CHAPTER 287: GASTROENTEROLOGY/ENDOSCOPY SERVICE

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1 PURPOSE AND SCOPE

This document outlines Space Planning Criteria for Chapter 287: Gastrointestinal / Endoscopy Service. It applies to all medical facilities at the Department of Veterans Affairs (VA).

2 DEFINITIONS

<u>Colonoscopy</u>: Examination of the entire length of the colon, or large intestine, using an endoscope to detect early signs of cancer, inflamed tissue, abnormal growths, ulcers, and/or bleeding in the colon or rectum.

Endoscopic Retrograde Cholangiopancreatography (ERCP): A diagnostic procedure that enables the physician to diagnose problems in the liver, gallbladder, bile ducts, and pancreas. ERCP combines the use of X-Rays and an endoscope, which is a long, flexible, lighted tube. Through the endoscope, the physician can see the inside of the stomach and duodenum, and inject dyes into the ducts in the biliary tree and pancreas so they can be seen clearly on X-Rays. X-Rays are taken as soon as the dye is injected. ERCP procedures can take between 30 minutes to 2 hours.

<u>Endoscopy</u>: A medical examination that involves viewing a body cavity, such as the stomach, with a tube-like instrument called an endoscope. Endoscopy uses cameras and video recorders to make permanent records of the appearance of internal organs. Endoscopy procedures may be diagnostic and/or therapeutic and are generally performed under topical or general anesthesia. Most procedures are done in an outpatient setting.

<u>Esophageal Manometry</u>: Also called Esophageal Motility Study, uses a catheter to measure esophageal pressure and records the duration and sequence of contractions in the esophagus.

<u>Esophageal Motility Study</u>: See Esophageal Manometry.

<u>Esophagogastroduodenoscopy (EGD)</u>: Endoscopic examination of the esophagus, stomach and duodenum (the first part of the small intestine). Also called Upper Endoscopy.

Flexible Sigmoidoscopy: See Sigmoidoscopy.

<u>Fluoroscopy</u>: The radiographic technique used to produce and evaluate real time motion. A non-ionic contrast material is injected or consumed by the patient to enhance visualization of various organs. A constant stream of radiation passes through the patient and strikes a fluorescent screen creating shadows of the opaque internal organs. Images produced by this modality include upper and lower gastrointestinal series, cystography, pyelography, and esophageal mobility studies.

<u>Gastroenterology Laboratory</u>: Used for performing tests such as gastric analysis and esophageal manometry. It would be included in the Endoscopy Suite when approved by the authorized program official.

<u>Picture Archiving and Communication System (PACS)</u>: The digital capture, transfer, and storage of diagnostic images. A PACS system consists of: workstations for interpretation,



image / data producing modalities, a web server for distribution, printers for file records, image servers for information transfer and holding, and an archive of off-line information. A computer network is needed to support digital imaging devices.

<u>Sigmoidoscopy</u>: A diagnostic procedure that allows the physician to examine the lower one-third of the large intestine. Sigmoidoscopy is helpful in identifying the causes of diarrhea, abdominal pain, constipation, abnormal growths, and bleeding. It may also be used to obtain biopsies and to perform procedures such as the removal of polyps or hemorrhoids. A short, flexible, lighted tube, called a sigmoidoscope, is inserted into the intestine through the rectum into the lower part of the large intestine. Air is injected into the intestine through the sigmoidoscope to inflate it for better viewing.

<u>Upper Endoscopy</u>: See Esophagogastroduodenoscopy (EGD)

Space Planning / SEPS

<u>Accessible</u>: A site, building, facility, or portion thereof that complies with provisions outlined in the Architectural Barriers Act of 1968 (ABA).

Architectural Barriers Act (ABA): A set of standards developed to ensure that all buildings financed with federal funds are designed and constructed to be fully accessible to everyone. This law requires all construction, renovation, or leasing of sites, facilities, buildings, and other elements, financed with federal funds, to comply with the Architectural Barriers Act Accessibility Standards (ABAAS). The ABAAS replaces the Uniform Federal Accessibility Standards (UFAS).

<u>Average Length of Encounter (ALoE)</u>: Averaged length of time, in minutes, a patient spends in an Exam / Treatment Room interacting with a provider and the clinical support team. It is accounted from room "set-up" to "clean-up" by staff. This metric is used to determine the number of annual patient / provider encounters that take place in an Exam / Treatment Room which, in turn, is used to calculate the number of Exam / Treatment Rooms needed in a facility based on projected annual workload. The ALoE is determined with VHA SME input during a PG-18-9 clinical chapter revision / update.

<u>Average Length of Stay (ALoS)</u>: The average number of days a patient Veteran stays in an inpatient care unit. The ALoS is used to calculate the number of patient bedrooms for a specialty by dividing the site's projected workload by the ALoS.

<u>Building Gross (BG) Factor</u>: A Factor applied to the sum of all the Departmental Gross Square Footage (DGSF) in a project to determine the Building Gross Square Footage. This factor accounts for square footage used by the building envelope, structural systems, horizontal and vertical circulation including main corridors, elevators, stairs and escalators, shafts, and mechanical spaces. The Department of Veterans Affairs has set this factor at 1.35 and included guidance in case of variance when developing a Program for Design (PFD) in SEPS.

<u>Clinic Stop</u>: Per these criteria, a clinic stop is the workload unit of measure for space planning. Clinic Stops are codified by VSSC, when applicable, they are referenced by number in the calculation of workload driven patient care spaces in this document.



<u>Department Net to Gross (DNTG) Factor</u>: A parameter, determined by the VA for each clinical and non-clinical department PG-18-9 space planning criteria chapter, used to convert the programmed Net Square Feet (NSF) area to the Department Gross Square Feet (DGSF) area.

<u>Encounter</u>: An interaction between a patient Veteran and a VA provider or providers in an Exam Room / Treatment Room / Consultation Room / Procedure Room, spaces where a patient Veteran received clinical care.

<u>Full-Time Equivalent (FTE)</u>: A staffing parameter equal to the amount of time assigned to one full time employee. It may be composed of several part-time employees whose combined time commitment equals that of one full-time employee (i.e., 40 hours per week).

