

## CHAPTER 287: DIGESTIVE DISEASES - ENDOSCOPY SERVICE

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## 1 PURPOSE AND SCOPE

This document outlines Space Planning Criteria for Chapter 287: Digestive Diseases – Endoscopy Service. It applies to all medical facilities in Department of Veterans Affairs (VA).

## 2 DEFINITIONS

Accessible: 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 insure 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).

Clinic Stop: A clinic stop is one encounter of a patient with a healthcare provider. Per these criteria, the clinic stop is the workload unit of measure for space planning. One individual patient can have multiple Clinic Stops in a single visit or in one day.

Colonoscopy: 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.

Endoscopy: 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.

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

Esophageal Motility Study: See Esophageal Manometry.

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

Flexible Sigmoidoscopy: See Sigmoidoscopy.

Fluoroscopy: 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.

Full-Time Equivalent (FTE): 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 total time commitment equals that of a full-time employee. One FTE equals 40 hours per week.

Functional Area: The grouping of rooms and spaces based on their function within a clinical service. Typical Functional Areas within VA Space Criteria are: Reception Area, Patient Area, Support Area, Staff and Administrative Area, and Education Area.

Gastroenterology Laboratory: 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.

Healthcare Planning Module: Methodology used to create a VISN Strategic Plan which defines how and where high-cost services should be delivered in each market.

Input Data Statements: A set of questions designed to elicit information about the healthcare project in order to create a Program for Design (PFD) based on the criteria parameters set forth in this document. Input Data Statements could be Mission, Workload, or Staffing related, based on projections and data provided by the VHA or the VISN about the estimated model of operation for the facility. This information is processed through mathematical and logical operations in VA-SEPS.

Picture Archiving and Communication System (PACS): 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.

Program for Design (PFD): A space program generated either manually or by VA-SEPS based on criteria set forth in this document and specific information entered about mission, workload projections, and staffing levels authorized.

Provider: 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.

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 any particular facility.

SEPS (VA-SEPS): Acronym for Space and Equipment Planning System, a digital tool developed by the Department of Defense (DOD) and the Department of Veterans Affairs to generate a Program For Design (PFD) and an Equipment List for a VA healthcare project based on specific information entered in response to Input Data Questions. VA-SEPS incorporates the propositions set forth in all VA space planning criteria chapters. VA-SEPS has been designed to aid healthcare planners in creating a space plan based on a standardized set of criteria parameters.

Sigmoidoscopy: 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.

Upper Endoscopy: See Esophagogastroduodenoscopy (EGD)

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

### 3 OPERATING RATIONALE AND BASIS OF CRITERIA

- A. Workload projections or planned services/modalities for a specific VA project are provided by the VA Office of Policy and Planning and the VISN Support Services Center (VSSC). These utilization projections are generated by a methodology based upon the expected veteran population in the respective market/service area. Healthcare planners working on VA projects will utilize and apply the workload based criteria set forth herein for identified services and modalities to determine room requirements for each facility.
- B. Space planning criteria have been developed on the basis of an understanding of the activities involved in the functional areas of the Digestive Diseases – Endoscopy Service and its relationship with other services of a medical facility. These criteria are predicated on established and/or anticipated best practice standards, as adapted, to provide environments supporting the highest quality health care for veterans.
- C. These criteria are subject to modification relative to development in equipment, medical practice, vendor requirements, and planning and design. The selection of the size and type Digestive Diseases – Endoscopy Service equipment is determined by anticipated medical needs.
- D. Room Capacity should be based on:

Formula 1:

$$\frac{\text{Operating days per year X Hours of operation per day}}{\text{Minutes per clinic stop / 60 minutes}} = \text{Number of annual clinic stops}$$

The general planning model for VA facilities assumes 250 Operating Days per Year and 8 Hours of Operation per Day. Room capacity will fluctuate as operating days per year and/or hours of operation are modified. For example, additional capacity may be generated by extending the hours of operation per day within the same physical setting.

The Room Efficiency Factor applied to Digestive Diseases – Endoscopy Service is 80%.

