REQUIRED BUSINESS PLAN FORMAT FOR
PROPOSED RESTRUCTURING OF CLINICAL PROGRAMS OR SERVICES
REQUIRING UNDER SECRETARY FOR HEALTH APPROVAL

1. VETERANS INTEGRATED SERVICE NETWORK (VISN) #2

2. FOR FURTHER INFORMATION CONTACT:

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3. LOCATION FOR PROPOSED PROGRAM OR SERVICE:

VAMC Name: New York Harbor Healthcare System
Campus: Brooklyn (630A4)
VAMC City: New York (Brooklyn)
VAMC Clinical Service: Surgery, Brooklyn Campus
Inpatient/Outpatient: Inpatient

4. PROPOSED MODIFICATION OF MAJOR CLINICAL PROGRAM OR SERVICE MEETS THE FOLLOWING CRITERIA:

__X___ **a. Modification of an existing clinical program at the facility that involves a significant decrease in complexity.**

_____ b. Initiation or expansion of a clinical program that requires certification by an external organization, such as the initiation of radiation oncology or nuclear medicine services not previously performed at a facility.

_____ c. Significant increase in the volume of existing procedures (i.e., more than (>) 50 percent increase in baseline workload) expected to require additional equipment, space, staffing and training.

5. DESCRIPTION OF PROPOSED CLINICAL PROGRAM OR SERVICE RESTRUCTURE:

New York Harbor Healthcare System proposes to change its Brooklyn campus National Surgery Office designated operative complexity from "Complex" to "Ambulatory Advanced". The current VANYHHS Brooklyn campus inpatient surgical cases can be accommodated within the facility at the VANYHHS Manhattan campus without affecting access to care or wait times for complex surgical procedures.

6. JUSTIFICATION FOR REQUEST

a. **General description of the proposed program or service closure**: The proposal is to change the designated operative complexity of the VANYHHS Brooklyn Campus surgical program from "Complex" to "ASC Advanced". New York Harbor Healthcare System is unique within the VHA in that it is the only VA facility in the country that operates two separate complex surgical programs at its two acute care medical campuses which are located 12 miles apart. Comparable multi campus VA facilities and their NSO surgical complexities include: **VA Boston HCS** (West Roxbury IP Complex; Jamaica Plain ASC Advanced (5 miles apart)); **Tennessee Valley HCS** (Nashville IP Complex; Murfreesboro ASC Advanced (33 miles apart)); **Puget Sound HCS** (Seattle IP Complex; Tacoma ASC Basic(34 miles apart)); **Eastern Kansas HCS** (Leavenworth IP Intermediate; Topeka IP Standard (61 miles apart))

b. **Rationale for this closure of programs or services:** Changing the complexity at the Brooklyn campus to Ambulatory Advanced would promote quality outcomes, improved patient satisfaction, and higher efficiency at both the Brooklyn and New York campuses of New York Harbor Healthcare. The inpatient surgical procedure volume at the Brooklyn campus has diminished to 450 cases, representing 30.8% of the total surgical volume of 1460 cases (VASQIP report October, 2015 to September, 2016). This volume can easily be absorbed by the NYHHS Manhattan campus, which is located 12 miles from the Brooklyn campus and serves as the regional VHA referral center for cardiac and neuro surgery. In addition, the Manhattan campus operates a separate 12 bed surgical ICU staffed 24/7 by surgical intensivists. Up to one third (150 cases) of the current Brooklyn campus inpatient surgical volume would be expected to be able to be performed on an ambulatory basis with observation admission backup. In FY2016, 35% of Brooklyn surgical admissions were observation status patients. Furthermore, moving the Brooklyn inpatient surgical volume to the Manhattan campus would expand access for outpatient surgery in Brooklyn and would promote more efficient use of the surgical resources at Manhattan.

c. Resources currently available for provision of this program or service: The NYHHS Manhattan campus is able to absorb the additional inpatient surgical volume from the Brooklyn Campus. The Manhattan Campus OR consists of 9 suites, six of which are currently staffed. The additional volume from Brooklyn could be accommodated by filling in the excess capacity in the current staffing model and opening 1-2 additional rooms as

needed. The NY campus SICU census is below capacity and can easily accommodate the additional expected volume. There are a total of 12 beds in the SICU with a cumulative average daily census (ADC) for FY16 of 5.7 patients. The ADC in FY17 was 5.2.