<u>Functional Area (FA)</u>: The grouping of rooms and spaces based on their function within a clinical service or department.

<u>Functional Area Criteria Statement (FACS)</u>: A verbalized mathematical / logical formulation assigned to a FA incorporating answers to Input Data Statements (IDSs) to determine the condition for providing the rooms / spaces listed in the FA in the baseline space program or Program for Design (PFD) for a project. Certain rooms / spaces may or may not have additional conditions.

<u>Input Data Statement(s)</u>: A question or set of questions designed to elicit information about the healthcare project to generate a Program for Design (PFD) based on the parameters set forth in this set of documents. This information is processed through mathematical and logical operations in the VA Space and Equipment Planning System (SEPS).

<u>JSN (Joint Schedule Number)</u>: A unique five alpha-numeric code assigned to each content item in the PG-18-5 Standard. JSNs are defined in DoD's Military Standard 1691 and included in SEPS Content Table.

<u>Net Square Feet / Net Square Meters (NSF/NSM)</u>: The area of a room or space derived from that within the interior surface of the bounding walls or boundaries.

<u>Patient Unique</u>: (or Unique Patient), A Veteran patient counted as a unique in each division from which they receive care. Patient Uniques are included in the Registry for a VA Medical Center.

<u>Program for Design (PFD)</u>: A project specific itemized listing of the spaces, rooms, and square foot area required for the proper operation of a specific service / department, and the corresponding area for each. PFDs are generated by SEPS based on the PG-18-9 Standard.

<u>PG-18-5</u>: A Department of Veterans Affairs' Equipment Guidelist Standard for planning, design, and construction of VA healthcare facilities; a Program Guide (PG) that lists assigned room contents (medical equipment, furniture, and fixtures) to each room in PG-18-9. PG-18-5 follows PG-18-9's chapter organization and nomenclature.



<u>PG-18-9</u>: A Department of Veterans Affairs' Program Guide for the Space Planning Criteria Standard use to develop space planning guidance for the planning, design, and construction of VA healthcare facilities; a Program Guide (PG) that provides space planning guidance for VA Medical Centers (VAMCs) and Community Bases Outpatient Clinics (CBOCs). PG-18-9 is organized by chapters, as of September 2021 there are 56 clinical and non-clinical PG-18-9 chapters; they are implemented and deployed in SEPS so that space planners working on VA healthcare projects can develop baseline space programs.

<u>PG-18-12</u>: A Department of Veterans Affairs' Design Guide Standard for planning, design and construction of VA healthcare facilities, a Program Guide (PG) that provides design guidance for VA Medical Centers (VAMCs) and Community Bases Outpatient Clinics (CBOCs). The narrative section details functional requirements and the Room Template section details the planning and design of key rooms in PG-18-9. Not all PG-18-9 chapters have a corresponding PG-18-12 Design Guide; one Design Guide can cover more than one PG-18-9 chapter.

<u>Provider</u>: An individual who examines, diagnoses, treats, prescribes medication, and manages the care of patients within his or her scope of practice as established by the governing body of a healthcare organization.

<u>Room Area</u>: The square footage required for a clinical or non-clinical function to take place in a room / space. It takes into account the floor area required by equipment (medical and non-medical), furniture, circulation, and appropriate function / code-mandated clearances. Room area is measured in Net Square Feet (NSF).

<u>Room Code (RC)</u>: A unique five alpha-numeric code assigned to each room in the PG-18-9 Standard. Room Codes in PG-18-9 are unique to VA and are the basis for SEPS's Space Table for VA projects.

Room Criteria Statement (RCS): A mathematical / logical formulation assigned to each room / space included in PG-18-9 incorporating answers to Input Data Statements (IDSs) to determine the provision of the room / space in the baseline space program or Program for Design (PFD) for a project.

Room Efficiency Factor: A factor that provides flexibility in the utilization of a room to account for patient delays, scheduling conflicts, and equipment maintenance. Common factors are in the 75% to 85% range. A room with 80% room efficiency provides a buffer to assume that this room would be available 20% of the time beyond the planned operational practices for this room. This factor may be adjusted based on the actual and/or anticipated operations and processes of the room/department at a particular facility.

<u>SEPS</u>: Acronym for Space and Equipment Planning System which produces equipment lists and Program for Design for a healthcare project based on specific information entered in response to Input Data Questions.

<u>SEPS Importer</u>: A style-based format developed to allow upload of RCSs and IDSs to SEPS to implement and operationalize space planning criteria in PG-18-9 in the SEPS digital tool. This format establishes the syntax used in the RCSs and allows the use of Shortcuts.



Shortcuts allow developers of space planning criteria statements to simplify RCSs making full use of their logical and mathematical functionality. A shortcut can refer to an RCS, a room in any FA or a formula. Shortcuts are [bracketed] when used in FAs and RCSs and are listed along with their equivalences at the end of the Space Planning Criteria section.

<u>Space Planning Concept Matrix (SPCM)</u>: A working document developed during the chapter update process. It lists all the rooms organized by Functional Area and establishes ratios between the directly and the indirectly workload driven rooms for the planning range defined in this document. The matrix is organized in ascending workload values in ranges reflecting existing facilities and potential future increase. Section 5 of this document Space Planning Criteria reflects the values in the SPCM.

<u>Stop Code</u>: A measure of workload including clinic stops forecasted by the Office of Policy and Planning (OPP) for all Strategic Planning Categories at Medical Center and Outpatient Clinic levels.

<u>Telehealth</u>: The use of technology, such as computers and mobile devices, to manage healthcare remotely. It includes a variety of health care services, including but not limited to online support groups, online health information and self-management tools, email and online communication with health care providers, remote monitoring of vital signs, video, or online doctor visits. Depending on the concept of operations for this space, it may be equipped as an exam room or as a consult room with video/camera capability.

<u>Utilization Rate</u>: A factor used in the calculation of a directly workload-driven room throughput. It represents, in a percent value, the room is idle based on the planning assumptions. For example, if a directly workload-driven room is available for use 8 hours a day, the Utilization Rate represents the assumed time it will be actually be used, an 85% utilization rate indicates, for planning purposes, the room will be used 6.8 hours a day. An additional directly workload-driven room will be provided in the calculation once the previous room has reached 100% utilization. The utilization Rate is embedded in the Room Throughput value calculated in Section 3 of this document.

