



DoD SPACE PLANNING CRITERIA

CHAPTER 410 NURSING UNITS

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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 1 June 2016 includes the following:

- On page 11, in TABLE 1 NURSING UNIT SIZES, changed the MIN* note to read “The minimum recommended number of projected patient beds required to plan a Unit.”
- On page 13, section 4.1. FA1: MEDICAL SURGICAL UNIT FAMILY / VISITOR AREA, added room 3 “Reception (RECP3) at 60 NSF”. Added criteria statement “Minimum NSF; provide an additional 30 NSF for every increment of sixteen Medical Surgical beds, of all types, greater than sixteen.”
- On page 13, section 4.1. FA1: MEDICAL SURGICAL UNIT FAMILY / VISITOR AREA, room 5, Education / Resource Cubicle (CLSC2), changed criteria statement to read “Minimum one; provide an additional one for every increment of sixteen Medical -Surgical Bedrooms, of all types, greater than sixteen.”
- On page 15, section 4.2. FA2: MEDICAL SURGICAL PATIENT CARE AREA, room 11, Nurse Station (NSTA1), changed minimum NSF to 120. Changed the criteria statement to read “Minimum NSF; provide an additional 30 NSF for every increment of four Medical -Surgical Bedrooms, of all types, greater than twelve.” Added descriptor sentence to read “NSF may be sub-divided during design.”
- On page 15, section 4.2. FA2: MEDICAL SURGICAL PATIENT CARE AREA, room 12, Monitoring Station (NSTA3), changed criteria statement to read “Minimum NSF if a Monitoring Station for the Medical-Surgical Unit is authorized; provide an additional 30 NSF for every increment of six Medical -Surgical Bedrooms, of all types, greater than twelve.” Deleted descriptor sentence.
- On page 15, section 4.2. FA2: MEDICAL SURGICAL PATIENT CARE AREA, room 13, Team Collaboration Room (WRCH1), change criteria statement to read “Minimum NSF; provide an additional 30 NSF for every increment of four Medical -Surgical Bedrooms, of all types, greater than six.”
- On page 20, section 6.1. FA1: ICU / CCU FAMILY / VISITOR AREA, added room 3 “Reception (RECP3) at 60 NSF”. Added criteria statement “Minimum NSF; provide an additional 30 NSF for every increment of sixteen ICU / CCU beds, of all types, greater than sixteen.”

- On page 20, section 6.1. FA1: ICU / CCU FAMILY / VISITOR AREA, room 5, Education / Resource Cubicle (CLSC2), changed criteria statement to read “Minimum one; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than eight.”
- On page 21, section 6.2. FA2: ICU / CCU PATIENT CARE AREA, room 10, Nurse Station (NSTA1), changed minimum NSF to 120. Changed criteria statement to read “Minimum NSF; provide an additional 30 NSF for every increment of four ICU / CCU Bedrooms, of all types, greater than six.”
- On page 22, section 6.2. FA2: ICU / CCU PATIENT CARE AREA, deleted room 8 Procedure Room (TRGM1).
- On page 22, section 6.2. FA2: ICU / CCU PATIENT CARE AREA, room 11, Monitoring Station (NSTA3), changed criteria statement to read “Minimum NSF if a Monitoring Station for the ICU /CCU Unit is authorized; provide an additional 30 NSF for every increment of six ICU / CCU Bedrooms, of all types, greater than twelve.”
- On page 22, section 6.2. FA2: ICU / CCU PATIENT CARE AREA, room 12, Team Collaboration Room (WRCH1), changed criteria statement to read “Minimum NSF; provide an additional 30 NSF for every increment of four ICU / CCU Bedrooms, of all types, greater than six.”
- On page 22, section 6.3. FA3: ICU / CCU SUPPORT, room 1, Laboratory, Point-Of-Care (LBSP1), changed room name and room code to read “Laboratory, Satellite (LBBG2)”
- On page 27, section 8.1. FA1: PEDIATRIC UNIT FAMILY / VISITOR AREA, added room 3 “Reception (RECP3) at 60 NSF”. Added criteria statement “Minimum NSF; provide an additional 30 NSF for every increment of sixteen Pediatric beds, of all types, greater than sixteen.”
- On page 27, section 8.1. FA1: PEDIATRIC UNIT FAMILY / VISITOR AREA, room 5, Education / Resource Cubicle (CLSC2), changed criteria statement to read “Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than eight.”
- On page 29, section 8.2. FA2: PEDIATRIC UNIT PATIENT CARE AREA, room 14, Nurse Station (NSTA1), changed minimum NSF to 120. Changed criteria statement to read “Minimum NSF; provide an additional 30 NSF for every increment of four Pediatric Bedrooms, of all types, greater than six.’ Added descriptor sentence “NSF may be sub-divided during design.”

- On page 29, section 8.2. FA2: PEDIATRIC UNIT PATIENT CARE AREA, room 15, Monitoring Station (NSTA3), Team Collaboration Room (WRCH1), changed criteria statement to read “Minimum NSF if a Monitoring Station for Pediatric Patient Care Area is authorized; provide an additional 30 NSF for every increment of six Pediatric Bedrooms, of all types, greater than twelve.” Deleted descriptor sentence.
- On page 29, section 8.2. FA2: PEDIATRIC UNIT PATIENT CARE AREA, room 16, Team Collaboration Room (WRCH1), changed criteria statement to read “Minimum NSF; provide an additional 30 NSF for every increment of four Pediatric Bedrooms, of all types, greater than six.”

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SECTION 1: PURPOSE AND SCOPE

1.1.

This chapter outlines space planning criteria for hospital-based inpatient nursing units for all Military Treatment Facilities (MTFs) in the Military Health System (MHS). This space planning criteria applies to the following types of nursing units: traditional acute care Medical - Surgical Units, Intensive Care / Coronary Care Units (ICU/CCU), Intermediate Care Units, Pediatric Units, and Acuity-Adaptable Units. These criteria should not be used for the following services.

- A. Obstetric Units; refer to DoD 420: Labor & Delivery / Obstetric Units
- B. Nurseries; refer to DoD 430: Neonatal Intensive Care Units (NICU)
- C. Prep and Recovery Units, and Post-Anesthesia Care Units; refer to DoD 440: Surgery, Interventional Services
- D. Inpatient Behavioral Health, refer to DoD 460: Inpatient Behavioral Health, Partial Hospitalization and Substance Abuse / Alcohol Rehabilitation Program.
- E. Inpatient Pharmacy; refer to DoD 550: Pharmacy: Inpatient & Outpatient.

This space planning criteria applies to all Military Medical Treatment Facilities (MTFs). Policies and directives, DoD Subject Matter Experts (SMEs), established and/or anticipated best practice guidelines / standards, and the Defense Health Agency (DHA) provides the foundation for the workload based space criteria and Net Square Footages (NSF) for each space. Room Codes (RCs) in this document are based on the latest version of DoD UFC 4-510-01, Appendix B.

SECTION 2: OPERATING RATIONALE AND BASIS OF CRITERIA

2.1.

A. Workload Projections, number of patient beds, and planned services / modalities for a specific MHS facility project shall be sought by the planner in order to develop a baseline Program for Design based on these space planning 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.

1. Projecting bed need:

The number of beds required drives the planning of nursing units. The program data required should include the projected average daily patient load as well as a projected occupancy rate so that the actual number of beds to be programmed can be calculated. However, determination of the average daily patient load is a complex matter and involves the calculation of annual admissions and projection of an Average Length of Stay (ALOS).

2. Projecting annual admissions:

Annual Admissions information should be available through the facility Resource Management or Patient Administration Department. The number of annual admissions is a function of the population at risk and the admission rate. The following formula is the basis for determining annual admissions.

Formula1:

$$\text{Annual Admissions} = \frac{(\text{Population at Risk})(\text{Annual Admission per 1,000 Population at Risk})}{1,000}$$

Estimating the number of people in the service area (population at risk) should be based on an analysis of historical data, recent trends, and mission changes such as base reallocation and closure, modularity. Seasonal variations in demand may also need to be taken into account. When an existing hospital is being expanded or replaced, the historical number of admissions per 1,000 population at risk (use rate) should be analyzed along with potential changes in medical technology, physician practices, consumer demand, and other factors that may influence expected future annual patient admissions.

3. Calculating the Average Daily Patient Load:

The Average Daily Patient Load (ADPL) is a function of the annual admissions for the population at risk and the ALOS. The ALOS should be calculated based on historical data, trends, and comparative benchmarks.

Formula 2:

$$ADPL = \frac{(Annual\ Admissions)(Average\ Length\ of\ Stay\ (ALOS))}{365}$$

Annual admissions use rate data, and average lengths of stay may be further collected and analyzed by diagnostic related groups (DRGs) to provide further accuracy and to determine if there will be a sufficient number of patients to warrant a specialty nursing unit like orthopedics, cardiology, or neurosciences.

