



## DoD SPACE PLANNING CRITERIA

### CHAPTER 310: AUDIOLOGY, HEARING CONSERVATION, SPEECH-LANGUAGE PATHOLOGY AND ENT CLINIC JULY 28, 2015

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**Purpose:** This issuance: To provide space planning criteria guidance in support of planning, programming and budgeting for DoD Military Health System (MHS) facilities.

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## **SECTION 1: PURPOSE AND SCOPE**

### **1.1.**

This chapter outlines space planning criteria for services and programs provided in the outpatient Audiology, Hearing Conservation, Speech-Language Pathology (SLP) and Ear, Nose and Throat (ENT) Clinic located within the Military Health System (MHS). Outpatient clinics include both freestanding community-based facilities, as well as ambulatory clinics in or directly adjacent to hospital-based services.

The focus of this clinic is to improve a patient's ability to communicate (language and speech), understand, and process what is communicated to them (hearing). The objective is to prevent, reduce or remediate communication or swallow disorders. The services provided include assessment, treatment, consultation, and education.

The space planning criteria in this chapter apply to all Military Treatment Facilities (MTFs) and are based on current DoD policies and directives, established and/or anticipated best practices, industry guidelines and standards, and input from DoD Subject Matter Experts (SME) and Defense Health Agency (DHA) Service contacts. As directed by the DHA, these space criteria are primarily workload driven; additional drivers are staffing and mission. Room Codes (RCs) in this document are based on the latest version of DoD's UFC 4-510-01, Appendix B.

## **SECTION 2: OPERATING RATIONALE AND BASIS OF CRITERIA**

### **2.1.**

A. Workload projections and planned services / modalities for a specific MHS facility project shall be sought by the planner in order to develop a project based on these Criteria. Healthcare and clinical planners working on military hospitals, medical centers and clinics shall utilize and apply the workload based criteria set forth herein for identified services and modalities to determine space requirements for the project.

B. Space planning criteria have been developed on the basis of an understanding of the activities involved in the functional areas required for Audiology, Hearing Conservation, Speech-Language Pathology, and ENT Clinic 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 service members and their dependents.

C. These criteria are subject to modification relative to equipment, medical practice, vendor requirements, and subsequent planning and design. The final selection of the size and type of medical equipment is determined during the design process.

D. The area for each room (NSF) in this chapter has been provided by the Military Health System (MHS) Space Template Board.

E. Calculation of the Exam Rooms in Functional Area 2: Audiology / Hearing Conservation Patient Area, Functional Area 3: Speech-Language Pathology Patient Area; and Functional Area 4: ENT Patient Area is derived from workload projections via the workload Input Data Statements as outlined below. Most of the remaining rooms in this functional area and in Functional Area 1: Reception Area and Functional Area 5: Support Area are determined based on the number of Exam Rooms generated by workload. Mission, Staffing and Miscellaneous Input Data Questions drive the rest of the spaces in this chapter.

F. Section 3: Input Data Questions and Section 4: Space Planning Criteria have been implemented and tested in SEPS II.

G. Exam room capacity calculation is based on the following formula / parameters:

$$\frac{(\text{Operating Days per year})(\text{Hours of Operation per Day})}{\frac{\text{Average Length of Encounter (ALOE) in Minutes}}{60 \text{ Minutes}}} (\text{Utilization Factor})$$

User-defined Value:

- a. Operating Days per Year: 232, 240 or 250. (Default in SEPS: 240)
- b. Hours of Operation per Day: 6, 7, or 8 (Default in SEPS: 8)

Fixed Value:

- a. Utilization Factor: 80%

Calculation: Annual Workload for one Exam Room (Auditory Electrophysiology):

$$\frac{(\text{Operating Days per Year})(\text{Hours of Operation per Day})}{\frac{\text{Average Length of Encounter (ALOE) in Minutes}}{60 \text{ Minutes}}} (\text{Utilization Factor})$$

Minimum Annual Workload to generate an Exam Room: 20% of Annual Workload for one Exam Room.

H. Workload based room calculation examples:

- 1. Room Criteria Statement (Room 1):

Minimum one if the projected annual clinic encounters is between 307 and 1,536; provide an additional one for every increment of 1,536 projected annual clinic encounters greater than 1,536; the minimum workload to generate an additional room is 307.

- a. Input Data Statement 1, Answer 1:

How many annual clinic encounters are projected? (W) = 4,700

**Step 1:** Subtract the increment from the projected annual encounters to account for the “Minimum one” condition.

$$4,700 - 1,536 = 3,164$$

One room generated

**Step 2:** Divide the resulting value by the increment.

$$\frac{3,164}{1,536} = 2.05$$

Two additional rooms generated

**Step 3:** Multiply the whole value (“2” in the previous step) by the increment.

$$(2)(1,536) = 3,072$$

**Step 4:** Subtract Step 3 from Step 1.

$$3,164 - 3,072 = 92$$

**Step 5:** Compare Step 4 with the “minimum workload to generate an additional room” value; if higher, provide an additional room.

$$92 < 307$$

No additional rooms generated.

