.05	98.93
REPAIR VENTRAL HERNIA	1	0.05	98.98
REPAIR LIGAMENT (ORTHO)	1	0.05	99.04
WRIST FRACTURE ORIF	1	0.05	99.09
DRAINAGE ABSCESS	1	0.05	99.14
SEPTOPLASTY	1	0.05	99.20
EYELID RECONSTRUCTION	1	0.05	99.25
VAGINAL RECONSTRUCTION	1	0.05	99.30

PROCEDURE	Frequency	Percent	Cumulative Percent
EXAM UNDER ANAES EXCEPT - GYN OR RECTAL	1	0.05	99.36
REPAIR INCISIONAL HERNIA	1	0.05	99.41
FACIAL RHYTIDECTOMY	1	0.05	99.46
ZYGOMATIC FRACTURE CLOSED REDUCTION	1	0.05	99.52
EXCISION SEBACEOUS CYST	1	0.05	99.57
REPAIR LIGAMENT LEFT	1	0.05	99.63
HAND FRACTURE ORIF	1	0.05	99.68
EXCISION GANGLION WRIST RIGHT	1	0.05	99.73
CRANIOPLASTY	1	0.05	99.79
FREE FLAP TISSUE TRANSFER	1	0.05	99.84
LATERAL TARSAL STRIP-GOLD WT	1	0.05	99.89
ROTATIONAL FLAP	1	0.05	99.95
INCISION AND DRAINAGE	1	0.05	100.00
Total	1867	100.00	

Table A2 Descriptive Statistics

		VAS	PCS	SASKCOR	SASKCOR <i>adjusted</i>	MAWT <i>(weeks)</i>
Mean		48.23	35.47	32.44	35.18	23.94
SD		26.32	16.11	24.88	27.68	17.42
Percentiles	25	30.00	22.77	12.00	13.00	12.90
	50	50.00	35.64	25.00	26.00	17.20
	75	70.00	46.53	47.00	52.00	34.40

Table A3 Correlation Matrix of Priority Scores with VAS Urgency and Maximum Acceptable Waiting Time (MAWT)

	VAS	PCS	SASKCOR	SASKCOR <i>adjusted</i>
PCS	<b>0.52</b>			
SASKCOR	<b>0.44</b>	0.49		
SASKCOR <i>adjusted</i>	<b>0.42</b>	0.45	0.90	
MAWT (weeks)	<b>-0.54</b>	-0.27	-0.51	-0.55

Table A4 Correlation Matrix of the VAS Urgency and Priority Criteria Items

	VAS	Q1 freq pain/suffering	Q2 intensity pain	Q3a skin breakdown	Q4b infection	Q4c psych	Q4d other	Q7 impair usual act	Q8 history	Q9 Life exp
Q1 freq pain/suffering	0.20									
Q2 intensity pain	0.34	0.51								
Q3a intensity skin breakdown	0.03	0.13	0.07							
Q3b intensity infection	0.03	0.11	0.11	0.48						
Q3c intensity psych	-0.03	-0.07	-0.04	0.03	0.03					
Q3d intensity other	0.04	0.10	-0.03	-0.05	-0.03	-0.11				
Q4 impairment usual act	0.43	0.48	0.47	0.07	0.07	-0.13	0.13			
Q5 history	0.47	0.34	0.24	0.03	0.01	-0.11	-0.01	0.30		
Q6 life expectancy	0.14	0.06	0.00	0.18	0.06	0.12	0.03	0.06	0.09	
Q7 Expected improvement QOL	0.38	0.43	0.33	0.02	0.05	0.06	0.06	0.40	0.40	0.08

Table A5 Factor Structure using all Priority Criteria

	<i>Factors</i>		
	1	2	3
Q1 Freq Pain/Suffering	0.77		
Q4 Impairment Usual Act	0.74		
Q7 Expected improvement QOL	0.73		
Q2 Intensity Pain	0.70		
Q5 History	0.62		
Q3a Intensity Skin Breakdown		0.85	
Q3b Intensity Infection		0.84	
Q3c Intensity Psych			0.79
Q6 Life expectancy			0.49
Q3d Intensity Other			-0.47

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax.

Coefficients <0.30 are not shown.

Table A6 Factor Structure using the Combined Symptom Scores

	<i>Factors</i>	
	1	2
Q1 Freq Pain/Suffering	0.79	
Q4 Impairment Usual Act	0.76	
Q2 Intensity Pain	0.74	
Q7 Expected improvement QOL	0.68	
Q5 History	0.61	
Q3 Intensity other		0.78
Q6 Life expectancy		0.75

Table A7 A List of Procedures for Cases that were Identified as Outliers (VAS > 75<sup>th</sup> percentile and SASKCOR adjusted <25<sup>th</sup> percentile)

MAMMOPLASTY REDUCTION	3
EXCISION GANGLION (PLASTICS)	2
EXCISION SKIN LESION	1
SEPTORHINOPLASTY	1
OTOPLASTY	1
INSERTION BREAST IMPLANT	1
Total	9

Figure A1 The Distribution of Priority Scores for all Cases

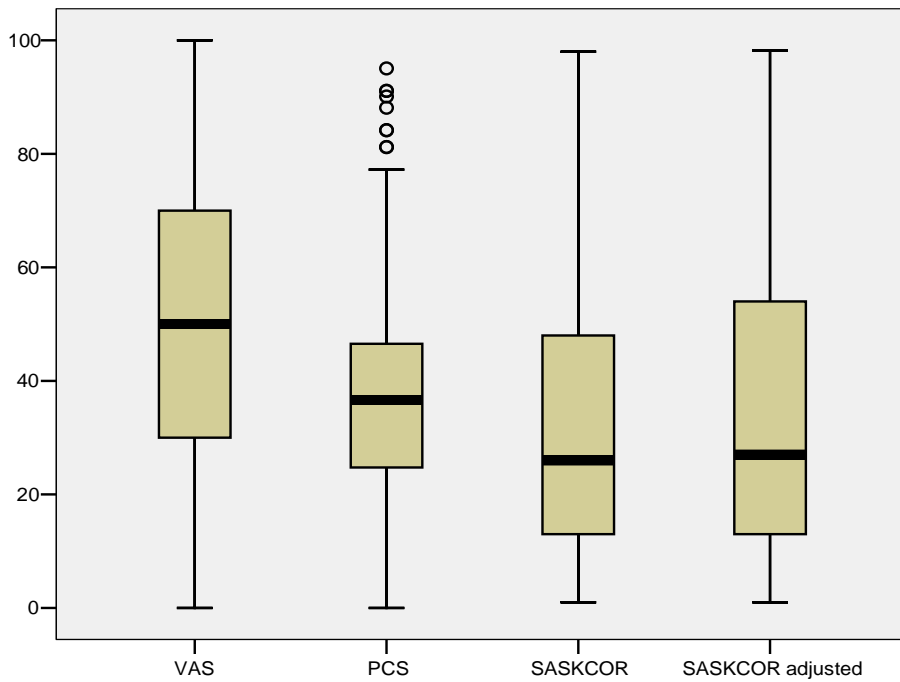
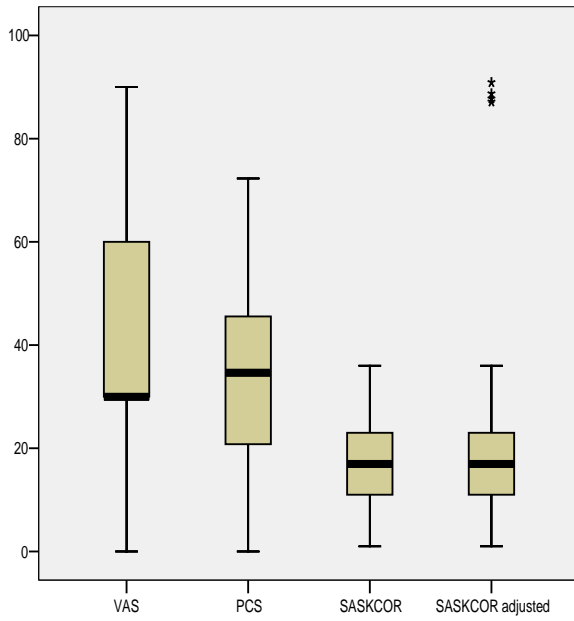
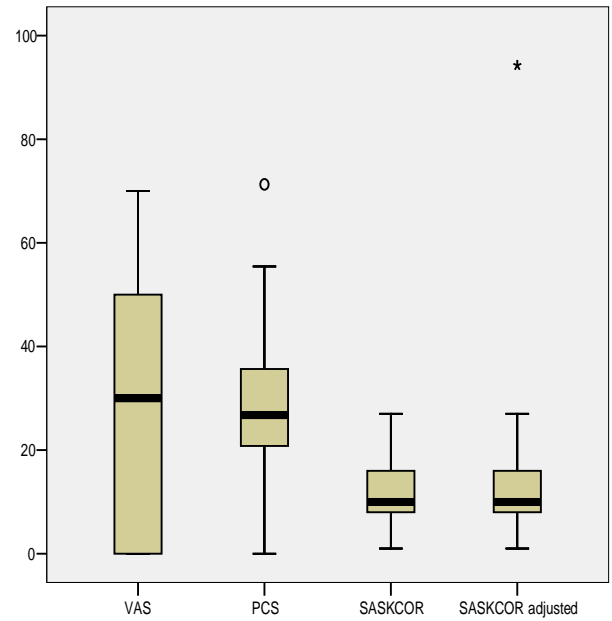