<u>VA Room Family (VA RF)</u>: An organizational system of rooms / spaces grouped by function, a 'Room Family'. There are two "Orders" in the VA RF: Patient Care and Patient Care Support; Patient Care features four sub-orders: Clinical, Inpatient, Outpatient and Residential Clinical. There are also four sub-orders in the Patient Care Support order: Building Support, Clinical Support, Staff Support and Veteran Support. Each room in a Family has a unique Room Code and NSF assigned based on its Room Contents and function which correspond to the specific use of the room. The same RC can be assigned to different Room Names with the same function in this document and can be assigned an NSF that varies based on the PG-18-5 Room Contents assigned to the room.

<u>VA Technical Information Library (TIL)</u>: A resource website maintained by the Facilities Standards Service (FSS) Office of Construction and Facilities Management (CFM) containing a broad range of technical publications related to the planning, design, leasing, and construction of VA facilities. VA-TIL can be accessed at: https://www.cfm.va.gov/TIL/



<u>Workload</u>: Workload is the anticipated number of procedures, clinic stops, clinic encounters etc. that is processed through a department/service area. The total workload applied to departmental operational assumptions will determine overall room requirements by modality.

<u>Workstation</u>: Area outfitted with equipment and furnishings, typically allocated 56 NSF each. Managers and other staff with no direct reports as well as part-time, seasonal, and job-sharing staff may qualify for a workstation. Such environments are particularly conducive to team-oriented office groupings. These environments work best when they have access to conference and small group meeting spaces.

3 OPERATING RATIONALE AND BASIS OF CRITERIA

- A. Space planning criteria included in this Standard have been specifically developed for this Department / Service in a Department of Veterans Affairs healthcare facility based on established VHA policy and guidelines to define the scope of services provided for the existing workload demand as well as that in the foreseeable future. Rooms and Functional Areas are provided based on research of clinical and non-clinical activities performed in this Department.
- B. Development / update of VA's Program Guide (PG) standards is a research based effort executed with participation of VHA Subject Matter Experts (SMEs), VA-Construction and Facilities Management Office (CFM) professional staff and specialty consultants hired for the task. These space planning standards are based on current applicable VHA policies and guidelines, established and/or anticipated best practice standards, and latest medical technology developments. Workload metrics were tailored to satisfy current and anticipated veteran workload demand.
- C. The space planning component of PG-18-9 is based on the Space Planning Concept Matrix (SPCM) which lists all the rooms organized by Functional Area and assigns room quantity (Q) and area (NSF) for a series of ranges corresponding to the smallest to the largest department for this service in the VA healthcare system in incremental size; each range corresponds to a workload parameter which determines the number and area of each directly workload-driven room. The remainder of the rooms in the range i.e., waiting, storage, staff workstations, etc. are determined by ratios to the resulting number of or NSF of the workload-driven rooms.
- D. Sections 4 and 5 of these space planning standards as well as the PG-18-5 standard are implemented in the Space and Equipment Planning System (SEPS) and hosted at the MAX.gov website so planners working on VA Construction projects can develop single or multi-department projects based on these PG-18-9- and the PG-18-5 standards. Output from SEPS is through Space and Contents Reports; the Space Report is the Program for Design (PFD), the Content Report is the Project Room Contents (PRC). Inclusion of a Functional Area as well as Room quantity (Q) and determination of the room area (NSF) in the PFD is based on the projected Workload input which triggers calculations included in the Room Criteria Statements (RCSs). The RCSs are placed immediately after each



room name, room code and baseline area (NSF). The PRC list the medical equipment, furniture and fixtures associated to each Room Code in the project. The PFD & PRC are the baseline requirements for the planning phase of a VA project based on a site's projected workload for the target planning year. This chapter's corresponding PG-18-12, Design Guide -if available- is intended for use during the design phase of the project.

- E. Space Planning parameters and metrics in this document are based on the Gastrointestinal / Endoscopy Service Space Planning Criteria Matrix (SPCM) developed as the basis for this chapter. The Gastrointestinal / Endoscopy Service SPCM lists all the spaces a VA Gastrointestinal / Endoscopy Service site would require; the quantity and NSF for each room is calculated based on the Gastrointestinal / Endoscopy Service projected workload or number of FTE positions authorized. The SPCM is organized in 20 ranges, each range represents an incremental workload value equivalent to one Patient Care Room, this way all current VA Gastrointestinal / Endoscopy Service sites are covered in the SPCM. The upper ranges are calculated for future facilities in case a higher projected workload. The 20 SPCM ranges are organized as follows:
 - 1. Ranges 1 to 4: Colonoscopy Stop Code 321* between 480 and 6,400 annual procedures (in increments of 1,600)
 - 2. Ranges 5 to 7: Esophagogastroduodenoscopy (EGD) Stop Code 321* between 640 and 6,399 annual procedures (in increments of 2,133)
 - 3. Ranges 8 to 10: Esophageal Manometry Stop Code 321* between 480 and 4,800 annual procedures (in increments of 1,600)
 - 4. Ranges 11 to 13: Flexible Sigmoidoscopy Stop Code 321* between 960 and 9,600 annual procedures (in increments of 3,200
 - 5. Ranges 14 to 16: Endoscopic Retrograde Cholangiopancreatography (ERCP) Stop Code 321*between 225 and 2,250 annual procedures (in increments of 750)
 - 6. Ranges 17 to 20: Endoscopic Ultrasound Stop Code 321*between 225 and 3,000 annual procedures (in increments of 750
 - * Stop Code 321 incorporates the six procedure types above. As the procedures referenced in the first four ranges are performed in the Endoscopy Procedure Room (FA2:RM1) and those in the remaining two ranges in the ERCP / Endoscopic Ultrasound Procedure Room (FA2:RM2), the annual throughputs assigned to those rooms are averaged accordingly.
- F. This way all current VA Gastrointestinal / Endoscopy Service sites are covered, the upper ranges are calculated for future facilities in case a higher projected workload or FTE positions authorized than those at the present time for this Service.
- G. The SPCM metrics are translated into one (or more) Room Criteria Statement (RCS) for each room in Section 5 of this document. The SPCM Planning Range, the maximum number of directly workload-driven patient care rooms, in this document is 10. If a project shall require provision of workload driven rooms above the maximum range



value refer to CFM for guidance. Rooms in this space planning document are organized in 5 Functional Areas (FAs).

