# Surgery

#### **Process**

#### Members:

- Ronnie Rosenthal, MD, VISN 1 Chief Surgical Consultant, Chief of Surgery, Connecticut VA Health Care System
- Robert Zwolak, MD, Chief of Surgery WRJ VAMC and Acting Chief of Surgery Manchester VA Medical Center
- Kay Leissner, MD, VISN 1 Anesthesia Lead, Chief of Anesthesia, Boston VA Health Care System
- ❖ Frederick Burgess, MD, Chief of Anesthesia/Pain Providence VA Medical Center
- ❖ Angelo-Pete Horatagis, MD Gastroenterologist, Manchester VA Medical Center
- ❖ Alana Santaro, OD, Optometrist, Manchester VA Medical Center
- John Mcnemar, CRNA, Manchester VA Medical Center
- Lisa Ryder, RN, VISN 1 Surgical Nurse Lead, WRJ and Manchester VASQIP Nurse
- Denise Ormrod, RN, Nurse Manager OR/PACU Connecticut VA Health Care System
- Michelle Andrejak, Nurse Manager Surgery, Manchester VA Medical System
- Andrea Kushman, V1 HSS for Surgery and Medicine

The Task Force subgroup on surgery was led by Dr. Ronnie Rosenthal, the VISN 1 Chief Surgical Consultant, and was made up of multidisciplinary subject matter experts in surgery, medicine, nursing and anesthesia from both the Manchester VAMC and other sites across VISN 1. Additionally, Dr. Michael Kozal and Dr. Ronnie Marrache, the VISN 1 Medicine Service Line Director and Assistant Director, were included to provide insight into how Surgery and Medicine can work together to better serve all the health needs of the Veteran population.

In developing their recommendations, the subgroup members reviewed data on the current state of surgical services provided at the VAMC, as well as anticipated trends in the Veteran population and the surgical workload moving forward. The group completed site visits and listening sessions with surgical and medical (GI) providers and surgical nursing staff at the VAMC on September 12, 2017 and September 19, 2017. Finally, the group reviewed policies and procedures related to the surgical services currently in place at the national and VISN levels, as well as locally at the VAMC. Below, is a complete list of data sources used by the surgical subgroup.

- Manchester Non-VA Outpatient Surgery
- Utilization by Geography
- Manchester Surgical Specialty Appointments FY16 and 17
- Manchester Patients Discharged from other VISN 1 Facilities FY 2016
- Manchester Inpatient Scenarios data
- Manchester Veterans with a VA CITC Discharge in FY16
- ❖ Manchester Veterans with a VA Inpatient Discharge in FY16
- VA and Non VA Manchester Surgical Procedures by ICD and CPT
- SL Manchester Encounters FY 16 and 17
- VISN 1 Discharges with DRG Weighted Value
- ❖ 2016 VA Enrollee Health Care Projection Model- Base Year 2015
- ❖ NSO VASQIP report FY17 3rd Quarter
- Operating Room stats FY15018
- NH Inpatient Model Data
- Facility and Operating Room costs

The subgroup presented its preliminary analysis to the full Task Force at the face to face meeting on October 31, 2017.

## **Current Status of Surgical Services at Manchester**

It is clear from our review that surgical services provided on site at Manchester have been eroded over the past 5 years and no longer meet the needs of the Veteran population of New Hampshire.

The Manchester OR was closed for renovations from approximately July 2012 to July 21, 2014. Per the Surgical Nurse Manager, they were still ramping up services when the flood occurred on July 19, 2017. OR 2 has been closed since October 2016 due to a cluster fly issue. Prior to that, it was not used for approximately 3 months in the fall of 2015.

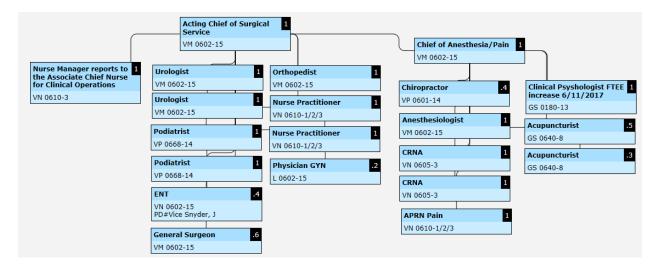
The Manchester Surgical Service is currently classified as a Basic Ambulatory Surgical Center (See Ambulatory Surgery Complexity policy Directive 2011-037). As such they meet the infrastructure requirements to do a wide variety of lower risk procedures in General Surgery (including Breast, Soft tissue, anorectal), Podiatry (foot), ENT, Eye, Facial/Plastics, Gynecology, Orthopedics, Thoracic, Urology and Vascular surgery. Table 1 shows the procedures (in green) that are currently performed at Manchester and procedures performed in the past (in orange).