Along with an estimate of the ADPL, specific numbers of patients by specialty or level of care (e.g., ICU/CCU, pediatrics) may also be delineated as part of the required program data. Additionally, the number of same-day / observation patients that occupy inpatient beds on an average day (and not included in standard midnight census reports) should be estimated and the projected average daily patient load adjusted accordingly.

4. Assigning occupancy rates to determine the number of beds to be provided:

The ADPL identifies the “average” number of patients occupying a bed at a specific hospital site as determined by the midnight census but does not specify the actual number of beds to be planned to ensure that a bed is available on any given day. This requires the application of a planned occupancy rate. Occupancy rates are stated as a percentage represented as 80% or 0.80 and will vary based on:

- a. Random versus scheduled nature of the admission: If admissions are scheduled and not the result of a random arrival or occurrence; higher occupancy levels can be achieved. For example, random obstetrical delivery versus scheduled surgery procedure admission.
- b. Risk of turning a patient away if a bed is not available: The risk of not having an ICU bed available when needed would be very problematic.
- c. Seasonal variations: If the population at risk varies significantly throughout the year due to cyclical weather related migration, then use of an “annual” occupancy rate may result in an insufficient number of beds during peak periods. For example, if the total admissions for the peak month are historically 20% higher than the monthly average (annual admissions divided by 12), a lower occupancy rate may need to be used when it is applied to the average daily patient load. Alternately, policies /

procedures can be established in advance to mobilize additional beds during peak periods and/or take beds out of service during low periods.

- d. Design flexibility: A lower occupancy rate can be used if one or more nursing units are designed with adequate flexibility to accommodate patient overflow (e.g., acuity-adaptable patient rooms, conversion to semi private rooms for emergency mobilization).
- e. Nursing unit size: Small units with high-acuity patients, like ICUs, should be planned with a lower occupancy rate, particularly if overflow accommodations are not available. See paragraph E below for further information on unit size.

Once the ADPL has been determined, and the appropriate occupancy rate established, the following formula should be used to estimate the actual number of beds to be programmed.

Formula 3:

$$\text{Number of Projected Beds} = \frac{\text{Average Daily Patient Load (ADPL)}}{\text{Occupancy Rate}}$$

Examples of occupancy rates include:

- a. 60% occupancy for ICUs/CCUs and other specialty units with a small number of beds
- b. 80% occupancy for medical-surgical nursing units with all single patient rooms.

Refer to Space Planning Criteria Chapter 120 for more detailed information on Occupancy Rates.

B. Space planning criteria have been developed on the basis of an understanding of the activities involved in the functional areas required for the three major components of the Nursing Units: Medical-Surgical Units, Intensive Care Units (ICU)/Cardiac Care Units (CCU); Pediatric Units and their 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. Unit size is based on the parameters in Table 1. Depending on the MTFs Concept of Operations and staffing model, when the total projected number of patient beds exceeds the maximum recommendation for a unit, the planner may consider providing one large unit or two small units.

The space planning criteria of the Nursing Units Chapter were developed to provide flexibility in sizing inpatient units, as well as the grouping and location of some common spaces such as family waiting, nurse station, and other support spaces. The criteria support the planning of inpatient unit functional areas as a "module" of spaces that supports sixteen beds. The goal of limiting module size is to minimize staff walking distances and to allow for sharing of common spaces when units are located on the same floor. This allows for flexibility of sizing inpatient units ranging from a 16 bed-unit to a 32 bed-unit for Medical-Surgical, and from an 8 bed-unit to a 16 bed-unit for ICU/CCU and Pediatrics.

TABLE 1: NURSING UNIT SIZES

410: NURSING UNITS		
NURSING UNITS	NUMBER OF BEDROOMS PER UNIT	
	MIN*	MAX**
Medical-Surgical	16	32
ICU / CCU	8	16
Pediatric	8	16
MIN*: The minimum recommended number of projected patient beds required to plan a Unit.		
MAX**: The maximum recommended number of patient beds per Unit.		

SECTION 3: PROGRAM DATA REQUIRED: MEDICAL-SURGICAL UNIT

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

1. How many Medical-Surgical beds are projected? (W)
 - a. How many Medical-Surgical Airborne Infection Isolation (AII) Bedrooms, greater than one, are authorized per the MTFs Infection Control Risk Assessment (ICRA)? (W)
 - i. Are Anterooms for the Medical-Surgical Airborne Infection Isolation (AII) Bedrooms authorized per the MTFs Infection Control Risk Assessment (ICRA)? (M)
 - b. How many Medical-Surgical Protective Environment (PE) Bedrooms are authorized per the MTFs Infection Control Risk Assessment (ICRA)? (W)
 - c. How many Medical-Surgical Acuity Adaptable Bedrooms are authorized? (W)
2. Are Caregiver Workstations authorized for the Medical-Surgical Patient Care Area? (M)
3. Is a Monitoring Station for the Medical-Surgical Patient Care Area authorized? (M)
4. Is a Tub Room for the Medical-Surgical Patient Care Area authorized? (M)
5. Is a Point-of-Care Laboratory for Medical-Surgical Unit Support authorized? (M)
6. Is Decentralized Food Tray Rethermalization for the Medical-Surgical Unit authorized? (M)
7. How many Medical-Surgical FTE positions are authorized for the Medical-Surgical Unit? (S)
 - a. How many Medical-Surgical FTE positions are authorized to have a private office? (S)
 - b. How many Medical-Surgical FTE positions are authorized to have a shared office? (S)
 - c. How many Medical-Surgical FTE positions are authorized to have a cubicle? (S)
 - d. How many Medical-Surgical Male FTE positions are working on peak shift? (S)
 - e. How many Medical-Surgical Female FTE positions are working on peak shift? (S)
8. Is Sub-Waiting for Medical-Surgical Staff and Administration authorized? (Misc)
9. Is a Conference Room for Medical-Surgical Staff and Administration authorized? (Misc)
10. Are Staff Toilet / Showers for Medical-Surgical Staff and Administration authorized? (Misc)
11. Is an On-Call Room for Medical-Surgical Staff and Administration authorized? (Misc)
12. Is a Scrubs Distribution Room in Medical -Surgical Staff and Administration authorized? (Misc)
13. Is a Medical-Surgical Graduate Medical Education / Training Program authorized? (M)
 - a. How many Medical-Surgical Resident and Student FTE positions are authorized? (S)

SECTION 4: SPACE PLANNING CRITERIA: MEDICAL SURGICAL UNIT

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. FA1: MEDICAL-SURGICAL UNIT FAMILY / VISITOR AREA. Spaces in this area may be shared among more than one Medical-Surgical Unit on a floor. Locate outside / accessible to the Medical-Surgical Unit.

1. **Waiting (WRC01)** **120 NSF**
Minimum NSF; provide an additional 120 NSF for every increment of sixteen Medical -Surgical Bedrooms, of all types, greater than sixteen.

2. **Playroom (PLAY1)** **120 NSF**
Minimum one; provide an additional one for every increment of thirty two Medical - Surgical Bedrooms, of all types, greater than thirty two.

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 (RECP3)** **60 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of sixteen Medical Surgical beds, of all types, greater than sixteen.

4. **Consult Room (OFDC2)** **120 NSF**
Minimum one; provide an additional one for every increment of thirty two Medical - Surgical Bedrooms, of all types, greater than thirty two.

5. **Education / Resource Cubicle (CLSC2)** **30 NSF**
Minimum one; provide an additional one for every increment of sixteen Medical - Surgical Bedrooms, of all types, greater than sixteen.

6. **Lounge, Family / Visitor (SL001)** **120 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of eight Medical - Surgical Bedrooms, of all types, greater than sixteen.

7. **Toilet, Family / Visitor (TLTU1)** **60 NSF**
Minimum one; provide an additional one for every increment of thirty two Medical - Surgical Bedrooms, of all types, greater than thirty two.

8. **Toilet / Shower, Family / Visitor (TLTS1)** **60 NSF**
Minimum one; provide an additional one for every increment of thirty two Medical - Surgical Bedrooms, of all types, greater than thirty two.

4.2. FA2: MEDICAL-SURGICAL UNIT PATIENT CARE AREA.

1. **Bedroom, Medical-Surgical (BRMS1)** **360 NSF**
Provide one per each projected Medical-Surgical bed. Deduct the Airborne Infection Isolation (AII), the Protective Environment (PE), and the Acuity Adaptable Bedrooms from the total number of projected Medical-Surgical beds.

All Medical-Surgical Bedrooms shall be single occupancy.