- H. Based on its intended function, each room / space is assigned a:
 - 1. Room Name (RN),
 - 2. Room Code (RC),
 - 3. Room Area, the Net Square Feet (NSF) and its corresponding "soft metric" Net Square Meters (NSM),
 - 4. Unique Room Criteria Statement(s) (RCSs) correlated to answers to Input Data Statements (IDSs), and
 - 5. Room Comment as needed.
- I. The Room Codes included in this chapter stem from the VA Room Family. A unique support space, that may have variable area, is assigned a unique Room Code and adopts the square footage, as needed, correlated to the room contents assigned which in turn correspond to the range for those rooms. A unique clinical space or a direct clinical support room, i.e., control room, system components room, etc. typically does not feature variable NSF. Patient Care room names for rooms unique to this chapter end in ", GI-Endo Svc". Patient Care Support room names end in ", Bldg Sprt", "Clncl Sprt", "Stff Sprt", or ", Vet Sprt", correlating to Building, Clinical, Staff or Veteran Support room families.
- J. Section 5, Sub-Section F lists the SEPS Importer Shortcuts used for implementation of Sections 4 & 5 in SEPS. These shortcuts are inserted into the Room Criteria Statement (RCS) for each room which upon upload into the Space and Equipment Planning System (SEPS) allowing planners developing VA healthcare projects to determine quantity and square footage of each room by performing mathematical or logical calculations. Shortcuts refer Input Data Statements (IDSs), Rooms or calculation parameters stemming from the SPCM.
- K. SEPS is accessible to government healthcare planners and private sector consultants working on VA HC projects during their Period of Performance (PoP) through the MAX.gov website; government provided Training is a requisite for access.
- L. SEPS incorporates a Net-to-Department Gross factor (NTDG) factor of 1.50 for Gastrointestinal / Endoscopy Service and a Building Gross factor of 1.35 in the space calculation to generate the Department Gross Square Feet (DGSF) and the Building Gross Square Feet (BGSF) respectively for the project based on the aggregate resulting Net Square Feet (NSF) for each range. Planners can adjust the BGSF factor in SEPS; the NTDG factor is fixed.
- M. Refer to the chapter corresponding PG-18-5 Equipment Guidelist for the Room Content assignment for each room during the planning phase of a project.
- N. Refer to the chapter corresponding PG-18-12: Design Guide, if available, during the planning and design phases of a project. Not all PG-18-9 clinical chapters have a corresponding PG-18-12 document, please refer to the VA-TIL.



O. The space planning and design Program Guides: PG-18-9, PG-18-5, and PG-18-12 are available at the <u>Department of Veterans Affairs Office of Construction and Facilities Management (CFM) Technical Information Library (TIL)</u> website.

4 INPUT DATA STATEMENTS (IDS)

- A. How many annual Colonoscopy Clinic Stops (refer to Stop Code 321) are projected? (W) (Values: 480 to 6,400)
- B. How many annual EGD Clinic Stops (refer to Stop Code 321) are projected? (W) (Values: 640 to 6,399)
- C. How many annual Esophageal Manometry Clinic Stops (refer to Stop Code 321) are projected? (W) (Values: 480 to 4,800)
- D. How many annual Flexible Sigmoidoscopy Clinic Stops (refer to Stop Code 321) are projected? (W) (Values: 960 to 9,600)
- E. How many annual ERCP Clinic Stops (refer to Stop Code 321) are projected? (W) (Values: 225 to 2,250)
- F. How many annual Endoscopic Ultrasound Clinic Stops (refer to Stop Code 321) are projected? (W) (Values: 225 to 3,000)

5 SPACE PLANNING CRITERIA

For functional descriptions of key spaces refer to the Design Guide for Gastrointestinal / Endoscopy Service.

A. FA 1: RECEPTION AREA

- 1. GI-Endo Svc Waiting, Bldg Sprt (SB003)80 NSF (7.5 NSM)
 - a. Provide one if [number of patient care rooms] is between 1 and 2
 - b. Provide one at 130 NSF if [number of patient care rooms] is between 3 and 4
 - c. Provide one at 190 NSF if [number of patient care rooms] is between 5 and 6
 - d. Provide one at 260 NSF if [number of patient care rooms] is between 7 and 8
 - e. Provide one at 310 NSF if [number of patient care rooms] is between 9 and 10
 - f. Provide one at 370 NSF if [number of patient care rooms] is between 11 and 12
 - g. Provide one at 440 NSF if [number of patient care rooms] is between 13 and 14
 - h. Provide one at 520 NSF if [number of patient care rooms] is between 15 and 16
 - i. Provide one at 535 NSF if [number of patient care rooms] is between 17 and 18
 - j. Provide one at 575 NSF if [number of patient care rooms] is between 19 and 20
- 2. GI-Endo Svc Reception, Clncl Sprt (SC183)85 NSF (7.9 NSM)
 - a. Provide one if [number of patient care rooms] is between 1 and 5
 - b. Provide one at 260 NSF if [number of patient care rooms] is between 6 and 20

Allocated NSF accommodates two Receptionist FTEs, patient privacy area, and circulation.

- 3. GI-Endo Svc Patient Check-in Kiosk, Clncl Sprt (SC165)......55 NSF (5.2 NSM)
 - a. Provide one if [number of patient care rooms] is between 1 and 5
 - b. Provide two if [number of patient care rooms] is between 6 and 20



Allocated NSF accommodates two Display Kiosks, patient privacy area, and circulation.

- 4. GI-Endo Svc Patient Education Workstation, Clncl Sprt (SC172).....40 NSF (3.8 NSM)
 - a. Provide two if [number of patient care rooms] is between 1 and 20

Used as a medical information resource for patients and visitors. Locate accessible to Waiting.