**Table 1. Past and Current Surgical Procedures at Manchester** 

	Ambulatory Basic (2861 CPT codes)	Ambulatory Advanced (416 CPT codes)
General	Excision of skin masses (BCCA, SCCA, lipomas, etc.) I&D abscess/perirectal abscess I&D/excision pilonidal cyst Laparoscopic repair of umbilical/spigellan/ventral/epigastric hernia Laparoscopic repair of inguinal/ incisional hernia Inguinal hernia repair Colonoscopy/sigmoidoscopy/ERCP/EGD Mediport placement	Axillary lymphadenectomy Laparoscopic cholecystectomy/IOC Incisional/ventral hernia repair
Orthopedics	Knee arthroscopy/meniscectomy Andle arthroscopy Shoulder/elbow/wrist arthroscopy Shoulder arthroscopy/Rotator cuff repair/acromioplasty ORIF andle fracture Repair Achilles tendon I&D leg abscess/hematoma Hand surgery (ganglion/trigger finger) Excision olecranon bursa	Open treatment patella fracture Hip arthroscopy
Plastics	Repair entropian Repair ectropian	Reduction mammoplasty Mastopexy Lipectomy/panniculectomy (removal excessive skin)
Ophthalmology	Cataract /IOL	
Urology	Vasectomy Excision spermatocele Orchiectomy Penile prosthesis placement Circumcision Male sling procedure Cystoscopy/verteroscopy/placement ureteral stent Laser prostatectomy TURBT (small tumor) hydrocelectomy	TURBT (medium and large tumors) TURP Urethroplasty Insertion of bladder neck sphincter
Pain	Epidural steroid injection SI joint injection Facet and transforaminal blocks	
ENT	Thyroid lobectomy Esophageal dilation Microlaryngoscopy/blopsy Nasal endoscopy/ethmoidectomy/frontalsinus_explore/etc.	Tracheal stoma revision w/flap UPPP
GYN	Leep Colposcopy	Hysteroscopy Salpingo-oophorectomy (removal tube/ovaries)
Podiatry	Ankle arthrodesis Transmetatarsal amputation Hammertoe arthroplasty bunionectomy	Open treatment of ankle fracture with internal fixation
Vascular	Vein stripping/stab phlebectomy Temporal artery biopsy AV fistula	

# **Staffing**

Figure 1. Current Surgery Staffing at Manchester



\*\*Optometry currently reports directly to Chief of Staff instead of Surgery. There is also a 1.0 FTE Urology NP that is aligned under nursing instead of Surgery. \*\*

#### **Proposed Staffing to Meet Current Demand:**

- Chief of Surgery 1.0 FTE (might combine with another specialty)
- General Surgeon 1.0FTE (fill retirement)
- ENT Surgeon 0.4FTE (fill current vacancy)
- Ophthalmologist 0.4FTE (new to jump-start program and also to propose realignment of Eye Care back under Surgery)
- Surgical Service AO 1.0 FTE (approved but needs to be filled)
- ❖ Anesthesiologist 1.0 FTE (new, needed to increase this service)
- ❖ Anesthesia Tech 1.0 FTE (new, need tech support for this service)
- ❖ GYN (female gender) 0.1 FTE, (new, preferred by many female patients)

#### **Equipment** (Including the gaps):

Urology: Manchester just received a large new inventory of scopes (prior to the flood in July 2017).

ENT: Requires a complete overhaul of equipment and instruments to start a meaningful ENT surgical program:

- \* Replacement of following current scopes is needed:
- ❖ Larngofiberscope 12336
- Laryngoscope 19345
- ❖ Video Rhinolaryngoscope 20722
- ❖ Video Rhinolaryngoscope 20723 (This has a replacement date of MAR 2, 2022)
- ❖ Video Rhinolaryngoscope 25078
- Monitor/printer
- ❖ Depending on the scope of a new ENT's practice and the procedures they have the ability to perform; Manchester would need to purchase additional new equipment. For example, they could do rhinoplasty, septoplasty, parotid tumors, thyroidectomy, etc. under ambulatory basic but would need a provider with those skill sets and the associated equipment.

Podiatry: Requires basic general/vascular instruments, might need an additional C-arm.

Ophthalmology: To re-start this program, it would require a \$50,000 "Lenstar" machine to determine shape and power of lens needed for cataract surgery.

Gynecology: Loop Electrosurgical Excision Procedure (LEEP) equipment needed.

<u>Sterile Processing Service (SPS) capacity to support surgical services (including</u> the gaps):

SPS states that currently, surgical services are one of their smallest customers.

Medical Surgical Technicians (MST): At capacity, no need for expansion for current demand.

Reusable Medical Equipment (RME) Coordinator/Educator: Currently vacant, not yet approved. Necessary to ensure quality assurance measures are met with staff training, equipment updates released by manufacturers and reflective documentation to meet regulation needs.

Heating, Ventilation, and Air Conditioning (HVAC) system: There is a current need for proper system to support guidelines necessary for room pressure.

RME Storage: Currently needed. The parameters required to keep RME safely stored (temp/humidity, pressure, air exchanges) is impossible to achieve with the current building system. There is a FY18 planning stage renovation project to fix the HVAC and RME storage.

There was a renovation of SPS less than 5 years ago but the HVAC and RME storage concerns were not considered or addressed that time. In consideration of that, it is recommended that more SPS expertise and input be considered for future Manchester plans.

#### **Surgical Procedures:**

Some of the community referral data around specific procedures is still being collected and will be inputted in the tables when available.