2. **Bedroom, Medical-Surgical Airborne Infection Isolation (AII) (BRIT1)** **290 NSF**
Minimum one; provide an additional one per each Medical-Surgical Airborne Infection Isolation (AII) Bedroom authorized, greater than one, per the MTFs Infection Control Risk Assessment (ICRA).

These bedrooms are part of the total number of projected Medical-Surgical patient beds. The number and location of Airborne Infection Isolation (AII) Bedrooms shall be determined by the MTFs ICRA, which shall be conducted during the early planning phase of a project.

3. **Anteroom, Airborne Infection Isolation (AII Medical-Surgical) (BRAR1)** **70 NSF**
Provide one per each Medical-Surgical Airborne Infection Isolation (AII) Bedroom if Anterooms are authorized per the MTFs ICRA.

4. **Bedroom, Protective Environment (PE) Medical-Surgical (BRIT2)** **290 NSF**
Provide one per each Medical-Surgical Protective Environment (PE) Bedroom authorized per the MTFs Infection Control Risk Assessment (ICRA).

These bedrooms are part of the total number of projected Medical-Surgical beds. The number and location of Protective Environment Bedrooms shall be determined by the MTFs ICRA, which shall be conducted during the early planning phase of a project.

5. **Anteroom, Protective Environment (PE) Medical-Surgical Bedroom (BRAR2)** **70 NSF**
Provide one per each Protective Environment Medical-Surgical bedroom.

6. **Bedroom, Medical-Surgical Acuity Adaptable (BRUN1)** **360 NSF**
Provide one per each Medical-Surgical Acuity Adaptable Bedroom authorized).

These bedrooms are part of the total number of projected Medical-Surgical beds.

7. **Toilet / Shower, Medical-Surgical Bedroom (TLTS2)** **60 NSF**
Provide one per each Medical-Surgical Bedroom, of all types.
8. **Tub Room, Patient (TUB01)** **120 NSF**
Minimum one if a Tub Room for the Medical-Surgical Patient Care Area is authorized; provide an additional one for every increment of thirty two Medical - Surgical Bedrooms, of all types, greater than thirty two.
9. **Procedure Room (TRGM1)** **180 NSF**
Minimum one; provide an additional one for every increment of thirty two Medical - Surgical Bedrooms, of all types, greater than thirty two.
10. **Workstation, Caregiver (NSTA3)** **30 NSF**
Provide one for every increment of two Medical -Surgical Bedrooms, of all types, if Caregiver Workstations are authorized.
11. **Nurse Station (NSTA1)** **120 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of four Medical - Surgical Bedrooms, of all types, greater than twelve.

NSF may be sub-divided during design.
12. **Monitoring Station (NSTA3)** **60 NSF**
Minimum NSF if a Monitoring Station for the Medical-Surgical Unit is authorized; provide an additional 30 NSF for every increment of six Medical -Surgical Bedrooms, of all types, greater than twelve.
13. **Team Collaboration Room (WRCH1)** **120 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of four Medical - Surgical Bedrooms, of all types, greater than six.

4.3. FA3: MEDICAL-SURGICAL UNIT SUPPORT.

1. **Laboratory, Point-of-Care (LBSP1)** **120 NSF**
Minimum one if a Point-of-Care Laboratory is authorized; provide an additional one for every increment of thirty two Medical -Surgical Bedrooms, of all types, greater than thirty two.
2. **Medication Room (MEDP1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen Medical-Surgical Bedrooms, of all types.
3. **Nourishment Room (NCWD1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen Medical-Surgical Bedrooms, of all types, greater than sixteen.

4. **Utility Room, Clean (UCCL1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen Medical-Surgical Bedrooms, of all types, greater than sixteen.
5. **Utility Room, Soiled (USCL1)** **90 NSF**
Minimum one; provide an additional one for every increment of sixteen Medical-Surgical Bedrooms, of all types, greater than sixteen.
6. **Storage, Equipment (SRSE1)** **120 NSF**
Minimum NSF; provide an additional 60 NSF for every increment of eight Medical-Surgical Bedrooms, of all types, greater than sixteen.
7. **Alcove, Stretcher (SRLW2)** **60 NSF**
Minimum one; provide an additional one for every increment of sixteen Medical - Surgical Bedrooms, of all types, greater than sixteen.
8. **Storage, Gas Cylinder (SRGC2)** **60 NSF**
Minimum one; provide an additional one for every increment of thirty two Medical-Surgical Bedrooms, of all types, greater than thirty two.
9. **Alcove, Crash Cart (RCA01)** **30 NSF**
Minimum one; provide an additional one for every increment of sixteen Medical - Surgical Bedrooms, of all types, greater than sixteen.
10. **Alcove, Blanket Warmer (RCA04)** **30 NSF**
Minimum one; provide an additional one for every increment of sixteen Medical - Surgical Bedrooms, of all types, greater than sixteen.
11. **Alcove, Portable Imaging (XRM01)** **30 NSF**
Minimum one; provide an additional one for every increment of thirty two Medical - Surgical Bedrooms, of all types, greater than thirty two.
12. **Food Tray Retherm Cart Area, Decentralized (FSCS2)** **90 NSF**
Minimum one if Decentralized Food Tray Rethermalization is authorized; provide an additional one for every increment of thirty two Medical -Surgical Bedrooms, of all types, greater than thirty two.

4.4. FA4: MEDICAL-SURGICAL UNIT STAFF AND ADMINISTRATION.

1. **Office, Private (OFA04)** **120 NSF**
Provide one per each Medical-Surgical FTE position authorized to have a private office in Medical-Surgical Unit Staff and Administration.

Consider the following positions: Clinical Nurse Specialist; Physician Assistant, Unit Chief / Supervisor, NCOIC / LCPO / LPO.

2. **Office, Shared (OFA05)** **120 NSF**
Provide one for every increment of two Medical-Surgical FTE positions authorized to have a shared office in Medical-Surgical Unit Staff and Administration.
3. **Cubicle (OFA03)** **60 NSF**
Provide one per each Medical-Surgical FTE position authorized to have a cubicle in Medical-Surgical Staff and Administration.

These cubicles may be collocated in a shared space or dispersed as required.
4. **Sub-Waiting (WRC03)** **60 NSF**
Minimum one if a Sub-Waiting for Medical-Surgical Staff and Administration is authorized; provide an additional one for every increment of thirty two Medical - Surgical Bedrooms, of all types, greater than thirty two.
5. **Conference Room (CRA01)** **240 NSF**
Minimum NSF if a Conference Room for Medical-Surgical Staff and Administration is authorized; provide an additional 60 NSF if the total number of Medical-Surgical 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 units or departments.
6. **Copy/ Office Supply (RPR01)** **120 NSF**
Minimum one; provide an additional one for every increment of thirty two Medical - Surgical Bedrooms, of all types, greater than thirty two.
7. **Lounge, Staff (SL001)** **120 NSF**
Minimum NSF; provide an additional 60 NSF for every increment of five Medical-Surgical FTE positions on peak shift greater than ten, maximum 360 NSF.
8. **Toilet, Medical-Surgical Staff (TLTU1)** **60 NSF**
Minimum one; provide an additional one every increment of fifteen Medical-Surgical FTE positions on peak shift greater than fifteen.
9. **Locker / Changing, Male Staff (LR002)** **120 NSF**
Minimum NSF; provide an additional 10 NSF for every increment of two Medical-Surgical Male FTE positions on peak shift greater than twelve.
10. **Locker / Changing, Female Staff (LR002)** **120 NSF**
Minimum NSF; provide an additional 10 NSF for every increment of two Medical-Surgical Female FTE positions on peak shift greater than twelve.

11. **Toilet / Shower, Medical-Surgical Staff (TLTS1)** **60 NSF**
Provide two if Staff Toilet / Showers are authorized for Medical-Surgical Staff and Administration.
12. **On-Call Room (DUTY1)** **120 NSF**
Minimum one if an On-Call Room is authorized for Medical-Surgical Staff and Administration; provide an additional one for every increment of thirty two Medical - Surgical Bedrooms, of all types, greater than thirty two.
13. **Toilet / Shower, On-Call Room (TLTS1)** **60 NSF**
Provide one per each On-Call Room if On-Call Rooms are authorized.
14. **Scrubs Distribution Room (LCCL4)** **120 NSF**
Provide one if a Scrubs Distribution Room in the Medical -Surgical Staff and Administration is authorized.

4.5. FA5: MEDICAL-SURGICAL GME EDUCATION / TRAINING.

1. **Office, Residency Program Director (OFA04)** **120 NSF**
Provide one if a Medical-Surgical Graduate Medical Education / Training Program is authorized.
2. **Resident Collaboration Room (WKTM1)** **240 NSF**
Minimum NSF if a Medical-Surgical Unit Graduate Medical Education program is authorized; provide an additional 60 NSF per each Resident and Student FTE position authorized greater than two.