Figure A2 Distribution of the VAS and Priority Scores for the most common procedures

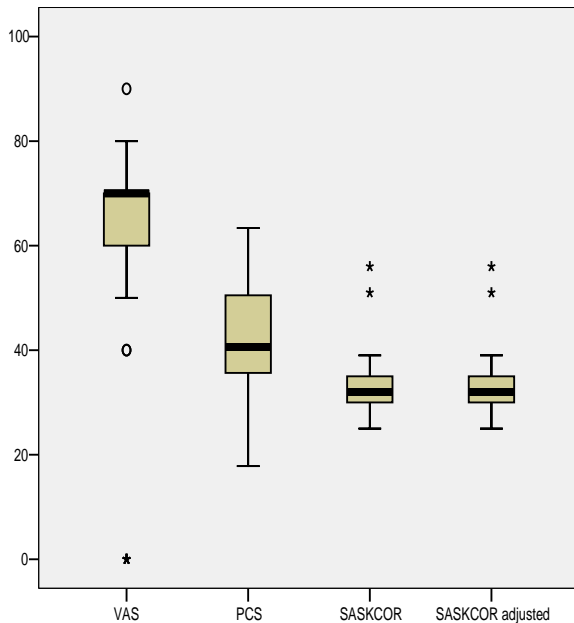
Mammoplasty reduction (urgency profile 1 – 50)



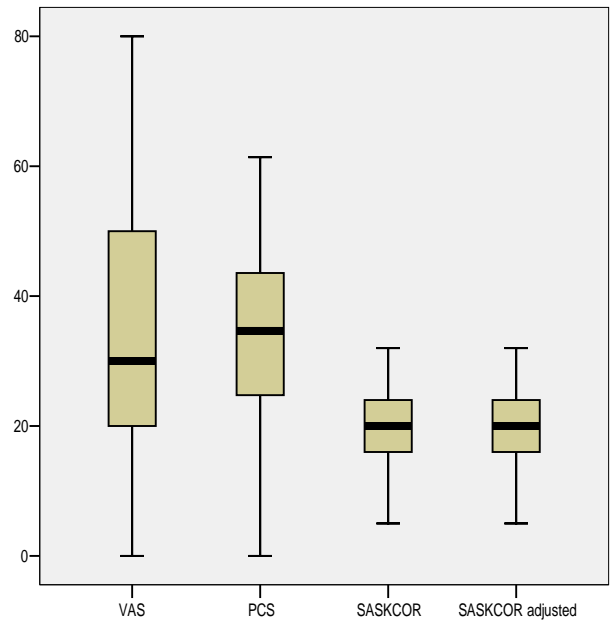
Lipectomy (urgency profile 1 – 35)



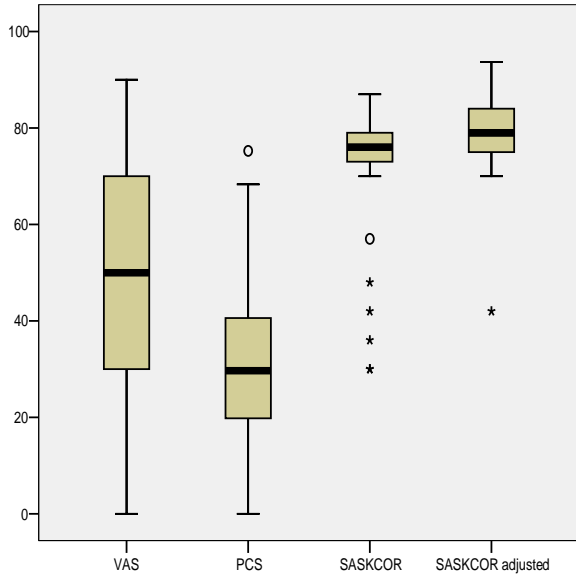
Release Carpal Tunnel (urgency profile 20 – 50) Outliers for the SASKCOR and SASKCOR adjusted are due to inconsistent coding of procedures (e.g., ulnar nerve transposition (30 – 79)



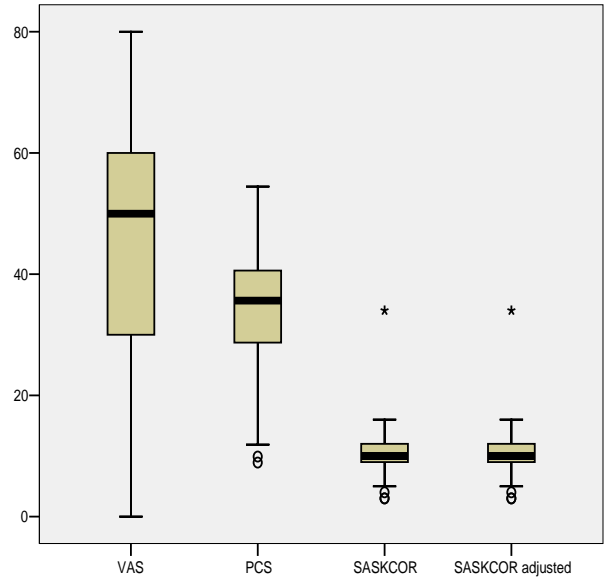
Abdominoplasty (urgency profile 5 – 50)



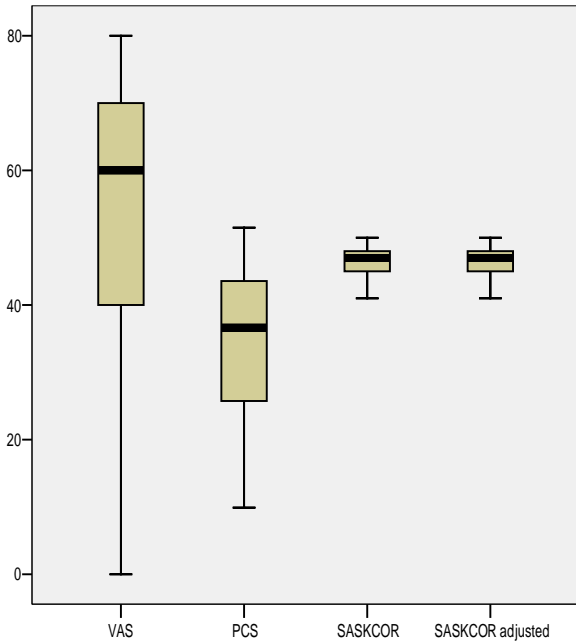
Excision soft tissue (urgency profile 70 – 95) Outlier SASKCOR, SASKCOR adjusted removal tissue expander 30 – 49)



Excision ganglion (urgency profile 1 – 29); outlier SASKCOR and SASKCOR adjusted release carpal tunnel (20 - 50)



Release dupuytren's contracture (urgency profile 40 – 60)



Insertion breast implant (urgency profile 1 – 35) Outlier SASKCOR and SASKCOR adjusted e.g., breast reconstruction (30 – 80)

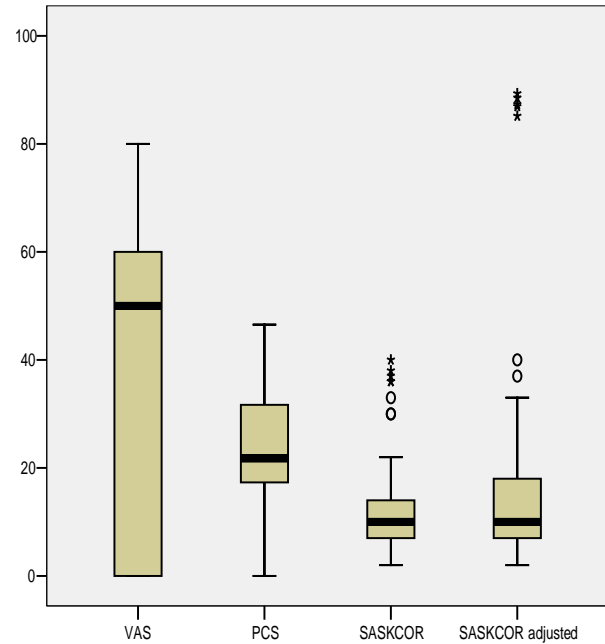
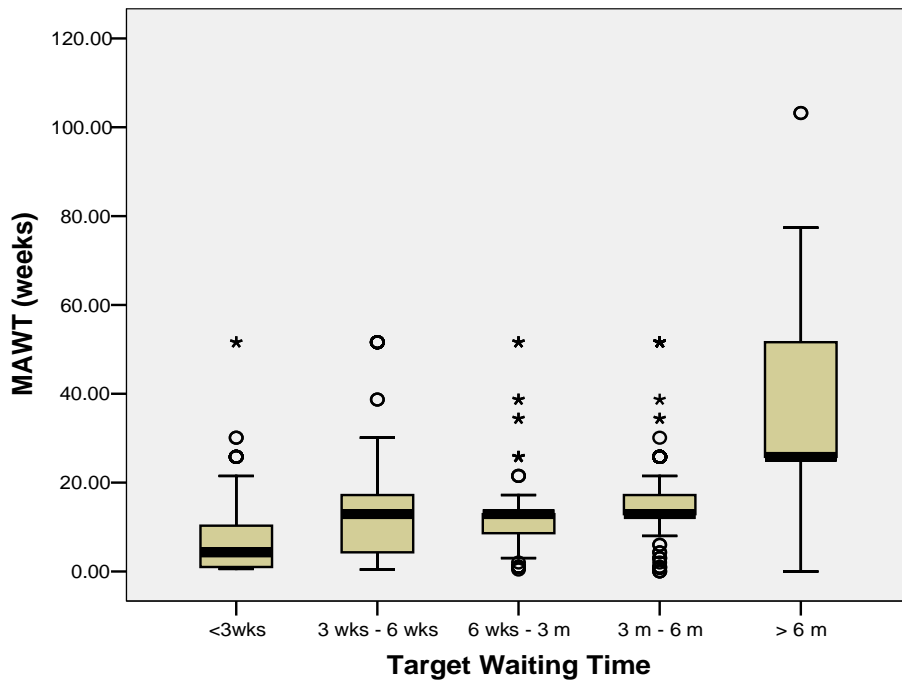