At present, there are no operating room procedures performed in ENT, Eye, Plastics, Podiatric Surgery, Thoracic or Vascular Surgery, and relatively limited services in Urology. In fiscal year 2016, there were 1025 cases done in the OR's at the Manchester medical center, only 423 of which were actual ambulatory basic surgical cases; the remainder (602) were GI endoscopy performed in the OR suite (for trends in cases numbers 2014-2017 please see Table 2 and Figure 1). The types of cases done are displayed in Table 3. A total of 1501 ambulatory basic surgical cases, which could have been done at the medical center, were sent to other VA's in the VISN such as White River Junction VA Medical Center (WRJ VAMC) and VA Boston Healthcare System (VA Boston HCS) or out to Community Care (Choice not included), because appropriate providers and equipment were not available at Manchester. (See Table 3) Cataracts represented 5% of all ambulatory basic cases sent out to both VA and Non-VA facilities; 28% of those cataract cases were sent to Boston VA HCS and 2% sent to WRJ VAMC. Only 3 cataract cases were sent out to Non-VA in the community (0.002 % of

ambulatory basic sent to community, but other eye care was sent to the community). The top four highest volume ambulatory cases sent to other VAs were Ophthalmology, Urology, General Surgery and ENT. Those accounted for 82% of the 416 ambulatory basic cases sent to other VAs. (See Table 5)

For example, since there are no Ophthalmology procedures completed at Manchester, the cataracts, oculoplastic and retina cases go out to another VA or the community. The Podiatrists are "medical" only so they do not perform a wide variety of forefoot operations typically done by surgical Podiatrists. Thus, a substantial amount of diabetic foot cases go out to another VA or the community. In Urology, Manchester performs basic cystoscopies but cannot perform many of the slightly more complex endourologic cases that are on the ambulatory basic list, because the facility lacks up-to-date scope equipment. For ENT, when Manchester had a provider, he completed only office evaluations. Thus, many ENT surgical procedures (including sinus surgery; more advanced laryngoscopies; lip, mouth and tongue surgeries; larger ear surgeries, etc.) all went to another VA or the community. Due to lack of plastics, any complex hand procedures that could not be done by the general orthopedic surgeon were sent out with all the other plastics surgery cases. Due to lack of a vascular surgeon, all varicose vein procedures are sent out. GYN only performed 1-2 procedures a year in the OR so everything else was sent out.

All surgical procedures beyond the basic ambulatory designation are either referred to Boston or WRJ, or sent on to the community. (See Table 4) There were 69 ambulatory advanced and 372 inpatient cases (127 standards, 187 intermediate, 44 complex) in FY 2016. Of the 44 complex cases, 75% were cardiac surgery and 67% of those were done at VA Boston. (See Table 6)

Quality control of surgical cases done in VA hospitals is achieved through the VA Surgical Quality Improvement Program (VASQIP). All eligible cases are reviewed by a trained reviewer to assess risk factors and identify formally defined outcomes. These data are collected nationally and reported back to sites quarterly in the National Surgery Office (NSO) report for quality improvement purposes. Only cases done on site are captured by the program. The number of assessed cases FY2013-2017 is shown in Figure 2.

**Table 2. OR Caseload Trend Over Time** 

OR Caseload Trend Over Time									
	FY13	FY14	FY15	FY16	FY17				
Anesthesia/Pain	0	0	0	0	0				
Cardiology	0	0	12	4	0				
Gen Surgery	0	6	69	108	85				
GI	0	0	0	602	774				
GYN	0	0	5	6	4				
ENT	0	0	0	0	0				
Ortho	0	0	32	86	69				
Pulmonary	0	0	0	0	0				
Podiatry	0	1	2	1	0				
Urology	0	77	321	218	186				
Total	0	84	441	1025	1118				

Figure 1. OR Caseload Over Time

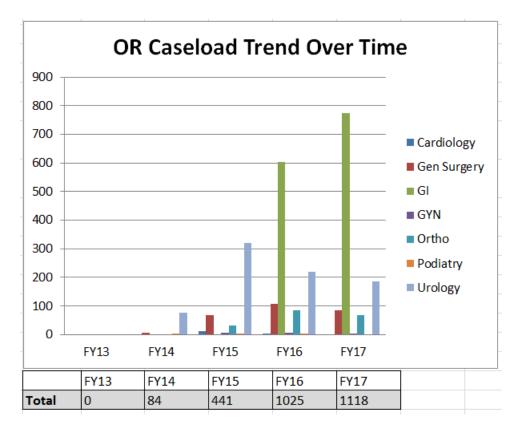


Table 3. Manchester Ambulatory cases by CPT completed at Manchester FY2016 per FY16 Operative Complexity standards.

Manchester Ambulatory Cases by CPT completed at Manchester FY201			
FY1 <u>6</u> Operative Complexity Stds	(608) Manchester		
AmbAdvanced	6		
AmbBasic	1007		
NoAmbSetting	0		
NotinASCM	0		
Unknown 0			
Grand Total	1013		

Table 4. Manchester Inpatient and Ambulatory Cases sent to other VAs and/or to Non-VA Care.