Minimum NSF accommodates two residents, and a collaboration / reference area.
3. **Conference / Classroom (CRA01)** **240 NSF**
Provide one if the total number of Resident and Student FTE positions authorized is greater than five and if a Medical-Surgical Unit Graduate Medical Education / Training program is authorized.

SECTION 5: PROGRAM DATA REQUIRED: INTENSIVE CARE UNIT (ICU) / CORONARY CARE UNIT (CCU)

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

1. How many ICU / CCU beds are projected? (W)
 - a. How many ICU / CCU Airborne Infection Isolation (AII) Bedrooms, greater than one, are authorized per the MTFs Infection Control Risk Assessment (ICRA)? (W)

- b. Are Anterooms for the ICU / CCU Airborne Infection Isolation (AII) ICU / CCU Bedrooms authorized per the MTFs Infection Control Risk Assessment (ICRA)? (M)
2. How many ICU / CCU Protective Environment (PE) Bedrooms are authorized per the MTFs Infection Control Risk Assessment (ICRA)? (W)
3. How many ICU / CCU Acuity Adaptable Bedrooms are authorized? (W)
4. Are Caregiver Workstations for the ICU / CCU Patient Care Area authorized? (M)
5. Is a Monitoring Station for the ICU /CCU Patient Care Area authorized? (M)
6. Is a Point-of-Care Laboratory for the ICU / CCU Support authorized? (M)
7. Is a Satellite Pharmacy for the ICU / CCU Support authorized? (M)
8. Is Decentralized Food Tray Rethermalization for the ICU / CCU Support authorized? (M)
9. How many ICU / CCU FTE positions are authorized for the ICU / CCU? (S)
 - a. How many ICU / CCU FTE positions are authorized to have a private office in ICU / CCU Staff and Administration? (S)
 - b. How many ICU / CCU FTE positions are authorized to have a shared office in ICU / CCU Staff and Administration? (S)
 - c. How many ICU / CCU FTE positions are authorized to have a cubicle in ICU / CCU Staff and Administration? (S)
 - d. How many ICU / CCU Male FTE positions are working on peak shift? (S)
 - e. How many ICU / CCU Female FTE positions are working on peak shift? (S)
 - f. How many ICU / CCU Respiratory Therapist FTE positions are authorized? (S)
10. Is Sub-Waiting for ICU / CCU Staff and Administration authorized?(Misc)
11. Is a Conference Room for ICU / CCU Staff and Administration authorized? (Misc)
12. Are Staff Toilet /Showers for ICU / CCU Staff and Administration authorized? (Misc)
13. Is a Scrubs Distribution Room in ICU / CCU Staff and Administration authorized? (Misc)
14. Is an ICU / CCU Graduate Medical Education (GME) / Training Program authorized? (M)
 - a. How many ICU / CCU Resident and Student FTE positions are authorized? (S)

SECTION 6: SPACE PLANNING CRITERIA: ICU / CCU

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 6.1: Common Areas.

6.1. FA1: ICU / CCU FAMILY / VISITOR AREA

Spaces in this area may be shared among more than one ICU / CCU on a floor. Locate outside / accessible to ICU / CCU.

1. **Waiting (WRC01)** **120 NSF**
Minimum NSF; provide an additional 120 NSF for every increment of eight ICU / CCU Bedrooms, of all types, greater than eight.

2. **Playroom (PLAY1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than sixteen.

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 (RECP3)** **60 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of sixteen ICU / CCU beds, of all types, greater than sixteen.
4. **Consult Room (OFDC2)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than sixteen.
5. **Education / Resource Cubicle (CLSC2)** **30 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than eight.
6. **Lounge, Family / Visitor (SL001)** **120 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of four ICU/CCU Bedrooms, of all types, greater than eight.
7. **Toilet, Family / Visitor (TLTU1)** **60 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU/CCU Bedrooms, of all types, greater than sixteen.
8. **Toilet /Shower, Family / Visitor (TLTS1)** **60 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU/CCU Bedrooms, of all types, greater than sixteen.

6.2. FA2: ICU / CCU PATIENT CARE AREA.

1. **Bedroom, ICU / CCU (BRIC1)** **360 NSF**
Provide one per each projected ICU / CCU bed. Deduct the Airborne Infection Isolation (AII) and the Protective Environment (PE) Bedrooms authorized per the Infection Control Risk Assessment (ICRA), and the Acuity Adaptable Bedrooms from the total number of projected ICU / CCU beds.

All ICU / CCU Bedrooms shall be single occupancy.
2. **Bedroom, ICU / CCU Airborne Infection Isolation (AII) (BRII1)** **290 NSF**
Minimum one; provide an additional one per each ICU / CCU Airborne Infection Isolation (AII) Bedroom authorized, greater than one, per the MTFs Infection Control Risk Assessment (ICRA).

These bedrooms are part of the total number of projected ICU / CCU beds. The number and location of Airborne Infection Isolation (AII) Bedrooms shall be determined by the MTFs ICRA, which shall be conducted during the early planning phase of a project.

3. **Anteroom, Airborne Infection Isolation (AII) ICU / CCU Bedroom (BRAR1)** **70 NSF**
Provide one per each ICU / CCU Airborne Infection Isolation (AII) Bedroom if Anterooms are authorized per the MTFs ICRA.

4. **Bedroom, Protective Environment (PE) ICU / CCU (BRII2)** **290 NSF**
Provide one per each ICU / CCU Protective Environment (PE) Bedroom authorized.

These bedrooms are part of the total number of projected ICU / CCU beds. The number and location of Protective Environment (PE) Bedrooms shall be determined by the MTFs ICRA, which shall be conducted during the early planning phase of a project

5. **Anteroom, Protective Environment (PE) ICU / CCU Bedroom (BRAR2)** **70 NSF**
Provide one per each Protective Environment ICU / CCU Unit Bedroom.

6. **Bedroom, ICU / CCU Acuity Adaptable (BRUN1)** **360 NSF**
Provide one per each ICU / CCU Acuity Adaptable Bedroom authorized. These bedrooms are part of the total number of projected ICU / CCU beds.

7. **Toilet / Shower, ICU / CCU Bedroom (TLTS2)** **60 NSF**
Provide one per each ICU / CCU Bedroom of all types.

Depending on the MTFs Concept of Operations, toilet / showers may not be provided in the typical ICU / CCU Bedroom, BRIC1. They will be provided for the ICU / CCU Airborne Infection Isolation (AII), the Protective Environment (PE), and Acuity Adaptable Bedrooms.

8. **Workstation, Caregiver (NSTA3)** **30 NSF**
Provide one for every increment of two ICU / CCU Bedrooms, of all types, if Caregiver Workstations are authorized.

9. **Nurse Station (NSTA1)** **120 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of four ICU / CCU Bedrooms, of all types, greater than six.

The nurse station can be subdivided into smaller “teaming” nurse stations or substations that allow a few caregivers to collaborate.

10. **Monitoring Station (NSTA3)** **60 NSF**
Minimum NSF if a Monitoring Station for the ICU /CCU Unit is authorized; provide an additional 30 NSF for every increment of six ICU / CCU Bedrooms, of all types, greater than twelve.
11. **Team Collaboration Room (WRCH1)** **120 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of four ICU / CCU Bedrooms, of all types, greater than six.

6.3. FA3: ICU / CCU SUPPORT

1. **Laboratory, Satellite (LBBG2)** **120 NSF**
Minimum one if a Satellite Laboratory is authorized; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than sixteen.
2. **Pharmacy, Satellite (PHDS3)** **240 NSF**
Provide one if a Satellite Pharmacy is authorized; for ICU / CCU Support.
3. **Workstation, Respiratory Therapist (OFA03)** **60 NSF**
Provide one per each ICU / CCU Respiratory Therapist FTE position authorized.

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

4. **Decontamination, Respiratory Therapy (OPRC1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than sixteen.
5. **Storage, Respiratory Therapy (SRE01)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than sixteen.
6. **Medication Room (MEDP1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU/CCU Bedrooms, of all types, greater than sixteen.
7. **Nourishment Room (NCWD1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU/CCU Bedrooms, of all types, greater than sixteen.
8. **Utility Room, Clean (UCCL1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU/CCU Bedrooms, of all types, greater than sixteen.
9. **Utility Room, Soiled (USCL1)** **90 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU/CCU Bedrooms, of all types, greater than sixteen.