Total number of rooms generated by 4,700 annual encounters: 3

b. Input Data Statement 1, Answer 2:

How many annual clinic encounters are projected? (W) = 15,000

**Step 1:** Subtract the increment from the projected annual encounters to account for the “Minimum one” condition.

$$15,000 - 1,536 = 13,464$$

One room generated

**Step 2:** Divide the resulting value by the increment.

$$\frac{13,464}{1,536} = 8.76$$

Eight additional rooms generated

**Step 3:** Multiply the whole value (“8” in the previous step) by the increment.

$$(8)(1,536) = 12,288$$

**Step 4:** Subtract Step 3 from Step 1.

$$13,464 - 12,288 = 1,176$$

**Step 5:** Compare Step 4 with the “minimum workload to generate an additional room” value; if higher, provide an additional room.

$$1,176 > 307$$

One additional room generated.

Total number of rooms generated by 15,000 annual encounters: 10

2. Room Criteria Statement (Room 2):

Minimum two if the projected annual encounters is between 614 and 6,144; provide an additional one for every increment of 3,072 projected annual encounters greater than 6,144; the minimum workload to generate an additional room is 614.

a. Input Data Statement 2, Answer 1:

How many annual clinic encounters are projected? (W) = 12,500

**Step 1:** Subtract the increment from the projected annual encounters to account for the “Minimum one” condition.

$$12,500 - 6,144 (3,072)(2) = 6,356$$

Two rooms generated

**Step 2:** Divide the resulting value by the increment.

$$\frac{6,356}{3,072} = 2.06$$

Two additional rooms generated

**Step 3:** Multiply the whole value (“2” in the previous step) by the increment.

$$(2)(3,072) = 6,144$$

**Step 4:** Subtract Step 3 from Step 1.

$$6,356 - 6,144 = 212$$

**Step 5:** Compare Step 4 with the “minimum workload to generate an additional room” value; if higher, provide an additional room.

$$212 < 614$$

No additional rooms generated.

Total number of rooms generated by 12,500 annual encounters: 4

b. Input Data Statement 2, Answer 2:

How many annual clinic encounters are projected? (W) = 18,000

**Step 1:** Subtract the increment from the projected annual encounters to account for the “Minimum one” condition.

$$18,000 - 6,144 (3,072)(2) = 11,856$$

Two rooms generated

**Step 2:** Divide the resulting value by the increment.

$$11,856 \div 3,072 = 3.85$$

Three additional rooms generated

**Step 3:** Multiply the whole value (“3” in the previous step) by the increment.

$$(3)(3,072) = 9,216$$

**Step 4:** Subtract Step 3 from Step 1.

$$11,856 - 9,216 = 2,640$$

**Step 5:** Compare Step 4 with the “minimum workload to generate an additional room” value; if higher, provide an additional room.

$$2,640 > 614$$

One additional room generated.

Total number of rooms generated by 18,000 annual encounters: 6



**TABLE 1: WORKLOAD PARAMETER CALCULATION**

<b>310: AUDIOLOGY, HEARING CONSERVATION, SPEECH-LANGUAGE PATHOLOGY AND ENT CLINIC</b>				
<b>CLINICAL ENCOUNTERS / PROCEDURES</b>	<b>AVERAGE LENGTH OF CLINIC ENCOUNTER (minutes)</b>	<b>UTILIZATION RATE</b>	<b>ANNUAL WORKLOAD PER EXAM / PROCEDURE ROOM (*)</b>	<b>MINIMUM ANNUAL WORKLOAD TO GENERATE ONE ROOM (20%)</b>
Auditory Electrophysiology	60	80%	1,536	307
Posturography	180	80%	512	102
Vestibulography	120	80%	768	154
Diagnostic Audiology	60	80%	1,536	307
Hearing Conservation Screening	60 (8 pts)	80%	12,288	2,458
Speech-Language Pathology	60	80%	1,536	307
ENT Exam Room	30	80%	3,072	614

(\*) Values in this column are representative and are based on an 8-hour per day and a 240-day per year default value. SEPS calculates this value dynamically based on answers to the Input Data Statements.

## **SECTION 3: PROGRAM DATA REQUIRED**

**3.1. INPUT DATA STATEMENTS.** Input Data Statements are based on questions about Workload (W), Mission (M), Staffing (S) and Miscellaneous (Misc) information.

