

## **CHAPTER 268: PHARMACY SERVICE**

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## 1 PURPOSE AND SCOPE

This document outlines Space Planning Criteria for Program Guide (PG) 18-9 Chapter 268: Pharmacy Service. It applies to all Inpatient and Outpatient Pharmacies, located in VA Medical Centers, developed as both new construction and renovation projects for the Department of Veterans Affairs (VA).

The following VHA Handbooks and Directives have been reviewed as part of the development of this Space Criteria Chapter:

- A. 1108.01 *Controlled Substances (Pharmacy Stock)*, dated November 16, 2010
- B. 1108.04 *Investigational Drugs and Supplies*, dated February 29, 2012
- C. 1108.05 *Outpatient Pharmacy Services*, revised August 1, 2016
- D. 1108.06 *Inpatient Pharmacy Services*, dated June 27, 2006
- E. 1108.07 *Pharmacy General Requirements*, dated April 17, 2008
- F. 1108.09 *Pharmacy Education and Training*, dated June 24, 2016
- G. 1108.11 *Clinical Pharmacy Services*, dated July 1, 2015
- H. 0730 *Security and Law Enforcement*, dated August 11, 2000
- I. 1047 *All-Hazards Emergency Caches*, dated December 30, 2014

## 2 DEFINITIONS

**Active Shelving:** Quick-access storage shelving utilized for filling and assembling prescriptions in the Outpatient Pharmacy. Typically stocked with more common, fast-moving drugs, and medication supplies that are not handled by the automated filling robot.

**All-Hazard Emergency Cache (Pharmacy Cache):** A stockpile of pharmaceuticals and medical supplies for use in a disaster situation, to support patient care in the event of a significant incident related to natural disasters, catastrophes, or intentional attack.

**Automated Dispensing Machine (ADM):** Secure cabinets for storage and point-of-care dispensing of pharmaceuticals and supplies as part of a decentralized medication distribution system. Typically located within primary care clinics, nursing units, surgical suites, critical care units, emergency department, and long-term care departments. Utilizes inventory management and distribution tracking software systems.

**Automated Storage/Retrieval System (Carousel):** Motorized vertical storage carousel for handling and tracking multiple medications within a minimal floor space, significantly reducing the need for static shelving or high-density movable storage units. Utilizes barcode scanning software for inventory management and distribution tracking.

**Buffer Room:** Controlled environment equipped to maintain specific temperature, humidity, and air pressure levels, while minimizing microbial contaminants and airborne particulate counts. High-efficiency particulate air (HEPA) filtration systems remove dust, microbes, particles, and vapors to maintain a specified ISO classification.

**Compounded Sterile Preparations (CSP):** Medications and other components that have been prepared, mixed, and assembled within a sterile environment. Products can include IV injections, eye drops, inhalers, irrigations, and other preparations.



Containment Primary Engineering Control (C-PEC): A ventilated device (commonly referred to as a ‘hood’) designed and operated to minimize worker and environmental exposures to hazardous drugs by controlling emissions of airborne contaminants using full or partial enclosures, airflow capture velocities, air pressure relationships, and HEPA filtration.

Containment Secondary Engineering Control (C-SEC): Room with fixed walls in which the C-PEC is placed. Incorporates specific design and operational parameters required to contain the potential hazard within the compounding room.

Controlled Substances: Drugs and other substances listed in Title 21 Code of Federal Regulations (CFR) Part 1300, schedules I-V, that require additional security and handling measures, based on relative risk of abuse or harm.

Hazardous Drugs (HD): Drugs that have been proven to have dangerous effects to humans, requiring special handling/storage procedures, including the use of negative pressure rooms. Effects can include the potential to cause cancer, damage certain organs, or lead to birth defects in pregnant women.

Intravenous (IV): Pertaining to medications or solutions that are administered by injection into a vein.

Medication Consultation Services: Dedicated space for Clinical Pharmacists to consult with Patients regarding anti-coagulation treatments or medication management issues (i.e., Coumadin Clinic).

Oncology: The branch of medicine dealing with the physical, chemical, and biological properties of tumors, including study of their development, diagnosis, treatment, and prevention.

Pass-through: An enclosure with interlocking doors that is positioned between two spaces for the purpose of reducing particulate transfer while moving materials from one space to another. A pass-through serving negative pressure rooms needs to be equipped with sealed doors.

Primary Engineering Control (PEC): A room or device (commonly referred to as a ‘hood’) that provides an ISO class 5 environment for the exposure of critical sites when compounding sterile preparations, utilizing HEPA filtration and unidirectional airflow. Some examples include laminar airflow workbenches (LAFW), biological safety cabinets (BSC), compounding aseptic isolators (CAI), and compounding aseptic containment isolators (CACI).

Robotics: Automated equipment and systems utilized for prescription filling, unit dose dispensing, medication storage and retrieval, and repackaging operations. Systems can be linked with remote Automated Dispensing Machines (ADM) for comprehensive inventory tracking and management capability.



Satellite Pharmacy: Remote pharmacy space located within another department to support services with high volume or demand for pharmaceutical products, such as Surgical Services or Critical Care Units, or with specific medication needs, such as a Drug Dependency Unit.

Unit Dose: A dose of medication prepared in a single unit package, labelled for individual dispensing to patients.

### **Space Planning / SEPS**

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

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

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 combined time commitment equals that of one full-time employee (i.e., 40 hours per week).

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

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

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

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

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

Program for Design (PFD): A project specific itemized listing of the spaces, rooms, and square foot area required for the proper operation of a specific service / department, and



the corresponding area for each. PFDs are generated by SEPS based on the PG-18-9 Standard.

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

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

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

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

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

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

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

SEPS Importer: A style-based format developed to allow upload of RCSs and IDSs to SEPS to implement and operationalize space planning criteria in PG-18-9 in the SEPS digital tool. This format establishes the syntax used in the RCSs and allows the use of Shortcuts. Shortcuts allow developers of space planning criteria statements to simplify RCSs making full use of their logical and mathematical functionality. A shortcut can refer to an RCS, a



room in any FA or a formula. Shortcuts are [bracketed] when used in FAs and RCSs and are listed along with their equivalences at the end of the Space Planning Criteria section.