Example: A procedure room that averages 45 minutes per clinic stop, including set-up, testing time, and clean-up:

$$\frac{250 \text{ operating days per year} \times 8 \text{ hours per day}}{45 \text{ minutes per clinic stop} / 60 \text{ minutes}} = 2,667 \text{ annual clinic stops}$$

At 100% utilization, this results in a maximum capacity of 2,667 clinic stops per year. However, 100% utilization is not realistic to achieve and is not a design standard.

Apply the Room Efficiency Factor:

$$2,667 \times 80\% = 2,133 \text{ annual clinic stops.}$$

**TABLE 1: WORKLOAD PARAMETER CALCULATION**

STOP CODE 321 GI ENDOSCOPY*	AVERAGE LENGTH OF CLINIC STOP (minutes)**	ROOM EFFICIENCY FACTOR	ANNUAL WORKLOAD CAPACITY OF ONE ROOM***	MINIMUM ANNUAL WORKLOAD TO GENERATE A ROOM****
Colonoscopy	60	80%	1,600	480
EGD	45	80%	2,133	640
Esophageal Manometry	60	80%	1,600	480
Flexible Sigmoidoscopy	30	80%	3,200	960
Averaged Workload			2,133	640
ERCP	120	75%	750	225
Endoscopic Ultrasound	120	75%	750	225
Averaged Workload			750	225

- \* Listed procedures correspond to Common Procedure Terminology (CPT) codes utilized by VA facilities.
- \*\* Average Length of Clinic Stop durations based on procedures which include an educational component. Facilities without a residency program may experience shorter clinic stop durations, and should modify Workload Parameter Calculations accordingly.
- \*\*\* Based on Operating Criteria assumed in Item D above.
- \*\*\*\* Minimum annual workload to generate a room is equal to 30% of the annual workload capacity of one room.

The number of annual clinic stops per room will be used as a criterion parameter to calculate the number of Procedure Rooms required, rounded up to the nearest whole number, as follows:

Formula 2:

$$\frac{\text{Total Number of Procedure Rooms Calculation}}{\text{Projected Annual Workload}} = \text{Number of Procedure Rooms}$$

$$\frac{\text{Average Workload Capacity to Generate One Room}}{\text{Projected Annual Workload}} = \text{Number of Procedure Rooms}$$

Example: Procedure Rooms based upon a workload of 4,000 annual Colonoscopy, EGD, Esophageal Manometry, and Flexible Sigmoidoscopy clinic stops.

$$\frac{4,000 \text{ Projected Annual clinic stops}}{2,133 \text{ (Min Workload to Generate One Room)}} = 1.9 \text{ Exam Rooms}$$

Two Procedure Rooms are required to satisfy the workload.

#### 4 INPUT DATA STATEMENTS

##### A. Mission Input Data Statements

1. Are Prep / Recovery Rooms authorized? (M) (If not, Prep / Recovery Cubicles will be provided)
2. Is a Digestive Diseases - Endoscopy Service Residency Program authorized? (M)
  - a. How many Intern FTE positions are authorized? (S)
  - b. How many Resident FTE positions are authorized? (S)
  - c. How many Fellow FTE positions are authorized? (S)
3. Is a Patient Education / Resource Room authorized? (M) If NO, a Patient Education / Resource Kiosk will be provided.
4. Is a Digestive Diseases Chief FTE position authorized? (M)

##### B. Workload Input Data Statements

1. How many annual Colonoscopy Clinic Stops (refer to Stop Code 321) are projected? (W)
2. How many annual EGD Clinic Stops (refer to Stop Code 321) are projected? (W)
3. How many annual Esophageal Mannometry Clinic Stops (refer to Stop Code 321) are projected? (W)
4. How many annual Flexible Sigmoidoscopy Clinic Stops (refer to Stop Code 321) are projected? (W)
5. How many annual ERCP Clinic Stops (refer to Stop Code 321) are projected? (W)
6. How many annual Endoscopic Ultrasound Clinic Stops (refer to Stop Code 321) are projected? (W)

##### C. Staffing Input Data Statements

1. How many Physician FTE positions are authorized? (S)
2. How many Nurse FTE positions are authorized? (S)
3. How many Nurse Manager FTE positions are authorized? (S)
4. How many Nurse Practitioner FTE positions are authorized? (S)
5. How many Physician Assistant FTE positions are authorized? (S)
6. How many Administrative FTE positions are authorized? (S)

##### D. Miscellaneous Input Data Statements

1. How many FTEs will work on peak shift? (Misc)
2. How many FTE positions are not authorized to have an office or work space? (Misc)

#### 5 SPACE CRITERIA

For functional descriptions of key spaces refer to the Design Guide for Digestive Diseases – Endoscopy Service.