- 5. GI-Endo Svc Patient Education Room, Clncl Sprt (SC171)..........120 NSF (11.2 NSM)
 - a. Provide one if [number of patient care rooms] is between 6 and 20

Patient Education / Resource Room to be used for private patient education and also as a medical information resource, which may include electronic and hard copy material for patients and visitors. Locate accessible to Waiting.

- 6. GI-Endo Svc Consult Room, Clncl Sprt (SC271)120 NSF (11.2 NSM)
 - a. Provide one if [number of patient care rooms] is between 1 and 10
 - b. Provide two if [number of patient care rooms] is between 11 and 20

Consider combining with the Patient Education / Resource Room to optimize use of space.

- 7. GI-Endo Svc Visitor Toilet, Bldg Sprt (SB191)......60 NSF (5.6 NSM)
 - a. Provide one if [number of patient care rooms] is between 1 and 10
 - b. Provide two if [number of patient care rooms] is between 11 and 20

Allocated NSF accommodates one accessible toilet @ 25 NSF, one accessible wall-hung lavatory @ 13 NSF, ABA clearances, and circulation.



B. FA 2: PATIENT AREA

- 1. Endoscopy Procedure Room, GI-Endo Svc (CGE11)......300 NSF (27.9 NSM)
 - a. Provide one if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 640 and 2,133
 - b. Provide two if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 2,134 and 4,266
 - c. Provide three if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 4,267 and 6,399
 - d. Provide four if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 6,400 and 8,532
 - e. Provide five if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 8,533 and 10,665
 - f. Provide six if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 10,666 and 12,798
 - g. Provide seven if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 12,799 and 14,931
 - h. Provide eight if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 14,932 and 17,064
 - i. Provide nine if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 17,065 and 19,197
 - j. Provide ten if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 19,198 and 21,330
 - k. Provide eleven if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 21,331 and 23,463
 - I. Provide twelve if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 23,464 and 25,596
 - m. Provide thirteen if [annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected] is between 25,597 and 27,729



2.	ERCP	/ Endoscopic	Ultrasound
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Procedure Room, GI-Endo Svc (CGE14)......360 NSF (33.5 NSM)

- a. Provide one if [annual ERCP, Endoscopic Ultrasound procedures projected] is between 225 and 750
- b. Provide two if [annual ERCP, Endoscopic Ultrasound procedures projected] is between 751 and 1,500
- c. Provide three if [annual ERCP, Endoscopic Ultrasound procedures projected] is between 1,501 and 2,250
- d. Provide four if [annual ERCP, Endoscopic Ultrasound procedures projected] is between 2,251 and 3,000
- e. Provide five if [annual ERCP, Endoscopic Ultrasound procedures projected] is between 3,001 and 3,750
- f. Provide six if [annual ERCP, Endoscopic Ultrasound procedures projected] is between 3,751 and 4,500
- g. Provide seven if [annual ERCP, Endoscopic Ultrasound procedures projected] is between 4,501 and 5,250

3. Assessment Room, GI-Endo Svc (CGE17)......120 NSF (11.2 NSM)

- a. Provide one if [number of patient care rooms] is between 1 and 10
- b. Provide two if [number of patient care rooms] is between 11 and 20

4. GI-Endo Svc Equipment Alcove, Clncl Sprt (SC079)......30 NSF (2.8 NSM)

- a. Provide one if [number of patient care rooms] is between 1 and 4
 - b. Provide two if [number of patient care rooms] is between 5 and 8
 - c. Provide three if [number of patient care rooms] is between 9 and 12
 - d. Provide four if [number of patient care rooms] is between 13 and 16
 - e. Provide five if [number of patient care rooms] is between 17 and 20

5. GI-Endo Svc Crash Cart Alcove, Clncl Sprt (SC052)......20 NSF (1.9 NSM)

- a. Provide one if [number of patient care rooms] is between 1 and 10
- b. Provide two if [number of patient care rooms] is between 11 and 20

6. GI-Endo Svc Patient Toilet, Bldg Sprt (SB201)......60 NSF (5.6 NSM)

- a. Provide one if [number of patient care rooms] is between 1 and 10
- b. Provide two if [number of patient care rooms] is between 11 and 20

Allocated NSF accommodates one accessible toilet @ 25 NSF, one accessible wall-hung lavatory @ 13 NSF, ABA clearances, and circulation.



C. FA 3: PREP AND RECOVERY PATIENT AREA

- 1. Patient Prep / Recovery Room, GI-Endo Svc (CGE21)120 NSF (11.2 NSM)
 - a. Provide 2 if [number of patient care rooms] is 1
 - b. Provide 4 if [number of patient care rooms] is 2
 - c. Provide 6 if [number of patient care rooms] is 3
 - d. Provide 8 if [number of patient care rooms] is 4
 - e. Provide 10 if [number of patient care rooms] is 5
 - f. Provide 12 if [number of patient care rooms] is 6
 - q. Provide 14 if [number of patient care rooms] is 7
 - h. Provide 16 if [number of patient care rooms] is 8
 - i. Provide 18 if [number of patient care rooms] is 9
 - j. Provide 20 if [number of patient care rooms] is 10
 - k. Provide 22 if [number of patient care rooms] is 11
 - I. Provide 24 if [number of patient care rooms] is 12
 - m. Provide 26 if [number of patient care rooms] is 13
 - n. Provide 28 if [number of patient care rooms] is 14
 - o. Provide 30 if [number of patient care rooms] is 15
 - p. Provide 32 if [number of patient care rooms] is 16
 - q. Provide 34 if [number of patient care rooms] is 17
 - r. Provide 36 if [number of patient care rooms] is 18
 - s. Provide 38 if [number of patient care rooms] is 19
 - t. Provide 40 if [number of patient care rooms] is 20

Prep / Recovery Rooms can be combined with Prep / Recovery services of other departments as appropriate.



