

## DOD SPACE PLANNING CRITERIA

# CHAPTER 450: STERILE PROCESSING JULY 1, 2017

Originating Component:	Defense Health Agency Facilities Division
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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.

# SUMMARY of CHANGE

This revision, dated July 1, 2017 includes the following:

- On page 11, section 4.3. FA3: STERILZATION AREA, room 3, Sterilization Area, Large (CSSS3), changed the stated net square footage from 390 NSF to 480 NSF to align with SEPS.
- On page 13, section 4.5. FA5: STAFF AND ADMINISTRATION, room 4, changed name to read "Conference / Classroom (CRA01)".
- On page 18, Section 6, changed title to read "FUNCTIONAL RELATIONSHIPS (Interdepartmental)"
- On page 19, section 7.1. Functional Diagram changed the first line to read "The diagram below illustrates intradepartmental relationships among key areas / spaces within Sterile Processing."

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

**1.1. PURPOSE AND SCOPE** This chapter outlines space planning criteria for Sterile Processing within the Military Health System (MHS).

Note that the reprocessing function for Dental Clinic – Chapter 320, is not covered in this Sterile Processing Chapter 450, and that criteria presented herein may be adjusted due to mission, readiness and location (CONUS vs. OCONUS) of the medical treatment facility.

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. OPERATING RATIONALE AND BASIS OF CRITERIA.

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 the Sterile Processing Department 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, and may in certain instances, require the Medical Transportation and Logistics Consultant (MTLC), to conduct special studies specific to Sterile Processing.

D. Calculation of the number and -in some cases- the area (NSF) of rooms is performed in one of the following methods:

- 1. Directly workload (W) driven
- 2. Indirectly workload driven
- 3. Mission (M) or Staffing (S) driven

The directly workload-driven rooms are based on workload projections entered in response to the Workload Input Data Statements (IDSs) included in Section 4. The directly workload driven rooms in this chapter are Soiled Transition / Drop-off, Decontamination Work Area, Automated Cart Washer, Detergent and Water Treatment Storage Room, Instrument Set Assembly Clean Work Room, Sterilization Area, Breakout and Inspection Room Receiving, Sterile Consumables Storage, Sterile Durables Storage, and Case Cart Assembly.

The indirectly workload-driven rooms are derived from the preceding group. They are typically in the Reception and Support Functional Areas. Examples are Waiting, or the number of clean or soiled utility rooms.

The mission / staffing-driven rooms are created based on Boolean 'yes/no' or numeric responses to the Mission and Staffing Input Data Statements (IDSs).

E. The Net Square Feet (NSF) and Room Code (RC) for each room in Section 5: Space Planning Criteria of this chapter was provided by or approved by the Defense Health Agency (DHA) Template Board.

F. Section 4: Input Data Statements and Section 5: Space Planning Criteria have been implemented and tested in the Space and Equipment Planning System (SEPS). To gain access to SEPS planner should contact a Defense Health Agency (DHA) representative; access to SEPS is provided via a 16-hour hands-on training session.

G. Calculation of each of the directly workload-driven room types is implemented in SEPS based on the following workload parameters:

- 1. Number of projected transport carts.
- 2. Number of projected daily instrument sets reprocessed.
- 3. Number of projected daily carts / container racks reprocessed.
- 4. Number of ORs supported.
- 5. Number of projected daily Surgical Procedures projected.

These parameters are directly included in the Room Criteria Statements of those rooms they generate.

### 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 Sterile Processing authorized to reprocess scopes from non-OR user areas? (M)
- 2. Is an Equipment Clean-up Room authorized for Sterile Processing? (M)
- 3. Is an Automated Cart Washer authorized for Sterile Processing? (M)
  - a. How many carts and/or container racks will be reprocessed daily? (W)
- 4. Is a decentralized water treatment system authorized? (M)
- 5. Is Laser identification (etching) or digital photo identification of surgical instruments authorized? (M)
- 6. Is Sterile Processing authorized to handle the restocking / reassembly of implants, such as orthopedic parts, into orthopedic instrument trays? (M)
- 7. Is the MTF authorized to handle, inspect and repackage instrument wrappers and surgical towels? (M)
- 8. Is the MTF authorized to process surgical drapes and surgical gowns? (M)
- 9. Are pass-through sterilizers authorized? (M)
- 10. Is a Pneumatic Tube Station System for Sterile Processing authorized? (M)