Inp	atient Surgical Cases for Manches	ter Patients in FY 2016			
Operative Complexity	(405) White River Junction, VT	(523) Boston Health Care System	NON VA	Grand Total	Percentage
Complex		30	14	44	11.8%
Intermediate	23	89	75	187	50.3%
Standard	14	44	69	127	34.1%
NotinSurgCM	1	1		2	0.5%
Unknown	5	7		12	3.2%
Grand Total	43	171	158	372	100.0%
Amk	oulatory Surgical Cases for Manche	ster Patients in FY 2016			
Operative Complexity	(405) White River Junction, VT	(523) Boston Health Care System	NON VA	Grand Total	Percentage
AmbAdvanced	16	11	42	69	4.3%
AmbBasic	168	248	1,085	1,501	94.3%
NotinASCM		2		2	0.1%
Unknown	3	16		19	1.2%
Grand Total	187	277	1,127	1,591	100.0%

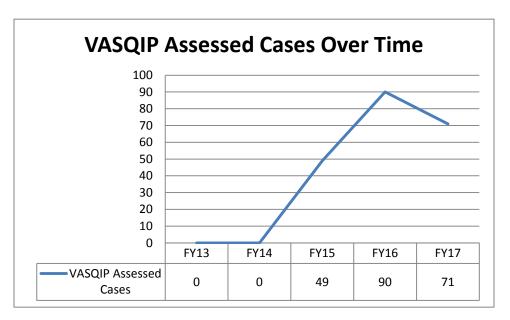
Table 5. Top 4 Highest Volume of Ambulatory Basic Cases Sent to Other VAs (WRJ and Boston), FY16

	Top 4 Highest Volume of Ambulatory Basic Cases Sent to Other VAs (WRJ and Boston) in FY16	
Ophthalmology	125	
Urology	114	
Gen Surgery	59	
ENT	44	
Total	342	

Table 6. Complex Surgical Cases Sent to Boston and Non-VA

Com	plex Case	es sent to Boston and Non-VA		
Specialty	CPT	CPT Description	Total cases	Sent To
ENT	31360	laryngectomy	1	Community
CARDIAC SURGERY	33141	transmyocardial revascularization	1	Community
CARDIAC SURGERY	33508	Coronary Bypass Surgery (CABG)	3	Community
CARDIAC SURGERY	33517	Coronary Bypass Surgery (CABG)	1	Community
CARDIAC SURGERY	33519	Coronary Bypass Surgery (CABG)	1	Community
CARDIAC SURGERY	33523	Coronary Bypass Surgery (CABG)	1	Community
CARDIAC SURGERY	33533	Coronary Bypass Surgery (CABG)	17	Boston
CARDIAC SURGERY	33533	Coronary Bypass Surgery (CABG)	3	Community
CARDIAC SURGERY	33880	Coronary Bypass Surgery (CABG)	1	Community
NEUROSURGERY	61783	Stereotactic biopsy	1	Community
CARDIOLOGY	0291T	Intravascular optical conference tomography	1	Community
		Removal of single or dual chamber		
		implantable defibrillator electrodes by		
ANESTHESIOLOGY	33243	thoracotomy	1	Boston
		Removal of single or dual chamber		
		implantable defibrillator electrodes by		
ANESTHESIOLOGY	33244	transvenous extraction	1	Boston
CARDIAC SURGERY	33405	Coronary Bypass Surgery (CABG)	2	Boston
CARDIAC SURGERY	33426	Coronary Bypass Surgery (CABG)	1	Boston
CARDIAC SURGERY	33860	Coronary Bypass Surgery (CABG)	2	Boston
GENERAL SURGERY	48150	Pancreatectomy	1	Boston
GENERAL SURGERY	48152	Pancreatectomy	1	Boston
GENERAL SURGERY	62223	Cerebral spinal fluid shunt	1	Boston
NEUROSURGERY	61140	Brain biopsy surgery	1	Boston
NEUROSURGERY	63277	Laminectomy	1	Boston
THORACIC SURGERY	43117	Esophagectomy	1	Boston

Figure 2. VASQIP Assessed Cases Over Time



<u>Outpatient clinics:</u> Surgery outpatient clinics in general surgery, otolaryngology (ENT), gynecology, optometry, orthopedics, pain, podiatry and urology are conducted on site. The clinic encounter and unique data for FY13-17 is shown in Table 7 and 8 and demonstrates an overall increasing trend.

**Table 7. 5 Year Trend - Manchester Surgical Clinic Encounters** 

Clinic Encounters	FY13	FY14	FY15	FY16	FY17	Sparkline
(142) ENTEROSTOMAL TX	60		2	6	2	
(401) GENERAL SURGERY	1,275	1,470	1,338	1,417	1,238	~~
(403) OTOLARYNGOLOGY (ENT)	983	885	961	754	258	
(404) GYNECOLOGY	139	160	188	202	204	
(408) OPTOMETRY	12,290	12,725	13,558	17,734	17,270	_
(409) ORTHOPEDICS/JOINT SURGERY	1,971	1,044	1,345	1,867	1,883	
(411) PODIATRY	9,190	9,275	9,546	10,304	9,782	
(414) UROLOGY	4,844	4,504	3,401	3,259	3,407	/
(416) PRE-SURG EVAL BY NON-MD					229	
(418) AMPUTATION CLINIC	116	114	78	67	68	_
(419) ANESTHESIA CONSULT, INCLUDING PRE-PROCEDURE AND EXPANDED POST-PROCEDURE ASSESSMENT	248	134	83	559	807	
(420) PAIN CLINIC	2,193	2,716	1,224	1,389	2,157	$\sim$
(424) TELEPHONE SURGERY	27	565	706	379	1,662	~
(428) TELEPHONE/OPTOMETRY	955	1,185	1,298	1,100	1,341	~
(429) PATIENT CARE IN OR		85	449	959	1,117	
(433) PRE-SURG EVAL BY NURSING	245	359	434	500	100	
(434) NON-OR ANESTHESIA PROC		77	267	362	298	
(435) SURGICAL PROCEDURE UNIT		6	1,052	383	370	^
(439) LOW VISION CARE	62	66	64	75	65	~^
Grand Totals	34,598	35,370	35,994	41,316	42,258	