##### A. **FA 1: Reception Area:**

- 1 **Waiting (WTG03)..... 80 NSF (7.5 NSM)**  
*Provide one if the projected number of Procedure Rooms is two; provide WTG06 if the projected number of Procedure Rooms is three or four; provide WTG09 if the projected number of Procedure Rooms is five or six; provide WTG12 if the projected number of Procedure Rooms is seven or eight; provide WTG15 if the projected number of Procedure Rooms is nine or ten; provide WTG18 if the projected number of Procedure Rooms is eleven or twelve; provide WTG21 if the projected number of Procedure Rooms is thirteen or fourteen; provide WTG24 if the projected number of Procedure Rooms is fifteen or sixteen; provide WTG27 if the projected number of Procedure Rooms is seventeen or eighteen; provide WTG30 if the projected number of Procedure Rooms is nineteen or twenty.*

The Digestive Diseases / Endoscopy Suite Procedure Rooms are:

- a. Endoscopy Procedure Room, and
- b. ERCP / Endoscopic Ultrasound Procedure Room

WTG03: Allocated space accommodates one standard chair @ 9 NSF, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total three people.

WTG06: Allocated space accommodates four standard chairs @ 9 NSF each, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total six people.

WTG09: Allocated space accommodates seven standard chairs @ 9 NSF each, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total nine people.

WTG12: Allocated space accommodates ten standard chairs @ 9 NSF each, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total twelve people.

WTG15: Allocated space accommodates eleven standard chairs @ 9 NSF each, two bariatric chairs @ 14 NSF each, two accessible spaces @ 10 NSF each, and circulation; total fifteen people.

WTG18: Allocated space accommodates fourteen standard chairs @ 9 NSF each, two bariatric chairs @ 14 NSF each, two accessible spaces @ 10 NSF each, and circulation; total eighteen people.

WTG21: Allocated space accommodates seventeen standard chairs @ 9 NSF each, two bariatric chairs @ 14 NSF each, two accessible spaces @ 10 NSF each, and circulation; total twenty-one people.

WTG24: Allocated space accommodates twenty standard chairs @ 9 NSF each, two bariatric chairs @ 14 NSF each, two accessible spaces @ 10 NSF each, and circulation; total twenty-four people.

WTG27: Allocated space accommodates twenty-one standard chairs @ 9 NSF each, three bariatric chairs @ 14 NSF each, three accessible spaces @ 10 NSF each, and circulation; total twenty-seven people.

WTG30: Allocated space accommodates twenty-four standard chairs @ 9 NSF each, three bariatric chairs @ 14 NSF each, three accessible spaces @ 10 NSF each, and circulation; total thirty people.

**2 Reception / Check-In (RCP02) .....260 NSF (24.2 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*

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

**3 Kiosk, Patient Check-In (RCHK2) .....105 NSF (9.8 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*

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

**4 Patient Education / Resource Kiosk (CLSC1) .....30 NSF (2.8 NSM)**  
*Provide one if a Patient Education / Resource Room is not authorized.*

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

accessible to Waiting.