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

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

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

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

### 3 OPERATING RATIONALE AND BASIS OF CRITERIA

- A. Space Planning parameters and metrics in this document are based on the Pharmacy Service Space Planning Criteria Matrix (SPCM) developed as a basis for this chapter. The SPCM lists all the spaces a VA Pharmacy Service site would require; the quantity and NSF for each room is calculated based on the number of outpatient Pharmacy windows, the number of patient beds and the number of pharmacy research FTE positions authorized organized in seventeen ranges; eight assigned to the outpatient Pharmacy windows, five to the patient beds and four to the number of pharmacy research FTE positions authorized.
- B. The room quantity (Q) and area (NSF) values included for each range in the SPCM are reflected in the Room Criteria Statements, placed immediately below each room name, room code and NSF/NSM, for each room in Section 5 of this document. The number of Pharmacy Service outpatient windows, facility patient beds and FTE positions are included in the Input Data Statements (IDSs) in Section 4. Both Sections are implemented in the Space Planning and Equipment System (SEPS) software accessible



through the MAX.gov website. Planners programming a VA Pharmacy Service project shall develop a baseline Program for Design (PFD) in SEPS.

- C. SEPS incorporates a Net-to-Department Gross (NTDG) factor of **1.30** for Pharmacy Service and a Building Gross (BG) factor of 1.35 in the space calculation. These factors generate the Department Gross Square Feet (DGSF) and the Building Gross Square Feet (BGSF) for the project based on the aggregate resulting Net Square Feet (NSF) for all Departments included. Planners can adjust the BGSF factor in SEPS; the NTDG factor is fixed.
- D. The space planning and design Program Guides: PG-18-9, PG-18-5, and PG-18-12 are available at the [Department of Veterans Affairs Office of Construction and Facilities Management \(CFM\) Technical Information Library \(TIL\)](#) website.

#### 4 INPUT DATA STATEMENTS (IDS)

- A. How many Outpatient Pharmacy windows are authorized? (W) (Values: 2 to 8)
- B. How many Inpatient beds are authorized? (W) (Values: 1 to 500)
- C. How many Pharmacy Research FTE positions are authorized? (S) (Values: 1 to 4)
- D. How many Clinical Pharmacist FTE positions are authorized? (S) (Values: 1 to 4)

#### 5 SPACE PLANNING CRITERIA

##### A. FA 1: OUTPATIENT PHARMACY PUBLIC AREA

- 1. **Phrm Svc OP General Waiting, Bldg Sprt (SB003).....190 NSF (17.7 NSM)**
  - a. Provide one if [Outpatient Pharmacy windows authorized] is 1
  - b. Provide one at 260 NSF if [Outpatient Pharmacy windows authorized] is 2
  - c. Provide one at 310 NSF if [Outpatient Pharmacy windows authorized] is 3
  - d. Provide one at 370 NSF if [Outpatient Pharmacy windows authorized] is 4
  - e. Provide one at 440 NSF if [Outpatient Pharmacy windows authorized] is 5
  - f. Provide one at 520 NSF if [Outpatient Pharmacy windows authorized] is 6
  - g. Provide one at 535 NSF if [Outpatient Pharmacy windows authorized] is 7
  - h. Provide one at 575 NSF if [Outpatient Pharmacy windows authorized] is 8
- 2. **Phrm Svc OP Public Toilet, Bldg Sprt (SB191)..... 60 NSF (5.6 NSM)**
  - a. Provide two if [Outpatient Pharmacy windows authorized] is between 1 and 8

##### B. FA 2: OUTPATIENT PHARMACY WORK AREA

- 1. **OP Standard Window, Phrm Svc (SV401).....120 NSF (11.2 NSM)**
  - a. Provide one per each [Outpatient Pharmacy windows authorized]

Work area with secure transaction windows / pass-throughs for dispensing medication to patients, and for conducting general (non-confidential) consults with Pharmacists.



- 2. OP Accessible Window, Phrm Svc (SV411) .....180 NSF (16.8 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3*  
*b. Provide two if [Outpatient Pharmacy windows authorized] is between 4 and 8*

Work area with secure transaction windows / pass-throughs for dispensing medication to patients, and for conducting general (non-confidential) consults with Pharmacists.
- 3. OP Consult Room, Phrm Svc (SV422) .....120 NSF (11.2 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8*

Private space for confidential patient consults with Pharmacists.
- 4. OP Filling & Assembly Area, Phrm Svc (SV423) .....600 NSF (55.8 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3*  
*b. Provide one at 800 NSF if [Outpatient Pharmacy windows authorized] is between 4 and 8*

Pharmacist / Technician workstations, and active shelving for storage of medications and prepackaged items required for filling of prescriptions.
- 5. OP Automated Filling / Storage, Phrm Svc (SV431) .....360 NSF (33.5 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8*

Space for automated filling robot, and for storage of bulk medications and supplies.
- 6. OP Processing Area, Phrm Svc (SV432) ..... 56 NSF (5.3 NSM)**  
*a. Provide three if [Outpatient Pharmacy windows authorized] is between 1 and 2*  
*b. Provide four if [Outpatient Pharmacy windows authorized] is between 3 and 4*  
*c. Provide five if [Outpatient Pharmacy windows authorized] is between 5 and 6*  
*d. Provide six if [Outpatient Pharmacy windows authorized] is between 7 and 8*

Pharmacist workstation for initial receiving and validation of prescriptions, and for conducting phone consultations with providers. Can also accommodate Community Care coordination.
- 7. OP Secured Dispensing / Storage Room, Phrm Svc (SV433) .....380 NSF (35.4 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3*  
*b. Provide one at 500 NSF if [Outpatient Pharmacy windows authorized] is between 4 and 8*

Restricted access work area for storing / processing narcotics and controlled substances. Includes space for packaging and holding mail-out prescriptions, handling returned mail, and for expired drug collection / disposal.
- 8. OP Mail Out Area, Phrm Svc (SV441) ..... 100 NSF (9.3 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8*

Work area for packaging and shipping of filled prescriptions, and for processing returned mail.