Table 8. 5 Year Trend - Manchester Surgical Clinic Uniques

Clinic Uniques	FY13	FY14	FY15	FY16	FY17	Sparkline
(142) ENTEROSTOMAL TX	10		2	6	2	^
(401) GENERAL SURGERY	588	715	775	831	749	
(403) OTOLARYNGOLOGY (ENT)	739	643	733	620	235	)
(404) GYNECOLOGY	110	120	135	153	150	
(408) OPTOMETRY	6,420	6,739	6,893	7,540	7,542	
(409) ORTHOPEDICS/JOINT SURGERY	1,067	650	931	1,246	1,255	
(411) PODIATRY	2,756	2,868	2,997	3,060	2,970	/
(414) UROLOGY	2,575	2,416	2,116	2,119	2,108	/
(416) PRE-SURG EVAL BY NON-MD					224	
(418) AMPUTATION CLINIC	56	68	46	42	35	$\rangle$
(419) ANESTHESIA CONSULT, INCLUDING PRE-PROCEDURE AND EXPANDED POST-PROCEDURE ASSESSMENT	187	132	81	487	571	\
(420) PAIN CLINIC	587	776	503	513	824	>
(424) TELEPHONE SURGERY	24	257	347	229	738	~
(428) TELEPHONE/OPTOMETRY	785	956	1,047	874	1,051	<b>/</b>
(429) PATIENT CARE IN OR		83	390	887	1,038	
(433) PRE-SURG EVAL BY NURSING	231	322	391	464	99	_
(434) NON-OR ANESTHESIA PROC		76	254	338	286	
(435) SURGICAL PROCEDURE UNIT		6	697	372	354	~
(436) CHIROPRACTIC CARE				138	167	/
(439) LOW VISION CARE	57	64	60	71	62	~
Grand Totals	16,192	16,891	18,398	19,990	20,460	

<u>Academic Affiliations:</u> The VAMC supports academic affiliations in the following disciplines: optometry resident and student, and Certified Registered Nurse Anesthetist (CRNA). Currently, Optometry has three resident slots (two permanent and one for this academic year only) with New England College of Optometry in Boston. While there is an existing academic affiliation agreement with Northeastern University CRNA program, it is not currently utilized.

#### **Current Stakeholder Feedback**

Overall feedback from VA New Hampshire Vision 2025 Task Force Focus Group report on p.4:

"Veterans and Staff groups had differing opinions of what services should be provided at the Manchester VA in the future that was not available at the present. These ranged from care paid for by the VA in the community to the addition of outpatient surgery to a full community hospital-like center. All however did agree that Veterans want to receive care in a timely fashion at the closest location possible."

#### Veteran feedback included:

❖ There was some suggestion that for specialty services used less frequently, the use of specialty care obtained in local health care settings was appropriate. For this to work smoothly there needs to be an improvement of the CHOICE program. There are many full-service hospitals nearby that could be used if they could solve the payment issue".

❖ Additional specialty services should include orthopedics, same day surgery, urology, and vascular. Veterans find it difficult getting services beyond primary care at the CBOC. The distance, and in some cases getting transportation to other facilities for treatment, make it very difficult. There were also differing opinions about whether inpatient care should be offered at Manchester. "Specialty care like cardiac care for inputs should be regionalized. We do not need duplication of services, we can go to Catholic Medical Center (CMC) for expert care, i.e. Heart surgery, but we should be able to have the appropriate tests done at the VA and with the appropriate qualified staff." However, all agreed that the coordination of care was important if the Veterans were going to return to Manchester for outpatient follow up.

#### Manchester Staff feedback included:

- ❖ Staffing Concerns. There were concerns about the number of providers, "We are only a one deep provider site." Providing additional staff would improve access.
- Additional services that should be added to the Manchester VA include inpatient services, specialty services, and same day surgical procedures with a strong case management program to follow patients through care delivery. "If we are going to send our patients all the way to Manchester, we should be able to provide services like Podiatry, Cardiac Care, Surgery,......, ENT, Orthopedics and same day surgical procedures (cystoscopies, prostate biopsies, pulmonary procedures).

#### Boston and WRJ staff feedback included:

- ❖ In response to the suggestion for a small inpatient facility, concerns were raised about the quality of care that could be delivered with small volume, which has been projected.
- ❖ In addition, the development of inpatient programs such as surgery would require thoughtful consideration of the infrastructure of capability and capacity of staff to handle the processes required. The handling of surgical equipment would require an upgrade in SPC systems in addition to structural changes within the organization.
- ❖ Of note, ¼ of the inpatients at WRJ come from the Manchester catchment area. To add inpatient beds at Manchester would compromise WRJ demand. "A full-service hospital at Manchester would not be sustainable." Manchester is a rich environment for leveraging partners.

#### Congressional staff feedback included:

- ❖ Congressional staff reported hearing Veterans most frequently name the following additional services for the Manchester VA: expansion to....., ambulatory surgery, orthopedic care, expansion of alternative medicine (chiropractic and acupuncture), follow up care after an admission and Pain Management.
- Congressional staff stated that Veterans reported to them that they "don't want to get on a bus to Boston to have follow-up care after discharge from Boston.
- Congressional staff members report "less support for surgical procedures being offered at Manchester VA ...(on site)." "Surgery would be dependent on whether there was sufficient volume of services offered."
- Congressional staff reported concerns about the family needs in terms of location of services. "The provision of services should be local so that family can visit."