1. Is a Classroom for Hearing Conservation authorized? (Misc)
2. Is an Auditory Electrophysiology Room authorized? (M)
  - a. How many annual Auditory Electrophysiology encounters are projected? (W)
3. Is a Posturography Room authorized? (M)
  - a. How many annual Posturography encounters are projected? (W)
4. Is a Rotary Chair authorized? (M)
5. Is an Audiology, Hearing Conservation, Speech-Language Pathology and ENT Graduate Medical Education (GME) program authorized? (M)
  - a. How many Audiology, Hearing Conservation, and Speech-Language Pathology Clinic resident / student FTE positions are authorized? (S)
  - b. How many ENT Resident FTE positions are authorized? (S)
6. Is Speech-Language Pathology authorized? (M)
  - a. How many annual Speech-Language Pathology encounters are projected? (W)
7. Is a Bone Dissection Laboratory authorized? (M)
8. How many annual Vestibulography encounters are projected? (W)
9. How many annual Diagnostic Audiology encounters are projected? (W)
10. How many annual Screening Audiology encounters are projected? (W)
11. How many annual Hearing Conservation Screening encounters are projected? (W)
12. How many annual ENT encounters are projected? (W)
13. How many Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic FTE positions are authorized? (S)
  - a. How many Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic FTE positions are authorized to have a private office? (Misc)
  - b. How many Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic FTE positions are authorized to have a shared office? (Misc)
  - c. How many Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic FTE positions are authorized to have a cubicle? (Misc)
14. Is a Sub-Waiting in the Staff and Administration authorized? (Misc)
15. Is a Patient Records Storage in the Staff and Administration authorized? (Misc)
16. How many Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic FTEs will work on peak shift? (Misc)
17. Is the Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic authorized to operate outside the standard 8-hour per day shift? (Misc)
  - a. Is the Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic authorized to operate a 7-hour per day shift? (Misc) (If not, a 6-hour per day shift will be used to calculate workload driven spaces)
18. Is the Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic authorized to operate outside the standard 240 days per year? (Misc)

- a. Is the Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic authorized to operate 250 days per year? (Misc) (If not, 232 days per year will be used to calculate workload driven spaces)

## **SECTION 4: SPACE PLANNING CRITERIA**

For calculation of the number of Vending Machine areas, Public Toilets, Communication Closets, and Janitors Closets for this Chapter, please refer to DoD Space Planning Criteria Chapter 610: Common Areas.

### **4.1. FA 1: RECEPTION (AUDIOLOGY, HEARING CONSERVATION, SPEECH-LANGUAGE PATHOLOGY AND ENT)**

1. **Waiting (WRC01)** **120 NSF**  
Minimum NSF; provide an additional 60 NSF for every increment of four Auditory Electrophysiology, Posturography, Vestibulography, Rotary Chair, Hearing Aid Fitting / Modification Rooms; Single-Patient and Multi-Patient Audiometric Booths; Otoscopy Exam, Voice Analysis Laboratory, Adult and Pediatric Group Therapy, Special Procedures, Speech-Language Pathology, ENT Exam, ENT Procedure and Vestibular Exam rooms greater than four.
  
2. **Playroom (PLAY1)** **120 NSF**  
Provide one for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic.  
  
This space is provided to accommodate children's play activities, may be an open or an enclosed area, and should be included within or adjacent to Waiting.
  
3. **Reception (RECP1)** **120 NSF**  
Minimum NSF; provide an additional 60 NSF for every increment of sixteen Auditory Electrophysiology, Posturography, Vestibulography, Rotary Chair, Hearing Aid Fitting / Modification Rooms; Single-Patient and Multi-Patient Audiometric Booths; Otoscopy Exam, Voice Analysis Laboratory, Adult and Pediatric Group Therapy, Special Procedures, Speech-Language Pathology Exam, ENT Exam, ENT Procedure and Vestibular Exam rooms greater than sixteen.  
  
Minimum allocated NSF accommodates two FTEs.
  
4. **Kiosk, Patient Check-in (CLSC1)** **30 NSF**  
Provide one for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic.

5. **Patient Education (CLSC3)** **120 NSF**  
Provide one for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic.
6. **Classroom, Hearing Conservation (CLR02)** **240 NSF**  
Provide one for Hearing Conservation if authorized.
7. **Consult Room (OFDC2)** **120 NSF**  
Provide one for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic

#### **4.2. FA 2: AUDIOLOGY PATIENT AREA**

1. **Auditory Electrophysiology Room (OPAE1)** **180 NSF**  
Provide one for every increment of 1,536 projected annual Auditory Electrophysiology encounters, the minimum workload to generate a room is 307 if an Auditory Electrophysiology Room is authorized. (Refer to Section 3)  
  
This room accommodates the specialized equipment utilized in measuring auditory evoked potentials, such as brainstem auditory evoked potentials (ABR) or electrocochleography (ECOG) for diagnostic purposes.
2. **Posturography Room (OPAP1)** **120 NSF**  
Provide one for every increment of 512 projected annual Posturography encounters, the minimum workload to generate a room is 102 if a Posturography Room is authorized. (Refer to Section 2)
3. **Exam, Vestibular (EXVE1)** **120 NSF**  
Provide one for every increment of 768 projected annual Vestibulography encounters, the minimum workload to generate a room is 154. (Refer to Section 2)  
  
Allocated NSF accommodates space for performing special balance tests including electronystagmography (ENG), and videonystagmography (VNG).
4. **Rotary Chair Room (OPAR1)** **180 NSF**  
Provide one if a Rotary Chair is authorized.  
  
Room used to perform Rotary Chair Testing; must accommodate chair, size, vibration and rotation.
5. **Hearing Aid Fitting / Modification (HAFR1)** **120 NSF**  
Provide one for Audiology, Hearing Conservation Clinic.

6. **Waiting, Audiology (WRC01)** **180 NSF**  
Provide one if Audiometric Booth (Single or Multi-Person) for Audiologiyis generated.
  