10. **Storage, Equipment (SRSE1)** **120 NSF**
Minimum NSF; provide an additional 60 NSF for every increment of eight ICU/CCU Bedrooms, of all types, greater than eight.
11. **Alcove, Stretcher (SRLW2)** **60 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU/CCU Bedrooms, of all types, greater than sixteen.
12. **Storage, Gas Cylinder (SRGC2)** **60 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than sixteen.
13. **Alcove, Crash Cart (RCA01)** **30 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU/CCU Bedrooms, of all types, greater than sixteen.
14. **Alcove, Blanket Warmer (RCA04)** **30 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU/CCU Bedrooms, of all types greater than sixteen.
15. **Alcove, Portable Imaging (XRM01)** **30 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than sixteen.
16. **Food Tray Retherm Cart Area, Decentralized (FSCS2)** **90 NSF**
Minimum one if Decentralized Food Tray Rethermalization is authorized for the ICU / CCU; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than sixteen.

6.4. FA4: ICU / CCU STAFF AND ADMINISTRATION.

1. **Office, Private (OFA04)** **120 NSF**
Provide one per each ICU / CCU FTE position authorized to have a private office in ICU / CCU Unit Staff and Administration.

Consider the following positions: Clinical Nurse Specialist; Physician Assistant, Intensivist, Unit Chief / Supervisor, NCOIC / LCPO / LPO.
2. **Office, Shared (OFA05)** **120 NSF**
Provide one for every increment of two ICU / CCU FTE positions authorized to have a shared office in ICU / CCU Unit Staff and Administration.
3. **Cubicle (OFA03)** **60 NSF**
Provide one per each ICU / CCU FTE position authorized to have a cubicle in ICU / CCU Unit Staff and Administration.

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

4. **Sub-Waiting (WRC03)** **60 NSF**
Minimum one if a Sub-Waiting for ICU / CCU Staff and Administration is authorized; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than sixteen.

5. **Conference Room (CRA01)** **240 NSF**
Minimum NSF if a Conference Room for ICU / CCU Staff and Administration is authorized.; provide an additional 60 NSF if the total number of ICU / CCU 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.

6. **Copy/ Office Supply (RPR01)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than sixteen.

7. **Lounge, Staff (SL001)** **120 NSF**
Minimum NSF; provide an additional 60 NSF for every increment of five ICU/CCU FTE positions on peak shift greater than ten.

8. **Toilet, ICU / CCU Staff (TLTU1)** **60 NSF**
Minimum one provide an additional one every increment of fifteen ICU / CCU FTE positions authorized greater than fifteen.

9. **Locker / Changing, Male Staff (LR002)** **120 NSF**
Minimum NSF; provide an additional 10 NSF for every increment of two ICU / CCU Male FTE positions authorized greater than twelve.

10. **Locker / Changing, Female Staff (LR002)** **120 NSF**
Minimum NSF; provide an additional 10 NSF for every increment of two ICU / CCU Female FTE positions authorized greater than twelve.

11. **Toilet / Shower, ICU / CCU Staff (TLTS1)** **60 NSF**
Provide two if Staff Toilet /Showers are authorized for ICU / CCU Staff and Administration.

12. **On-Call Room (DUTY1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen ICU / CCU Bedrooms, of all types, greater than sixteen.

13. **Toilet / Shower, On-Call Room (TLTS1)** **60 NSF**
Provide one per each On-Call room.

14. **Scrubs Distribution Room (LCCL4)** **120 NSF**
Provide one if a Scrubs Distribution Room in the ICU / CCU Staff and Administration is authorized.

6.5. FA5: ICU / CCU GME EDUCATION / TRAINING.

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

SECTION 7: PROGRAM DATA REQUIRED: PEDIATRIC UNIT

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

1. How many Pediatric beds are projected? (W)
 - a. How many Pediatric Airborne Infection Isolation (AII) Bedrooms, greater than one, are authorized per the MTFs Infection Control Risk Assessment (ICRA)? (W)
 - i. Are Anterooms for the Pediatric Airborne Infection Isolation (AII) Bedrooms authorized per the MTFs Infection Control Risk Assessment (ICRA)? (M)
 - b. How many Pediatric Protective Environment (PE) Isolation Bedrooms are authorized per the MTFs Infection Control Risk Assessment (ICRA)? (W)
 - c. How many Pediatric Acuity Adaptable Bedrooms are authorized? (W)
2. How many Patient Tub Rooms, greater than one, for the Pediatric Unit Patient Care Area are authorized? (Misc)
3. Is a Classroom for the Pediatric Unit Patient Care Area authorized? (M)
4. Are Caregiver Workstations for the Pediatric Unit Patient Care Area authorized? (M)
5. Is a Monitoring Station for the Pediatric Unit Patient Care Area authorized? (M)
6. Is a Point-of-Care Laboratory for Pediatric Unit Support authorized? (M)

7. Is Decentralized Food Tray Rethermalization for the Pediatric Unit Support authorized? (M)
8. How many Pediatric Unit FTE positions are authorized? (S)
 - a. How many Pediatric Unit FTE positions are authorized to have a private office in Pediatric Unit Staff and Administration? (S)
 - b. How many Pediatric Unit FTE positions are authorized to have a shared office in Pediatric Unit Staff and Administration? (S)
 - c. How many Pediatric Unit FTE positions are authorized to have a cubicle in Pediatric Unit Staff and Administration? (S)
 - d. How many Pediatric Unit Male FTE positions are working on peak shift?(S)
 - e. How many Pediatric Unit Female FTE positions are working on peak shift?(S)
9. Is Sub-Waiting for Pediatric Staff and Administration authorized? (Misc)
10. Is a Conference Room for Pediatric Staff and Administration authorized? (Misc)
11. Are Staff Toilet / Showers for Pediatric Staff and Administration authorized? (Misc)
12. Is an On-Call Room for Pediatric Staff and Administration authorized?
13. Is a Scrubs Distribution Room in Pediatric Staff and Administration authorized? (Misc)
14. Is a Pediatric Graduate Medical Education / Training Program authorized? (M)
 - a. How many Pediatric Resident and Student FTE positions are authorized? (S)

SECTION 8: SPACE PLANNING CRITERIA: PEDIATRIC UNIT

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 6.1: Common Areas.

8.1. FA1: PEDIATRIC UNIT FAMILY / VISITOR AREA

Spaces in this area may be shared among more than one Pediatric Unit on a floor. Locate outside / accessible to the Pediatric Unit.

1. **Waiting (WRC01)** **120 NSF**
Minimum NSF; provide an additional 120 NSF for every increment of eight Pediatric bedrooms, of all types, greater than eight.
2. **Playroom (PLAY1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.

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 (RECP3)** **60 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of sixteen Pediatric beds, of all types, greater than sixteen.

4. **Consult Room (OFDC2)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
5. **Education / Resource Cubicle (CLSC2)** **30 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than eight.
6. **Lounge, Family / Visitor Area (SL001)** **120 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of four Pediatric Bedrooms, of all types, greater than eight.
7. **Toilet, Family / Visitor Area (TLTU1)** **60 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
8. **Toilet /Shower, Family / Visitor Area (TLTS1)** **60 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.

8.2. FA2: PEDIATRIC UNIT PATIENT CARE AREA

1. **Bedroom, Medical-Surgical (BRMS1)** **360 NSF**
Provide one per each projected Pediatric bed. Deduct the Airborne Infection Isolation (AII) Bedrooms, the Protective Environment (PE) Bedrooms authorized per the Infection Control Risk Assessment, and the Acuity Adaptable Bedrooms from the total number of projected Pediatric beds.

All Bedrooms shall be single occupancy.
2. **Bedroom, Airborne Infection Isolation (AII) (BRIT1)** **290 NSF**
Minimum one; provide an additional one per each Airborne Infection Isolation (AII) Bedroom authorized, greater than one, per the MTFs Infection Control Risk Assessment (ICRA).

These bedrooms are part of the total number of projected Pediatric beds. The number and location of Airborne Infection Isolation (AII) Bedrooms shall be determined by the MTFs ICRA, which shall be conducted during the early planning phase of a project.
3. **Anteroom, Airborne Infection Isolation (AII) Bedroom (BRAR1)** **70 NSF**
Provide one per each Airborne Infection Isolation (AII) Bedroom if Anterooms are authorized per the MTFs Infection Control Risk Assessment (ICRA).

4. **Bedroom, Protective Environment (PE) (BRIT2)** **290 NSF**
Provide one per each Protective Environment Bedroom authorized. These bedrooms are part of the total number of projected Pediatric beds.