<u>Feedback from New Hampshire patients living in White River Junction's catchment area</u> (Littleton and Keene, NH) included:

- ❖ Veterans reported they did not get any services at the Manchester VA. They received care at the Littleton or Keene NH CBOC, at the White River Junction VA or in the private sector via CHOICE. In their own CBOC, they would like additional services such as Urgent Care availability, Podiatry and Chiropractic Care.
- Veterans stated they paid out-of-pocket for podiatry nail cutting, chiropractic care, and ambulance bills that they felt should be made available to them at their CBOC.
- ❖ Most upper New Hampshire veterans considered the drive time to a full service hospital as critical and would not use a facility in lower New Hampshire due to traffic issues and travel distance. They received their inpatient care at either private facilities or from the White River Junction VA.

# **Projected Workload for Surgery at Manchester**

Below are workload projections for the North Market, which includes New Hampshire and Vermont for the Inpatient and Ambulatory Surgery data set. The data was generated in July 2015, and the 5, 10, 15, and 20 year marks refer to 2020, 2025, 2030, and 2035, respectively. In 2025, the projected inpatient workload (BDOC and Beds) is projected to decrease by 43% in the north market. Whereas ambulatory surgical

specialties are projected to grow 26% in the North Market and remain stable in the ensuing 10 years.

Figure 4. North Market Data Sets: Acute Inpatient Surgery

North Market Data Sets

Acute Inpatient Surgery



Figure 5. North Market Data Sets: Ambulatory Medical and Surgical

North Market Data Sets

**Ambulatory Medical and Surgical** 



## **Projected Space Needs for Surgery at Manchester**

The projected space needs for surgical services will depend on the future range of services offered at the medical center. For example, an ambulatory basic OR requires no inpatient bed space, no ICU space, etc.

For the current designation (ambulatory basic) to accommodate bringing all outpatient service into the structure:

Clinic space required must support the 20,460 unique patients that are seen for 42, 258 outpatient encounters annually, with enough rooms to accommodate <30 day access in each of the surgical specialty clinics. This space should increase over the next 20 years to accommodate a projected 26% increase outpatient demand. This is a complex analysis beyond our groups' level of expertise.</p>

There should be 3-4 operating rooms to support the full range of 2000-2500 ambulatory basic cases annually.

## **Options**

# Option 1a: Build an ASC on site and set up community partnerships. VA surgeons using Non-VA space

The Surgery Subgroup submits the option of building an on-site Multispecialty Advanced Ambulatory Surgery Center (ASC) with inpatient care provided via community partnerships to increase functionality and meet VA-wide standards of care.

Rationale: The vast majority (87.5%) of the surgical procedure workload at Manchester is currently outpatient. Less than one third of the outpatient workload that could be accommodated on site is actually done on site. Projections show that outpatient workload is going to continue to increase by as much as 26%. Creating an advanced complexity outpatient facility would allow for accommodation of all the present and projected outpatient workload, and would allow specialties like Urology and Orthopedics to do more advanced procedures, which likely are under-represented in the current data. Feedback from Manchester providers in our listening sessions indicated that there is demand for more advanced outpatient surgery, which they have the skills and desire to perform.

Inpatient services would be provided by VA surgeons in community facilities. This would allow VA surgeons to operate at the top of their license and would provide clinical continuity for the patients close to home.

#### On Manchester Campus

- Advanced level Ambulatory Surgery Center (ASC)
- · Integrated Multispecialty outpatient surgical services
- Full service procedure area and Endoscopy suite (EGD, Colonoscopy, Bronchoscopy, Cystoscopy, ENT procedures, etc.)
- Urgent Care services limited to the hours of operation

#### On Community Partner Campus

- Transfer for inpatient service when needed for emergent situations according to the NSO guidelines for Advanced ASC.
- Elective Inpatient surgery
  - Non-VA space with VA surgeons
- Case management onsite by VA staff
- Contractual consultation and ICU services provided by community partner providers (Medicine, Radiology, Anesthesia, Nursing, etc.)
- Emergency off hour coverage via community partner alliance after hours

Table 9. Pros and Cons for Option 1a

PROS	CONS
FRO9	Inpatient surgical cases that go to the
<ol> <li>Would increase Veteran satisfaction by providing coverage for the vast majority of surgical care required, on site at Manchester, closer to home than at</li> </ol>	community partner will not get counted in VASQIP, which makes tracking quality and safety more difficult.  There may be challenges documenting
<ul> <li>another VA, and within a VA designated facility.</li> <li>Would improve the tracking of the quality of care and provide for better patient safety by allowing all outpatient</li> </ul>	care provided at the community partner site into the VA medical record. This may require dual documentation and complicate care coordination.  3. Credentialing providers at multiple
cases to be captured by the VA Surgical Quality Improvement Program (VASQIP).	community facilities may be challenging.  4. Community partners may not have
<ol><li>The provision of inpatient care in non- VA designed space would exempt the facility from multiple onerous and</li></ol>	capacity to meet VA space needs or may not want to enter into an agreement.
expensive NSO infrastructure requirements that are not required in community settings.	<ul><li>5. Contracting cost and coordination are difficult to quantify.</li><li>6. Advanced ambulatory designation</li></ul>
For the inpatient surgical cases, this partnership with community facilities would allow patients to receive care closer to home with easier access for	would require a robust transportation system to effectively manage urgent/emergency/intra-op/post-op needs.
visitation for families.	needs.
<ol> <li>Would allow VA surgeons to provide more complex outpatient surgery at the VA and inpatient surgery at the community partner which would help them maintain their skills and career</li> </ol>	
satisfaction. This would greatly facilitate recruitment and retention of highly skilled providers.	
<ol> <li>Would be in line with the trend in the private sector to provide more surgical care on an outpatient basis in ASC's.</li> </ol>	
7. Increased surgical specialist presence	
in the outpatient clinics during business hours would provide better consultation services for Manchester's on-site	
urgent care center.	