7. **Audiometric Booth, Single-Patient (PEHS3)** **360 NSF**  
Minimum one if the projected annual Diagnostic Audiology encounters is between 307 and 1,536; provide an additional one for every increment of 1,536 projected annual Diagnostic Audiology greater than 1,536; the minimum workload to generate an additional Single-Patient Audiometric Booth is 307. (Refer to Section 2)
  
8. **Audiometric Booth, Multi-Patient (PEHS2)** **360 NSF**  
Minimum one if the projected annual Screening Audiology encounters is between 2,458 and 12,288; provide an additional one for every increment of 12,288 projected annual Screening Audiology encounters greater than 12,288; the minimum workload to generate an additional Multi-Patient Audiometric Booth is 2,458. (Refer to Section 2)  
  
Allocated NSF accommodates up to an 8-person audiometric booths.
  
9. **Exam, Otoscopy (EXEN1)** **120 NSF**  
Provide two for Audiology / Hearing Conservation. Provide an additional one for each Multi-Patient Audiometric Booth greater than one.  
  
Allocated NSF accommodates space for Otoscopic exam, consultation and Post- Test Education.
  
10. **Toilet, Patient (TLTU1)** **60 NSF**  
Provide one for Audiology.

#### **4.3. FA 3: HEARING CONSERVATION PATIENT AREA**

1. **Waiting, Hearing Conservation (WRC01)** **120 NSF**  
Provide one if a Multi-Person Audiometric Booth for Hearing Conservation is generated.
  
2. **Audiometric Booth, Multi-Patient (PEHS2)** **360 NSF**  
Minimum one if the projected annual Hearing Conservation Screening encounters is between 2,458 and 12,288; provide an additional one for every increment of 12,288 projected annual Hearing Conservation Screening encounters greater than 12,288; the minimum workload to generate an additional Multi-Patient Audiometric Booth is 2,458. (Refer to Section 2)

Allocated NSF accommodates up to an 8-person audiometric booth.

3. **Hearing Protection Fit Test (HAFR1)** **120 NSF**  
Provide one for Hearing Conservation.
4. **Toilet, Patient (TLTU1)** **60 NSF**  
Provide one for Hearing Conservation.

#### **4.4. FA 4: SPEECH-LANGUAGE PATHOLOGY PATIENT AREA**

1. **Voice Analysis Lab (TREN2)** **120 NSF**  
Provide one if Speech-Language Pathology is authorized.  
  
For voice and speech diagnosis and treatment; sound proof booth.
2. **Speech Therapy Group, Adult (OPMP1)** **240 NSF**  
Provide one if Speech-Language Pathology is authorized.
3. **Speech Therapy Group, Pediatric (OPMP1)** **240 NSF**  
Provide one if Speech-Language Pathology is authorized.  
  
This room includes closed circuit TV.
4. **Special Procedures (TREN1)** **180 NSF**  
Minimum one if Speech-Language Pathology is authorized. Provide an additional one for every increment of ten Speech Language Pathology Exam rooms and ENT Exam rooms greater than ten.  
  
Allocated NSF provides space for swallowing evaluations, video stroboscopy, video endoscopy, laryngeal exams, an ENT chair and space for laser treatment.
5. **Exam, Speech-Language Pathology (EXOS1)** **120 NSF**  
Provide one for every increment of 1,536 projected annual Speech-Language Pathology encounters, the minimum workload to generate a room is 307 if Speech-Language Pathology is authorized. (Refer to Section 3)
6. **Toilet, Patient (TLTU1)** **60 NSF**  
Provide one for the Speech-Language Pathology.

#### **4.5. FA 5: ENT PATIENT AREA**

1. **Exam, ENT (EXEN1)** **120 NSF**  
Minimum two if the projected annual ENT encounters is between 614 and 6,144; provide an additional one for every increment of 3,072 projected annual ENT greater than 6,144; the minimum workload to generate an additional ENT Procedure Room is 614. (Refer to Section 2)

2. **Treatment Room, ENT (TREN1)** **180 NSF**  
Minimum one; provide an additional one for every increment of ten ENT Exam Rooms greater than ten.
  
3. **Laboratory, Bone Dissection (LBDS1)** **240 NSF**  
Minimum NSF; provide one if a Graduate Medical Education program for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic is authorized; provide an additional 30 NSF per each ENT Resident FTE authorized greater than five.  
  
This is a temporal bone dissection skills lab for residents to gain a thorough knowledge of temporal bone anatomy. Consider locating in GME Area.
  
4. **Exam, Vestibular (EXVE1)** **120 NSF**  
Minimum one; provide an additional one for every increment of ten ENT Exam Rooms greater than ten.
  
5. **Toilet, Patient (TLTU1)** **60 NSF**  
Provide one for the ENT.

#### **4.6. FA 6: SUPPORT**

1. **Decontamination / Scope Wash (USCL2)** **120 NSF**  
Provide one for Speech-Language Pathology and ENT Clinic.  
  
This room is part of a two-room suite (USCL2 and UCCL2); this USCL2 room is for initial decontamination with a pass-through to the Utility, Clean Scope for instrument washing / high level disinfecting.
  
2. **Utility, Clean Scope (UCCL2)** **120 NSF**  
Provide one for Speech-Language Pathology and ENT Clinic.  
  
This room is part of a two-room suite (USCL2 and UCCL2); it should have a pass-through from Decontamination / Scope Wash.
  