The number and location of Protective Environment (PE) Bedrooms shall be determined by the MTFs ICRA, which shall be conducted during the early planning phase of a project.
5. **Anteroom, Protective Environment (PE) Bedroom (BRAR2)** **70 NSF**
Provide one per each Protective Environment Bedroom.
6. **Bedroom, Acuity Adaptable (BRUN1)** **360 NSF**
Provide one per each Acuity Adaptable Bedroom authorized. These bedrooms are part of the total number of projected Pediatric beds.
7. **Toilet / Shower, Bedroom (TLTS2)** **60 NSF**
Provide one per each Pediatric Bedroom of all types.
8. **Tub Room, Patient (TUB01)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
9. **Playroom (PLAY1)** **180 NSF**
Minimum NSF; provide an additional 60 NSF for every increment of four Pediatric Bedrooms, of all types, greater than eight.
10. **Day Room (DAYR1)** **180 NSF**
Minimum NSF; provide an additional 60 NSF for every increment of four Pediatric Bedrooms, of all types, greater than eight.

Accommodates adolescent/teen activities; adjust room contents based on NSF.
11. **Classroom (CLR01)** **240 NSF**
Minimum one if a Classroom for the Pediatric Unit Patient Care Area is authorized; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
12. **Procedure Room (TRGM1)** **180 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
13. **Workstation, Caregiver (NSTA3)** **30 NSF**
Provide one for every increment of two Pediatric Bedrooms, of all types, if Caregiver Workstations are authorized.

14. **Nurse Station (NSTA1)** **120 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of four Pediatric Bedrooms, of all types, greater than six.

NSF may be sub-divided during design.

15. **Monitoring Station (NSTA3)** **60 NSF**
Minimum NSF if a Monitoring Station for Pediatric Patient Care Area is authorized; provide an additional 30 NSF for every increment of six Pediatric Bedrooms, of all types, greater than twelve.

16. **Team Collaboration Room (WRCH1)** **120 NSF**
Minimum NSF; provide an additional 30 NSF for every increment of four Pediatric Bedrooms, of all types, greater than six.

8.3. FA3: PEDIATRIC UNIT SUPPORT AREA

1. **Laboratory, Point-of-Care (LBSP1)** **120 NSF**
Minimum one if a Point-of-Care Laboratory is authorized; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
2. **Medication Room (MEDP1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
3. **Nourishment Room (NCWD1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
4. **Utility Room, Clean (UCCL1)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
5. **Utility Room, Soiled (USCL1)** **90 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
6. **Storage, Equipment (SRSE1)** **120 NSF**
Minimum NSF; provide an additional 60 NSF for every increment of eight Pediatric Bedrooms, of all types, greater than eight.
7. **Alcove, Stretcher (SRLW2)** **60 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.

8. **Storage, Gas Cylinder (SRGC2)** **60 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
9. **Alcove, Crash Cart (RCA01)** **30 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
10. **Alcove, Blanket Warmer (RCA04)** **30 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
11. **Alcove, Portable Imaging (XRM01)** **30 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
12. **Food Tray Retherm Cart Area, Decentralized (FSCS2)** **90 NSF**
Minimum one if Decentralized Food Tray Rethermalization is authorized: provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.

8.4. FA4: PEDIATRIC UNIT STAFF AND ADMINISTRATION

1. **Office, Private (OFA04)** **120 NSF**
Provide one per each Pediatric Unit FTE position authorized to have a private office in Pediatric Unit Staff and Administration.

Consider the following positions: Clinical Nurse Specialist; Physician Assistant, Unit Chief / Supervisor, NCOIC / LCPO / LPO.
2. **Office, Shared (OFA05)** **120 NSF**
Provide one for every increment of two Pediatric Unit FTE positions authorized to have a shared office in Pediatric Unit Staff and Administration.
3. **Cubicle (OFA03)** **60 NSF**
Provide one per each Pediatric Unit FTE position authorized to have a cubicle in Pediatric Unit Staff and Administration.

These cubicles may be collocated in a shared space or dispersed as required.
4. **Sub-Waiting (WRC03)** **60 NSF**
Minimum one if a Sub-Waiting for Pediatric Unit Staff and Administration is authorized; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.

5. **Conference Room (CRA01)** **240 NSF**
Minimum NSF if a Conference Room for Pediatric Unit Staff and Administration is authorized; provide an additional 60 NSF if the total number of Pediatric Unit 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.
6. **Copy / Office Supply (RPR01)** **120 NSF**
Minimum one; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
7. **Lounge, Staff (SL001)** **120 NSF**
Minimum NSF; provide an additional 60 NSF for every increment of five Pediatric Unit FTE positions on peak shift, greater than ten.
8. **Toilet, Pediatric Unit Staff (TLTU1)** **60 NSF**
Minimum one provide an additional one every increment of fifteen Pediatric Unit FTE positions authorized greater than fifteen.
9. **Locker / Changing, Male Staff (LR002)** **120 NSF**
Minimum NSF; provide an additional 10 NSF for every increment of two Pediatric Male FTE positions authorized greater than twelve.
10. **Locker / Changing, Female Staff (LR002)** **120 NSF**
Minimum NSF; provide an additional 10 NSF for every increment of two Pediatric Female FTE positions authorized greater than twelve.
11. **Toilet / Shower, Pediatric Unit Staff (TLTS1)** **60 NSF**
Provide two if Staff Toilet / Showers are authorized for Pediatric Staff and Administration.
12. **On-Call Room (DUTY1)** **120 NSF**
Minimum one if an On-Call Room is authorized for Pediatric Unit Staff and Administration; provide an additional one for every increment of sixteen Pediatric Bedrooms, of all types, greater than sixteen.
13. **Toilet / Shower, On-Call Room (TLTS1)** **60 NSF**
Provide one for each On-Call Room if On-Call Rooms are authorized.
14. **Scrubs Distribution Room (LCCL4)** **120 NSF**
Provide one if a Scrubs Distribution Room in Pediatric Staff and Administration is authorized

8.5. FA5: PEDIATRIC UNIT GME EDUCATION / TRAINING

1. **Office, Residency Program Director (OFA04)** **120 NSF**
Provide one if a Pediatric Graduate Medical Education / Training 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 Pediatric Graduate Medical Education (GME) / Training program is authorized.

Minimum NSF accommodates two residents, and a collaboration / reference area.

3. **Conference / Classroom (CRA01)** **240 NSF**
Provide one if the total number of Resident / Student FTE positions is greater than five if a Pediatric Graduate Medical Education (GME) / Training program is authorized.

SECTION 9: 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 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.

9.1. GENERAL.

- A. The net-to-department gross factor (NTDG) for Nursing Units is 1.50. 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 and DoD Space Planning Criteria Chapter 130: Net to Gross Conversion Factors.
- B. Design Nursing Units to allow for separation of adult and pediatric patients.
- C. Design should reflect a patient- and family-centered model of care. Separation of patient, visitor and support traffic should be considered to the greatest extent possible, and should be considered in the placement of the inpatient Nursing Units and connections to ancillary services.
- D. When and where possible inpatient Nursing Units will be collocated adjacent to Outpatient Clinics with the same specialty. Integrating inpatient and outpatient programs helps provide a continuum of care.
- E. Consider efficiency of layout such that walking distances of the routes staff repeatedly take are kept to a minimum.
 - a. Consider providing caregiver workstations that are distributed throughout the nursing unit to allow nurses to spend more time with patients and less time walking. These workstations may be designed with views to patient rooms and provide convenient access to supply areas and computers for patient charting.
 - b. Consider patient servers or cabinets to locate frequently used supplies and linen, thus decreasing frequent trips by nursing staff to and from the clean utility room.
- F. Careful consideration should be given to both the type of hand-washing station that is installed and its placement. Hand washing sinks and alcohol-based hand-rub dispensers must be visible and accessible in patient rooms and treatment areas. Ensure convenient access to hand washing stations in the medication station and nourishment area as well.

- G. The Medication Preparation Room should be enclosed to minimize distractions. A glass wall or walls may be advisable to permit observation of patients and unit activities.
- H. Consider providing acuity-adaptable patient rooms to allow for maximum flexibility. For example, a patient bedroom can readily be converted to an ICU patient bedroom as needed. In addition, standardization of room and modular design should allow for flexibility to adapt to new technologies and respond to changes in patient volumes.

9.2. MEDICAL-SURGICAL UNITS.

- A. New medical / surgical nursing units should generally be planned with no more than 32 beds per unit. However, the optimal number of beds on a given nursing unit or floor is related to the modular divisibility of the total number. For example, a 32-bed nursing unit can be divided into two 16-bed sub-units.
- B. Consider providing one Airborne Infection Isolation (AII) Bedroom on each Medical-Surgical Unit (including dedicated ICUs), unless more are indicated based on the MTFs ICRA. If the ICRA warrants, a separate anteroom should be planned for each Airborne Infection Isolation (AII) Bedroom; all Protective Environment (PE) Isolation Bedrooms shall be planned with an anteroom.
- C. An Oncology Nursing Unit may accommodate the Chemotherapy Infusion Service per the Concept of Operations. In this case, do not duplicate this function in the outpatient setting.