Much of the complex specialty surgery has been transitioning to the NY campus over the recent years due to the value of the dedicated SICU for complex patients, availability of advanced technology, or availability of subspecialty consultants for multi team procedures. For example, much of the complex prostate surgery has moved to the NY campus due to the installation of the surgical robot, which is only available in Manhattan. Complex ENT cases are done in Manhattan due to the availability of a full time Plastic Surgeon. As the NY campus is a regional referral center for Cardiothoracic Surgery, there is 24/7 availability of percutaneous coronary interventions by full time staff Interventional Cardiologists. Resources are available for advanced cardiovascular postoperative care including trained perfusionists with the ability to transfer to our nearby affiliate NYU for ECMO or LVAD therapy. Postoperative recovery is facilitated at the NY campus by an on-site CARF accredited inpatient rehabilitation unit.

d. **Impact of proposal on current patient care programs or services:** Consolidation of inpatient surgery at NYHHS to the Manhattan facility will expand access to Outpatient Surgery at the Brooklyn Campus. This change is expected to promote improved efficiency at both campuses. The declining inpatient surgical volume at Brooklyn likely has resulted in inefficiency in OR workflow, sterile processing services inefficiency, and produces challenges in maintaining nursing staff skills and competencies. The increased volume of inpatient surgery in Manhattan will promote better OR efficiency and staff competency, and allow better utilization of existing resources in the SICU. In addition, it will allow us to concentrate prosthetics supply chain efforts, rehabilitative services, and social work services developed for the unique needs of inpatient surgery to one campus. This consolidation will also facilitate the adoption of uniform pre and postoperative management algorithms and clinical practice guidelines.

7. EXPECTED OUTCOME(S) FOR MODIFIED PROGRAM OR SERVICE: Describe how the modification of this clinical program or service will improve the quality of care provided to the Veterans served by this facility or within this VISN.

Changing the surgical program complexity at the Brooklyn campus from “Complex” to “Ambulatory Advanced” will result in concentrating the complex inpatient surgical procedures to the New York campus. There have been multiple publications in the recent literature which have stressed the importance of surgical volumes to outcomes. (Reference1-3) High volume centers not only have surgeons with more experience in complex procedure, but also develop expertise in the rest of the team which is critical for patient outcomes. Anesthesiologists, OR Nurses, SICU staff, stepdown unit staff, Physical Medicine and Rehabilitation, and Social Work staff all become more proficient in providing care for this subset of patients. As the team becomes more familiar with the problems common to these patients, they are more likely to respond appropriately and rapidly when faced with a crisis situation. In addition, the facility operates more efficiently in the provision of 24/7 support services, such as imaging, laboratory,

blood bank, respiratory, and nutritional support. Length of stay is expected to decrease as there will be additional ability to institute standard pathways for elective procedures as well as the ability to fully operate support services 7 days a week. In addition, NYHHS is seeking to implement Enhanced Recovery After Surgery (ERAS) protocols for its complex surgical patients. These evidence based protocols have been shown to decrease both postoperative morbidity and length of stay but require multidisciplinary involvement and engagement of the entire surgical team, including Surgeons, Anesthesiologists, Surgical Intensivists, PM&R, and nursing staff at all levels. (Reference 4) This type of culture change for surgical management will be facilitated by the concentration of all complex inpatient surgery at one campus.