# Option 1b: Build an ASC on site and set up community partnership. VA staff using VA leased space.

The Surgery Subgroup submits the option of building an on-site Multispecialty Advanced Ambulatory Surgery Center (ASC) with inpatient care provided via community partnership) to increase functionality and meet VA-wide standards of care.

The rationale for this option is identical to the Option 1a in that this approach would accommodate current and projected demand for advanced outpatient surgery. The difference between this option and Option 1a is that inpatient services would be provided by VA surgeons, nurses and other personnel in leased space within community facilities. This would allow the VA staff to participate in all aspects of the inpatient care and would facilitate data collection and record keeping.

#### On Manchester Campus

- Advanced Ambulatory Surgery Center (ASC)
- Integrated Multispecialty outpatient surgical services
- Full service procedure area and Endoscopy suite (EGD, Colonoscopy, Bronchoscopy, Cystoscopy, ENT procedures, etc.)
- Urgent Care services limited to the hours of operation

# On Community Partner Campus (VA staff unless noted)

- Transfer for inpatient service when needed for emergent situations according to the NSO guidelines for Advanced ASC.
- Elective Inpatient surgery
  - Leased VA space serviced by VA surgeons and support staff
  - Leased space complexity infrastructure must meet NSO directive for level of cases done.
- Case management onsite by VA staff
- Contractual consultation and ICU services provided by community partner providers (Medicine, Radiology, etc.). Must meet NSO directive for level of cases done.
- Emergency off hour coverage via community partner alliance after hours

Table 10. Pros and Cons for Option 1b

#### **PROS** CONS There could be a significant cost to 1. According to the data above, this option would increase veteran ensure the required infrastructure was satisfaction by providing coverage for in place at the community provider the vast majority of surgical care setting to meet NSO directives for each required, on site close to home within a level of surgical care provided (Basic, VA designated facility. intermediate or advanced). Some of 2. Would increase veteran satisfaction by the services such as ICU care could be having VA personnel providing all provided by contract off the VA levels of care at the community partner; designated ward and will not therefore thereby helping veterans to identify be subject to this directive. their care as "VA surgical services". 2. There would be logistical issues getting 3. Under this option, both the Manchester the IT infrastructure in place in the leased space to allow access the VA surgical care and the inpatient care at the community provider location would medical record. be captured by the VA Surgical Quality 3. Under this option, VA would contract Improvement Program (VASQIP), with the community provider to provide thereby enhancing tracking of care various support services (ICU, quality and patient safety outcomes. Radiology, laboratory, etc.), which will 4. For the inpatient surgical cases, this require considerable electronic medical partnership with community facilities record and procedural coordination.4) would allow patients to receive surgical Credentialing providers at multiple community partner institutions may be care closer to home with easier access for visitation for families challenging. 4. Community partners may not have 5. Would allow VA surgeons to provide more advanced outpatient surgery at space capacity to meet all the VA the VA and inpatient surgery at the needs or may not want to enter into an community partner which would help agreement. them maintain their skills and career 5. Contracting costs and implementation satisfaction. This would greatly are difficult to anticipate 6. Advanced ambulatory designation facilitate recruitment and retention of highly skilled providers. would require a robust transportation 6. Would be in line with the trend in the system to effectively manage private sector to provide more surgical urgent/emergency/intra-op/post-op care on an outpatient basis in ASC's. needs. 7. Would offer better consultation services for an on-site urgent care center due to presence of surgical specialists.

# Option 2: Build a small full service hospital (Intermediate Complexity) on the Manchester Campus.

The Surgery Subgroup submits the option of building a full service hospital (Intermediate Complexity) on the Manchester Campus. There would be strategic alliances with local hospitals and VISN 1 (Boston, WRJ) for complex surgery.

Rationale: While both current and predicted workload numbers do NOT support the need for inpatient surgery beds, the Medicine service line believes that inpatient medical beds maybe indicated. If this is the case, inpatient beds should be supported by a functional surgical service. A combination of standard and intermediate complexity cases would meet the current surgical needs. Standard complexity designation alone would not justify maintaining a 24/7 inpatient OR presence, with an average of only 2.4 cases per week requiring admission. Even with adding the intermediate cases, the number of required inpatient admissions (6) would be very small and may not justify maintaining a 24/7 inpatient OR and ICU presence.

- Facility would provide intermediate surgery and medical services in a small inpatient (25-30 bed) footprint.
- Critical care services must be available and in compliance with NSO directives for intermediate care.
- Strategic alliances with local hospitals and VISN 1 (Boston) would still be necessary for complex surgery.
- Full service emergency services should be present in this model. Linkages with the community for complex emergency surgical procedures would be required.