- a. Provide 2 if [number of patient care rooms] is 1
- b. Provide 4 if [number of patient care rooms] is 2
- c. Provide 6 if [number of patient care rooms] is 3
- d. Provide 8 if [number of patient care rooms] is 4
- e. Provide 10 if [number of patient care rooms] is 5
- f. Provide 12 if [number of patient care rooms] is 6
- g. Provide 14 if [number of patient care rooms] is 7
- h. Provide 16 if [number of patient care rooms] is 8
- i. Provide 18 if [number of patient care rooms] is 9
- j. Provide 20 if [number of patient care rooms] is 10
- k. Provide 22 if [number of patient care rooms] is 11
- I. Provide 24 if [number of patient care rooms] is 12
- m. Provide 26 if [number of patient care rooms] is 13
- n. Provide 28 if [number of patient care rooms] is 14
- o. Provide 30 if [number of patient care rooms] is 15
- p. Provide 32 if [number of patient care rooms] is 16
- q. Provide 34 if [number of patient care rooms] is 17
- r. Provide 36 if [number of patient care rooms] is 18
- s. Provide 38 if [number of patient care rooms] is 19
- t. Provide 40 if [number of patient care rooms] is 20

Prep / Recovery Cubicles can be combined with Prep / Recovery services of other departments as appropriate.

3. GI-Endo Svc Prep / Recovery Patient Toilet, Bldg Sprt (SB201)60 NSF (5.6 NSM)

- a. Provide two if [number of patient care rooms] is between 1 and 6
- b. Provide three if [number of patient care rooms] is between 7 and 12
- c. Provide four if [number of patient care rooms] is between 13 and 20

Allocated NSF accommodates one accessible toilet @ 25 NSF, one accessible wall-hung lavatory @ 13 NSF, ABA clearances, and circulation. A patient toilet must be easily accessible from the Patient Prep / Recovery Area.

4. GI-Endo Svc Nurse Station, Clncl Sprt (SC152)......60 NSF (5.6 NSM)

- a. Provide one if [number of patient care rooms] is between 1 and 4
- b. Provide one at 120 NSF if [number of patient care rooms] is between 5 and 8
- c. Provide one at 180 NSF if [number of patient care rooms] is between 9 and 12
- d. Provide one at 240 NSF if [number of patient care rooms] is between 13 and 16
- e. Provide one at 300 NSF if [number of patient care rooms] is between 17 and 20

5. GI-Endo Svc Prep / Recovery

Refreshment Alcove, F&N Svc (SV381)60 NSF (5.6 NSM)

- a. Provide one if [number of patient care rooms] is between 1 and 10
- b. Provide two if [number of patient care rooms] is between 11 and 20

Allocated NSF can be decentralized to reduce travel distances for staff.



	6.	GI-Endo Svc Prep / Recovery Crash Cart Alcove, Clncl Sprt (SC052)20 NSF (1.9 NSM
		a. Provide one if [number of patient care rooms] is between 1 and 10b. Provide two if [number of patient care rooms] is between 11 and 20
	7.	Equipment Storage Room, GI-Endo Svc (CGE31)
D.	<u>FA</u>	4: SUPPORT AREA
	1.	 GI-Endo Svc Medication Room, Phrm Svc (SV583)80 NSF (7.5 NSM) a. Provide one if [number of patient care rooms] is between 1 and 10 b. Provide one at 100 NSF if [number of patient care rooms] is between 11 and 20
	2.	Scope Decontamination Room, GI-Endo Svc (CGE41)
	3.	Scope Reprocessing Room, GI-Endo Svc (CGE46)
	4.	Clean Scope Storage Room, GI-Endo Svc (CGE51)
	5.	Sterile Instruments Storage Room, GI-Endo Svc (CGE56)80 NSF (7.5 NSM a. Provide one if [number of patient care rooms] is between 1 and 5 b. Provide two if [number of patient care rooms] is between 6 and 10 c. Provide three if [number of patient care rooms] is between 11 and 15 d. Provide four if [number of patient care rooms] is between 16 and 20
	6.	Equipment Storage Room, GI-Endo Svc (CGE61)

This room provides an area for Storage of Argon Plasma Coagulation and C-Arm



Equipment.

	7.	 GI-Endo Svc Clean Utility Room, Lgstcs Svc (SB737)
	8.	GI-Endo Svc Soiled Utility Room, Lgstcs Svc (SB743)80 NSF (7.5 NSM) a. Provide one if [number of patient care rooms] is between 1 and 5 b. Provide one at 100 NSF if [number of patient care rooms] is between 6 and 10 c. Provide one at 120 NSF if [number of patient care rooms] is between 11 and 15 d. Provide one at 140 NSF if [number of patient care rooms] is between 16 and 20
		This room provides an area for cleanup of medical equipment, instruments, and for disposal of waste material.
	9.	GI-Endo Svc Clean Linen Alcove, EMS (SC467)40 NSF (3.8 NSM) a. Provide one if [number of patient care rooms] is between 1 and 10 b. Provide two if [number of patient care rooms] is between 11 and 20
	10	a. Provide one if [number of patient care rooms] is between 1 and 10 b. Provide two if [number of patient care rooms] is between 11 and 20
	11.	. GI-Endo Svc Housekeeping Aides Closet (HAC), Bldg Sprt (SB244)60 NSF (5.6 NSM) a. Provide one if [number of patient care rooms] is between 1 and 20
		Locate in close proximity to Prep and Recovery Area.
Ε.	<u>FA</u>	5: STAFF AND ADMINISTRATIVE AREA
	1.	GI-Endo Svc GI-Endoscopy Service Chief Office, Stff Sprt (SS204)100 NSF (9.3 NSM) a. Provide one if [number of patient care rooms] is between 1 and 20
	2.	GI-Endo Svc Visitor Waiting, Bldg Sprt (SB003)80 NSF (7.5 NSM) a. Provide one if [number of patient care rooms] is between 1 and 20
		Allocated space accommodates one standard chair @ 9 NSF, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total three people.
	3.	GI-Endo Svc Administrative Support Workstation, Stff Sprt (SS218)56 NSF (5.3 NSM) a. Provide one if [number of patient care rooms] is between 1 and 10 b. Provide two if [number of patient care rooms] is between 11 and 20

