

Supplementary Table 1: All surgical procedures by type

Type of Surgery	Total	Neostigmine	Sugammadex
Anesthesia for Thoracotomy with Decortication	1	1	0
Ankle ORIF, Debridement Soft Tissue Extremity	1	1	0
Aortic Aneurysm Stent Graft	1	0	1
Appendectomy	2	2	0
Arterio-Venous Graft	1	1	0
Bilateral Inguinal Hemiorraphy with mesh	1	0	1
Bilateral Inguinal Hernia Repair	1	0	1
Bilateral Tubal Ligation	2	2	0
C Section	1	0	1
Carotid Endarterectomy – Right	1	0	1
Cerebral Aneurysm Stent	1	0	1
Cholecystectomy	3	2	1
Crani for Chiari Malformation	1	0	1
Craniotomy for Meningioma	1	0	1
Craniotomy for Tumor Excision	1	0	1
Csyto	3	1	2
Cystoscopy	1	0	1
Cystoscopy and Retrograde Pylogram and Basket Retrieval of Stone Left Ureter and Placement of Stent	1	0	1
Cystoscopy and Retrograde Pylogram and Basket Retrieval of Stone Left Ureter and Placement of Stent	1	0	1
Cystoscopy w/ Right Retrograde Pylogram Diagnostic Ureteroscopy w/ Renal Pelvic Biopsies and Washing Skin and Stent Exchange	1	0	1
D&C Diagnostic, Hysteroscopy W/Video	1	1	0
Debridement and Wound VAC change, Left Leg	1	1	0

Debridement Scalp Wound with Rotational Flap	1	1	0
Diagnostic Laparoscopy	2	0	2
Diagnostic, Hysteroscopy w/ Video	1	0	1
Discectomy Anterior Cervical With Fusion - 2 Level	1	0	1
Endoscopic Control of Epistaxis	1	0	1
Exam Under Anesthesia with Open Hemorrhoidectomy	1	0	1
Excision of Back Melenoma	1	0	1
Excision of Benign Lesion of Trunk	1	1	0
Excision of Pilonidal Cyst	1	0	1
Exploration of Femoral Artery	1	0	1
Exploratory Laparotomy	1	1	0
Exploratory Laparotomy Adult	1	1	0
Exploratory Laparotomy with Lysis of Adhesions	1	0	1
Exploratory Laparotomy, gastrostomy tube, sigmoidectomy with colostomy	1	0	1
Exploratory Laparotomy/Sigmoid Colon Resection with Colostomy Creation and Appendectomy	1	0	1
Femoral Artery Exploration/Repair, Femoral Popliteal Bypass Graft	1	1	0
Femoral Head Sub Zimmer Versys	1	1	0
Femoral Popliteal Bypass Graft	1	1	0
Functional Endoscopic Sinus Surgery	1	0	1
Hemiarthroplasty of Glenohumeral Joint	1	0	1
Hernia Repair	1	0	1
Hernia Repair Inguinal Adult Unilateral	2	1	1
Hernia Repair Umbilical Adult	1	1	0
Hip Total Joint Smith & Nephew Echelon	1	1	0
Hip Total Joint Zimmer Versys	4	3	1
Hysterectomy Laparoscopic Total	1	1	0
Hysterectomy laparoscopic Total with BSO	1	1	0
Hysterectomy Vaginal A & P Repair	1	1	0
Hysterectomy Vaginal with A & P Repair with BSO	1	1	0