- 9. OP Expired Drug Collection / Disposal, Phrm Svc (SV442) ..... 30 NSF (2.8 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3*  
*b. Provide one at 60 NSF if [Outpatient Pharmacy windows authorized] is between 4 and 8*

Secured collection bins for expired / waste medications for return or disposal.

**10. Phrm Svc OP**

- Discharge Pharmacist Workstation, Stff Sprt (SS218) ..... 56 NSF (5.3 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3*  
*b. Provide two if [Outpatient Pharmacy windows authorized] is between 4 and 8*

Work area for provider coordination and processing of medications prior to patient being released from inpatient / emergency care.

- 11. Phrm Svc OP Call Center Workstation, Stff Sprt (SS218) ..... 56 NSF (5.3 NSM)**  
*a. Provide two if [Outpatient Pharmacy windows authorized] is between 1 and 3*  
*b. Provide three if [Outpatient Pharmacy windows authorized] is between 4 and 8*

Space for Pharmacy Technicians to conduct phone consults with patients.

**C. FA 3: OUTPATIENT PHARMACY SUPPORT AREA**

- 1. OP Inventory Receiving / Breakdown, Phrm Svc (SV443).....400 NSF (37.2 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3*  
*b. Provide one at 600 NSF if [Outpatient Pharmacy windows authorized] is between 4 and 8*

Space for receiving, verification, and breakdown of deliveries.

- 2. Phrm Svc OP Procurement Workstation, Stff Sprt (SS218) ..... 56 NSF (5.3 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3*  
*b. Provide two if [Outpatient Pharmacy windows authorized] is between 4 and 8*

Workstation for inventory control / stock management staff.

- 3. OP Prosthetics / Supplies Storage Room, Phrm Svc (SV451) ..... 100 NSF (9.3 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3*  
*b. Provide one at 200 NSF if [Outpatient Pharmacy windows authorized] is between 4 and 8*

Storage for non-medicinal or bulky items and supplies required for filling of prescriptions.

**D. FA 4: OUTPATIENT PHARMACY STAFF AND ADMINISTRATIVE AREA**

- 1. Phrm Svc OP Supervisor Office, Stff Sprt (SS204) ..... 100 NSF (9.3 NSM)**  
*a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8*



- 2. Phrm Svc OP Conference Room, Educ Svc (SS101) .....240 NSF (22.3 NSM)**
  - a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3*
  - b. Provide one at 300 NSF if [Outpatient Pharmacy windows authorized] is between 4 and 8*
- 3. Phrm Svc OP Staff Breakroom, Stff Sprt (SS262) .....140 NSF (13.0 NSM)**
  - a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3*
  - b. Provide one at 160 NSF if [Outpatient Pharmacy windows authorized] is between 4 and 8*
- 4. Phrm Svc OP Staff Personal Property Lockers, Stff Sprt (SS251) ..... 30 NSF (2.8 NSM)**
  - a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3*
  - b. Provide one at 60 NSF if [Outpatient Pharmacy windows authorized] is between 4 and 8*
- 5. Phrm Svc OP Staff Toilet, Bldg Sprt (SB191) ..... 60 NSF (5.6 NSM)**
  - a. Provide two if [Outpatient Pharmacy windows authorized] is between 1 and 8*
- 6. Phrm Svc OP Housekeeping Aides Closet (HAC), Bldg Sprt (SB244) ..... 60 NSF (5.6 NSM)**
  - a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8*

**E. FA 5: INPATIENT PHARMACY WORK AREA**

- 1. IP Filling / Assembly Area, Phrm Svc (SV461) .....540 NSF (50.2 NSM)**
  - a. Provide one if [Inpatient beds are authorized] is between 1 and 200*
  - b. Provide one at 640 NSF if [Inpatient beds are authorized] is between 201 and 300*
  - c. Provide one at 740 NSF if [Inpatient beds are authorized] is between 301 and 400*
  - d. Provide one at 840 NSF if [Inpatient beds are authorized] is between 401 and 500*

Pharmacy Tech work area with access to carousel or shelving for filling orders and assembling medications for ADM restock.

- 2. IP Processing Area, Phrm Svc (SV467) ..... 56 NSF (5.3 NSM)**
  - a. Provide two if [Inpatient beds are authorized] is between 1 and 200*
  - b. Provide three if [Inpatient beds are authorized] is between 201 and 300*
  - c. Provide four if [Inpatient beds are authorized] is between 301 and 400*
  - d. Provide five if [Inpatient beds are authorized] is between 401 and 500*

Pharmacist workstation for initial receiving/validation of medication orders and conducting phone consultations with providers.

- 3. IP Secured Dispensing / Storage, Phrm Svc (SV471) .....280 NSF (26.1 NSM)**
  - a. Provide one if [Inpatient beds are authorized] is between 1 and 300*
  - b. Provide one at 400 NSF if [Inpatient beds are authorized] is between 301 and 500*

Work area with secured access safes for storing and processing narcotics and controlled substances.



- 4. IP ADM Management Workarea, Phrm Svc (SV477) ..... 56 NSF (5.3 NSM)**  
*a. Provide one if [Inpatient beds are authorized] is between 1 and 200*  
*b. Provide two if [Inpatient beds are authorized] is between 201 and 500*

Work area for management and oversight of remote automated dispensing machines.
- 5. IP Filling / Assembly Storage, Phrm Svc (SV481) .....420 NSF (39.1 NSM)**  
*a. Provide one if [Inpatient beds are authorized] is between 1 and 300*  
*b. Provide one at 520 NSF if [Inpatient beds are authorized] is between 301 and 500*

Active shelving for storage of drugs and medication supplies required for filling orders; use when a facility does not incorporate a carousel storage and retrieval system.
- 6. IP Filling / Assembly Carousel, Phrm Svc (SV491) .....280 NSF (26.1 NSM)**  
*a. Provide one if [Inpatient beds are authorized] is between 1 and 500*