- 11. How many transport carts are projected? (W)
- 12. How many daily instrument sets are projected to be reprocessed by Sterile Processing? (W)
- 13. How many daily surgical procedures are projected? (W)
- 14. How many Sterile Processing FTE positions are authorized? (S)
  - a. How many Sterile Processing FTE positions are authorized to have a private office? (Misc)
  - b. How many Sterile Processing FTE positions are authorized to have a shared office? (Misc)
  - c. How many Sterile Processing FTE positions are authorized to have a cubicle? (Misc)
- 15. How many ORs will be served by Sterile Processing? (Misc)
- 16. How many Sterile Processing Male FTEs will work on peak shift? (Misc)
- 17. How many Sterile Processing Female FTEs will work on peak shift? (Misc)
- 18. Is a Conference / Classroom for Sterile Processing authorized? (Misc)

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

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

#### 4.1. FA1: DECONTAMINATION AREA (SOILED WORK AREA).

#### 1. Soiled Transition / Drop-off (CSCR1)

**120 NSF** 

**360 NSF** 

Minimum NSF; provide an additional 15 NSF per each transport cart projected greater than two; maximum 180 NSF.

This area is a transition zone separating the main circulation corridor from the Decontamination Work Area. It accommodates the temporary holding of soiled carts, totes, and medical equipment, without directly entering the Decontamination Work Area. Included in this area is an electronic tracking system with wall mounted scanner to be used for instrument and equipment tracking. Refer to OSHA and ANSI Standards.

#### 2. Decontamination Work Area (CSDE1)

Provide one if Sterile Processing will reprocess less than 150 projected instruments sets daily.

The space provides for cart unloading and instrument cleaning / prep / inspection. Included in this area is a hand washing sink with emergency eyewash fixture, one pass-through window assembly with lower rack return and one pass-through dryer. Additional equipment, and accompanying space may be required based upon the location of the MTF, (i.e., CONUS, OCONUS), mission, and access to repair parts / service, etc.

#### 3. Decontamination Work Area, Medium (CSDE2)

660 NSF

Provide one if Sterile Processing will reprocess between 150 and 400 projected instrument sets daily.

The space provides for cart unloading and instrument cleaning / prep / inspection. Included in this area is a hand washing sink with emergency eyewash fixture, one pass-through window assembly with lower rack return and one pass-through dryer. Additional equipment, and accompanying space may be required based upon the location of the MTF, (i.e., CONUS, OCONUS), mission, and access to repair parts / service, etc.

#### 4. Decontamination Work Area, Large (CSDE3) **960 NSF**

Provide one if Sterile Processing will reprocess greater than 400 projected instruments sets daily.

The space provides for cart unloading and instrument cleaning / prep / inspection. Included in this area is a hand washing sink with emergency eyewash fixture, one pass-through window assembly with lower rack return and one pass-through dryer. An additional eyewash fixture should be provided if the total NSF exceeds 660 NSF. Additional equipment, and accompanying space may be required based upon the location of the MTF, (i.e., CONUS, OCONUS), mission, and access to repair parts / service, etc.

#### 5. Utility, Clean Scope Wash (UCCL2) **120 NSF** Minimum NSF; provide an additional 30 NSF if Sterile Processing is authorized to reprocess scopes from non-OR user areas.

Minimum allocated NSF accommodates one double-basin automatic endoscope reprocessor (AER) at 30 NSF, one pass-through window assembly at 20 NSF, six linear feet of counter-top set-down space at 40 NSF, one scope drying cabinet at 16 NSF, and one utility transfer cart at 10 NSF. As part of a two-room suite, this room is utilized for scope washing / high level disinfection, and equipped with a pass-through to receive scopes from the Soiled Scope Wash Utility Room.

# 6. Utility, Soiled Scope Wash (USCL2)

Minimum NSF; provide an additional 30 NSF if Sterile Processing is authorized to reprocess scopes from non-OR user areas.