# Table 11. Pros and Cons for Option 2

PROS	CONS
NH would no longer be the only state without a full service inpatient VA hospital.	The current surgical workload does not support an inpatient surgical service, without other extenuating factors, such as the questionable need for inpatient
<ol> <li>The majority of the surgical services would be provided within the VA, keeping quality and safety issues</li> </ol>	medicine beds.  2. By the time this inpatient facility is completed, the currently projected
within the VASQIP system. 3. Patients would receive care locally at the VA by all VA providers, simplifying contracting and other logistics for	workload would not be sufficient to justify any inpatient facility.  3. The cost to support the infrastructure for
services other than surgery such as radiology and medical consultations.  4. Less interruption in patient care and	intermediate surgery is enormous and would likely far exceed what the cost would be to provide this care in the community.
more continuity across services, such as medicine and psychiatry.	Care for complex surgery will still need to be provided in the community or other VA hospitals.      Recruitment in this area for specialty
	<ol> <li>Recruitment in this area for specialty surgeons has been difficult and is unclear that the financial and human resources are available to meet the staffing needs.</li> </ol>
	6. The required resources from other services (Medicine, Radiology, Pathology, etc.) are enormous and also subject to recruitment issues, as we have seen at other intermediate sites across the country.
	There is a lack of academic affiliations and residencies needed to support this infrastructure.
	8. Investing such huge amount of resources for such a small amount of surgical demand will jeopardize our ability to provide medical care in general throughout the VISN.
	<ol> <li>Without improved transportation system, the northern tier of NH will able not be, or willing, to take advantage of this inpatient facility.</li> </ol>

#### Recommendations

The Task Force subgroup for Surgery strongly recommends **Option 1a: and Advanced** designation Ambulatory Surgical Center with full service surgical specialty clinic space.

The vast majority (87.5%) of the surgical procedure workload at Manchester is currently outpatient. Less than one third of the outpatient workload that could be accommodated on site is actually done on site. Projections show that outpatient workload is going to continue to increase by as much as 26%. Creating an advanced complexity outpatient facility would allow for accommodation of all the presents and projected outpatient workload, and would allow specialties like Urology and Orthopedics to do more advance procedures, which likely are under-represented in the current data. Feedback from Manchester providers in our listening sessions indicate that there is demand for more advanced outpatient surgery, which they have the skills and desire to perform

Inpatient services would be provided by VA surgeons in community facilities. This would allow the VA surgeons to operate at the top of her or his license and would provide clinical continuity for the patients close to home.

The other options described, present either huge logistical issues or enormous financial commitments which are not justified by the current or projected workload numbers. The 1a option address the majority of the surgical needs within the VA structure and respects the veterans desires to have care close to home while still being fiscally responsible.

# **Appendix**

A. Facility Infrastructure requirements to perform Standard, Intermediate, or Complex Surgical Procedures (VHA Directive 2010-018)



B. Facility infrastructure requirements to perform Invasive Procedures in an Ambulatory Surgery Center (VHA Directive 2011-037)



Direct 2011-037 Facility infra req to per

# C. Larger Image - Table 1. Past and Current Surgical Procedures at Manchester

	Ambulatory Basic (2861 CPT codes)	Ambulatory Advanced (416 CPT codes)
General	Excision of skin masses (BCCA, SCCA, lipomas, etc.)  I&D abscess/perirectal abscess  I&D/excision pilonidal cyst  Laparoscopic repair of umbilical/spigelian/ventral/epigastric hernia  Laparoscopic repair of inguinal/incisional hernia  Inguinal hernia repair  Colonoscopy/sigmoidoscopy/ERCP/EGD  Mediport placement	Axillary lymphadenectomy Laparoscopic cholecystectomy/IOC Incisional/ventral hernia repair
Orthopedics	Knee arthroscopy/meniscectomy Ankle arthroscopy Shoulder/elbow/wrist arthroscopy Shoulder arthroscopy/Rotator cuff repair/acromioplasty ORIF ankle fracture Repair Achilles tendon I&D leg abscess/hematoma Hand surgery (ganglion/trigger finger) Excision olecranon bursa	Open treatment patella fracture Hip arthroscopy
Plastics	Repair entropian Repair ectropian	Reduction mammoplasty Mastopexy Lipectomy/panniculectomy (removal excessive skin)
Ophthalmology	Cataract /iOL	Tropicosas ne ma ence
Urology	Vasectomy Excision spermatocele Orchiectomy Penile prosthesis placement Circumcision Male sling procedure Cystoscopy/ureteroscopy/placement ureteral stent Laser prostatectomy TURBT (small tumor) hydrocelectomy	TURBT (medium and large tumors) TURP Urethroplasty Insertion of bladder neck sphincter
Pain	Epidural steroid injection SI joint injection Facet and transforaminal blocks	
ENT	Thyroid lobectomy Esophageal dilation Microlaryngoscopy/biopsy Nasal endoscopy/ethmoidectomy/frontalsinus explore/etc.	Tracheal stoma revision w/flap UPPP
GYN	Leep Colposcopy	Hysteroscopy Salpingo-oophorectomy (removal tube/ovaries)
Podiatry	Ankle arthrodesis Transmetatarsal amputation Hammertoe arthroplasty bunionectomy	Open treatment of ankle fracture with internal fixation
Vascular	Vein stripping/stab phlebectomy Temporal artery biopsy AV fistula	