Automated storage and retrieval system for drugs and medication supplies required for filling orders. Space includes static shelving for overstock or bulky items that are not compatible with the carousel bins.
- 7. IP Repackaging Area, Phrm Svc (SV501) .....280 NSF (26.1 NSM)**  
*a. Provide one if [Inpatient beds are authorized] is between 1 and 200*  
*b. Provide one at 400 NSF if [Inpatient beds are authorized] is between 201 and 500*

Work area and equipment for processing bulk medications into individual unit doses.
- 8. IP Expired Drug Collection / Disposal, Phrm Svc (SV507) ..... 30 NSF (2.8 NSM)**  
*a. Provide one if [Inpatient beds are authorized] is between 1 and 200*  
*b. Provide one at 60 NSF if [Inpatient beds are authorized] is between 201 and 500*

Secured collection bins for expired / waste medications for return or disposal.
- 9. IP Crash Cart Restock Area, Phrm Svc (SV577) ..... 40 NSF (3.8 NSM)**  
*a. Provide one if [Inpatient beds are authorized] is between 1 and 100*  
*b. Provide one at 60 NSF if [Inpatient beds are authorized] is between 101 and 200*  
*c. Provide one at 80 NSF if [Inpatient beds are authorized] is between 201 and 300*  
*d. Provide one at 100 NSF if [Inpatient beds are authorized] is between 301 and 400*  
*e. Provide one at 120 NSF if [Inpatient beds are authorized] is between 401 and 500*

Workspace and storage area for crash cart replenishment and maintenance operations.
- 10. IP Non-Sterile Compounding, Phrm Svc (SV508) ..... 40 NSF (3.8 NSM)**  
*a. Provide one if [Inpatient beds are authorized] is between 1 and 500*

Work area for conducting Category 1 – non-sterile / simple compounding activities.



**F. FA 6: INPATIENT PHARMACY STERILE PREPARATION AREA**

**1. IP Sterile**

**Non-Hazardous Drug Buffer Room, Phrm Svc (SV511) .....360 NSF (33.4 NSM)**

*a. Provide one if [Inpatient beds are authorized] is between 1 and 200*

*b. Provide one at 480 NSF if [Inpatient beds are authorized] is between 201 and 500*

Positive pressure buffer area / clean room for mixing, transferring, and assembling components of non-hazardous drug compounded sterile preparations.

**2. IP Sterile**

**Hazardous Drug Buffer Room (C-SEC), Phrm Svc (SV521) .....360 NSF (33.4 NSM)**

*a. Provide one if [Inpatient beds are authorized] is between 1 and 200*

*b. Provide one at 480 NSF if [Inpatient beds are authorized] is between 201 and 500*

Negative pressure buffer area / clean room for mixing, transferring, and assembling components of hazardous drug compounded sterile preparations.

**3. IP Sterile Compounding Storage Room, Phrm Svc (SV531) .....300 NSF (27.9 NSM)**

*a. Provide one if [Inpatient beds are authorized] is between 1 and 200*

*b. Provide one at 400 NSF if [Inpatient beds are authorized] is between 201 and 500*

Storage for sterile fluid bags and IV admixture materials and supplies.

**4. IP Hazardous Drug Storage Room, Phrm Svc (SV541) .....150 NSF (13.9 NSM)**

*a. Provide one if [Inpatient beds are authorized] is between 1 and 200*

*b. Provide one at 200 NSF if [Inpatient beds are authorized] is between 201 and 500*

Negative pressure space for unpacking and storage of hazardous drugs; connect bypass-through to the Sterile Hazardous Drug Buffer Room.

**5. IP Sterile Compounding Workarea, Phrm Svc (SV547) ..... 56 NSF (5.3 NSM)**

*a. Provide two if [Inpatient beds are authorized] is between 1 and 500*

Non-sterile work area adjacent to Buffer Rooms and connected with a pass-through, for support of both hazardous and non-hazardous compounded sterile preparation activities.

**6. IP Sterile Compounding Anteroom, Phrm Svc (SV548) .....300 NSF (27.9 NSM)**

*a. Provide one if [Inpatient beds are authorized] is between 1 and 500*

Transition area from non-sterile to positive or negative pressure buffer area; for scrubbing and garbing prior to entering Buffer Rooms.

**7. IP Sterile Compounding Housekeeping, Phrm Svc (SV549) ..... 15 NSF (1.4 NSM)**

*a. Provide one if [Inpatient beds are authorized] is between 1 and 500*

For storage of disposable cleaning supplies specifically for use in Sterile Compounding areas. Accessed through Sterile Compounding Anteroom, separate from general Pharmacy housekeeping supplies.



**G. FA 7: INPATIENT PHARMACY SUPPORT AREA**

**1. IP Inventory**

**Receiving / Breakdown Room, Phrm Svc (SV551) .....400 NSF (37.2 NSM)**

- a. *Provide one if [Inpatient beds are authorized] is between 1 and 200*
- b. *Provide one at 500 NSF if [Inpatient beds are authorized] is between 201 and 400*
- c. *Provide one at 600 NSF if [Inpatient beds are authorized] is between 401 and 500*

Space for receiving, verification, and breakdown of deliveries.

**2. Phrm Svc IP Procurement Workstation, Stff Sprt (SS218) ..... 56 NSF (5.3 NSM)**

- a. *Provide one if [Inpatient beds are authorized] is between 1 and 200*
- b. *Provide two if [Inpatient beds are authorized] is between 201 and 500*

Workstation for inventory control / stock management staff.

**3. Phrm Svc IP Pneumatic Tube Station, Lgstcs Svc (SB652) ..... 30 NSF (2.8 NSM)**

- a. *Provide one if [Inpatient beds are authorized] is between 1 and 500*

Access station for connection to the facility pneumatic tube distribution system.