Figure A3 The Distribution of Maximum Acceptable Waiting Times (MAWT) for levels of Target Waiting Time

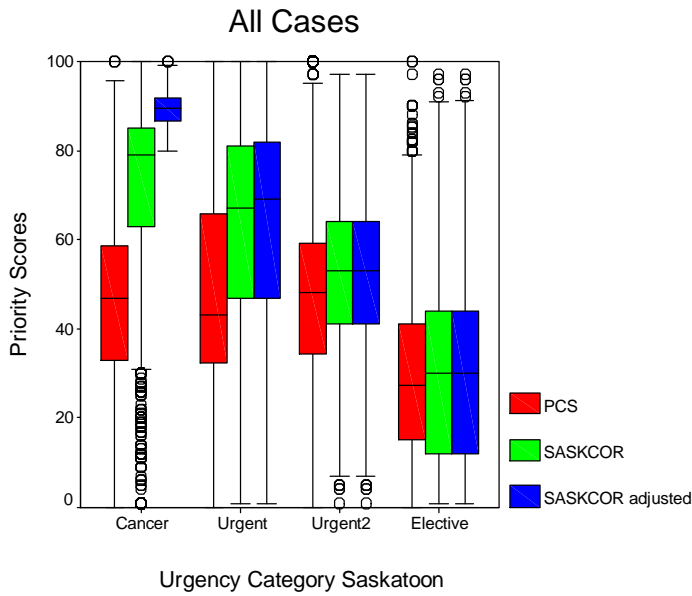


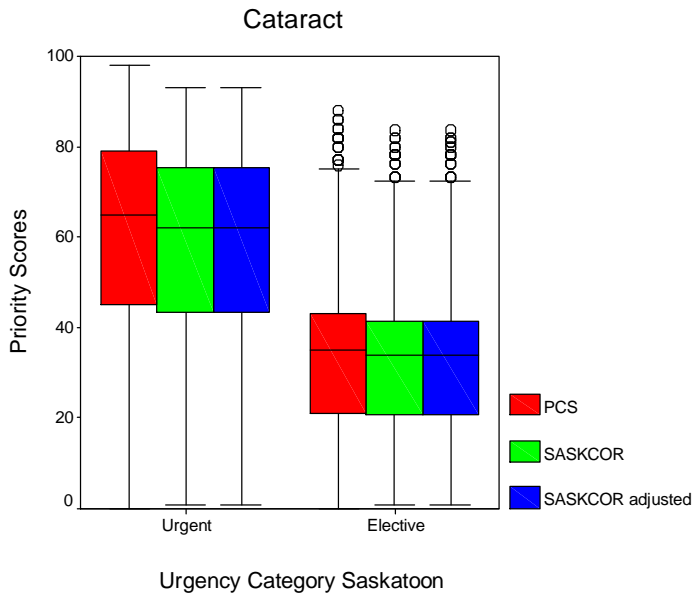
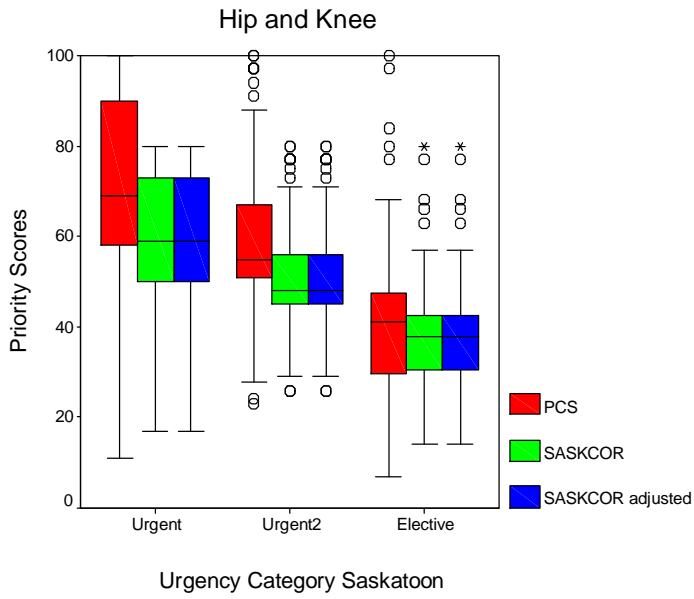
# APPENDIX I

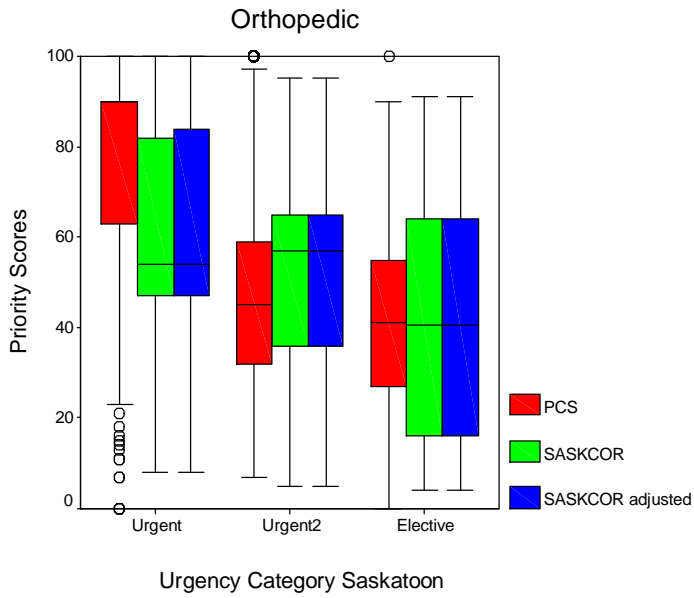
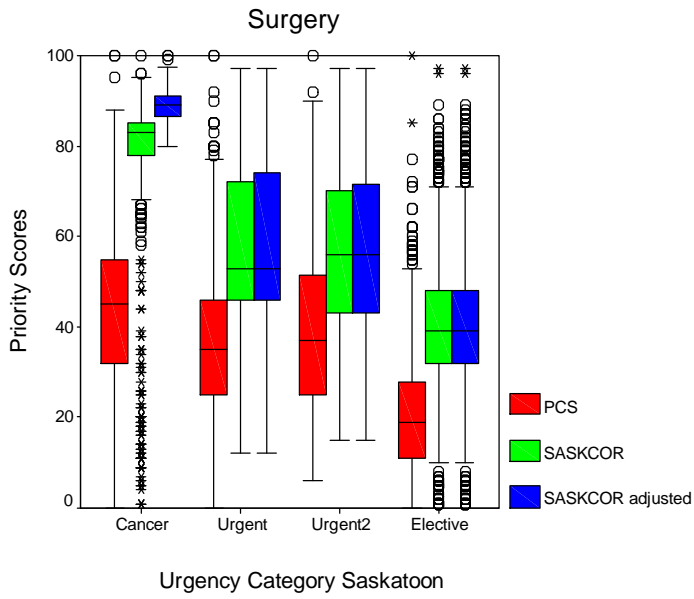
## The Distribution of Priority Scores by Urgency Category for Saskatoon and Regina