This space accommodates the gross cleaning and decontamination of flexible scopes. Provide eight linear feet of counter-top, a two-basin clean-up sink, a scope transfer utility cart at 10 NSF, and a PC with a scanner for scope tracking and documentation.

7. Equipment Clean-up Room (CWSH1)

Provide one if an Equipment Clean-up Room for Sterile Processing is authorized.

#### **120 NSF**

Best practices limit this use in new medical treatment facilities by providing cleaning capabilities within the patient care units. Accordingly, this may not be required for patient equipment. However, in larger departments, this room offers back-up capability to the automated cart and utensil washer so that there is an alternative to sanitizing case carts when the automated unit is unavailable. The room includes a work surface with single basin sink and is used to clean mobile patient care equipment.

#### 8. Automated Cart Washer (CWSH2) **180 NSF**

Minimum NSF if an Automated Cart Washer for Sterile Processing is authorized; provide an additional 180 NSF if greater than seventy carts and/or container racks will be reprocessed daily.

This space provides access to the mechanical room / components of the cart washer unit and includes cart queuing space.

9. Storage Room, Detergent and Water Treatment (USDD1) **60 NSF** Minimum NSF; provide an additional 30 NSF if Sterile Processing will reprocess between 150 and 400 projected instrument sets daily; provide an additional 60 NSF if Sterile Processing will reprocess greater than 400 projected instrument sets daily; provide an additional 90 NSF if a decentralized water treatment system is authorized.

This space provides storage for chemicals to be used for instrument and cart washers. This room also supports RO/DI water purification equipment for the final instrument washer rinse cycle and a RO/DI water "pistol" at each clean-up sink.

#### 10. Janitor Closet (JANC1)

Provide one dedicated for Decontamination Area.

#### 4.2. FA2: PREPARATION AND ASSEMBLY (CLEAN WORK AREA).

1. Clean Workroom, Instrument Set Assembly, Small (CSIA1) **300 NSF** Provide one if Sterile Processing will reprocess less than 150 projected instruments sets daily; provide an additional 60 NSF if Laser identification (etching) or digital photo identification of surgical instruments is authorized; provide an additional 100 NSF if Sterile Processing is authorized to handle the restocking / reassembly of implants, such as orthopedic parts into orthopedic instrument trays.

Minimum allocated NSF accommodates one workstation for instrument set assembly at 60 NSF, one workstation for individual instruments / peel pack at 60 NSF, one workstation for inspection / QA packaging / wrapping at 60 NSF, one information system workstation with computer, bar-code reader and laser printer at 30 NSF, one instrument washer unloading station at 15 NSF, one pass-through window (set-down / receiving) at 20 NSF, two storage carts or cabinets for supplies, instrument containers, wrappers, pouches, clean linen, etc. at 15 NSF and circulation space.

2. Clean Workroom, instrument Set Assembly, Medium (CSIA2) **600 NSF** Provide one if Sterile Processing will reprocess between 150 and 400 projected instrument sets daily; provide an additional 60 NSF if Laser identification (etching) or digital photo identification of surgical instruments is authorized; provide an additional 100 NSF if Sterile Processing is authorized to handle the restocking / reassembly of implants, such as orthopedic parts into orthopedic instrument trays.

Minimum allocated NSF accommodates one workstation for instrument set assembly at 60 NSF, one workstation for individual instruments / peel pack at 60 NSF, one workstation for inspection / QA packaging / wrapping at 60 NSF, one information system workstation with computer, bar-code reader and laser printer at 30 NSF, one instrument washer unloading station at 15 NSF, one pass-through window (set-down / receiving) at 20 NSF, two storage carts or cabinets for supplies, instrument containers, wrappers, pouches, clean linen, etc. at 15 NSF and circulation space.

3. Clean Workroom, Instrument Set Assembly, Large (CSIA3) **900 NSF** Provide one if Sterile Processing will reprocess greater than 400 projected instrument sets daily; provide an additional 60 NSF if Laser identification (etching) or digital photo identification of surgical instruments is authorized; provide an additional 100 NSF if Sterile Processing is authorized to handle the restocking / reassembly of implants, such as orthopedic parts into orthopedic instrument trays.