**H. FA 8: INPATIENT PHARMACY STAFF AND ADMINISTRATIVE AREA**

**1. Phrm Svc IP Supervisor Office, Stff Sprt (SS204) ..... 100 NSF (9.3 NSM)**

- a. *Provide one if [Inpatient beds are authorized] is between 1 and 500*

**2. Phrm Svc IP Conference Room, Educ Svc (SS101) .....240 NSF (22.3 NSM)**

- a. *Provide one if [Inpatient beds are authorized] is between 1 and 200*
- b. *Provide one at 300 NSF if [Inpatient beds are authorized] is between 201 and 500*

**3. Phrm Svc IP Staff Breakroom, Stff Sprt (SS262) .....140 NSF (13.1 NSM)**

- a. *Provide one if [Inpatient beds are authorized] is between 1 and 200*
- b. *Provide one at 160 NSF if [Inpatient beds are authorized] is between 201 and 400*
- c. *Provide one at 180 NSF if [Inpatient beds are authorized] is between 401 and 500*

**4. Phrm Svc IP Staff Personal Property Lockers, Stff Sprt (SS251) ..... 30 NSF (2.8 NSM)**

- a. *Provide one if [Inpatient beds are authorized] is between 1 and 200*
- b. *Provide one at 60 NSF if [Inpatient beds are authorized] is between 201 and 400*
- c. *Provide one at 90 NSF if [Inpatient beds are authorized] is between 401 and 500*

**5. Phrm Svc IP Staff Toilet, Bldg Sprt (SB191) ..... 60 NSF (5.6 NSM)**

- a. *Provide two if [Inpatient beds are authorized] is between 1 and 500*

**6. Phrm Svc IP**

**Housekeeping Aides Closet (HAC), Bldg Sprt (SB244) ..... 60 NSF (5.6 NSM)**

- a. *Provide one if [Inpatient beds are authorized] is between 1 and 500*

**I. FA 9: PHARMACY SERVICE STAFF AND ADMINISTRATIVE AREA**

**1. Phrm Svc Phrm Chief Office, Stff Sprt (SS204) ..... 100 NSF (9.3 NSM)**

- a. *Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 or [Inpatient beds are authorized] is between 1 and 500*



- 2. Phrm Svc Associate / Assistant Chief Office, Stff Sprt (SS204) ..... 100 NSF (9.3 NSM)**
  - a. *Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 or [Inpatient beds are authorized] is between 1 and 500*
- 3. Phrm Svc Admin Assistant, Stff Sprt (SS218) ..... 56 NSF (5.3 NSM)**
  - a. *Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 and [Inpatient beds are authorized] is 0*
  - b. *Provide two if [Inpatient beds are authorized] is between 1 and 500*
- 4. Phrm Svc Admin Waiting, Bldg Sprt (SB003) ..... 80 NSF (7.5 NSM)**
  - a. *Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 or [Inpatient beds are authorized] is between 1 and 500*
- 5. Phrm Svc Administrative Officer Office, Stff Sprt (SS204) ..... 100 NSF (9.3 NSM)**
  - a. *Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 or [Inpatient beds are authorized] is between 1 and 500*
- 6. Phrm Svc Program Support Assistant Workstation, Stff Sprt (SS218) ..... 56 NSF (5.3 NSM)**
  - a. *Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 and [Inpatient beds are authorized] is 0*
  - b. *Provide two if [Inpatient beds are authorized] is between 1 and 500*
- 7. Phrm Svc Clinical Phrm Supervisor Office, Stff Sprt (SS204) ..... 100 NSF (9.3 NSM)**
  - a. *Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 and [Inpatient beds are authorized] is 0*
  - b. *Provide two if [Inpatient beds are authorized] is between 1 and 500*
- 8. Phrm Svc Quality Management Pharmacist Office, Stff Sprt (SS204) ..... 100 NSF (9.3 NSM)**
  - a. *Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 and [Inpatient beds are authorized] is 0*
  - b. *Provide two if [Inpatient beds are authorized] is between 1 and 500*
- 9. Phrm Svc Informatics Pharmacist Office, Stff Sprt (SS204) ..... 100 NSF (9.3 NSM)**
  - a. *Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 or [Inpatient beds are authorized] is between 1 and 500*
- 10. Phrm Svc Pharmacoeconomist Office, Stff Sprt (SS204) ..... 100 NSF (9.3 NSM)**
  - a. *Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 or [Inpatient beds are authorized] is between 1 and 500*
- 11. Phrm Svc Clerical Workstation, Stff Sprt (SS218) ..... 56 NSF (5.3 NSM)**
  - a. *Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 and [Inpatient beds are authorized] is 0*
  - b. *Provide two if [Inpatient beds are authorized] is between 1 and 500*



- 12. Phrm Svc Conference Room, Educ Svc (SS101) .....300 NSF (27.9 NSM)**
  - a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3 and [Inpatient beds are authorized] is 0*
  - b. Provide one at 500 NSF if [Outpatient Pharmacy windows authorized] is between 4 and 8 and [Inpatient beds are authorized] is 0*
  - c. Provide one at 675 NSF if [Inpatient beds are authorized] is between 1 and 500 or [Outpatient Pharmacy windows authorized] is between 1 and 8*
- 13. Phrm Svc Refreshment Center Alcove, F&N Svc (SV381) ..... 40 NSF (3.8 NSM)**
  - a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 3 and [Inpatient beds are authorized] is 0*
  - b. Provide one at 60 NSF if [Outpatient Pharmacy windows authorized] is between 4 and 8 or [Inpatient beds are authorized] is between 1 and 500*
- 14. Phrm Svc Staff Toilet, Bldg Sprt (SB191) ..... 60 NSF (5.6 NSM)**
  - a. Provide two if [Outpatient Pharmacy windows authorized] is between 1 and 8 or [Inpatient beds are authorized] is between 1 and 500*
- 15. Phrm Svc Server Room, OIT (SC399) ..... 100 NSF (9.3 NSM)**
  - a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 and [Inpatient beds are authorized] is 0*
  - b. Provide one at 120 NSF if [Inpatient beds are authorized] is between 1 and 500*
- 16. Phrm Svc Admin Copy / Supply Room, Stff Sprt (SS272) ..... 100 NSF (9.3 NSM)**
  - a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 and [Inpatient beds are authorized] is 0*
  - b. Provide one at 120 NSF if [Inpatient beds are authorized] is between 1 and 500*