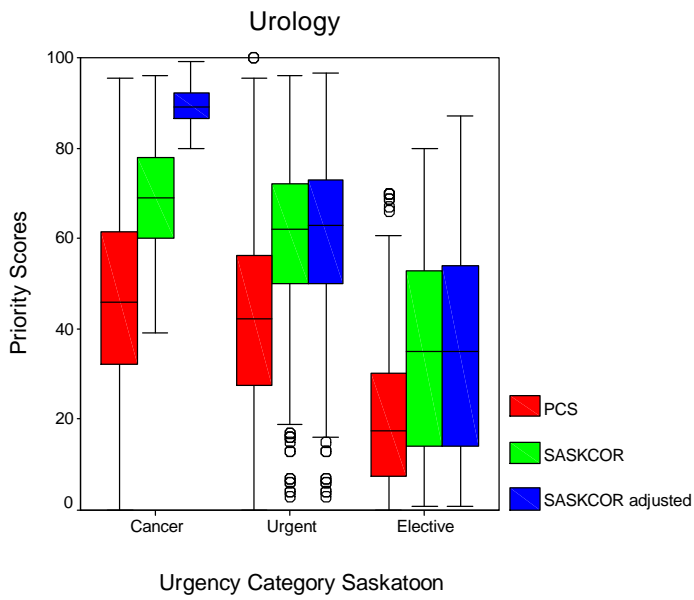
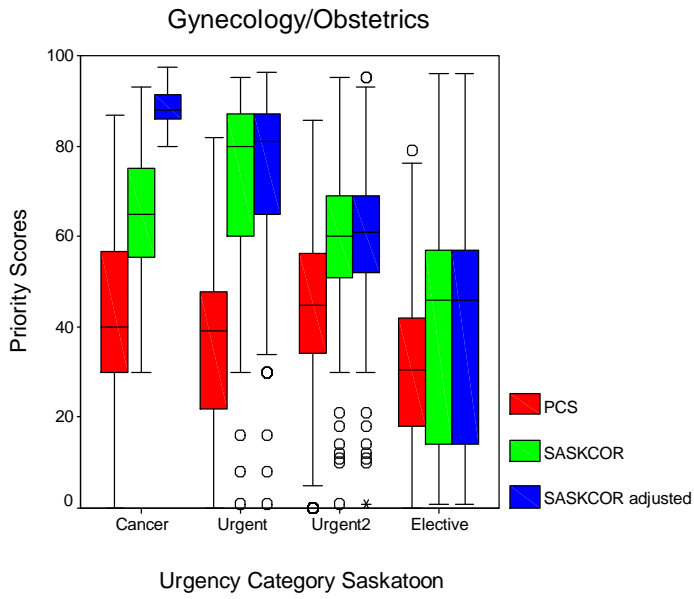
The graphs include combine cases waiting and post-surgery. However, because there was a difference in the relationship between priority scores and urgency categories for cases waiting vs. post-surgery, results should be interpreted with caution. Where there were small numbers of cases in an urgency category, categories were combined (e.g., urgent and urgent2).

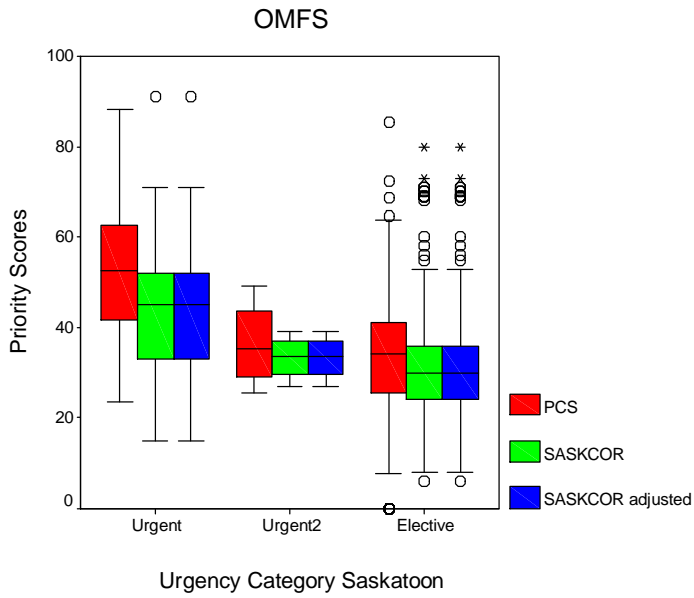
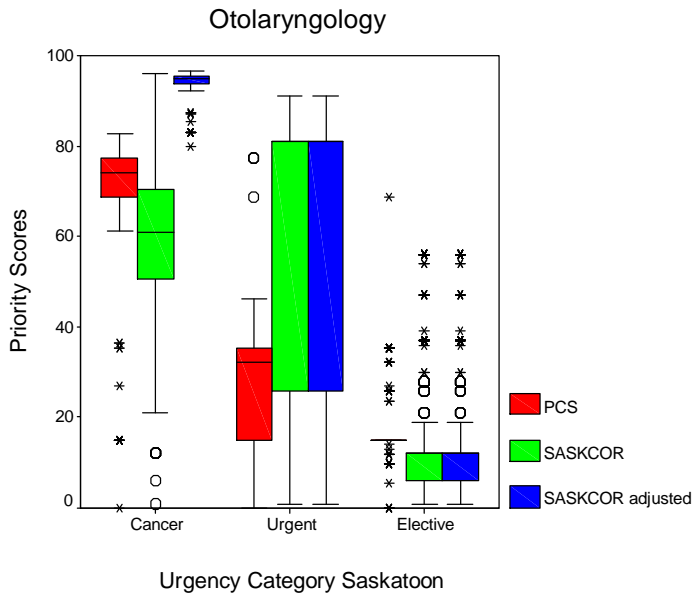
### Saskatoon Urgency Categories

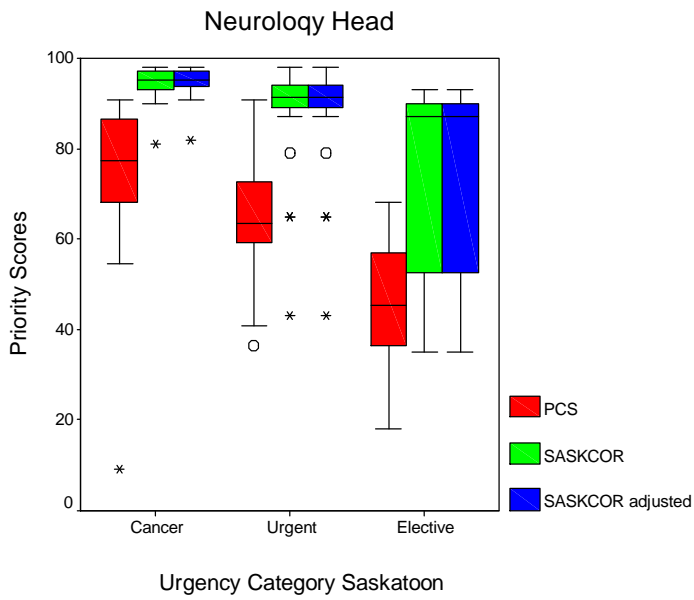
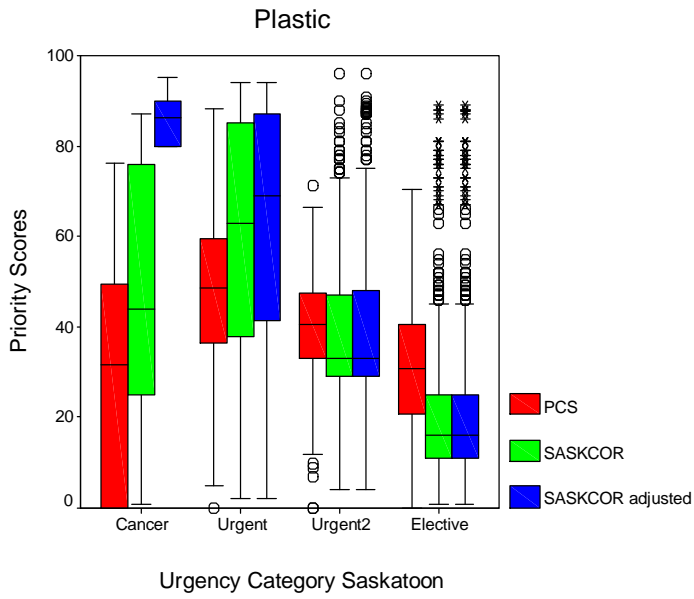


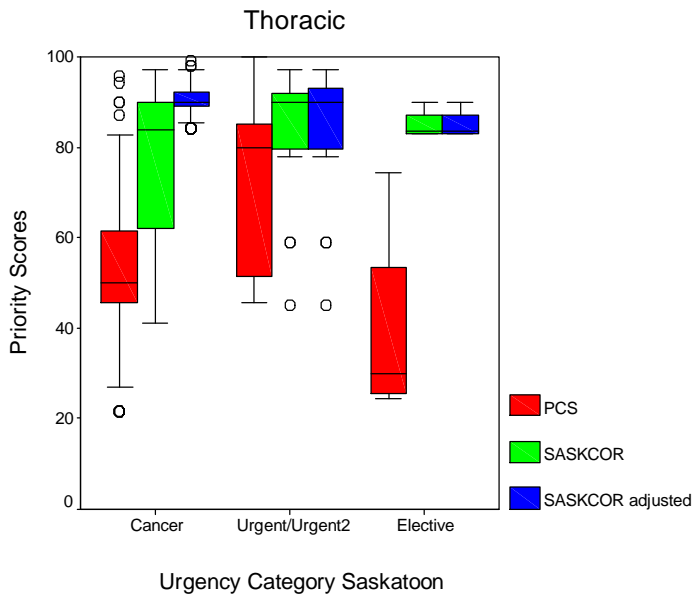
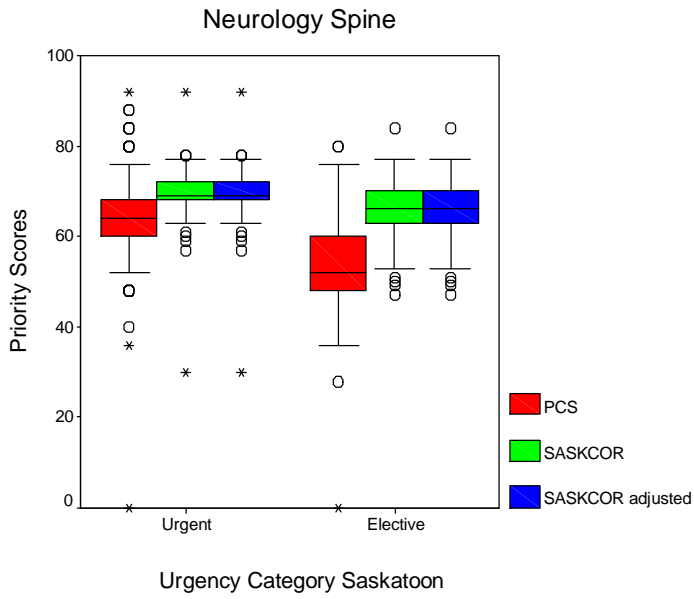