3. **Medication Room (MEDP1)** **120 NSF**  
Provide one for ENT Clinic.
  
4. **Utility Room, Clean (UCCL1)** **120 NSF**  
Minimum NSF; provide an additional 30 NSF for every increment of sixteen Auditory Electrophysiology, Posturography, Vestibulography, Rotary Chair, Hearing Aid Fitting / Modification Rooms; Single-Patient and Multi-Patient Audiometric Booths; Otoscopy Exam, Voice Analysis Laboratory, Adult and Pediatric Group Therapy, Special Procedures, Speech-Language Pathology, ENT Exam Room, ENT Procedure Room and Vestibular Exam greater than sixteen.

5. **Utility Room, Soiled (USCL1) 90 NSF**  
Minimum NSF; provide an additional 30 NSF for every increment of sixteen Auditory Electrophysiology, Posturography, Vestibulography, Rotary Chair, Hearing Aid Fitting / Modification Rooms; Single-Patient and Multi-Patient Audiometric Booths; Otoscopy Exam, Voice Analysis Laboratory, Adult and Pediatric Group Therapy, Special Procedures, Speech-Language Pathology, ENT Exam Room, ENT Procedure Room and Vestibular Exam greater than sixteen.
6. **Storage, Equipment (SRSE1) 120 NSF**  
Minimum NSF; provide an additional 30 NSF for every increment of eight Auditory Electrophysiology, Posturography, Vestibulography, Rotary Chair, Hearing Aid Fitting / Modification Rooms; Single-Patient and Multi-Patient Audiometric Booths; Otoscopy Exam, Voice Analysis Laboratory, Adult and Pediatric Group Therapy, Special Procedures, Speech-Language Pathology, ENT Exam Room, ENT Procedure Room and Vestibular Exam greater than eight.
7. **Alcove, Crash Cart (RCA01) 30 NSF**  
Provide one for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic.
8. **Alcove, Wheelchair (SRLW1) 30 NSF**  
Provide one for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic.

#### **4.7. FA 7: STAFF AND ADMINISTRATION**

1. **Office, Department / Clinic Chief (OFA04) 120 NSF**  
Provide one for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic.
2. **Sub-Waiting (WRC03) 60 NSF**  
Provide one for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic if authorized.
3. **Office, NCOIC / LCPO / LPO (OFA04) 120 NSF**  
Provide one for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic.
4. **Team Collaboration Room (WRCH1) 120 NSF**  
Minimum one; provide an additional one for every increment of eight Auditory Electrophysiology, Posturography, Vestibulography, Rotary Chair, Hearing Aid Fitting / Modification Rooms; Single-Patient and Multi-Patient Audiometric Booths; Otoscopy Exam, Voice Analysis Laboratory, Adult and Pediatric Group Therapy,



Special Procedures, Speech-Language Pathology, ENT Exam Room, ENT Procedure Room and Vestibular Exam greater than eight.

5. **Office, Private (OFA04)** **120 NSF**  
Provide one per each Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic FTE position authorized to have a private office.

6. **Office, Shared (OFA05)** **120 NSF**  
Provide one for every increment of two Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic FTE positions authorized to have a shared office.

7. **Cubicle (OFA03)** **60 NSF**  
Provide one per each Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic FTE position authorized to have a cubicle.

These cubicles may be collocated in a shared space or dispersed as required.

8. **Storage, Patient Records (FILE1)** **60 NSF**  
Provide one for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic if authorized.

9. **Conference Room (CRA01)** **240 NSF**  
Minimum NSF; provide an additional 60 NSF if the total number of FTE positions authorized is greater than ten.

Planner must determine adequacy and availability of existing Conference Room space and the ability to optimize resources by sharing Conference Room space with other departments.

10. **Copy, Office Supply (RPR01)** **120 NSF**  
Provide one for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic.

11. **Lounge, Staff (SL001)** **120 NSF**  
Minimum NSF, if the number of Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic FTE positions working on peak shift is ten; provide an additional 60 NSF for every increment of five FTEs working on peak shift greater than ten; maximum 360 NSF.

12. **Toilet, Staff (TLTU1)** **60 NSF**  
Minimum one Provide an additional one for every increment of fifteen Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic FTEs working on peak shift greater than fifteen.

13. **Lockers, Personal Property (LR001)** **30 NSF**  
Minimum NSF, provide an additional 30 NSF for every increment of four Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic FTE position not assigned a private office, shared office or cubicle greater than eight

**4.8. FA 8: GME EDUCATION / TRAINING**

1. **Office, Residency Program Director (OFA04)** **120 NSF**  
Provide one if an Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic Graduate Medical Education program is authorized.
2. **Resident Collaboration Room (WKTM1)** **240 NSF**  
Minimum NSF; provide an additional 60 NSF per each Resident / Student FTE position authorized greater than two if a Graduate Medical Education program for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic is authorized.  
  
Minimum NSF accommodates two residents, and a collaboration / reference area.
3. **Conference/Classroom (CRA01)** **240 NSF**  
Provide one if a Graduate Medical Education program for Audiology, Hearing Conservation, Speech-Language Pathology and ENT Clinic is authorized and the total number of Resident / Student FTE positions is greater than five.