**J. FA 10: PHARMACY EDUCATION AREA**

- 1. Phrm Svc**
  - Clinical Teaching Coordinator Workstation, Stff Sprt (SS218) ..... 56 NSF (5.3 NSM)**
    - a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 or [Inpatient beds are authorized] is between 1 and 500*
  - 2. Phrm Svc Intern / Student Workstation, Stff Sprt (SS218)..... 56 NSF (5.3 NSM)**
    - a. Provide two if [Outpatient Pharmacy windows authorized] is between 1 and 3 and [Inpatient beds are authorized] is 0*
    - b. Provide four if [Outpatient Pharmacy windows authorized] is between 4 and 8 and [Inpatient beds are authorized] is 0*
    - c. Provide six if [Outpatient Pharmacy windows authorized] is between 1 and 8 or [Inpatient beds are authorized] is between 1 and 500*

**K. FA 11: ALL-HAZARD EMERGENCY CACHE**

- 1. Pharmacy Cache, Phrm Svc (SV561) .....2,000 NSF (185.8 NSM)**
  - a. Provide one if [Outpatient Pharmacy windows authorized] is between 1 and 8 or [Inpatient beds are authorized] is between 1 and 500*



Secured storage space for emergency medical supplies and pharmaceuticals. Actual NSF required for pharmaceutical portion of storage may vary by project – to be determined during planning process.

**L. FA 12: INVESTIGATIONAL DRUG SERVICES (IDS)**

**1. IDS Workroom, Phrm Svc (SV557) .....300 NSF (27.9 NSM)**

- a. *Provide one if [Pharmacy Research FTE positions] is between 1 and 2*
- b. *Provide one at 360 NSF if [Pharmacy Research FTE positions] is 3*
- c. *Provide one at 420 NSF if [Pharmacy Research FTE positions] is 4*

Workspace for conducting investigational drug studies, including space for securable filing cabinets and refrigerator.

**2. IDS Records Storage Room, Phrm Svc (SV552) ..... 80 NSF (7.5 NSM)**

- a. *Provide one if [Pharmacy Research FTE positions] is between 1 and 2*
- b. *Provide one at 120 NSF if [Pharmacy Research FTE positions] is 3*
- c. *Provide one at 160 NSF if [Pharmacy Research FTE positions] is 4*

**M. FA 13: MEDICATION CONSULTATION SERVICES**

Dedicated space for Clinical Pharmacists to consult with Patients regarding anti-coagulation treatments or medication management issues (i.e., Coumadin Clinic).

**1. Phrm Svc Reception, Stff Sprt (SS221) ..... 85 NSF (7.9 NSM)**

- a. *Provide one if [Clinical Pharmacist FTE positions authorized] is between 1 and 4*

**2. Phrm Svc Waiting, Bldg Sprt (SB003) ..... 80 NSF (7.5 NSM)**

- a. *Provide one if [Clinical Pharmacist FTE positions authorized] is between 1 and 2*
- b. *Provide one at 100 NSF if [Clinical Pharmacist FTE positions authorized] is 3*
- c. *Provide one at 110 NSF if [Clinical Pharmacist FTE positions authorized] is 4*

**3. Phrm Svc Consult Room, Clncl Sprt (SC271) ..... 100 NSF (9.3 NSM)**

- a. *Provide one if [Clinical Pharmacist FTE positions authorized] is 1*
- b. *Provide two if [Clinical Pharmacist FTE positions authorized] is 2*
- c. *Provide three if [Clinical Pharmacist FTE positions authorized] is 3*
- d. *Provide four if [Clinical Pharmacist FTE positions authorized] is 4*

**4. Phrm Svc Tele-Phrm Workstation, Stff Sprt (SS218)..... 56 NSF (5.3 NSM)**

- a. *Provide two if [Clinical Pharmacist FTE positions authorized] is between 1 and 2*
- b. *Provide three if [Clinical Pharmacist FTE positions authorized] is 3*
- c. *Provide four if [Clinical Pharmacist FTE positions authorized] is 4*

Space for Clinical Pharmacists to conduct phone consults with patients.

**N. SEPS IMPORTER SHORTCUTS**

The following shortcuts are used in the Room Criteria Statements in Pharmacy Service Functional Areas. These shortcuts are used during upload of this document into the Space and Equipment Planning System (SEPS) software during implementation of the space planning parameters contained herewith to allow for mathematical or logical





calculations to be performed. Input Data Statements (IDSs), Rooms or a partial calculation formula can have a shortcut.

1. *Outpatient Pharmacy windows authorized:* [How many Outpatient Pharmacy windows are authorized?]
2. *Inpatient beds are authorized:* [How many Inpatient beds are authorized?]
3. *Clinical Pharmacist FTE positions authorized:* [How many Clinical Pharmacist FTE positions are authorized?]
4. *Pharmacy Research FTE positions:* [How many Pharmacy Research FTE positions are authorized?]

## 6 PLANNING AND DESIGN CONSIDERATIONS

- A. For additional planning and design criteria, refer to the Department of Veterans Affairs (VA) Office of Construction & Facilities Management (CFM) Handbooks, Standards, Details, and Design Guides.
- B. While there are several core commonalities between Inpatient and Outpatient Pharmacy functions, there are also some fundamental differences regarding adjacency requirements, operational organization, and general workflow. As such, Inpatient and Outpatient Pharmacy services on a Medical Center campus are typically accommodated with one of three general configurations:
  1. IP and OP pharmacies are separate, located in different parts of a building, or in different buildings altogether, with no physical connection between the spaces, and minimal or no shared support functions.
  2. IP and OP pharmacies are located adjacent to one another, either vertically or horizontally. They still function as distinct services, but with the potential for sharing of some support functions.
  3. IP and OP pharmacies are co-located within a contiguous building footprint or department perimeter. Operationally they still function as distinct services, but with increased potential for staff crossover and shared support functions.
- C. Considerations for the location of the Outpatient Pharmacy should include spaces with broad visibility, ease of public access, and ability to support ambulatory care services, potentially near the main facility entrance or other high-traffic public amenities.
- D. Inpatient Pharmacy does not require public access but should be located to provide support for Surgical Suites, Critical Care Units, Emergency Department, and all Nursing Units. The need for direct adjacency is reduced by the implementation and distribution of automated dispensing machines (ADM), as well as utilization of a pneumatic tube distribution system. If a facility does not include a pneumatic tube, physical adjacency between the Inpatient Pharmacy, Emergency Department, and Surgical Suites becomes more significant.