8. DISCUSSION AND ANALYSIS OF ALTERNATIVE APPROACHES TO PROVIDING NEEDED SERVICES:

All needed complex elective and urgent inpatient surgical services and procedures will be performed at the New York (Manhattan) campus of New York Harbor Healthcare System. The Brooklyn campus is located 12 miles from the Manhattan campus and patient transfer for urgent procedures, when needed, is not expected to be a barrier. This is the current workflow for all Cardiothoracic and Neurosurgery patients. An analysis of WHEN hours surgical cases during FY16 revealed 5 emergent and 32 urgent cases. In all cases the time frame in which the procedure was performed would have accommodated the transfer to the Manhattan campus. In the rare instance where transfer to Manhattan would not be considered feasible, we have an existing relationship with multiple hospitals in Brooklyn, including Lutheran (NYU network) and our affiliated SUNY Downstate Medical Center, although historically this contingency has rarely been required.

9. DEMOGRAPHIC ANALYSIS OR PROJECTED WORKLOAD:

Discuss target market analysis of capacity and proposed workload projections related to the proposed program or service change. Include the Veteran population served, as well as start-up, 1 and 3-year projections for workload by the priority group. How will this impact bed days of care (BDOC) in Medicine, Surgery, and Psychiatry acute beds? ***NOTE:*** *The source is the Enrollee Health Care Projection Model (EHCPM).*

The change of the Brooklyn campus surgical program to an Ambulatory Advanced designation will not affect access to care or bed days of care (BDOC) at New York Harbor Healthcare System as the New York (Manhattan) campus has the capacity to perform the combined volume of inpatient procedures without significant change in resources.

VETERANS	# Treated Previous Fiscal Year (FY) or Total # for Vet Pop	1-Year Projection	3-Year Projection
# Veterans receiving this program or service.	**450**	**450**	**450**
# Veterans referred out for this program or service.	N/A	N/A	N/A
# Veterans receiving this program or service at another VA medical facility.	N/A	N/A	N/A

10. EVALUATION AND ANALYSIS OF INFRASTRUCTURE TO SUPPORT:
Every new or expanded clinical program or service needs to be evaluated to ensure sufficient infrastructure is in place to support quality care. At a minimum, this includes evaluation of staffing, space, ancillary support, and equipment.

Staff or Full-time Equivalent (FTE) Employee (#staff with adequate credentials for training to provide coverage 24 hours a day, 7 days a week, or as needed for requested clinical service or program requested.	# Needed for Proposed Program or Service	Current Number	Difference
a. Providers (Physician (MD or DO), Nurse Practitioner (NP), Physician Assistant (PA)).	Additional 0.5 FTE Orthopedic Surgeon and 1.0 FTE PA.	350 (NY/BK)	0.5 FTE MD at NY, balanced by loss of 0.5 FTE Fee Basis in BK 1.0 FTE PA
	896		0
b. Nursing.	84	896 (541NY/355BK)	0
c. Laboratory.	99	84 (42NY/42BK)	0
d. Pharmacy.	30	99 (53NY/46BK)	0
e. Respiratory Therapy.	66	30 (18NY/12BK)	0
f. Radiology.	18.5	66 (37NY/29BK)	0
g. Supply, Processing, and Distribution (SPD).	11	18.5 (11.5NY/7.0BK)	0
h. Biomedical Engineering.		11 (6.5NY/4.5BK)	0

CLINICAL SPACE EQUIPMENT Items specific to providing the additional clinical program or service for this request. Examples:	**# Needed for Proposed Program or Service**	**Current**	**Difference**
a. # Operating Rooms of current size or configuration b. # Recovery beds c. # Inpatient beds d. # ICU beds (SICU) e. # Outpatient clinic space (exam rooms)	9 9 153 10 12 (NY) 171 (78 NY/ 93 BK)	9 9 153 10 12(NY) 171 (78 NY/ 93 BK)	0 0 0 0 0 0
EQUIPMENT Items specific to providing the additional clinical program or service for this request.	**# Needed for Proposed Program or Service**	**Current**	**Difference**
a. Surgery b. Laboratory c. Radiology d. RespiratoryTherapy e. Pharmacy f. SPS	BK 3 OR/ NY 6 OR 24/7 Comprehensive BK/NY 24/7 Radiology CT/IR BK/NY 24/7 BK/NY 24/7 BK/NY 5d/week BK / 6d/week NY	BK 3 OR/ NY 6 OR 24/7 Comprehensive BK/NY 24/7 Radiology CT/IR BK/NY 24/7 BK/NY 24/7 BK/NY 5d/week BK / 6d/week NY C	0 No change No change No change No change No change