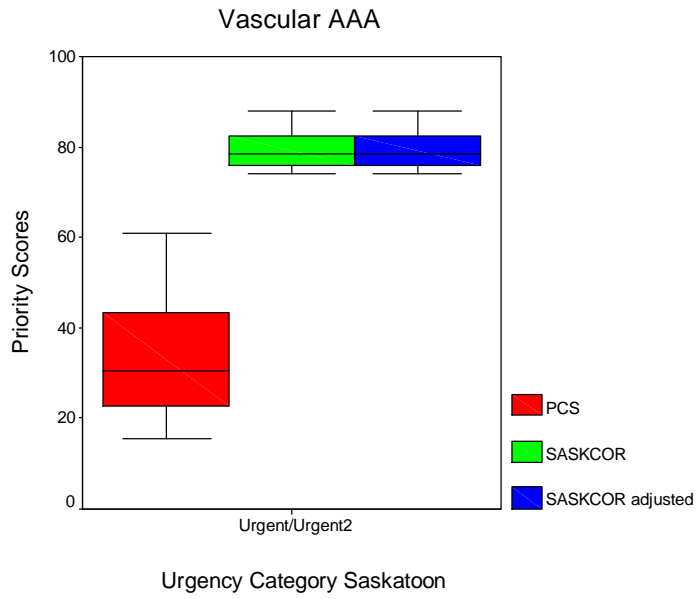
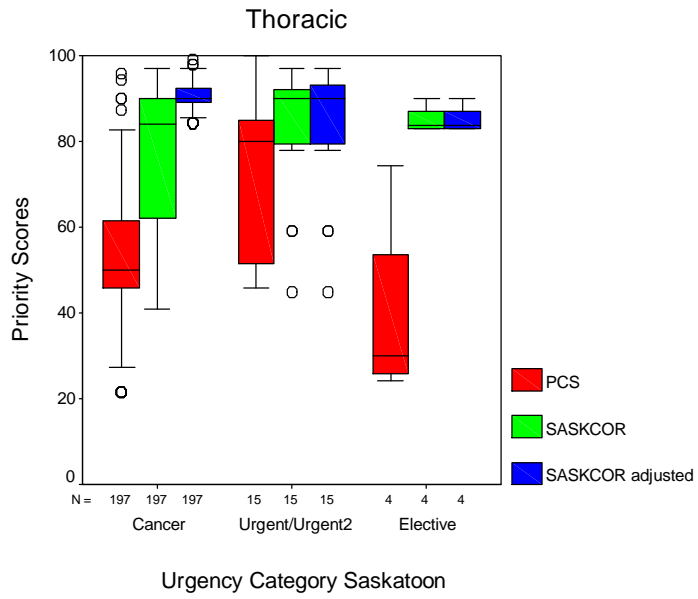


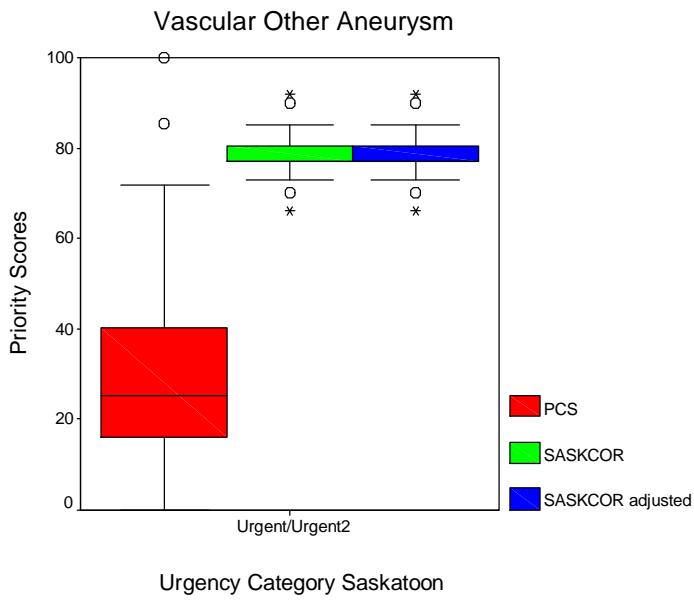
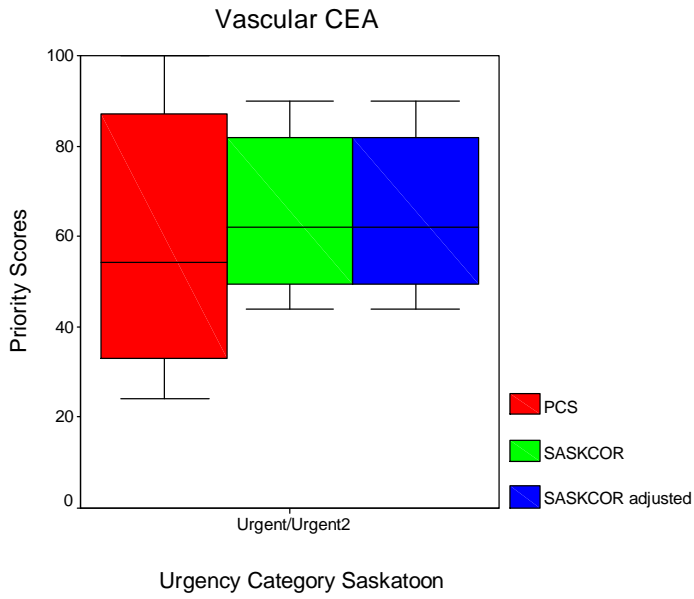


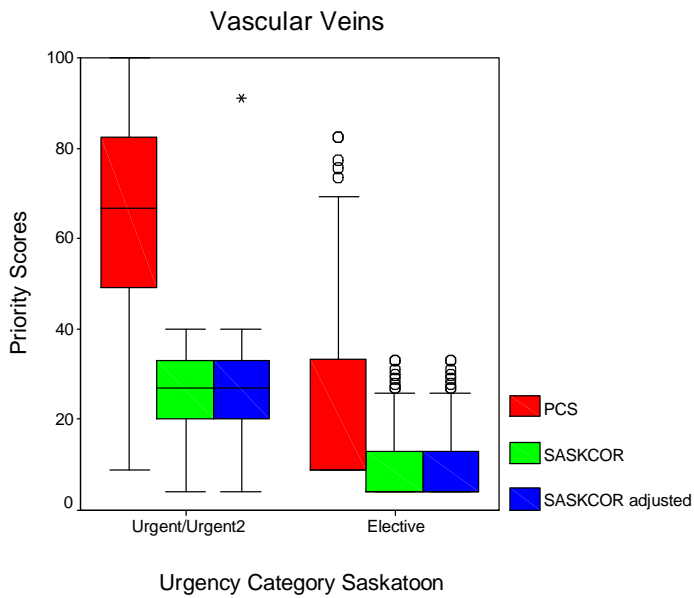
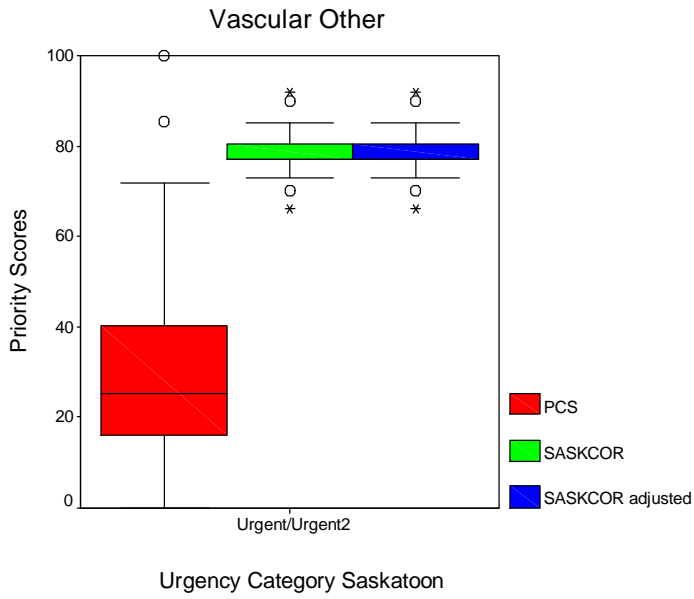