- 5 **Patient Education / Resource Room (CLSC3)** ..... **120 NSF (11.2 NSM)**  
*Provide one if a Patient Education / Resource Room is authorized.*

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 **Consult Room (OFDC2)**..... **120 NSF (11.2 NSF)**  
*Provide one for Digestive Diseases - Endoscopy Service.*

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

- 7 **Toilet, Public (TPG01)**..... **60 NSF (5.6 NSM)**  
*Provide one if the total number of Endoscopy Procedure Rooms and ERCP / Endoscopic Ultrasound Procedure Rooms is greater than four.*

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. **Procedure Room, Endoscopy (TREE1)** ..... **300 NSF (27.9 NSM)**  
*Minimum one; provide an additional one for every increment of 2,133 Colonoscopy, EGD, Esophageal Manometry, and Flexible Sigmoidoscopy clinic stops (Stop Code 321), the minimum annual combined workload to provide a room is 640.*

2. **Procedure Room, ERCP / Endoscopic Ultrasound (TREE2)** ..... **360 NSF (33.5 NSM)**  
*Minimum one; provide an additional one for every increment of 750 ERCP and Endoscopic Ultrasound clinic stops (Stop Code 321); the minimum annual combined workload to provide a room is 225.*

3. **Exam / Assessment Room (EXRG0)**..... **120 NSF (11.2 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*

4. **Alcove, Equipment (RCA02)** ..... **30 NSF (2.8 NSM)**  
*Minimum one; provide an additional one for every increment of two Endoscopy and ERCP / Endoscopic Ultrasound Procedure Rooms greater than two.*

5. **Alcove, Crash Cart (RCA01)**..... **20 NSF (1.9 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*

6. **Toilet, Patient (TPG01)**..... **60 NSF (5.6 NSM)**  
*Minimum one; provide an additional one for every increment of two Endoscopy and ERCP / Endoscopic Ultrasound Procedure Rooms greater than two.*

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 Area:**

1. **Prep / Recovery Room (RRSS1)** ..... **120 NSF (11.2 NSM)**  
*Provide four per each Endoscopy and ERCP / Endoscopic Ultrasound Procedure Room if Patient Prep / Recovery Rooms are authorized.*

Prep / Recovery Rooms can be combined with Prep / Recovery services of other



departments as appropriate.

2. **Cubicle, Prep / Recovery (RROP1)**.....**120 NSF (11.2 NSM)**  
*Provide four per each Endoscopy and ERCP / Endoscopic Ultrasound Procedure Room if Patient Prep / Recovery Rooms are not authorized.*

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

3. **Toilet, Prep / Recovery Patient (TPG01)** .....**60 NSF (5.6 NSM)**  
*Minimum two; provide an additional one for every increment of six Patient Prep / Recovery Cubicles or Patient Prep / Recovery Rooms greater than six.*

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. **Nurse Station (NSTA3)**.....**60 NSF (5.6 NSM)**  
*Minimum NSF; provide an additional 30 NSF per each Nurse FTE authorized greater than two.*

5. **Alcove, Refreshment Center (NCWD4)**.....**60 NSF (5.6 NSM)**  
*Minimum NSF; provide an additional 20 NSF for every increment of eight Patient Prep / Recovery Cubicles or Rooms greater than eight.*

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

6. **Alcove, Crash Cart (RCA01)** .....**20 NSF (1.9 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*

7. **Storage, Equipment (SRE01)**.....**120 NSF (11.2 NSM)**  
*Minimum NSF; provide an additional 40 NSF for every increment of eight Patient Prep / Recovery Cubicles or Rooms greater than eight.*

**D. FA 4: Support Area:**

1. **Medication Area (MEDP1)**.....**80 NSF (7.5 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*

2. **Decontamination Room, Scope (USCL2)**.....**120 NSF (11.2 NSM)**  
*Minimum one if one or two Endoscopy and ERCP / Endoscopic Ultrasound Procedure Rooms are generated; provide an additional 60 NSF if the number of Endoscopy and ERCP / Endoscopic Ultrasound Procedure Rooms is greater than two.*

3. **Reprocessing Room, Scope (USCL3)**.....**120 NSF (11.2 NSM)**  
*Minimum one if one or two Endoscopy and ERCP / Endoscopic Ultrasound Procedure Rooms are generated; provide an additional 60 NSF if the number of Endoscopy and ERCP / Endoscopic Ultrasound Procedure Rooms generated is greater than two.*