Minimum allocated NSF accommodates one workstation for instrument set assembly at 60 NSF, one workstation for individual instruments / peel pack at 60 NSF, one workstation for inspection / QA packaging / wrapping at 60 NSF, one information system workstation with computer, bar-code reader and laser printer at 30 NSF, one instrument washer unloading station at 15 NSF, one pass-through window (set-down / receiving) at 20 NSF, two storage carts or cabinets for supplies, instrument containers, wrappers, pouches, clean linen, etc. at 15 NSF and circulation space.

- 4. Textile Inspection Room (LCFA1) 240 NSF Minimum NSF if the MTF is authorized to handle, inspect and repackage instrument wrappers and surgical towels; provide an additional 60 NSF if the MTF is authorized to process surgical drapes and surgical gowns.
- 5. Janitor Closet (JANC1) Provide one dedicated for Preparation and Assembly.

#### 4.3. FA3: STERILIZATION AREA.

1. Sterilization Area, Small (CSSS1) 240 NSF Provide one if Sterile Processing will reprocess less than 150 projected instruments sets daily.

Minimum allocated NSF accommodates two steam sterilizers at 60 NSF each, two sterilizer carts at 10 NSF each, one QA / biological workstation at 15 NSF and

circulation. Additional sterilizer(s) and accompanying space maybe required based upon the MTF location, mission and access to repair parts / service, etc. NSF accommodates recessed or free-standing sterilizers.

#### 2. Sterilization Area, Medium (CSSS2)

Provide one if Sterile Processing will reprocess between 150 and 400 projected instrument sets daily.

Minimum allocated NSF accommodates two steam sterilizers at 60 NSF each, two sterilizer carts at 10 NSF each, one clean steam generator at 30 NSF, one low-temp sterilizer at 15 NSF, one QA / biological workstation at 15 NSF and circulation. Additional sterilizer(s) and accompanying space maybe required based upon the MTF location, mission and access to repair parts / service, etc. NSF accommodates recessed or free-standing sterilizers.

#### 3. Sterilization Area, Large (CSSS3)

Provide one if Sterile Processing will reprocess greater than 400 projected instruments sets daily.

Minimum allocated NSF accommodates two steam sterilizers at 60 NSF each, two sterilizer carts at 10 NSF each, one clean steam generator at 30 NSF, one low-temp sterilizer at 15 NSF, one QA / biological workstation at 15 NSF and circulation. Additional sterilizer(s) and accompanying space maybe required based upon the MTF location, mission and access to repair parts / service, etc. NSF accommodates recessed or free-standing sterilizers.

#### 4. Cart Return Area (CSCQ1)

#### **30 NSF**

**120 NSF** 

Provide one if pass-through sterilizers are authorized.

This area provides access between FA 2: Preparation and Assembly Area (Clean Work Area) and FA 3: Sterilization Area for staff and to return sterilizer racks / carts.

#### 4.4. FA4: RECEIVING, STORAGE AND DISPATCH.

#### 1. Receiving, Breakout and Inspection Room (MMRP1)

Minimum NSF; provide an additional 60 NSF if Sterile Processing will reprocess between 150 and 400 projected instrument sets daily; provide an additional 120 NSF if Sterile Processing will reprocess greater than 400 projected instrument sets daily.

This area includes a workstation / bench, PC / printer used to receive supplies transferred from the medical supply warehouse and the MTF loading docks. Adequate circulation is required to remove outer packaging and discard / recycle materials. Outer cardboard must be removed before transfer to clean supply storage area.

#### 360 NSF

#### 2. Secure Storage (SRS01)

Provide one for Receiving, Storage and Dispatch.

The Secure Storage Area should be adjacent to Sterile Processing Receiving to handle incoming loaner instrumentation. The area is also used to facilitate the return / pickup of loaner items by vendors. Provide mobile shelving or carts for holding. A computer, printer, and camera should be provided for documentation.

#### 3. Storage, Sterile Consumables (ORSS1) **270 NSF**

Minimum NSF; provide an additional 120 NSF for every increment of two ORs greater than four.