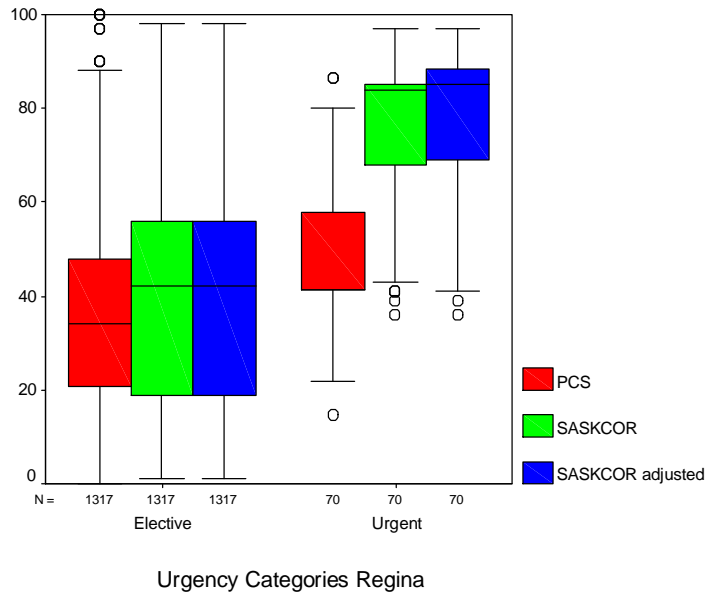




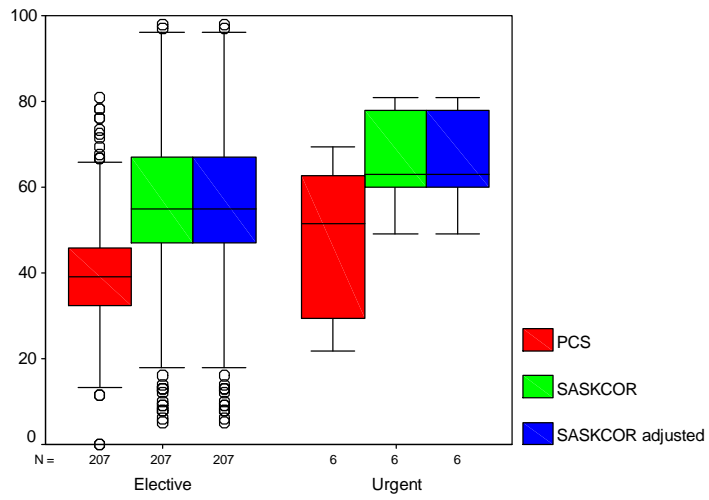
# Regina

Graphs were done only for those tools that had 2 urgency categories.

## ALL CASES

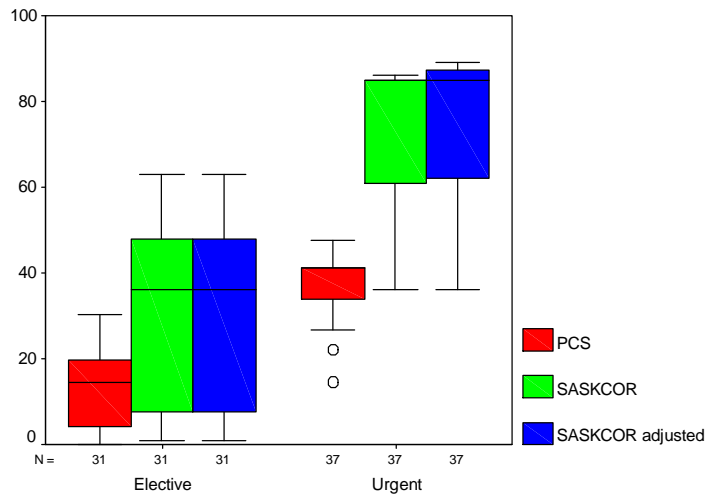


### Gynecology/Obstetrics

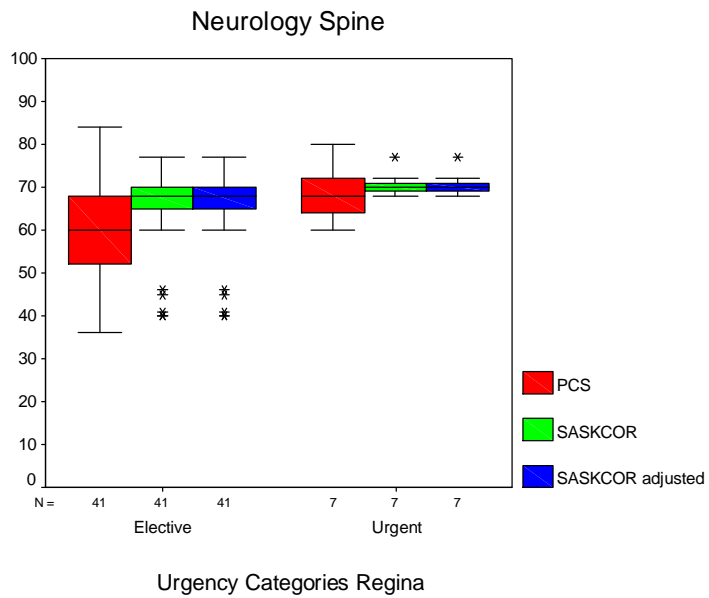
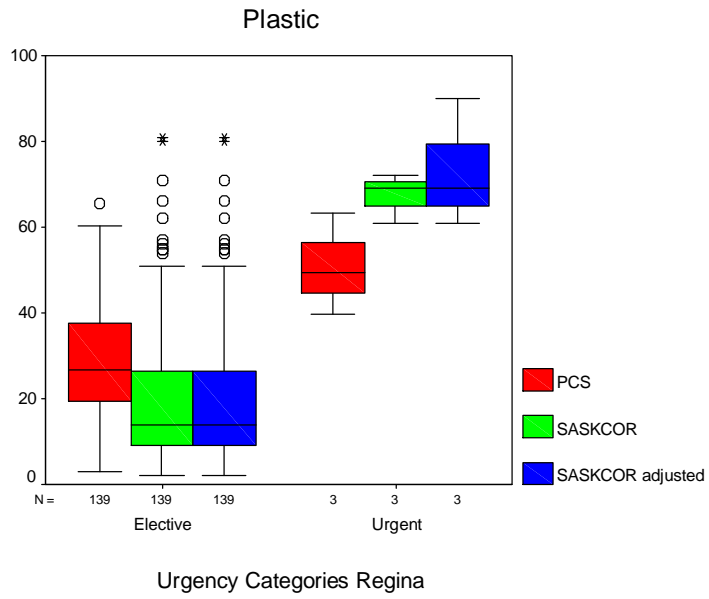