4. **Storage, Clean Scope (USCL4)** .....**60 NSF (5.6 NSM)**  
*Minimum one if one or two Endoscopy and ERCP / Endoscopic Ultrasound Procedure Rooms are generated; provide an additional 20 NSF for every increment of two Endoscopy and ERCP / Endoscopic Ultrasound Procedure Rooms greater than two.*

5. **Storage, Sterile (SRS04)..... 80 NSF (7.5 NSM)**  
*Minimum NSF; provide an additional 20 NSF for every increment of four Endoscopy and ERCP / Endoscopic Ultrasound Procedure Rooms greater than four.*
6. **Storage, Equipment (SRE01) ..... 200 NSF (18.6 NSM)**  
*Minimum NSF; provide an additional 40 NSF for every increment of eight Endoscopy and ERCP / Endoscopic Ultrasound Procedure Rooms greater than eight.*  

This room provides an area for Storage of Argon Plasma Coagulation and C-Arm Equipment.
7. **Utility Room, Clean (UCCL1)..... 120 NSF (11.2 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*
8. **Utility Room, Soiled (USCL1)..... 80 NSF (7.5 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*  

This room provides an area for cleanup of medical equipment, instruments, and for disposal of waste material.
9. **Alcove, Clean Linen (LCCL1) ..... 40 NSF (3.8 NSM)**  
*Minimum NSF; provide an additional 40 NSF for every increment of eight Endoscopy and ERCP / Endoscopic Ultrasound Procedure Rooms greater than eight.*
10. **Alcove, Wheelchair / Stretcher (SRLW1)..... 60 NSF (5.6 NSM)**  
*Minimum one; provide an additional one for every increment of four Endoscopy and ERCP Procedure Rooms greater than four.*
11. **Housekeeping Aides Closet (HAC) (JANC1)..... 60 NSF (5.6 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*  

Locate in close proximity to Prep and Recovery Area.

**E. FA 5: Staff and Administrative Area:**

1. **Office, Digestive Diseases – Endoscopy Service Chief (OFA09) ... 100 NSF (9.3 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*
2. **Waiting (WTG03)..... 80 NSF (7.5 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*  

Allocated space accommodates one standard chair @ 9 NSF, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total three people.
3. **Workstation, Secretary (OFA07) ..... 56 NSF (5.3 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*
4. **Workstation, Physician (OFA07)..... 56 NSF (5.3 NSM)**  
*Provide one per each Physician FTE position authorized.*
5. **Workstation, Physician Assistant (OFA07)..... 56 NSF (5.3 NSM)**  
*Provide one per each Physician Assistant FTE position authorized.*
6. **Office, Nurse Manager (OFA09) ..... 100 NSF (9.3 NSM)**  
*Provide one per each Nurse Manager FTE position authorized.*

7. **Workstation, Nurse Practitioner (OFA07)**.....**56 NSF (5.3 NSM)**  
*Provide one per each Nurse Practitioner FTE position authorized.*
8. **Workstation, Administration (OFA07)**.....**56 NSF (5.3 NSM)**  
*Provide one per each Administration FTE position authorized.*
9. **Copier / Printer Room (RPR01)** .....**80 NSF (11.2 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*
10. **Lounge, Staff (SL001)** .....**80 NSF (7.5 NSM)**  
*Minimum NSF; provide an additional 15 NSF per each Digestive Diseases - Endoscopy Service FTE position working on peak shift greater than five; maximum 210 NSF.*
11. **Locker Room, Staff (LR001)** .....**80 NSF (7.5 NSM)**  
*Minimum NSF if total number of Digestive Diseases - Endoscopy Service FTE positions not authorized to have office or work space is between five and thirteen; provide an additional 6 NSF per each Digestive Diseases - Endoscopy Service FTE position not authorized to have office or work space is greater than thirteen.*  
  
*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. **Toilet, Staff (TNP1)** .....**60 NSF (5.6 NSM)**  
*Minimum one; provide an additional one for every increment of fifteen Digestive Diseases - Endoscopy Service FTE positions working on peak shift greater than fifteen.*  
  