Minimum allocated NSF accommodates ten standard storage units at 15 NSF each; two Emergency Trauma Case Carts at 10 NSF each; two Crash / Code and Specialty Exchange Carts at 10 NSF each; one information system workstation at 30 NSF and circulation. All consumable supplies in Sterile Processing are maintained in low unit of measure with outer carton / packaging removed. Consumable soft goods primarily support the surgical case cart system, LDR, and other interventional procedure areas. Supplies for nursing units, clinics, etc. are usually distributed by Logistics.

#### 4. Storage, Sterile Durables (ORSS1)

Minimum NSF; provide an additional 60 NSF for every increment of two ORs greater than two, maximum 480 NSF.

Minimum allocated NSF accommodates sterile instrument sets, scopes and associated hard goods to support surgery, LDR and other areas; and eight standard storage units for instruments at 15 NSF each.

#### 5. Case Cart Assembly (CSCQ1)

Minimum NSF; provide an additional 15 NSF per each daily surgical procedure projected greater than ten; maximum 600 NSF.

Space allocation for one day of case cart production includes: 1/3 clean empty carts, 1/3 in-process carts and 1/3 completed carts at 15 NSF per cart.

#### 6. Case Cart Dispatch Workstation (OFA03) **60 NSF**

Provide one for Receiving, Storage and Dispatch.

Allocated NSF accommodates a workstation, PC, and a printer used to print pick lists / case cart preference cards and control flow of case carts and other items for surgery, etc. This space is typically adjacent to the clean elevator if available.

#### 7. Pneumatic Tube Station (NT001)

Provide one if a Tube Station System for Sterile Processing is authorized.

**120 NSF** 

120 NSF

**30 NSF** 

Allocated NSF provides space for up to three stations. Locate adjacent to Service-Issue Window for small item dispatch to patient treatment areas.

#### 4.5. FA5: STAFF AND ADMINISTRATION.

1. Office, Private (OFA04)

Provide one per each Sterile Processing FTE position authorized to have a private office.

### 2. Office, Shared (OFA05)

Provide one for every increment of two Sterile Processing FTE positions authorized to have a shared office.

#### 3. Cubicle (OFA03)

Provide one per each Sterile Processing FTE position authorized to have a cubicle.

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

240 NSF 4. Conference / Classroom (CRA01) Provide one for Sterile Processing if authorized.

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.

5. Copy / Office Supply (RPR01)

Provide one for Sterile Processing.

6. Lounge, Staff (SL001)

Minimum NSF, provide an additional 60 NSF for every increment of five total Sterile Processing FTEs working on peak shift greater than ten; maximum 360 NSF.

### 7. Toilet, Staff (TLTU1)

Minimum one; provide an additional one for every increment of fifteen total Sterile Processing FTEs working on peak shift greater than fifteen.

### 8. Locker / Changing Room, Male Staff (LR002)

Minimum NSF; provide an additional 10 NSF for every increment of two Sterile Processing Male FTE positions working on peak shift greater than twelve.

9. Locker / Changing Room, Female Staff (LR002) Minimum NSF; provide an additional 10 NSF for every increment of two Sterile Processing Female FTE positions working on peak shift greater than twelve.

#### **120 NSF**

**120 NSF** 

### **60 NSF**

## **120 NSF**

### 120 NSF

# **120 NSF**

**60 NSF** 

### 10. Shower Staff (SHWR1)

#### 60 NSF

Minimum two; provide an additional one for every increment of fifteen total FTE positions working on peak shift greater than thirty.

### 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 World Class Checklist (<u>https://facilities.health.mil/home/</u>). Also refer to Section 1.2 - 6, Design Considerations and Requirements of the FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities by the Facility Guidelines Institute (FGI Guidelines).

**5.1. NET-TO-DEPARTMENT GROSS FACTOR.** The net-to-department gross factor (NTDG) for the Sterile Processing department is 1.30. 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. Refer to UFC 4-510-01, Section 2-3.4.2.2 and DoD Space Planning Criteria Chapter 130: Net to Gross Conversion Factors.