### Urgency Categories Regina

### Urology



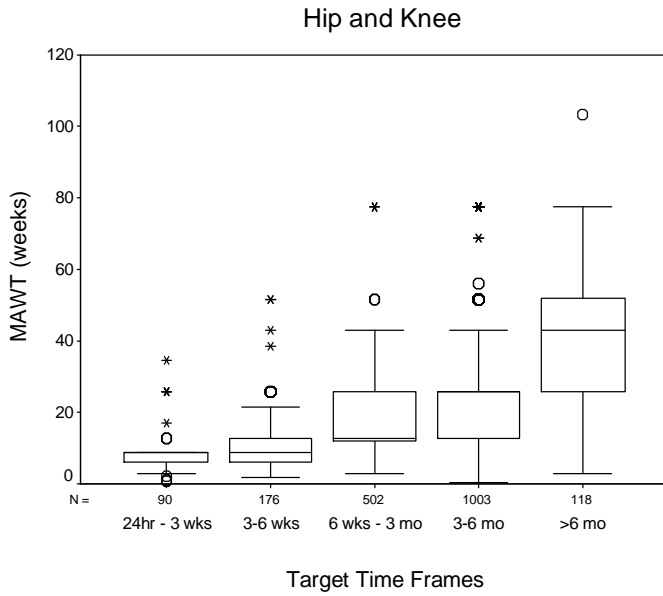
### Urgency Categories Regina



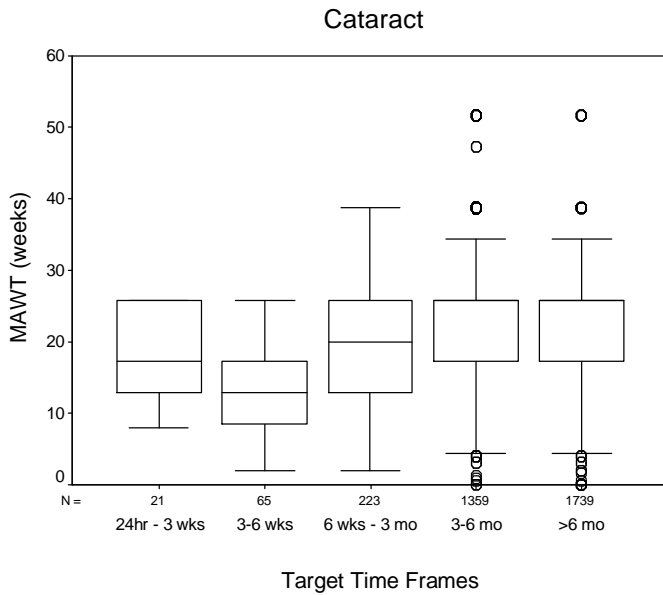
## APPENDIX J

### The Distribution of Maximum Acceptable Waiting Times (MAWT) for Target Time Frames

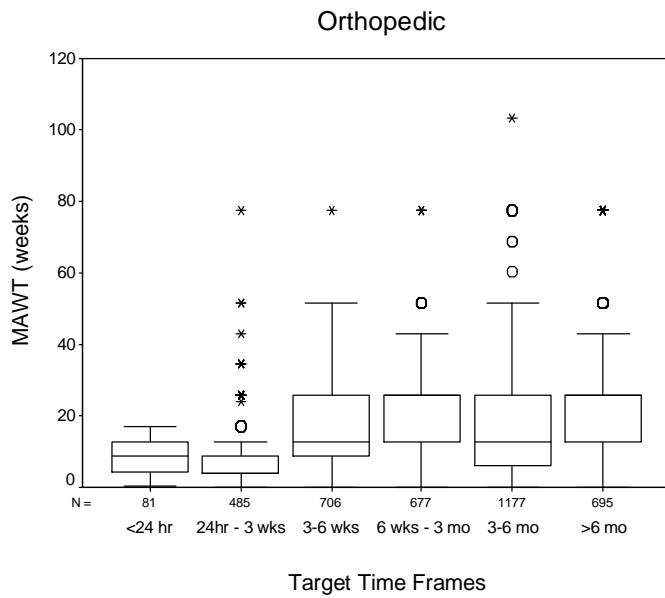
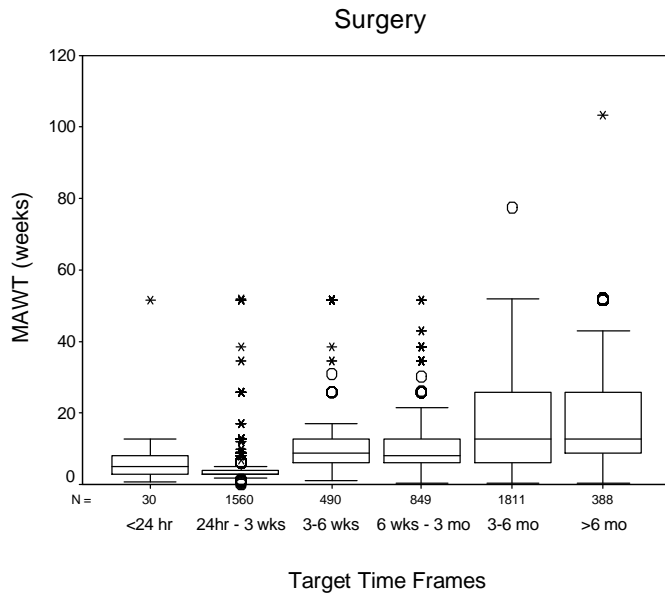
Note: The scale of the Y axis (MAWT) varies. Where the median is not clearly indicated on the graph, values are presented below the graph.



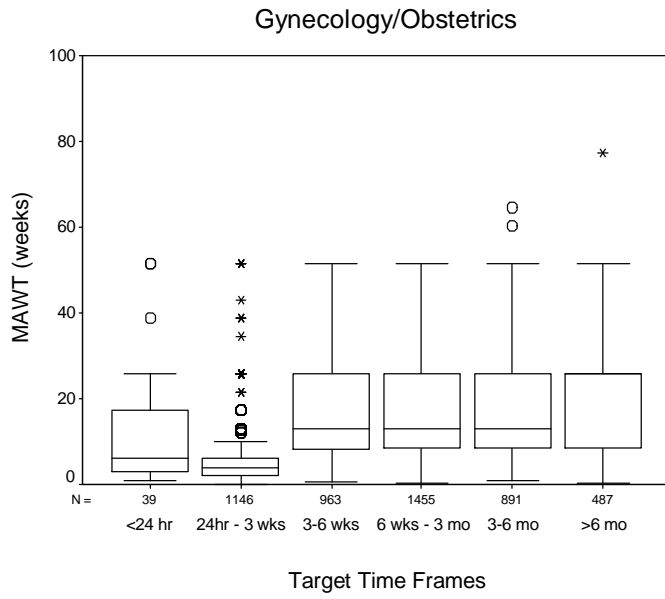
Median MAWT 3-6 mo = 26 wks



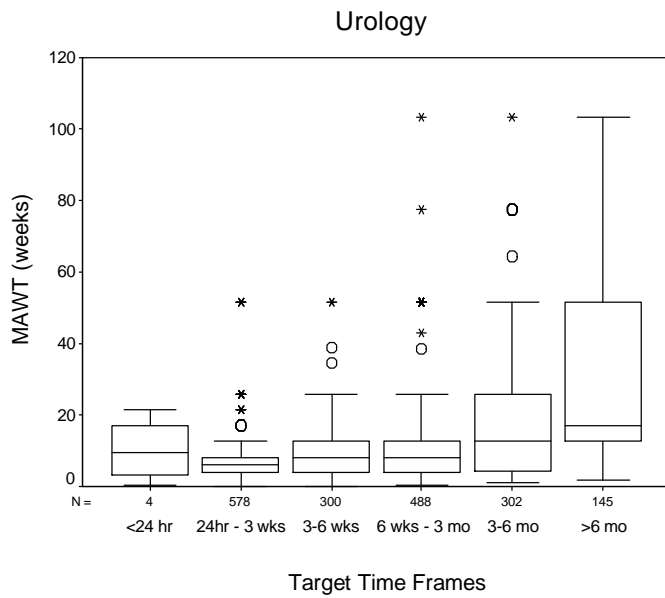
Median MAWT 3-6 mo = 26 wks; >6 mo = 26 wks.