## **SECTION 5: PLANNING AND DESIGN CONSIDERATIONS**

The following design considerations are intended to provide planners and designers with guidance on how to follow world-class and evidence-based design strategies for new and renovation of existing healthcare facilities. For a more comprehensive list, refer to the latest version of the World Class Checklist (<https://facilities.health.mil/home/>). Also refer to Section 1.2 – 6, Design Considerations and Requirements of the latest version of the FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities by the Facility Guidelines Institute (FGI Guidelines) for additional information.

### **5.1. NET-TO-DEPARTMENT GROSS FACTOR**

- a. The net-to-department gross factor (NTDG) for Audiology, Hearing Conservation, Speech-Language Pathology, and ENT Clinic is 1.40. This number when multiplied by the programmed net square foot (NSF) area determines the departmental gross square feet. This factor accounts for the space occupied by internal department circulation and interior partitions and other construction elements not defined by the net square foot area.

### **5.2. RECEPTION**

- a. Where possible, centralized intake should be considered where multiple clinics are co-located.

### **5.3. PATIENT AREA**

- a. Consider placing high volume, quick turn encounters near the front of the Patient Care area.
- b. The audiology assessment and treatment space should not be adjacent to mechanical systems or other noisy or vibration inducing components.
- c. Sound booths should be located in interior space for isolation from external noise sources.

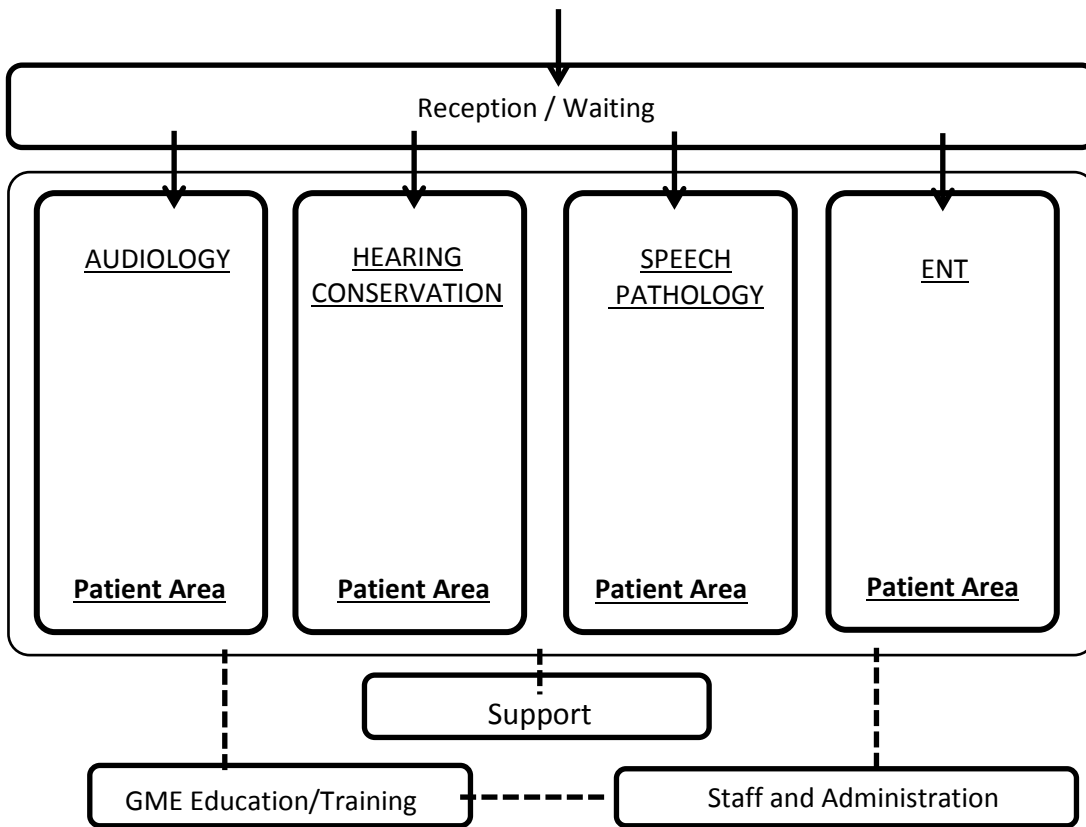
### **5.4. OTHER DESIGN CONSIDERATIONS**

- a. Provide flexible, standardized and modular blocks of clinic space that include dedicated zones (e.g. intake/waiting, exam room, support core, administrative core, procedure and diagnostic core, etc.).
- b. Functional areas should be designed to provide flexibility in order to accommodate a variety of patient visit types and specialties. Standardized modules should be configured so that clinics can use available adjacent space as demand fluctuates from one clinic to the next.

## SECTION 6: FUNCTIONAL RELATIONSHIPS (INTRADEPARTMENTAL)

### 6.1. FUNCTIONAL DIAGRAM: AUDIOLOGY, HEARING CONSERVATION, SLP, ENT CLINIC.

Functional Diagrams show the relationship of each functional area to the whole department. In some instances it shows important spaces within a functional area and how staff and patients may flow through the department. This diagram is not intended to serve as a “bubble diagram” that the planner / designer will create for an individual project. Size and shapes of spaces do not reflect actual configuration or square footage of spaces / rooms.