1 and 2 3 and 4 n 5 and 6 7 and 8 9 and 10 11 and 12 en 13 and 14 n 15 and 16 n 17 and 18 19 and 20 56 NSF (5.3 NSM) 1 and 2 3 and 4 en 5 and 6 7 and 8 9 and 10
7 and 8 9 and 10 11 and 12 en 13 and 14 n 15 and 16 n 17 and 18 19 and 20 56 NSF (5.3 NSM) 1 and 2 3 and 4 en 5 and 6 17 and 8
9 and 10 11 and 12 en 13 and 14 n 15 and 16 n 17 and 18 19 and 20 56 NSF (5.3 NSM) 1 and 2 3 and 4 en 5 and 6 n 7 and 8 9 and 10
11 and 12 en 13 and 14 n 15 and 16 n 17 and 18 19 and 20 56 NSF (5.3 NSM) 1 and 2 3 and 4 en 5 and 6 n 7 and 8
en 13 and 14 n 15 and 16 n 17 and 18 19 and 20 56 NSF (5.3 NSM) 1 and 2 3 and 4 en 5 and 6 n 7 and 8 9 and 10
n 15 and 16 n 17 and 18 19 and 20 56 NSF (5.3 NSM) 1 and 2 3 and 4 n 5 and 6 n 7 and 8
n 17 and 18 19 and 20 56 NSF (5.3 NSM) 1 and 2 3 and 4 n 5 and 6 n 7 and 8 9 and 10
19 and 20 56 NSF (5.3 NSM) 1 and 2 3 and 4 n 5 and 6 7 and 8 9 and 10
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100 NSF (9.3 NSM)
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1 and 10
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56 NSF (5.3 NSM)
1 and 10
11 and 20
80 NSF (7.5 NSM)
1 and 10
is between 11 and 20
120 NSF (11.2 NSM)
1 and 5
is between 6 and 10
is between 11 and 15
is between 16 and 20

4. GI-Endo Svc Physician Workstation, Stff Sprt (SS218).....56 NSF (5.3 NSM)



11. GI-Endo Svc Female Staff Locker Room, Stff Sprt (SS282)100 NSF (9.3 NSM)

- a. Provide one if [number of patient care rooms] is between 1 and 10
- b. Provide one at 150 NSF if [number of patient care rooms] is between 11 and 15
- c. Provide one at 250 NSF if [number of patient care rooms] is between 16 and 20

Provide locker space only for those FTEs without assigned office or work space. For less than five FTE combine Locker Room facilities with adjacent department or sum in chapter 410.

12. GI-Endo Svc Female Staff Toilet, Bldg Sprt (SB191)60 NSF (5.6 NSM)

- a. Provide one if [number of patient care rooms] is between 1 and 10
- b. Provide two if [number of patient care rooms] is between 11 and 20

Allocated NSF accommodates one accessible toilet @ 25 NSF, one wall-hung lavatory @ 12 NSF, ABA clearances, and circulation.

13. GI-Endo Svc Male Staff Locker Room, Stff Sprt (SS282)100 NSF (9.3 NSM)

- a. Provide one if [number of patient care rooms] is between 1 and 10
- b. Provide one at 150 NSF if [number of patient care rooms] is between 6 and 20

Provide locker space only for those FTEs without assigned office or workspace. For less than five FTE combine Locker Room facilities with adjacent department or sum in chapter 410.

14. GI-Endo Svc Male Staff Toilet, Bldg Sprt (SB191)......60 NSF (5.6 NSM)

- a. Provide one if [number of patient care rooms] is between 1 and 10
- b. Provide two if [number of patient care rooms] is between 11 and 20

Allocated NSF accommodates one accessible toilet @ 25 NSF, one wall-hung lavatory @ 12 NSF, ABA clearances, and circulation.

F. FA 6: EDUCATION AREA

The spaces below provide programming of educational spaces at department / service level.

- 1. GI-Endo Svc Residency Director Office, Stff Sprt (SS204)100 NSF (9.3 NSM)
 - a. Provide one if [number of patient care rooms] is between 1 and 20

2. GI-Endo Svc Resident Workstation, Stff Sprt (SS217)......48 NSF (4.5 NSM)

- a. Provide two if [number of patient care rooms] is between 1 and 4
- b. Provide three if [number of patient care rooms] is between 5 and 8
- c. Provide four if [number of patient care rooms] is between 9 and 12
- d. Provide five if [number of patient care rooms] is between 13 and 16
- e. Provide six if [number of patient care rooms] is between 17 and 20

Combine workstations into one room for staff and organizational efficiency.

3. GI-Endo Svc Resident Training Room, Educ Svc (SS111).....300 NSF (27.9 NSM)

- a. Provide one if [number of patient care rooms] is between 1 and 5
- b. Provide one at 545 NSF if [number of patient care rooms] is between 6 and 10
- c. Provide one at 590 NSF if [number of patient care rooms] is between 11 and 15
- d. Provide one at 630 NSF if [number of patient care rooms] is between 16 and 20

Allocated NSF accommodates ten conference chairs @ 7.5 NSF each, four 5'-0" x 2'-0" tables at 10 NSF each, one credenza @ 8 NSF, and circulation; total ten people. This space will be used by Gastrointestinal / Endoscopy Service Administration for conferences and for staff education.

G. SEPS IMPORTER SHORTCUTS

The following shortcuts are used in the Room Criteria Statements in Gastrointestinal / Endoscopy Service Functional Areas. These shortcuts are used during upload of this document into the Space and Equipment Planning System (SEPS) software during implementation of the space planning parameters contained herewith to allow for mathematical or logical calculations to be performed. Input Data Statements (IDSs), Rooms or a partial calculation formula can have a shortcut.