11. PROCESSES OF CARE

a. Criteria for Patient inclusion in new services: This needs to include patient factors as well as facility factors (an example of "facility factors" might be the anticipated need for dialysis post procedure in a facility that did not have this available on-site).

Criteria for inpatient surgery will not be changed. Patient selection and preparation will involve the same criteria and processes. There are no significant facility factors as the New York (Manhattan) campus currently functions as a complex surgical program and has additional technical support, including a dedicated SICU, for the care of complex surgical patients.

b. Process for coordination of care throughout the continuum of care and identified processes for coverage and handoffs, as appropriate.

Coordination of care for inpatient surgery will follow current established protocols at the New York (Manhattan) campus.

12. INTERIM PLAN FOR PROVISION OF CARE

a. Planned date for Implementation of Proposed Clinical Program or Service.

July 1, 2017

b. Describe how patients are currently being cared for or treated that require the clinical service or program requested in this proposal.

There were 450 inpatient admissions (combined Observation plus Acute Inpatient admissions) for surgery at the NYHHS Brooklyn Campus in FY 2016 (VASQIP report). In FY2016, 35% of Brooklyn surgical admissions were observation status patients. With the requested change in the Brooklyn campus complexity designation to Ambulatory Advanced, it is expected that approximately 30% of the historical inpatient volume would remain at the Brooklyn campus and be performed on an ambulatory basis with observation status backup and that 70% or more (315 cases) would be performed at the Manhattan campus.

13. STAKEHOLDER INVOLVEMENT REPORT: Describe the involvement and/or the support of any affected stakeholder groups, as applicable. Include a description of internal "clinical stakeholders," such as: surgeons; nursing staff from the Operating Room, Post Anesthesia Care Unit (PACU), or Intensive Care Unit (ICU); intensivists; hospitalists; resident and intern training or continuing Medical Education (CME) issues; primary care for

pre-op optimization; and long-term follow up in some cases (i.e., bariatric surgery).

The proposed change in operative complexity designation of the NYHHS Brooklyn Campus from "Complex" to "Advanced Ambulatory" is expected to mainly impact the surgical residency program and surgeons at the Brooklyn Campus and to have minimal effect on other stakeholders at Brooklyn including Anesthesiologists, nurses, hospitalists and intensivists. It is anticipated that the changes to the complexity designation in Brooklyn may motivate certain staff members whose prefer to work specifically with complex surgical procedures to apply for existing or future vacancies at the Manhattan campus, but no staffing realignment is mandated.

The proposed changes to the surgical program have been discussed through the forum of the NYHHS Dean's Committee, with joint meeting including affiliate Deans, Program Directors, Surgical Site Directors and Surgical Division/Section Chiefs representing each campus of NYHHS ad our NYU and SUNY affiliates. Separate meetings were held to discuss the impact and logistics of patient flow, as well as pre and postoperative patient preparation and care

a. Residents: the consolidation of inpatient surgery to the NYHHS New York (Manhattan) campus will expand the capacity for outpatient surgical procedures at the Brooklyn Campus. The facility has prepared for this by adding new technology, including a new fusion image guidance system for endoscopic sinus surgery, new arthroscopy and laparoscopy towers and a state of the art femtosecond laser for cataract surgery. Plans are in place to start extracorporeal shock wave lithotripsy treatments for kidney stones. The new equipment will enhance the residents experience with outpatient surgical procedures. The resident's clinic experience will also be more challenging as they will be required to participate in clinical decision making regarding the appropriateness of a patient for an outpatient versus planned inpatient procedure.