**LEGEND**

- Patient Circulation
- Staff Circulation

**Audiology - Hearing Conservation -  
Speech Pathology - ENT**

## GLOSSARY

### G.1.

**Assessment:** The patient is formally assessed using standardized assessment tools by a speech-language pathologist or audiologist. Verbal responses to queries are evaluated. Audiologists use equipment to assess level of hearing impairment.

**Audiology:** Audiology services in military treatment facilities provide the following types of services: evaluation of the auditory system to include pure tone air and bone conduction, speech threshold and recognition testing, electrophysiological testing, vestibular evaluations, pre and post-operative exams, dispensing and fitting of hearing aids and hearing protection, and hearing conservation services.

**Audiometric Booth:** This space provides a self-contained environment for hearing conservation programs. Testing booths are offered with a range of acoustical performance levels, variations in floor plans, and numerous options.

**Authorized:** This document uses the term “authorized” to indicate that during a project’s space plan development, a planner shall seek approval from the appropriate official in the chain of command to activate certain spaces or certain groups of spaces. Typical components that may require authorization are certain programs or services that activate Functional Areas (e.g., GME); office spaces (e.g., FTE position); specialized rooms (e.g., Hybrid OR) or other spaces (e.g., On-Call Room). Typically, Mission, Staffing and Miscellaneous Input Data Statements require authorization, while directly and indirectly workload driven rooms / spaces do not.

**Average Length of Encounter (ALOE):** In these space criteria, an Encounter is defined as a face-to-face professional contact between a patient and a provider vested with responsibility for diagnosing, evaluating, and treating the patient’s condition. The Length of Encounter is the time between set-up and clean-up of the Exam Room. The Average Length of Encounter is used to capture variations in Length of Encounter among similar clinical encounters that will take place in an Exam Room.

**Bariatrics:** Bariatrics is the branch of medicine that deals with the causes, prevention, and treatment of obesity. A bariatric patient is one that is severely obese, overweight by 100 to 200 lbs., or having a body weight of greater than 300 lbs. A Body Mass Index (BMI) of greater than 40 is considered bariatric.

**Bariatric Patient Toilet:** This space is the bathroom for the bariatric patient. Planner should refer to the FGI Guidelines for the preferred bariatric design solutions for this room. This bathroom should be located proximate to the Bariatric Patient Exam / Treatment Room; however, it is not solely dedicated to the bariatric patient. It may be used by other patients for added flexibility.

Clean Utility Room: This room is used for the storage and holding of clean and sterile supplies. Clean linen may be stored in a designated area in the clean utility room if space is not provided in a separate room or in an alcove.

Consultation: Speech-language pathologists and audiologists consult with family members, spouses and community stakeholders.

Consult Room: This is a consultation room for family members to meet with physicians or other providers privately and is ideally located near the waiting room.

Cubicle: A cubicle is a partially enclosed workspace, separated from neighboring workspaces by partitions. Managers and other staff with no supervisory responsibilities as well as part-time, seasonal, and job-sharing staff may qualify for a cubicle.

Education: Emphasis is upon the education and training of patients and caregivers to implement remediation strategies or “next steps” in the prevention or treatment plan.

Electrophysiology: Special diagnostic tests involving the measurement of auditory evoked potentials from the cochlea, auditory nerve, or brain including electrocochleography, auditory brainstem response (ABR), middle latency potentials (MLR), late potentials, and other specialized evoked potential techniques.

Ear, Nose and Throat (ENT): Also known as Otolaryngology or ENT, this is the branch of medicine and surgery that specializes in the diagnosis and treatment of disorders of the head and neck.

Encounter: A contact between an eligible beneficiary and a credentialed provider. An encounter may consist of examination, diagnosis, treatment, evaluation, consultation or counseling or a combination of the above. The encounter may take place in a clinic, by telephone, computer, or in other treatment or observation areas. Encounter volume used to generate exam room requirements should not include telephone encounters.

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 a 40-hour a week workload.

Functional Area (FA): The grouping of rooms and spaces based on their function within a service. Typical Functional Areas in clinical services are Reception, Patient Area, Support, Staff and Administration, and Education.

Graduate Medical Education (GME): After a physician completes 4 years of medical school, they must then complete an internship (also called PGY1 or Post Graduate Year 1) and then a residency (also termed GME or Graduate Medical Education). An internship typically lasts one year, and a residency can last from three to seven years depending on the specialty that is chosen.

Group Therapy: A patient may participate in group therapy led by a Speech-Language Pathologist (SLP). This provides an opportunity for a patient to practice conversation skills and communicate in real-life situations. The SLP may lead the group through structured discussions, focusing on improving initiation of conversation, turn-taking, and repairing conversational breakdowns. Group therapy is also provided for children, typically in small groups of no more than four children.

Hearing Aid Fitting/Modification Room: This room accommodates the special equipment used to program and fit digital hearing aids and bioelectric implants. Modifications to the fit may be made based on feedback from the patient.