*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. **Office, Residency Program Director (OFA09)** .....**100 NSF (9.3 NSM)**  
*Provide one if a Digestive Diseases - Endoscopy Service Residency Program is authorized.*
2. **Workstation, Intern / Resident / Fellow (OFA07)**.....**56 NSF (5.3 NSM)**  
*Provide one per each Intern, Resident, and Fellow FTE position authorized.*  
  
*Combine workstations into one room for staff and organizational efficiency.*
3. **Training Room, Resident (CFR02)** .....**300 NSF (27.9 NSM)**  
*Provide one for Digestive Diseases - Endoscopy Service.*  
  
*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 Digestive Diseases – Endoscopy Service Administration for conferences and for staff education.*

**6 PLANNING AND DESIGN CONSIDERATIONS**

- A. Net-to-Department Gross factor (NTDG) for Digestive Diseases - Endoscopy Service is **1.50**. This number, when multiplied by the programmed Net Square Feet (NSF) area, determines the Departmental Gross Square Feet (DGSF).

- B. 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.
- C. Standardization of rooms and modular design should be considered to allow flexibility to adapt to new technologies and respond to changes in patient volumes.
- D. Consideration should be given to incorporating new technologies for care delivery, such as ‘camera in a pill.’ New technologies for hold the potential to reduce the quantity and/or area of procedure rooms in a Digestive Diseases – Endoscopy Service.
- E. Connection to ancillary services, such as lab and pharmacy, should be considered.
- F. 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.
- G. 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.
- H. 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.
- I. 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.
- J. Administration and support areas should be located and designed to maximize staff and space efficiency, and reduce staff travel distances.
- K. 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.
- L. 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.
- M. During design, NSF for Staff Lounge and Lockers may be combined with an adjacent department(s).
- N. Verify room sizes and equipment layouts with equipment vendors prior to finalizing room layouts.
- O. Refer to Department of Veterans Affairs (VA) Office of Construction and Facilities Management Technical Information Library ([www.cfm.va.gov/til/](http://www.cfm.va.gov/til/)) for additional technical criteria.
- P. Refer to Design Guide for Digestive Diseases – Endoscopy Service for a detailed discussion of functional and design considerations.

## 7 FUNCTIONAL RELATIONSHIPS

Relationship of Electroencephalography Laboratory to services listed below:

**TABLE 2: FUNCTIONAL RELATIONSHIP MATRIX**

SERVICES	RELATIONSHIP	REASON
ICU	3	C, G
MS&N Patient Care Units	3	C, G
Patient Prep and Recovery	N	
Emergency Department	3	C, G
Main Entrance	3	H
Cardiovascular Labs	1	A
Endoscopy	N	
Ambulatory Surgery/ Minor Procedure	1	A
Radiology	1	C, G, I
Diagnostic Testing	1	C, I
Pulmonary Clinic / Testing	N	
Cardiology Clinic / Testing	N	
Digestive Disease Clinic/Testing	N	
Neurology Clinic/Testing	N	
Ventilator Storage	N	
Respiratory Therapy	N	
Pharmacy	5	B
Laboratory	4	H
Social Work / Case Management	4	H
PT/OT	N	
Food Service / Kitchen	5	B
Sterile Processing Department (SPD)	5	B, I
Staff On-Call Rooms	3	C
Linen Storage	5	B
Waste Management	5, X	B, E, F
Loading Dock	5, X	B, D

Legend:

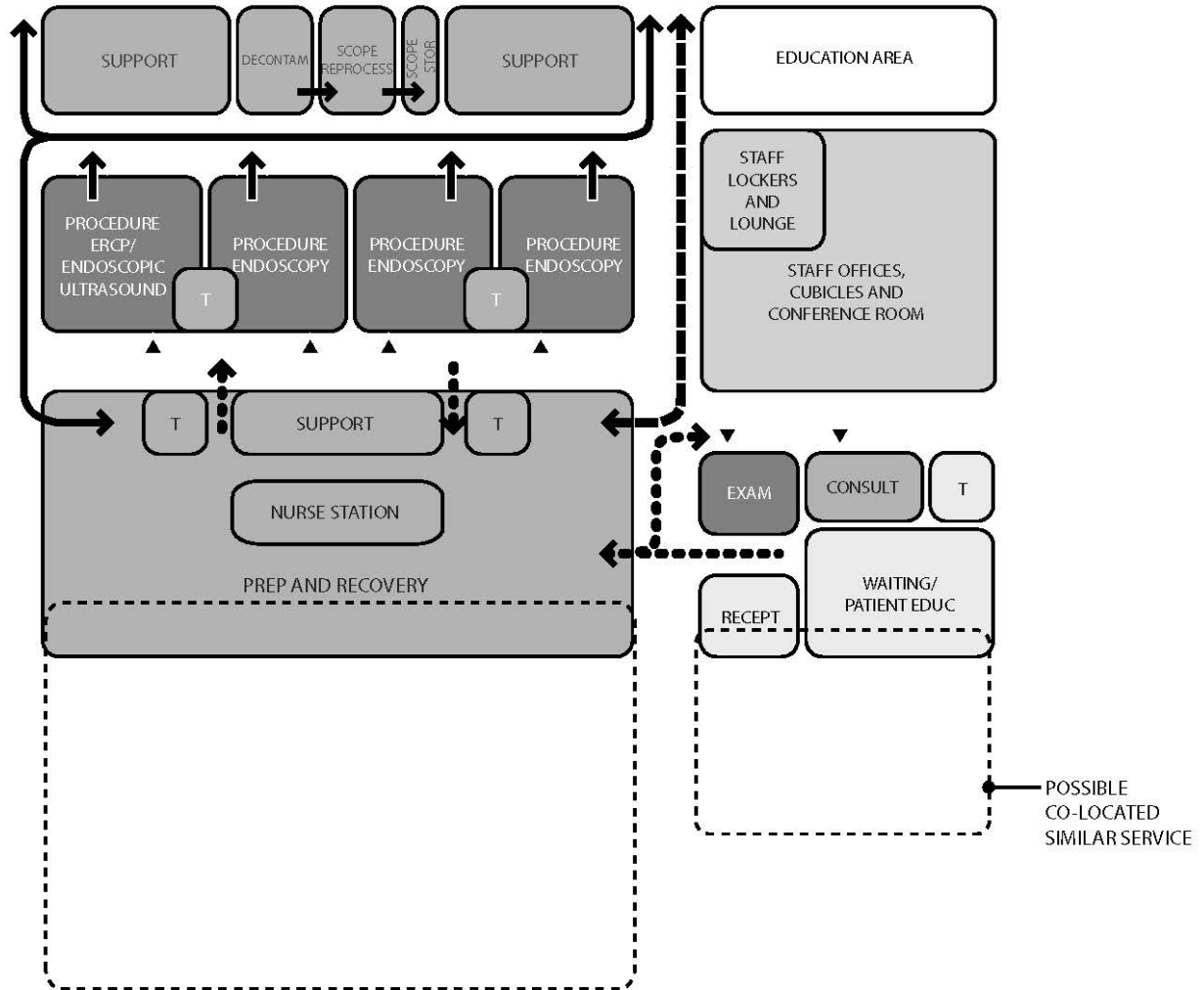
Relationship:

1. Adjacent
2. Close / Same Floor
3. Close / Different Floor Acceptable
4. Limited Traffic
5. Connection Needed
- X. Not Applicable
- Y. Separation Desirable

Reasons:

- A. Common use of resources
- B. Accessibility of supplies
- C. Urgency of contact
- D. Noise or vibration
- E. Presence of odors or fumes
- F. Contamination hazard
- G. Sequence of work
- H. Patient convenience
- I. Frequent contact
- J. Need for security
- K. Closeness inappropriate
- L. Interference

### 8 FUNCTIONAL DIAGRAM



LEGEND

- |  |                               |  |                |
|--|-------------------------------|--|----------------|
|  | EXAM/ TESTING/ PROCEDURE      |  | STAFF/ SERVICE |
|  | PREP/ RECOVERY/ SUPPORT       |  | OUTPATIENT     |
|  | STAFF AND ADMINISTRATIVE AREA |  | INPATIENT      |
|  | RECEPTION AREA                |  | PATIENT ENTRY  |
|  | EDUCATION AREA                |  |                |