9.3. ICU / CCU.

- A. Depending on the MTF's Concept of Operations, the toilet/shower (TSTS2) provided for each ICU / CCU Bedroom, may be replaced with a toilet and hand washing sink, (TLTU1); however, this limits future flexibility and interchangeability between ICU / CCU bedrooms and Medical-Surgical bedrooms.
- B. Patients should be visually observed at all times. This can be achieved in a variety of ways. If a central station is chosen, it should be located to allow for complete visual control of all patient beds in the ICU / CCU. If a central station is not chosen, the unit should be designed to provide visual contact between patient beds so that there can be constant visual contact between the nurse and patient.
- C. No through traffic to other departments should occur. Transportation of patients to and from the ICU / CCU should be separated from public corridors and patient waiting.
- D. Location should be chosen carefully so that the ICU / CCU is adjacent to, or within direct elevator travel to and from, the Emergency Department, Operating Room, Intermediate Care (step-down) Units, and Radiology.
- E. Where a traditional ICU is being planned, the number of ICU beds should ideally be based on an analysis of the unique patient population to be accommodated at the MTF.

Where less than eight ICU beds is required, consider creating a pod / module in a larger Medical-Surgical Unit in lieu of constructing a physically separate and isolated small ICU. In this case, the ICU pod could also be used for specific patients (e.g., CCU integrated with other cardiology patients, ventilator-dependent patients). Another option would be to supplement a single traditional ICU with one or more acuity-adaptable Medical-Surgical Units that can be used for overflow of high-acuity patients as needed.

9.4. PEDIATRIC UNIT.

- A. A dedicated Pediatrics Unit (for infants and children) will be unusual. More common is a group or pod of Medical - Surgical patient rooms designated for pediatric patients. Special requirements of a Pediatrics Unit include a Procedure Room for invasive or painful procedures that can be performed away from the patient bedroom, a Dayroom that supports adolescent/teen activities, and a Play Room for young children to engage in play therapy to reduce anxiety, fear or frustration.
- B. Provide a physical environment with consideration given to the Pediatric population. Select artwork that relates to adolescents and children.
- C. Security for the Pediatric Unit or a dedicated area of a Medical-Surgical unit is important to consider when selecting locations within the MTF for the Pediatric population. The use of a patient abduction/elopement alarm system is also important to plan for early in design.

9.5. ACCOMMODATING HIGH-ACUITY PATIENTS.

This section uses the term “high-acuity” to refer to any patient who requires monitoring equipment and a higher nurse-to-patient staffing ratio than provided on a traditional Medical-Surgical Unit regardless of where observation, monitoring, or treatment of the patient occurs (e.g., traditional ICU, dedicated nursing pod, or acuity-adaptable patient rooms on a medical-surgical nursing unit with or without the e-ICU concept).

High-acuity patients have been historically aggregated in ICUs. The layout of a traditional ICU is characterized by large, easily accessible patient rooms that are grouped so each patient is visible from a central nurse station with support / supply areas close at hand.

More recently, the proliferation of ICUs is being challenged with cost-containment pressures, new monitoring technologies, and a lack of data supporting the effectiveness of aggregating patients in a specially-configured unit. With the use of a 1:1 or 1:2 nurse-to-patient staffing ratio and common acceptance of remote patient monitoring (e.g., e-ICU concept) the historical requirement for visualization of all patients from a single, central nurse station is being debated. The following alternatives to a traditional intensive care unit should be considered:

- a. High-acuity nursing pod or module as part of a larger Medical–Surgical Unit with four to six intensive care bedrooms that are located proximate to the central nurse station and share support services with the Medical-Surgical Unit. As an option, a

- dedicated nurse sub-station and decentralized supply inventory could be provided for the high-acuity pod.
- b. Acuity-adaptable bedrooms where staffing and equipment can be readily adjusted to meet the needs of various levels of patient acuity, thereby eliminating unnecessary transfers, overstaffing, and excessive treatment based on ICU protocols. Instead, critically-ill patients, regardless of their location within the hospital, would be monitored remotely (on- or off-site) using the e-ICU concept.
 - c. Clinical Decision / Observation Unit typically located in or proximate to the Emergency Department, to provide extended observation and evaluation of patients complaining of chest pain and to eliminate unnecessary admissions to an ICU/CCU.
 - d. Extended recovery room hours to accommodate surgical patients who require 12 to 24 hours of intensive post-operative observation prior to being transferred to Medical-Surgical Units or discharged.

9.6. APPROACHES TO USING ACUITY-ADAPTABLE ROOMS.

To promote patient-centered care and ensure future flexibility, the provision of acuity-adaptable patient rooms should be considered when planning new hospital facilities. This approach to design and construction allows the staff of each nursing unit to determine how they will provide intensive and step-down care. On some units, patients may remain in one room throughout their stays with staffing and equipment adjusted to meet their needs; on another unit, high-acuity patients may be aggregated in one area. In either case, the basic room module can easily be adapted. With the use of remote patient monitoring, as in the e-ICU concept, there is no need to configure an intensive care unit differently from a general medical-surgical nursing unit.

Variations in applying this concept to an entire hospital include:

- a. Planning all acuity-adaptable patient rooms: In this case, all beds would be accommodated in single, acuity-adaptable patient rooms. If the primary goal is to provide patient-centered care and to minimize patient transfers, specific pods or nursing units may be designated by specialty (diagnosis or organ system) and nursing resources would be adjusted to the patients' needs throughout their hospital stay. Applying the most rigid interpretation of this concept, patients would generally be discharged from the same room to which they are admitted. Alternately, one or more nursing pods or clusters of patient rooms could be designated for high-acuity patients (e.g., ICU) and these patients would be transferred to another nursing unit or pod as they recover using more traditional staffing models. However, patient transfer would generally be limited to once per stay and the designation of pods of beds for intermediate step-down care would not occur. The planning of all acuity-adaptable patient rooms should be considered for smaller healthcare facilities.
- b. Hybrid model that retains a traditional ICU: In this case, a traditional ICU would be planned and staffed for the highest-acuity patients with a patient / staffing ratio of 1:1

or 1:2 nurses per patient and all other medical-surgical beds would be accommodated in acuity-adaptable patient rooms. An eight to sixteen-bed ICU would accommodate the sickest patients and once full, patients would be triaged to an acuity-adaptable patient room in a medical - surgical nursing unit where they would still be monitored and receive the appropriate level of nursing care. The ICU beds would not be planned with contiguous patient toilet/shower rooms.

- c. Planning a single acuity-adaptable nursing unit: In lieu of constructing a traditional ICU, a single acuity-adaptable medical-surgical nursing would be planned to accommodate high-acuity patients and all other nursing units would be designed with traditional single patient rooms. Staffing levels on the acuity-adaptable nursing unit would be adjusted to reflect individual patient needs and most patients would be transferred to a traditional medical-surgical nursing unit prior to discharge.

In some cases, the primary goal of providing acuity-adaptable patient rooms may be long-term flexibility since these patient rooms can be adapted to changing demand and patient populations over time with minimal or no renovation.

9.7. ORGANIZING SELECTED PATIENTS BY SPECIALTY RATHER THAN ACUITY LEVEL.

- a. As an option for hospitals providing tertiary care, the full continuum of care (i.e., intensive, intermediate step-down and acute care) may be provided for a specific patient population on a single unit. This approach reduces the number of patient transfers, administrative steps involved with each move, improves the coordination and continuity of care, and potentially decreases medical errors. The patient remains on a single specialty-based unit with related decentralized clinical / ancillary services and is cared for by a small, multidisciplinary provider team. This concept should be considered where there is sufficient patient volume to support a dedicated specialty unit with a minimum of 24 beds.
- b. An analysis of patient days of care by diagnostic related group (DRG), with DRGs aggregated according to the specific patients that could benefit from being aggregated on a given nursing unit, is helpful in determining the actual number of beds required by specialty (e.g., cardiology, orthopedics, and neurosciences). For example, DRGs 1 to 35 represent diagnoses and the associated patient days typically accommodated on a neurosciences unit. The appropriateness of maintaining a dedicated unit (e.g., minimum number of beds) versus assigning the patients to a general medical or surgical unit can also be determined.

9.8. ISOLATION FACILITIES.

- a. Isolations rooms are used for patients requiring airborne infection (respiratory) isolation and protective environment isolation. Patients in respiratory isolation, usually for tuberculosis or chicken pox, require isolation rooms with negative air flow/pressure. Patients in protective isolation, typically patients with compromised immune systems due to chemotherapy or organ transplants, require isolation rooms with positive air flow/pressure. The number and

type of isolation rooms should be based on the MTFs Infection Control Risk Assessment (ICRA).