#### 5.2. GENERAL PLANNING CONSIDERATIONS.

- 1. The most important consideration for planning Sterile Processing is the complete, physical separation of soiled materials and activities from clean activities associated with instrument preparation, packing, sterilization, storage and dispatch.
- 2. The decontamination soiled work area and the staff assigned to this function must be totally separated from clean areas. Therefore, a soiled transition room must be provided between an adjacent circulation corridor and the main soiled work areas.
- 3. Sterile Processing should be located on the same level and contiguous to the surgical suite. Alternatively, the two departments could be stacked to facilitate a direct vertical connection with dedicated clean and soiled elevators.
- 4. Allocated NSF in the Sterilizer Room accommodates either recessed or free-standing sterilizers.
- 5. A single elevator cannot be used for both clean and soiled transport. Dumbwaiters may be an alternative to supplement elevators, or to move only instruments or supplies. Cart lifts are not recommended in new construction as they limit staff interaction and communication, which are requirements for both Sterile Processing and surgery.
- 6. Special consideration should be given to external circulation patterns in order to control the flow of clean and soiled traffic in and around Sterile Processing.
- 7. The internal workflow of Sterile Processing should be unidirectional so that soiled items flow progressively to the clean work areas of the department. Similarly, clean items should flow to sterilization, to storage, to case cart staging, and finally dispatch / issue.

- 8. Access to the loading dock should be straightforward for delivery of materials. If the loading dock is on a different level of the facility care must be taken to plan size, access, etc.
- 9. At least one administrative office should be adjacent to and have a direct line of sight into the clean work areas of the department.
- 10. Careful consideration must be given the placement of hand-washing stations and emergency eye-wash stations. Hand washing sinks, alcohol-based hand-rub dispensers, and eye-wash stations must be visible and accessible in all work areas as well as in the staff locker, lounge and conference room areas.
- 11. It is important that the planner understand the project Concept of Operations specific to the medical treatment facility (MTF) that is being programmed. Typically for a freestanding clinic, Sterile Processing may not be authorized, as such items may be sent to a hospital for reprocessing and re-supplied. In some smaller medical clinic facilities, the Dental Clinic may provide these services (for example, Dental Instrument Processing Centers in the Air Force). Additionally, some decontamination and immediate use steam sterilization (IUSS) capability may exist in the surgical suite, and decentralized scope processing may be authorized for Endoscopy, or in certain Clinics. In general the following is true:
  - a. Sterile Processing will provide sterilization and high-level disinfection for surgical instruments and certain medical devices including scopes.
  - b. Sterile instruments and supplies will be distributed via dedicated delivery system(s) by Sterile Processing or by Medical Materiel personnel.
  - c. Disposable medical supplies that do not require reprocessing will be stored and distributed to the using area by Medical Materiel.
  - d. Sterile Processing as defined in this document should be designed as part of a total perioperative system.

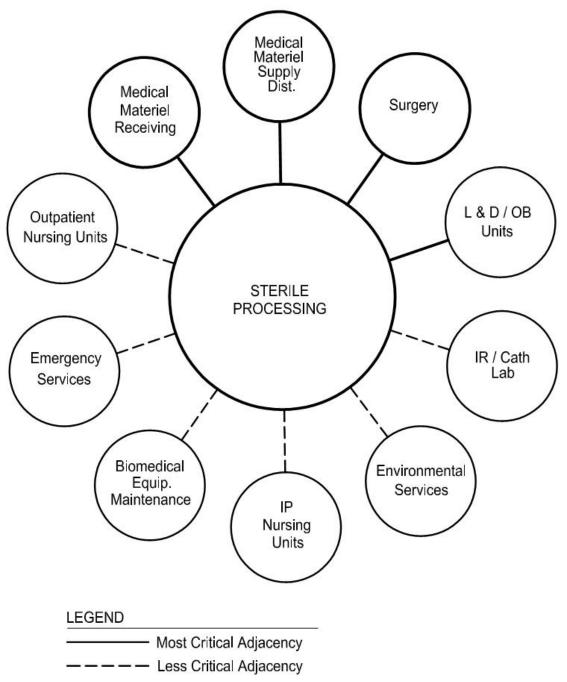
#### **5.3. OTHER DESIGN CONSIDERATIONS.**

- 1. Design for flexibility and adaptability to accommodate future expansion, storage capacity and equipment / technology.
- 2. To the extent it is practical provide space and utilities for 1 additional instrument washerdecontaminator and one additional steam sterilizer.
- 3. Use stainless steel modular wall panels to help facilitate installation of future equipment.
- 4. Consider security requirements early on in design. This would include controlled access points and entrances, and video monitoring in strategic locations.