I & D	1	0	1
I & D Wound Vac	1	1	0
I&D Abdominal Incision Wound	1	0	1
Ileostomy Closure	1	0	1
Incision and Drainage and Debridement of Abscess and Gangrene	1	0	1
Knee Total Joint Replacement Legion Right Knee	1	1	0
Knee Total Joint Revision	1	0	1
Knee total joint zim NEXGEN	10	6	4
Knee Total Joint ZIM NEXGEN (Right)	1	0	1
Knee Total Joint Zimmer Nexgen Bilateral	1	1	0
Knee Total Joint Zimmer, Nexgen Bilateral	1	1	0
L 3 4 5 Laminectomy	1	1	0
L Thoracotomy, Wedge Excision	1	0	1
I&d abscess	1	0	1
I&D Eternal Wound	1	0	1
I&D Right Open Tibia Fracture, ORIF Right Fibula, Ex-Fix Right Tibia, ORIF Left Femur	1	0	1
L3-L4; L5-S1 Decompression Laminectomy, L4-L5 Fusion	1	0	1
L4-5 Decompression, Laminectomy	1	0	1
Laminectomy Lumbar - 1 Level	2	1	1
Laminectomy Lumbar - 2 Level	2	1	1
Laminectomy Lumbar - 2 Level, Microdiscectomy	2	0	2
Lap Appendectomy	1	0	1
Lap Appy	8	6	2
Lap Assisted Robotic Ventral Hernia Repair	1	0	1
Lap Chole	4	2	2
Lap Chole IOC	1	0	1
Lap cholecystectomy	1	1	0
Lap diverting loop colostomy	1	1	0
Laparoscopic Appendectomy	2	2	0
Laparoscopic Bilateral Inguinal Herniorrhaphy	1	1	0

Laparoscopic Cholecystectomy	9	9	0
Laparoscopic Cholecystectomy W IOC	1	1	0
Laparoscopic Cholecystectomy w/ IOC	1	1	0
Laparoscopic Cholecystectomy w/ IOC, Possible Open Cholecystectomy with IOC	1	1	0
Laparoscopic Cholecystectomy/IOC	1	1	0
Laparoscopic Hernia Repair Inguinal	2	2	0
Laparoscopic Loop Colostomy	1	1	0
Laparoscopic Lysis of Adhesions, Possible Ex Lap	1	1	0
Laparoscopy Diagnostic	2	2	0
Laparoscopy Diagnostic, D&C Suction Curettage of the Uterus	1	1	0
Laparoscopy procedure on appendix	1	1	0
Laparoscopy Tubal, Hernia Repair Umbilical Adult	1	1	0
Laparoscopic Appendectomy	1	0	1
Laparoscopic Bilateral Hernia Repair Inguinal	1	0	1
Laparoscopic Cholecystectomy	8	2	6
Laparoscopic Cholecystectomy w IOC	1	0	1
Laparoscopic Cholecystectomy, Cholecystectomy Open No IOC	1	0	1
Laparoscopic Colostomy Closure	1	0	1
Laparoscopic Colostomy Creation	1	0	1
Laparoscopic Hernia Repair Inguinal	1	0	1
Laparoscopic Tubal Ligation	1	0	1
Laparoscopy Tubal	1	1	0
Laparoscopic Tubal Ligation Bilateral	1	0	1
Laprascopic Creation of Loop Colostomy	1	0	1
Laprosopic Appendectomy	1	0	1
Laryngoscopy CO2 Laser	1	0	1
LAVH	1	1	0
Left Craniotomy	1	1	0
Left Hip Closed Reduction	1	0	1
Left hip total joint revision	1	1	0

Left laparoscopic Ovarian Cyst	1	1	0
Left Total Knee Replacement	2	0	2
Left Total Shoulder Replacement	1	0	1
Lumbar 4 Laminectomy	1	0	1
Lumbar Decompression	1	1	0
Lumbar Five-Sacral One Microdisectomy Revision	1	0	1
Lumbar Laminectomy	5	2	3
Lumbar three-five Laminectomy Decompression	2	2	0
Mamoplasty Reduction Bilateral	1	0	1
Masectomy Simple, Sentinal Node Biopsy	1	1	0
Mass Resection	1	1	0
Microdisectomy Minimally Invasive	1	0	1
Microdisectomy	1	0	1
Microdisectomy Minimally Invasive	4	1	3
Minimally Invasive Left L4-L5 Microdisectomy	1	0	1
Minimally Invasive Left Lumbar Five-Sacral One Microdisectomy	1	0	1
Minimally Invasive Right Lumbar5-Sacral1 Decompression Laminectomy	1	0	1
Nasal Rhinoplasty w/wo Implant	1	1	0
Open Gastrostomy Tube Placement	1	1	0
Open Incisional Hernia Repair	1	1	0
Open Inguinal Hernia Repair	1	1	0
Orif Clavicle Left	1	1	0
Orif left ankle	1	1	0
ORIF Left Hip	1	0	1
ORIF Left Olecranon	1	0	1
ORIF Left Supracondylar Femur Fracture	1	0	1
ORIF Right Femur	1	1	0
Orif Right Hip	1	1	0
ORIF Right Humerus	1	0	1
Orif Right Proximal Humerus fx	1	1	0