- E. Depending upon the departmental organization or physical space available within a facility, the Pharmacy Service Administration offices can be located adjacent to either the Inpatient or Outpatient Pharmacy or can be in a separate location.
- F. Refer to VA Directive 0730 Security and Law Enforcement for specific Pharmacy security considerations, including general department perimeter construction, dispensing window criteria, controlled substance storage, physical and electronic access control, and video monitoring requirements.
- G. The Pharmacy Cache portion of the All Hazard Emergency Cache can be stored outside of the Pharmacy department perimeter, either incorporated into Logistics warehouse space, or another secured storage area with proper security/access control, and which is readily accessible if cache activation is required. The listed area of 2,000 NSF is a 'placeholder' value which can be adjusted for each individual project, based on the specific needs of the Facility.
- H. Discharge Pharmacist functions are typically handled through the Outpatient Pharmacy, then transfer over to Inpatient Pharmacy staff for after-hours or weekend coverage.
- I. Medication dispensing at the Outpatient Pharmacy must be conducted through a secure transaction window. This window can also be used for conducting general consults, while private consults can take place within the dedicated Consult Room. If the Pharmacy prefers to conduct general consults face to face, with no barrier between the patient and Pharmacist, separate dedicated consult windows should be established just outside of the secure Pharmacy perimeter.
- J. Use of a conveyor system between the Automated Filling Robot and the workstations in the Outpatient Filling and Assembly area may not have a significant impact on the quantity of space needed, but will greatly influence the configuration of that space, including general workflow and circulation patterns throughout the department. See PG 18-12 Pharmacy Services Design Guide for additional detail.
- K. Medication Consultation Services (Coumadin / anti-coagulation / medication management) involve direct patient interaction and are conducted outside of the secure Pharmacy perimeter. They can be adjacent to the Outpatient Pharmacy or located closer to the ambulatory care clinic if space is available.
- L. As an alternative to standard high-density movable storage shelving, the use of a carousel or automated storage and retrieval system can allow for significantly reduced square footage requirements, while also providing inventory management and tracking capabilities. Equipment costs should be weighed against the savings from reduced building area needs. Available space between the floor level of the Pharmacy and the underside of the roof/floor structure above can be a limiting factor, as growth in carousel capacity is primarily in the vertical direction. Increased structural floor loads must also be considered. Typical functions that benefit from carousel utilization are Inpatient Filling and Assembly areas, as well as bulk medication storage specifically for support of automated filling robots or repackaging processes.



- M. Facilities that serve a significant Oncology mission may consider establishing a satellite location for a dedicated chemotherapy sterile compounding suite.
- N. Departments or services requiring increased or specific medication needs can incorporate a Satellite Pharmacy location. The spaces dedicated to those functions are typically planned as part of the host department, not as part of Pharmacy Service. Refer to the PG 18-9 chapter for that specific service for additional information.
- O. Facilities that may be performing frequent non-sterile hazardous drug compounding activities may consider including a dedicated containment hood directly within the Hazardous Drug Storage Room.
- P. The default Sterile Compounding Anteroom is sized to accommodate scrubbing/garbing activities, as well as access to two Buffer Rooms, a Hazardous Drug Storage Room, and the Sterile Compounding Housekeeping Closet. If the number of Buffer Rooms increases or decreases, the Anteroom size should be adjusted accordingly.
- Q. 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.



**7 FUNCTIONAL RELATIONSHIPS**

Relationship of Pharmacy Service to services listed below:

**TABLE 1: PHARMACY FUNCTIONAL RELATIONSHIP MATRIX**

SERVICES	FUNCTIONAL RELATIONSHIP
IP: MS PCUs	1
IP: MH PCUs	1
IP: PRC: PCU	1
IP: SCI: AC PCU	1
CLNCL: Surg Svc: Inpatient Surgery	2
CLNCL: Emergency	2
CLNCL: Urgent Care	2
BLDG SPRT: Police & Security	3
RSDNTL: PRC: RCUs	3
RSDNTL: MH: RCUs	3
RSDNTL: SH: Resident	3
RSDNTL: SCI: LTC RCU	3
CLNCL: Surg Svc: Ambulatory Surgery	3
CLNCL SPRT: Health Sciences Library	3
CLNCL: Imgng Svcs: MRI	3
CLNCL: Imgng Svcs: PET/ CT	3
CLNCL: Imgng Svcs: PET/MRI	3
CLNCL: Radiation Therapy	3
CLNCL: Imgng Svcs: Nuclear Medicine (NM)	3
BLDG SPRT: Logstcs Svc: Loading Dock	3