- 5. For MTFs with an authorized case cart system, provide a minimum of 8 standard storage units per OR, up to 10 ORs, or a maximum of 80 units.
- 6. Staff and Administrative Area Location for Sterile Processing offices, a staff conference/training room, staff lounge, and for all Sterile Processing lockers / toilets. Note that in small MTFs Sterile Processing share these rooms with an adjacent service, or maybe located within a clinical service such as the surgical suite. In larger MTFs Sterile Processing will typically have a dedicated Staff and Administrative area. This area should be designed to provide a transition for staff and visitors to Sterile Processing without having to enter a Sterile Processing work area directly from outside the department.

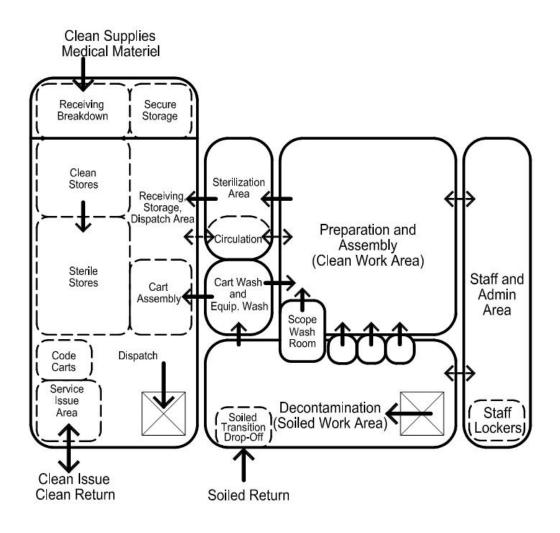
### SECTION 6: FUNCTIONAL RELATIONSHIPS (INTERDEPARTMENTAL)

**6.1. FUNCTIONAL RELATIONSHIPS.** Sterile Processing will rely on, or provide services to, a number of other services in a Military Treatment Facility (MTF) for patient care and support functions. The diagram below represents desirable relationships based on efficiency and functional considerations.



### SECTION 7: FUNCTIONAL DIAGRAM (INTRADEPARTMENTAL)

**7.1. FUNCTIONAL DIAGRAM.** The diagram below illustrates intradepartmental relationships among key areas / spaces within Sterile Processing. The diagram is necessarily generic. The planner shall use this as a basis for design only and shall consider project-specific requirements for each Military Treatment Facility.



#### LEGEND

-----Process Flow

NOTE: Size and shapes of spaces do not reflect actual configuration or square foot area of departments.

### GLOSSARY

#### **G.1. DEFINITIONS.**

AAMI: Association for the Advancement of Medical Instrumentation.

<u>Automated Endoscopic Reprocessor (AER)</u>: An AER is a fully automated device for testing, cleaning and disinfecting various types of flexible fiber optic scopes. These devices are used to eliminate hand washing and soaking scopes in toxic chemical agents, and to foster standardized scope processing and promote a consistent level of care.

<u>Authorized</u>: 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.

<u>Case Cart</u>: A physical cart, but also a supply concept, whereby most supplies and instruments needed for a surgical procedure, including in this definition a birth, are preassembled, and placed into a (case) cart. The case cart is designated for a specific procedure, a specific surgeon, and a specific patient that is scheduled for an assigned time and location (procedure room). Case carts are typically pre-assembled the day before a scheduled case, but can also be assembled as needed / just-in-time.

<u>Container Rack</u>: A specialty cart used in conjunction with an automatic cart washer, which accommodates rigid instrument containers and tops for cleaning and disinfection.

<u>Cubicle</u>: 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.

<u>Decontamination – Soiled Work Area</u>: Includes the receipt, cleaning and disinfection of surgical instruments, scopes, patient care equipment, reusable medical devices, carts and related patient care items.

<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 total time commitment equals that of a full-time employee. One FTE equals a 40-hour per week workload. The FTE measure may also be used for specific workload staffing parameters such as a clinical FTE; the amount of time assigned to an employee providing clinical care. For example, a 0.5 clinical FTE for a healthcare worker would indicate that the healthcare worker provides clinical care half of the time per 40-hour work week.