   The resident's inpatient surgical experience will move to the New York (Manhattan) campus. There the SUNY affiliated surgical residents from the Brooklyn campus will work on the same teams with the NYU affiliated surgical residents. The duration, frequency, and number of residents on the inpatient surgical elective at the NY campus are to be determined by joint agreement between the surgical residency program directors at NYU and SUNY Downstate.

b. Surgeons: Conversion of the Brooklyn campus to an advanced ambulatory program will affect existing and future surgeons at the Brooklyn campus differently according to subspecialty. These transitional changes have been discussed at multiple meetings involving the surgical staff at both the NY and Brooklyn campuses and representatives from the Dean's office from both our

NYU and SUNY Downstate affiliates.

i. General Surgery: Brooklyn attending granted an academic appointment at NYU and will operate at the NY campus doing inpatient surgical procedures one day per week. The full time VA staff of General Surgeons will cross cover inpatients. There is expected to be a significant volume of ambulatory general surgery cases remaining at the Brooklyn campus.
ii. Orthopedics: Major joint reconstruction (Knee/Hip) will move to the NY campus and performed by existing Orthopedic surgical staff, some of whom will increase their involvement at the NY campus to accommodate the additional volume. Arthroscopic and minor Orthopedic procedures will remain at the BK campus.
iii. Urology: Open and robotic urologic cases will be performed at the NY campus by the existing NY Urologists. BK urology will expand access to outpatient procedures and will start offering ESWL treatments.
iv. Vascular: Open vascular and EVAR procedures will be done at the NY campus and will be incorporated into the existing NY vascular service. The existing full time vascular surgeon at the Brooklyn campus will receive additional referrals for percutaneous procedures from the NY campus and there will be the potential option for the surgeon to perform open carotid and EVAR procedures at the NY campus.
v. ENT: complex inpatient surgical procedures will be referred to the NY campus. The Brooklyn campus will expand its outpatient procedures with the introduction of fusion image guided endoscopic sinus surgery.
vi. Ophthalmology: no significant anticipated effect. Brooklyn Ophthalmology to expand its offerings with the acquisition of a femtosecond laser for cataract surgery.
vii. Podiatry: no significant anticipated effect.
viii. Anesthesia: faculty meeting held with Brooklyn Anesthesiologists, some of whom expressed interest in working intermittently at the Manhattan campus in the future out of interest in working with complex inpatient surgical procedures. These cross campus faculty assignments are anticipated to be easily facilitated.

14. ORGANIZATIONAL CHART: Provide a copy the VA medical facility organizational chart, as well as a copy of a modified chart showing the organization if the requested clinical program or services expansion alters it.

The requested change to the surgical program complexity designation at the NYHHS Brooklyn Campus will not result in a change to the facility organizational chart.

15. EVALUATION PLAN: Describe how the planned expansion of this clinical program or service will be evaluated for quality, cost, patient satisfaction, and program effectiveness.

The program will continue to be evaluated for quality, outcomes, and efficiency by the VASQIP program, administered by the National Surgery Office. Patient satisfaction is monitored by our SHEP surveys, post discharge call reports, kiosk questionnaires, and patient representative data.

16. CLINICAL PROGRAM SITE REVIEW REPORT: The findings and recommendations from the clinical site review conducted by the Office of Patient Care Services are forwarded to the requesting VISN Director.

REFERENCES

1. Merrill AL, Jha AK, Dimick JB. Clinical effect of surgical volume. N Engl J Med 2016;374:1380-2.
2. Urbach DR. Pledging to eliminate low-volume surgery. N Engl J Med 2015;373:1388-90.
3. Sternberg S. Hospitals move to limit low-volume surgeries. US News and World Report. May 19, 2015 (http://www.usnews.com/news/articles/2015/05/19/hospitals-move-to-limit-low-volume-surgeries).
4. Ljungqvist O, Scott M, Fearon KC. Enhanced Recovery After Surgery A Review. JAMA Surg. 2017;152(3):292-298. doi:10.1001/jamasurg.2016.4952

Submitted by:

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