Palindrome Cath Placement	1	1	0
Partial Excision of Lamina of Lumbar Vertebra	1	0	1
Partial Gastrectomy	1	1	0
R Carotid Endarterectomy	1	0	1
R Shoulder Scope	1	0	1
R Shoulder Surgery	1	0	1
Removal Femoral Loop Graft	1	1	0
Removal of Spinal Cord Stimulator Electrodes	1	0	1
Reverse Total Shoulder Arthroplasty	1	1	0
Revision Bilateral Breast Reconstruction	1	1	0
Revision L4-L5 Decompression	1	0	1
Right Carotid Endarterectomy	1	0	1
Right Hydrocelectomy	1	0	1
Right Shoulder Arthroscopy	1	0	1
Right TKR	2	0	2
Right Total Knee	1	0	1
Right Total Knee Replacement	2	1	1
Right Total Shoulder	1	0	1
Robotic Cholecystectomy	1	0	1
Robotic Cholecystectomy w/ Firefly	1	0	1
Robotic Cholecystectomy with Firefly	4	4	0
Robotic Incisional Hernia Repair	2	2	0
Robotic Inguinal Hernia Repair	1	1	0
Robotic Left Sigmoidectomy w/ Omental Flap	1	0	1
Robotic Nephrectomy	1	1	0
Robotic Partial Nephrectomy	1	1	0
Robotic Radical Prostatectomy	1	1	0
Robotic Total Colectomy	1	0	1
Robotic Total Hysterectomy	3	3	0
Robotic Total Hysterectomy	1	0	1

Robotic Umbilical Hernia Repair	1	0	1
Rt Needle Localization Breast Biopsy; Frozen Section	1	0	1
Sacral/Buttock Decubitus Debridement/Close	1	0	1
Second Surgeon, Laparoscopic Cholecystectomy w/ IOC	1	1	0
Shoulder Arthroscopy, Shoulder Rotator Cuff Expl/Repair, Carpal Tunnel Release/Decompression	1	1	0
Shoulder Arthroscopy Left	1	0	1
Shoulder Arthroscopy with RCP	2	2	0
Shoulder Reverse Total Zimmer	3	3	0
Shoulder Scope sad tendodesis rcr	1	1	0
Shunt VP/LP Removal	1	0	1
Sigmoidectomy with End Colostomy	1	0	1
Skin Graft	1	0	1
Surgical Laparoscopy with Appendectomy	1	1	0
Surgical Laparoscopy with Appendectomy	1	1	0
Surgical Laparoscopy with Cholecystectomy	1	1	0
Surgical Laparoscopy w/ Appendectomy	1	1	0
Surgical Laproscopy with Appendectomy	2	0	2
Surgical Laproscopy with Cholecystectomy	1	0	1
TAH/BSO	1	1	0
Tenck cath placement	1	1	0
Thoracic Laminectomy/Removal of Stimulator/Leads, Flap Reconstruction Trunk	1	0	1
Thoracoscopy; Thoracotomy Right	1	0	1
Thoracotomy Left, Wedge Excision Left Lower Lobe	1	0	1
Thoractomy	1	1	0
Thyroidectomy	2	2	0
Tonsillectomy	1	0	1
Total Abdominal Hysterectomy w/ Bilat	1	1	0
Total Hip Replacement	1	0	1
Total Shoulder	1	1	0

Total Thyroidectomy	1	0	1
Total Vaginal Hystectomy	1	1	0
Transurethral Resection Bladder Tumors	1	1	0
Transurethral Resection Prostate	1	1	0
TURBT	3	0	3
Umbilical Hernia Repair	1	1	0