<u>Functional Area (FA)</u>: The grouping of rooms and spaces based on their function within a clinical service. Typical Functional Areas are Reception Area, Patient Area, Support Area, Staff and Administrative Area, and Education Area.

<u>Infection Control Risk Assessment (ICRA)</u>: An ICRA is a multidisciplinary, organizational, documented process that considers the medical facility's patient population and mission to reduce the risk of infection based on knowledge about infection, infectious agents, and the care environment, permitting the facility to anticipate potential impact.

<u>Input Data Statement</u>: 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.

<u>Net Square Feet (NSF)</u>: The area of a room or space derived by multiplying measurements of the room or space taken from the inside surface of one wall to the inside surface of the opposite wall.

<u>Net-to-Department Gross Factor (NTDG)</u>: 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.

<u>Preparation and Assembly – Clean Work Area</u>: For the inspection, reassembly, functional testing and packaging of instruments, instrument sets, scopes and related medical devices prior to terminal sterilization of these items.

<u>Program for Design (PFD)</u>: 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.

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

<u>Receiving, Storage and Dispatch Area</u>: Spaces to handle the receipt and storage of clean supplies, sterile supplies, and sterile instruments within a controlled environment prior to distributing these items to end users.

<u>Reverse Osmosis Deionized (RO/DI) Purified Water</u>: A source of purified water is typically required for the final rinse cycle of instrument washer-decontaminators, and at the clean-up sinks in the Decontamination soiled work area. Purified water suitable for Sterile Processing applications has specific resistivity of 0.1 megohm per cm.

<u>Space and Equipment Planning System (SEPS)</u>: 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).

<u>Soiled Utility Room</u>: 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 Sterile Processing or similar service. It should be readily accessible to staff.

<u>Special Study</u>: A special study is needed to address the special scope and cost considerations as it relates to unique program and space requirements.

<u>Staff and Administrative Area</u>: Spaces for offices, conference / training room, lockers / toilets, and staff lounge that may be dedicated to the Sterile Processing Department.

<u>Standard Storage Unit</u>: For planning Sterile Processing storage requirements and applicable for planning other storage requirements in areas such as the surgical suite / clean core. Planners can use a standard open-wire stem caster cart with overall dimensions of: 24"D x 60"W x 72"H. Configured with 1 top-shelf and 4 intermediate tiers, the standard storage unit provides approximately 240 linear inches or 60 cubic feet of storage capacity. Dimensions can be modified as necessary to fit unique situations.

<u>Sterile Processing (SP)</u>: Provides the cleaning disinfection and sterilization for surgical instruments, and various reusable medical devices and patient care equipment. SP typically stores surgical supplies, instrumentation and related items for distribution to all clinical areas of the MTF, from inpatient care units, ORs, and procedure rooms, to outpatient surgical units, clinics, and ED.

<u>Sterilization Area</u>: Space for steam and non-steam sterilization of equipment including carts, racks, loading, unloading / cooling and mechanical zones.

<u>Textile Room</u>: Typically, a Textile Room would be part of the Laundry facility that serves the MTF. A Textile Room for Sterile Processing would include a specialized, lighted inspection table, linen storage carts or racks, and a self-contained lint filtration system. The room would be designed under slightly negative pressure to minimize the infiltration of lint into Sterile Processing or other parts of the MTF. For certain MTFs that may not have access to prepackaged surgical linens, and towels, and those MTFs that require reusable instrument wrappers (vs. blue non-woven wraps or rigid instrument containers), a specialized room for handling textiles may be necessary.

<u>Transport or Transfer Cart</u>: Mobile cart used to transport instruments, scopes or supplies between Sterile Processing and non-OR users. Transfer carts may be used to deliver clean / sterile items from Sterile Processing to user areas, or to collect and return soiled items to Sterile Processing for reprocessing.

<u>Workload</u>: 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.. In non-clinical chapters the metric depends on the chapter. Examples of non-clinical workload parameters are the number of 'instrument sets reprocessed', 'ORs in the MTF', and 'computer users'.