- number of patient care rooms: [Endoscopy Procedure Room, GI-Endo Svc (CGE11)] + [ERCP / Endoscopic Ultrasound Procedure Room, GI-Endo Svc (CGE14)]
- annual ERCP, Endoscopic Ultrasound procedures projected: [How many annual ERCP Clinic Stops (refer to Stop Code 321) are projected], [How many annual Endoscopic Ultrasound Clinic Stops (refer to Stop Code 321) are projected]
- 3. annual Colonoscopy, EGD, Esophageal Manometry, Flexible Sigmoidoscopy procedures projected: [How many annual Colonoscopy Clinic Stops (refer to Stop Code 321) are projected?], [How many annual EGD Clinic Stops (refer to Stop Code 321) are projected?], [How many annual Esophageal Manometry Clinic Stops (refer to Stop Code 321) are projected?], [How many annual Flexible Sigmoidoscopy Clinic Stops (refer to Stop Code 321) are projected?]
- 4. *annual Colonoscopy procedures projected*: [How many annual Colonoscopy Clinic Stops (refer to Stop Code 321) are projected?]
- 5. *annual EGD procedures projected*: [How many annual EGD Clinic Stops (refer to Stop Code 321) are projected?]
- 6. *annual Esophageal Manometry procedures projected*: [How many annual Esophageal Manometry Clinic Stops (refer to Stop Code 321) are projected?]
- 7. annual Flexible Sigmoidoscopy procedures projected: [How many annual Flexible Sigmoidoscopy Clinic Stops (refer to Stop Code 321) are projected?]
- 8. *annual ERCP procedures projected*: [How many annual ERCP Clinic Stops (refer to Stop Code 321) are projected?]
- 9. *annual Endoscopic Ultrasound procedures projected*: [How many annual Endoscopic Ultrasound Clinic Stops (refer to Stop Code 321) are projected?]

6 PLANNING AND DESIGN CONSIDERATIONS

- A. Separation of inpatient and outpatient traffic should be considered to the greatest extent possible. Provide Reception / Check-in for outpatient separate from inpatient circulation when both patient types utilize the same departmental facilities.
- B. Standardization of rooms and modular design should be considered to allow flexibility to adapt to new technologies and respond to changes in patient volumes.
- C. Consideration should be given to incorporating new technologies for care delivery, such as "camera in a pill." New technologies hold the potential to reduce the quantity and/or area of procedure rooms in a Gastrointestinal / Endoscopy Service.
- D. Connection to ancillary services, such as lab and pharmacy, should be considered.
- E. The waiting room should be connected to the patient entrance corridor and be under the visual control of the receptionist. This space can be shared between adjacent services where appropriate.
- F. Design should accommodate patient privacy and confidentiality in all areas, and in reception and patient care areas in particular. This includes visual and auditory considerations.
- G. Where possible, the department should be configured to limit the mix of patient and service functions, and to maintain clear separation of clean and dirty functions to avoid cross contamination. For example, Clean and Soiled Utility rooms can be located at alternate ends of a department.
- H. Corridors should be designed to a minimum of 8 feet clear width to accommodate passage of equipment or beds and two stretchers and/or wheelchairs. In non-patient areas and outpatient clinical spaces, corridors may be a minimum of 5 feet in clear width.
- I. Administration and support areas should be located and designed to maximize staff and space efficiency, and reduce staff travel distances.
- J. Plan for locating high volume services closer to patient waiting or building access points to decrease patient travel time/distance and increase staff responsiveness. Services with longer duration procedure times or low volume generation can be less centrally located.
- K. Sharing of patient and staff support areas among adjacent services should be considered for efficient utilization of staff. For example, centralized check-in / check- out can reduce the total number of FTE's required to provide this function over multiple service lines.
- L. During design, NSF for Staff Lounge and Lockers may be combined with an adjacent department(s).
- M. Verify room sizes and equipment layouts with equipment vendors prior to finalizing room layouts.



- N. Refer to Department of Veterans Affairs (VA) Office of Construction and Facilities Management Technical Information Library (www.cfm.va.gov/til/) for additional technical criteria.
- O. Refer to Design Guide for Gastrointestinal / Endoscopy Service for a detailed discussion of functional and design considerations.

7 FUNCTIONAL RELATIONSHIPS

Relationship of Gastrointestinal / Endoscopy Service to services listed below:

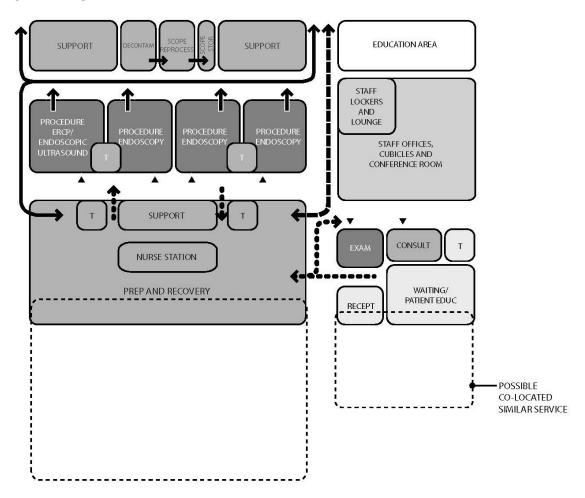
TABLE 1: FUNCTIONAL RELATIONSHIP MATRIX

SERVICES	FUNCTIONAL RELATIONSHIP
CLNCL SPRT: SP Svc: Decontamination	1
CLNCL SPRT: SP Svc: Scope Processing	1
CLNCL SPRT: SP Svc: Sterilization	1
CLNCL SPRT: SP Svc: Receiving & Dispatch	1
IP: MS PCUs	3
CLNCL: Emergency	3
BLDG SPRT: Logstcs Svc: Warehouse	3
CLNCL SPRT: OIT: Telecommunications	3
BLDG SPRT: ENG: Engineering Service (all specialties)	3
CLNCL SPRT: OIT: Server	3
VET SPRT: Social Work	3
CLNCL SPRT: R&D: Clinical Services	3
CLNCL: Clncl Svc Adm: Medical Service	3
CLNCL: Clncl Svc Adm: Hospital Medicine	3
OP: CBOP: Imaging	3

Legend:

- 1. High
- 2. Moderate
- 3. Minimal

8 FUNCTIONAL DIAGRAM



LEGEND EXAM/ TESTING/ PROCEDURE PREP/ RECOVERY/ SUPPORT STAFF AND ADMINISTRATIVE AREA RECEPTION AREA ■ PATIENT ENTRY EDUCATION AREA