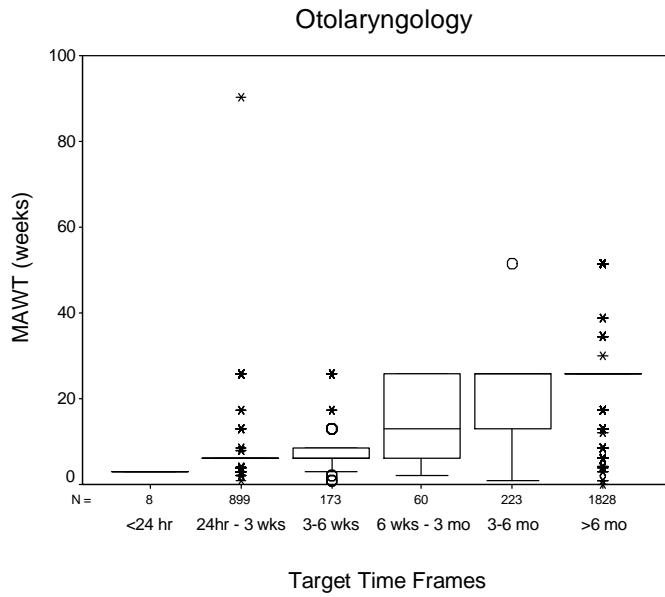


Median MAWT 6 wks – 3 mo = 26 wks; > 6 mo = 26 wks

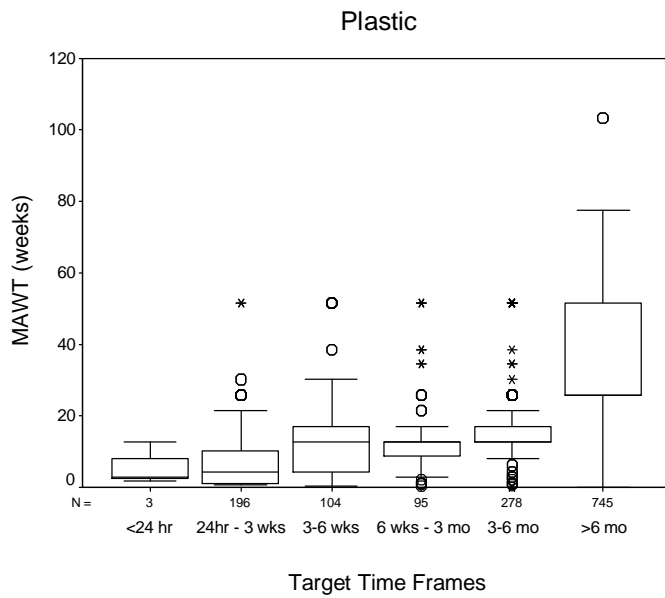


Median MAWT > 6 mo = 26 wks

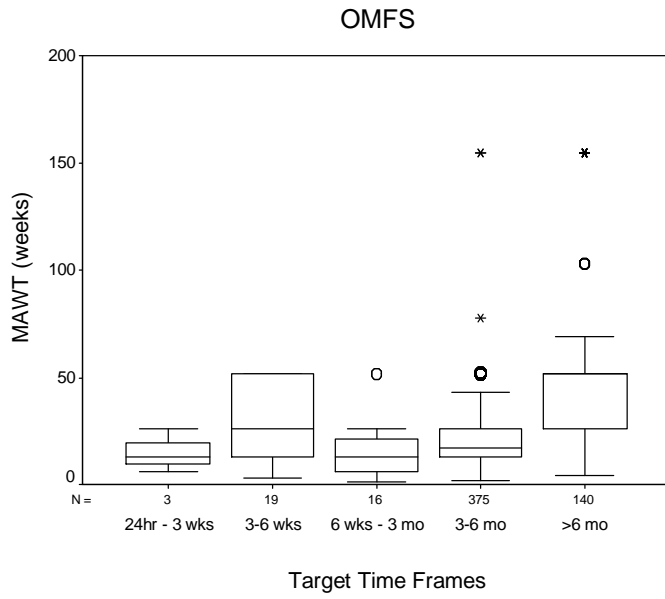




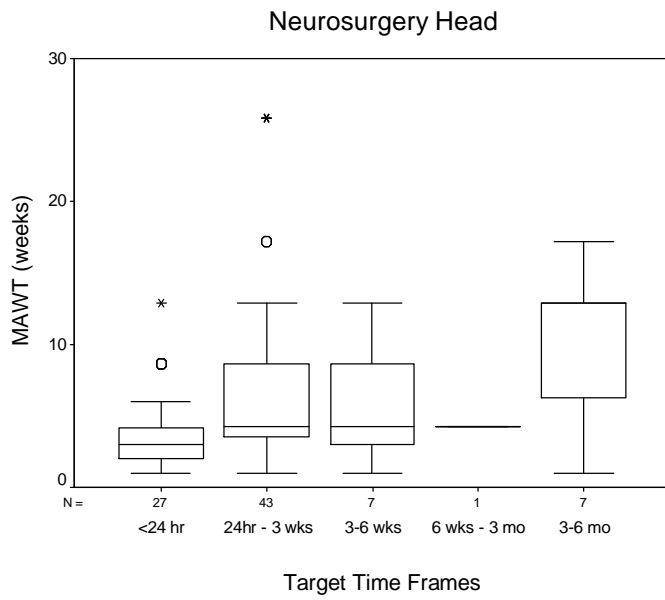
Median MAWT 3 – 6 mo = 26 wks



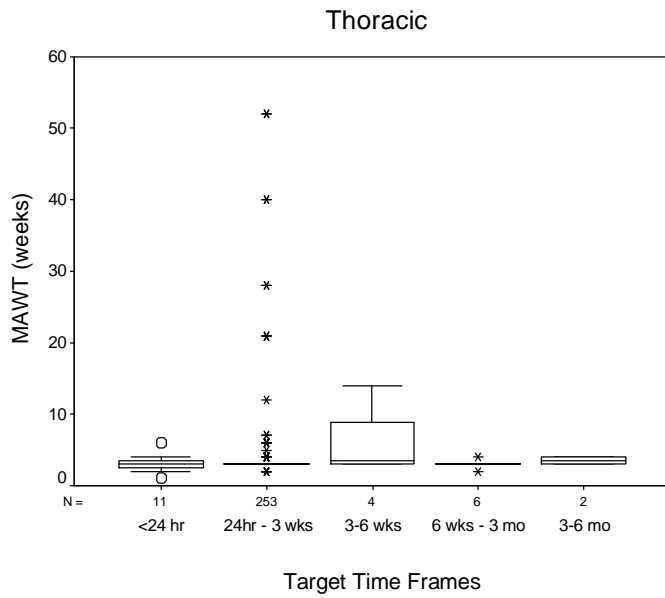
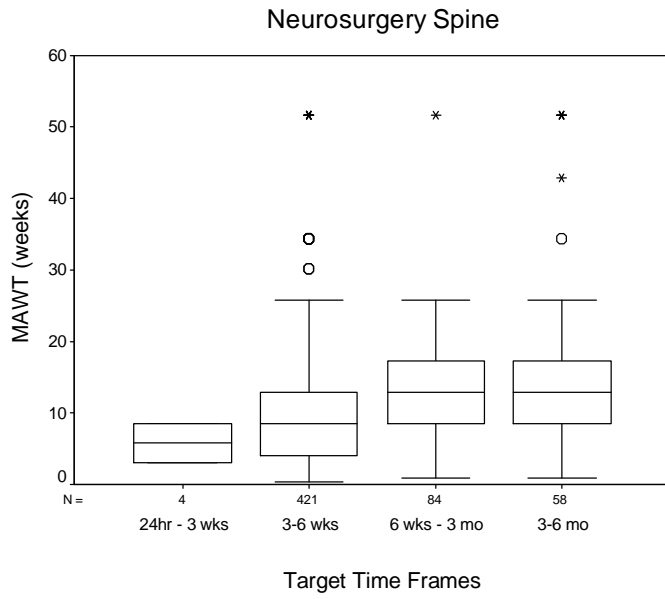
Median MAWT < 24 hr = 3 wks; 6 wks – 3 mo = 13 wks; 3 – 6 mo = 13 wks; >6 mo = 26 wks

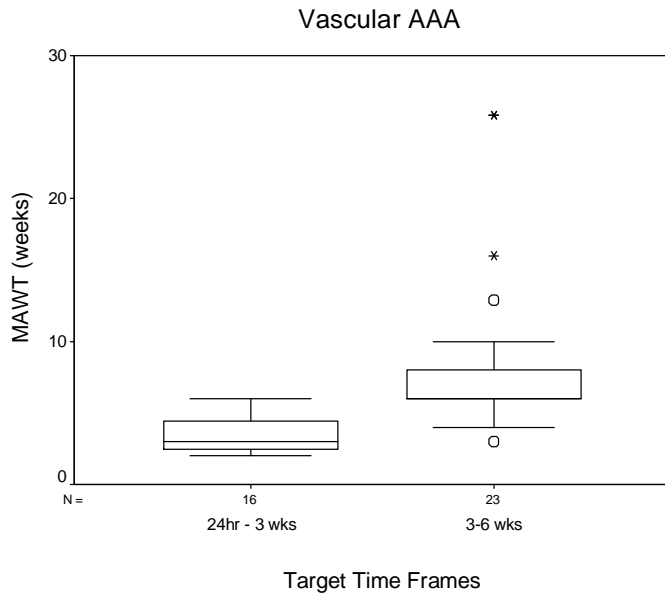


Median MAWT > 6 mo = 52 wks

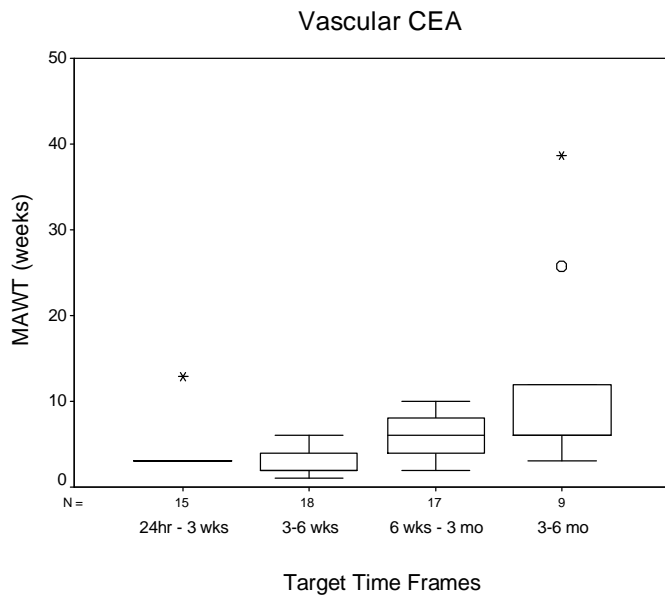


Median MAWT 3-6 mo = 13 wks

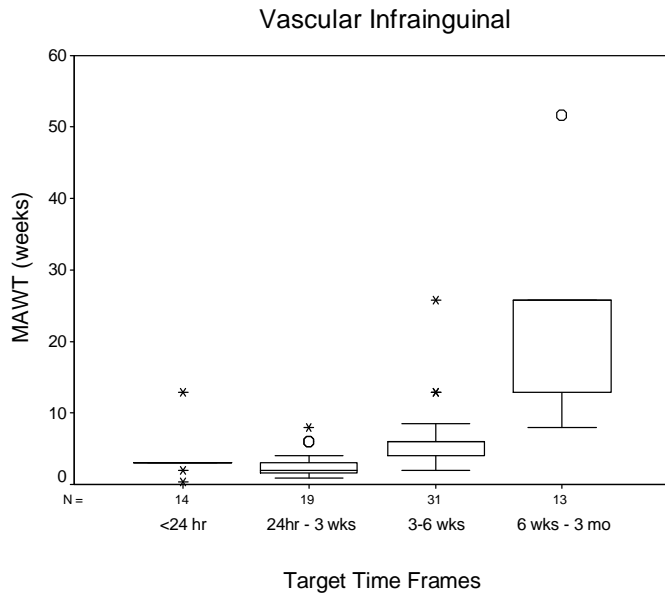




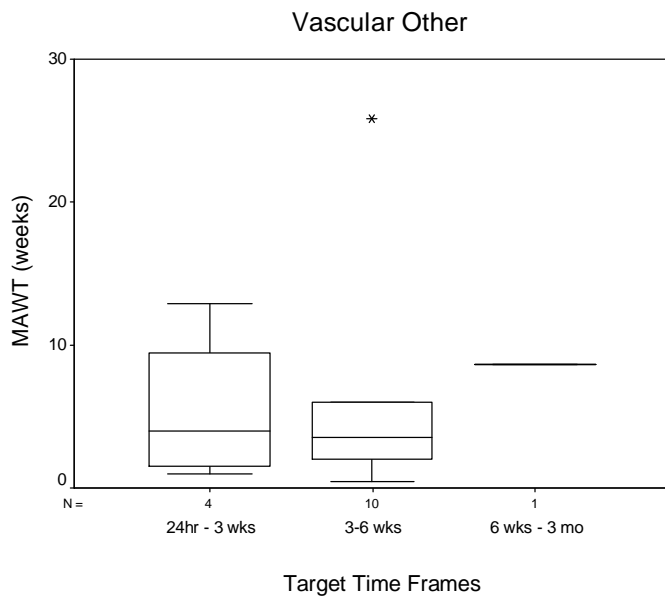
Median MAWT 3-6 wks = 6 wks



Median 3-6 wks = 2 wks; 3 - 6 mo = 6 wks



Median MAWT 3-6 wks = 6 wks; 6 wks - 3 mo = 26 wks



### Vascular Veins