Hearing Conservation: These services are provided separately from Clinical Audiology Services. Hearing Conservation will provide the following services: hearing testing for the determination of temporary or permanent threshold shift (TTS/PTS), fitting of appropriate hearing protection, and health education.

Hearing Protection Fit Test: Fit testing provides a formal metric from which one can determine whether patients are receiving optimal protection for their noise environment, require additional training on how to fit their ear plugs, or need to try a different model. Fit-testing of earplugs provides immediate feedback to wearers. Users know right away whether their fit is acceptable or not and can make immediate adjustments.

Input Data Statement: A set of questions designed to elicit information about the healthcare project in order to create a Program for Design (PFD) (see definition below); based on the space criteria parameters (refer to Section 4) set forth in this document. Input Data Statements are defined as Mission, Workload, Staffing or Miscellaneous.

Net-to-Department Gross Factor (NTDG): A parameter used to calculate the Department Gross Square Foot (DGSF) area based on the programmed Net Square Foot (NSF) area. Refer to DoD Chapter 130 for the NTDG factors for all Space Planning Criteria chapters.

Office, Private: A single occupancy office provided for confidential communication.

Office, Shared: An office that accommodates two workstations.

Outpatient Clinic: A clinic providing outpatient services in both freestanding community-based facilities, as well as ambulatory clinics in or directly adjacent to hospital-based services.

Otoscopy: An examination that involves looking into the ear with an instrument called an otoscope. This is performed in order to examine the 'external auditory canal' – the tunnel that leads from the outer ear (pinna) to the eardrum.

Personal Property Lockers: This is a small-sized locker, commonly called purse or cell phone locker, and is generally used to secure purses and smaller valuables. Staff members who

do not have an office or cubicle space where they can safely store belongings will be assigned these lockers.

Posturography: A 20-minute computerized clinical test used to assess balance function. Muscles and nerves in the legs (somato-sensory system), inner ear balance (vestibular system), and vision are three components the human uses to maintain balance. Posturography tests isolate each of these components to assess where the deficit may be. The test also evaluates the automatic motor system's ability to recover after sudden, unexpected movements.

Project Room Contents (PRC): A listing of the assigned contents (medical equipment, FF&E, etc.) for each room in a PFD generated by SEPS.

Program for Design (PFD): A listing of all of the rooms / spaces generated based on answers to the Input Data Statements (see Section 3) and the space planning criteria outlined in this document (Section 4) in SEPS. The list is organized by Functional Area and includes the Room Quantity, Room Code, Room Name and generated Net Square Feet (NSF), Construction Phase and Construction Type.

Provider: A medical professional, such as a physician, nurse practitioner, or physician assistant, who examines, diagnoses, treats, prescribes medications, and manages the care of patients within the scope of their practice as established by the governing body of a healthcare organization.

Rotary Chair Room: Used for analyzing horizontal canal vestibuloocular reflex (VOR). Rotation of the chair is performed with the assumption that the stimulus applied to the whole body is the same as the stimulus that is applied to the head. A Rotary Chair test typically takes 15 minutes.

Space and Equipment Planning System (SEPS): A digital tool developed by the Department of Defense (DoD) and the Department of Veterans Affairs to generate a Program for Design (PFD) and a Project Room Contents list (PRC) for a DoD healthcare project based on approved Space Planning Criteria, the chapter and specific project-related Mission, Workload and Staffing information entered in response to the Program Data Required - Input Data Statements (IDSs).

Soiled Utility Room: This space provides an area for cleanup of medical equipment and instruments, and for disposal of medical waste material. It provides temporary holding for material that will be picked up by Central Sterile or similar service. It should be accessible to staff.

Speech-Language Pathology: This service in military treatment facilities provides diagnosis and treatment of speech, language, voice, and swallowing disorders. Patients with such communication disorders often have hearing deficiencies.



Team Collaboration Room: This space provides staff with an environment conducive to collaboration. Room contains touchdown computer workstations for documentation and a table with chairs to hold meetings.

Telehealth: 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.

Treatment: Speech-language pathologists use evidence based treatments to remediate communication and swallowing impairments. The Audiologist uses a hearing booth to evaluate impairment and to make treatment recommendations.

Utilization Factor: Also known as capacity utilization rate, this factor provides flexibility in the utilization of a room to account for patient delays, scheduling conflicts and equipment maintenance. A room with an 80% utilization factor provides a buffer to assume that this room would be available 20% of the time beyond the planned operational practices for this room.

Vestibular Testing: This consists of a number of tests that help determine if there is something wrong with the vestibular (balance) portion of the inner ear. These tests can help isolate dizziness symptoms to a specific cause that can often be treated.

Vestibulography: Vestibulography is a general class of special balance tests including Electronystagmography (ENG), videonystagmography (VNG), and sinusoidal vertical axis rotational testing (Rotary Chair). These tests record nystagmus and eye movement to diagnose peripheral and central vestibular disorders.

Voice Analysis Laboratory: This is a room to evaluate the patient's voice signal in terms of pitch, loudness, and quality, as well as to measure the aerodynamic parameters and breathing dynamics.

Workload: Space Planning Criteria per DHA Policy shall be workload driven. Workload projections divided by the throughput determined in this document for each workload driven room determines the quantity of rooms needed to satisfy the projected workload demand.