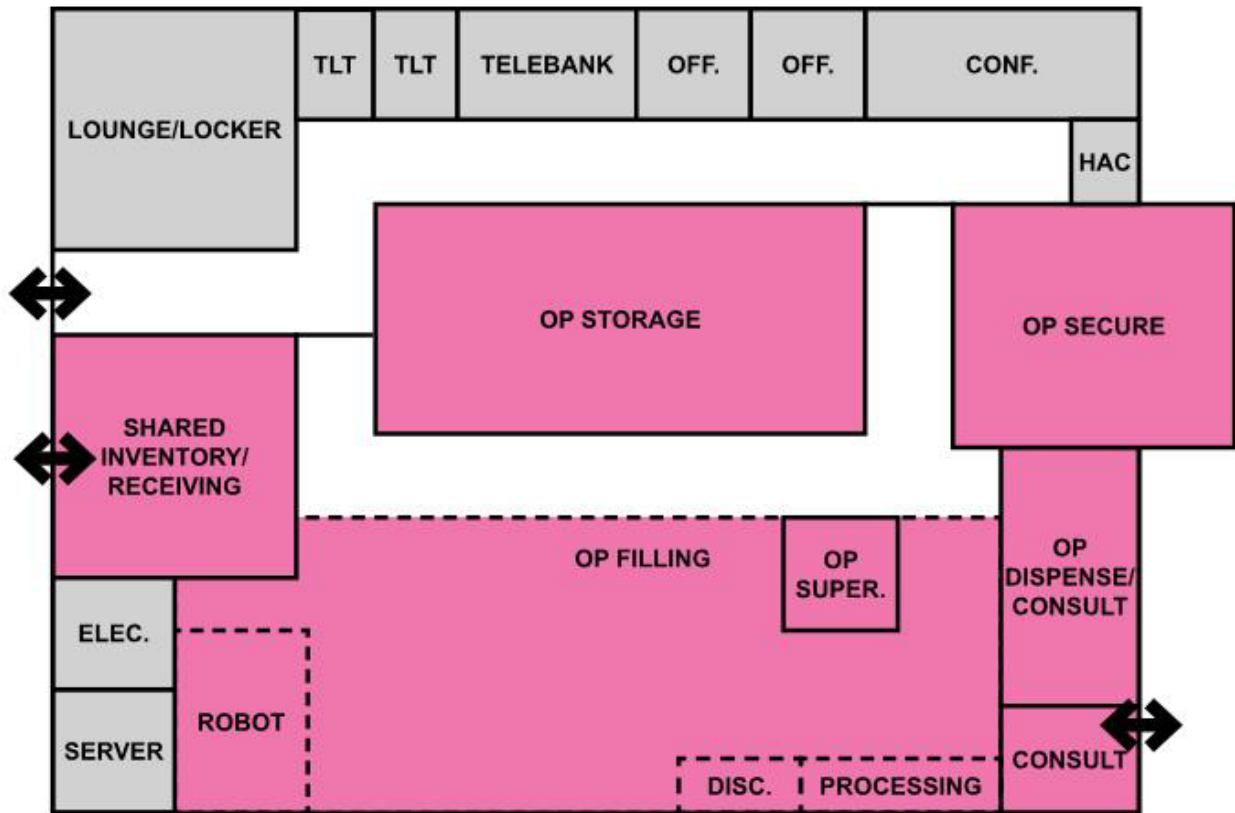
**Legend:**

1. High
2. Moderate
3. Minimal



**8 FUNCTIONAL DIAGRAMS**

**A. Outpatient Pharmacy**

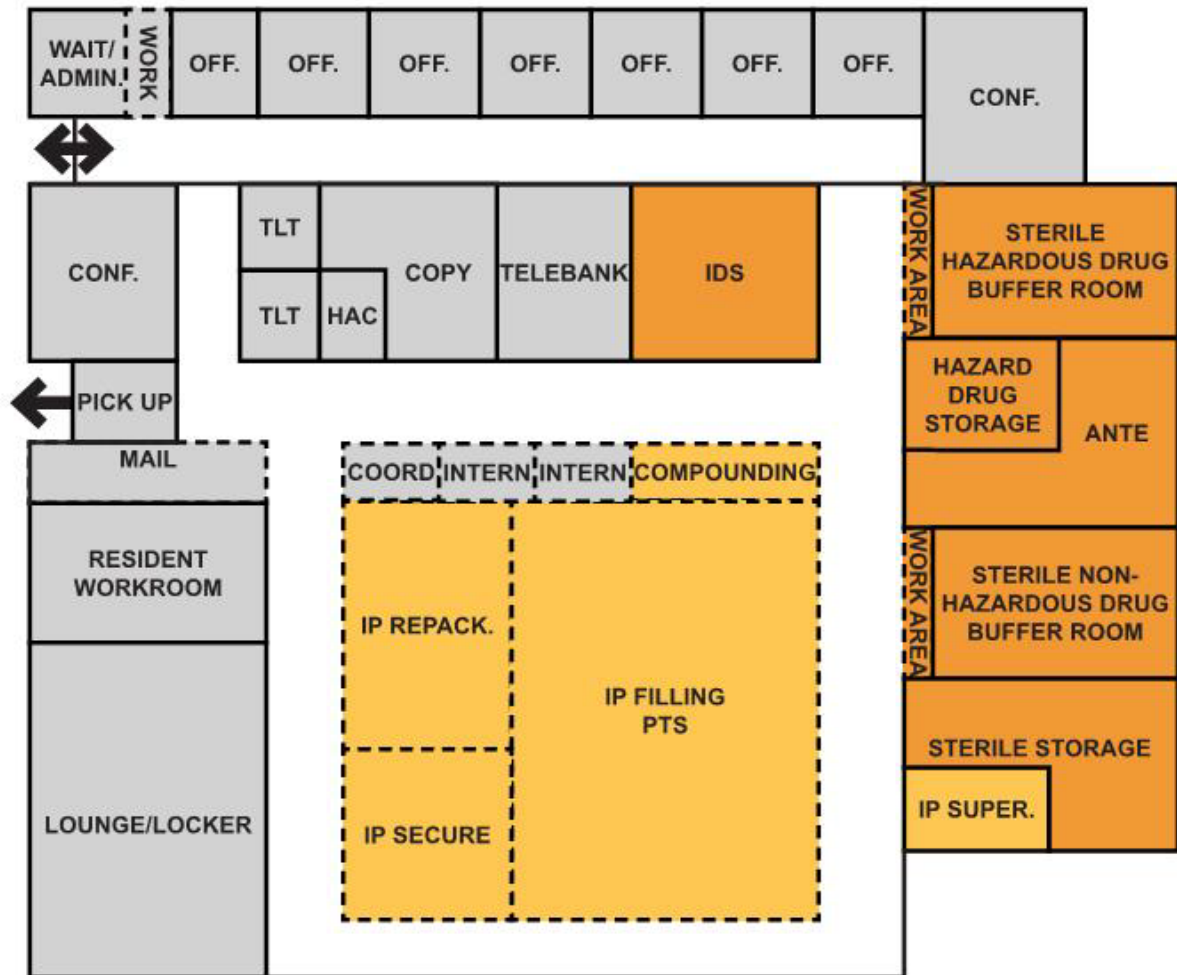


Legend:

- Outpatient
- Clean Room
- Inpatient
- Staff Area
- Support
- Circulation
- ←
→
 Secure Entry



B. Inpatient Pharmacy



Legend:

- Outpatient
- Clean Room
- Inpatient
- Staff Area
- Support
- Circulation
- Secure Entry