9.9. ISOLATION FACILITIES.

Isolation rooms are used for patients requiring airborne infection (respiratory) isolation and protective environment isolation. Patients in respiratory isolation, usually for tuberculosis or chicken pox, require isolation rooms with negative air flow/pressure. Patients in protective isolation, typically patients with compromised immune systems due to chemotherapy or organ transplants, require isolation rooms with positive air flow/pressure. The number and type of isolation rooms should be based on the MTFs Infection Control Risk Assessment (ICRA).

9.10. EMERGENCY CONTINGENCY OPERATIONS.

The size of, and the number of medical gas outlets in all single patient bedrooms (excluding Airborne Infection Isolation and Protective Environment rooms) will have the capacity to expand to two beds under emergency conditions.

9.11. PATIENT ROOM SIZE, CONFIGURATION AND AMENITIES.

All of the key planning issues, described above, will ultimately impact the size, configuration, and amenities to be provided in the patient room module on any given nursing unit. The size of the standard patient room module will have the most significant impact on the overall nursing unit space allocation and corresponding renovation or construction costs. The patient room and adjacent area should be designed to accommodate four functional zones of activity:

- a. Patient zone includes life support systems (e.g., headwall, power column, ceiling-mounted), patient bed, and over-bed table. The patient shall have access to individual controls for lighting, communication, entertainment (TV/VCR/DVD), and privacy as required, as well as a window view to the outside. Beds may be equipped with advanced computer technology that will allow the staff to record the patient's weight and other vital data without disturbing the patient. A wardrobe for the patient's personal belongings shall be provided as well as a display shelf and bulletin board at viewing distance from the patient bed.
- b. Care provider zone includes a data access/input station (charting) for the care provider and convenient access to all the equipment and supplies required for the care of the patient. Data access/input (charting) and decentralized supply and equipment storage may be accommodated at a nurse sub-station serving a small pod / group of patient rooms. Alternately, a flip-down desk with a flat screen monitor and/or data port, for use with a portable or hand-held device, may be located in the patient room, in an adjacent alcove within or immediately outside the patient room, or a mobile computer cart may be provided.

- c. Family / visitor zone should include a recliner/sleeper chair, a side chair, and a side table with a data port for family members and visitors. A window bench that can be converted to a bed should be considered as space allows.
- d. Hygiene zone includes the patient toilet/shower room with hand washing lavatories provided in both the toilet / shower room as well as within the patient room or entry alcove to accommodate staff hand washing. Hand washing facilities must be conveniently located for use by care providers upon entering/exiting each patient room. Since toilet/shower rooms are not typically provided for ICU patients, a policy for the removal of human waste must be developed.

9.12. PLANNING CENTRALIZED AND DECENTRALIZED NURSE STATIONS.

The most important role of the central nurse station is as the communication hub for the unit since the central nurse station provides a workstation for the unit clerk/secretary who answers the phone, monitors nurse call status, coordinates communication between the various providers and caregivers and families, and may also perform data entry. The central nurse station also hosts a variety of professional staff, which are not exclusive to the unit such as case managers, discharge planners, social workers, dietitians, physical therapists, pharmacists, respiratory therapists, chaplains, and other members of the interdisciplinary team. Advances in technology have enabled nursing to move away from the traditional centralized nursing stations with paper charts and supplement or replace them with decentralized caregiver workstations and substations that are located closer to the point of care. This can improve visibility of the patient and reduce time spent walking. Centralized and decentralized nurse stations are planned utilizing the number of beds in the particular unit. Also considered in planning are the walking distances, accessibility, visibility and ease of supervision.

9.13. PROVISION OF PATIENT SUPPORT SERVICES.

The systems for providing patient care support services (e.g., dietary, pharmaceuticals, supplies, patient equipment, and/or linen) must be determined prior to nursing unit space planning. Perhaps the most important decision will be whether support services will be decentralized to each nursing pod/module of approximately four to eight beds and collocated with the respective decentralized nurse sub-station. Historically patient charts, supplies, medications and soiled materials were stored in central locations on the nursing unit, and nurses spent significant time walking between patient rooms and central support areas. Patient support services are generally provided according to predetermined timetables and specific guidelines (e.g., breakfast served at 6 a.m., supplies replenished once a day according to pre-established quotas).

Specific issues to be considered in the planning of new nursing units include:

- a. Dietary. It is assumed that a traditional food service system will be used where hot/cold food is delivered from a central kitchen facility directly to the patients on mobile carts according to a predetermined schedule. However, unit-based nourishment rooms should allow a minimal number of trays to be refrigerated,

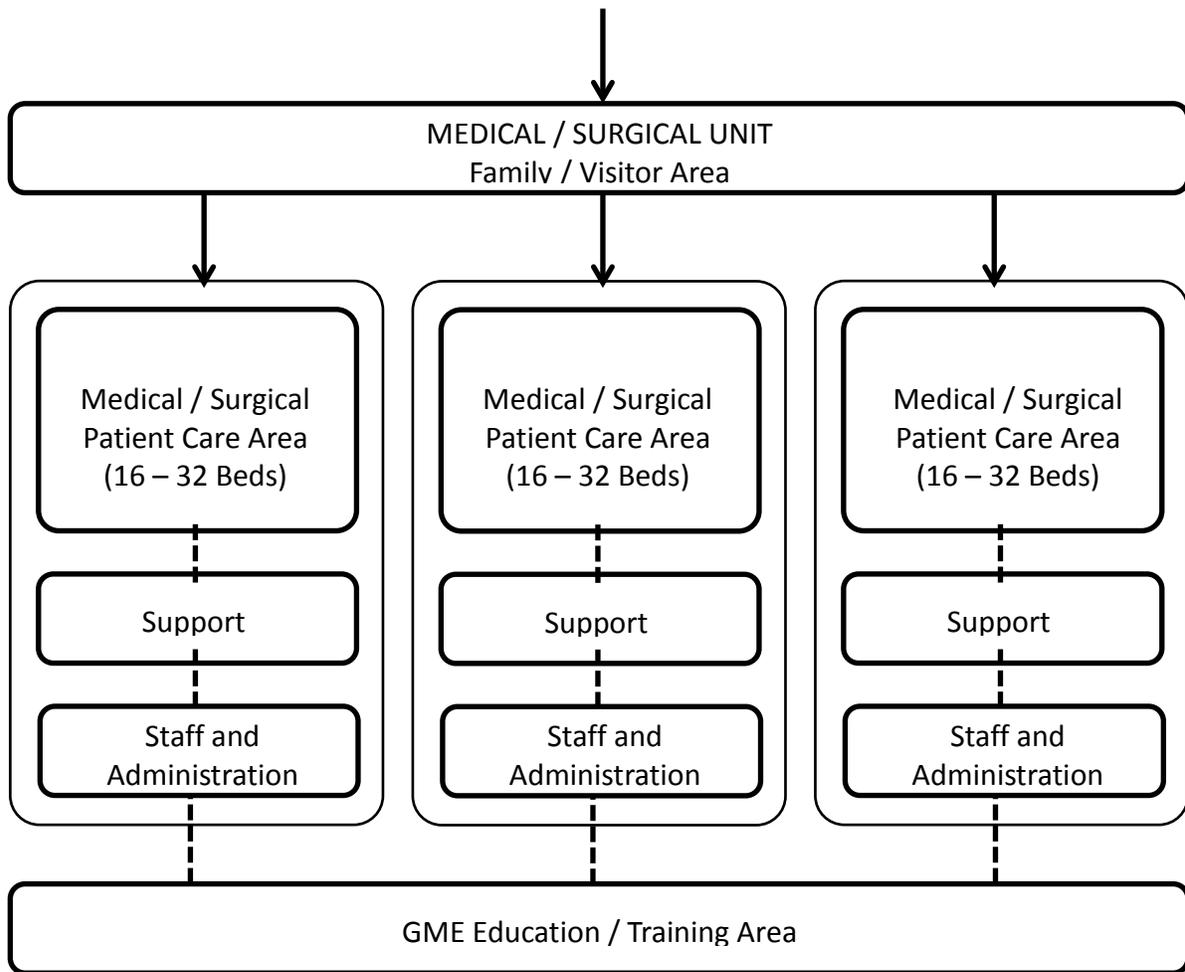
reheated, and delivered to patients at alternative times. In some cases, the meals may be stored frozen in the unit's nourishment room and microwaved upon demand. If a tray retherm delivery system will be utilized, locate the space required to support this function adjacent to the nourishment room.

- b. Pharmacy. To enhance pharmacy responsiveness, automated medication dispensing units or satellite pharmacies on patient care floors may dispense medications.

SECTION 10: FUNCTIONAL DIAGRAM

10.1. FUNCTIONAL DIAGRAM: MEDICAL-SURGICAL UNITS. 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.

Refer to Functional Diagram(s) on next page(s).

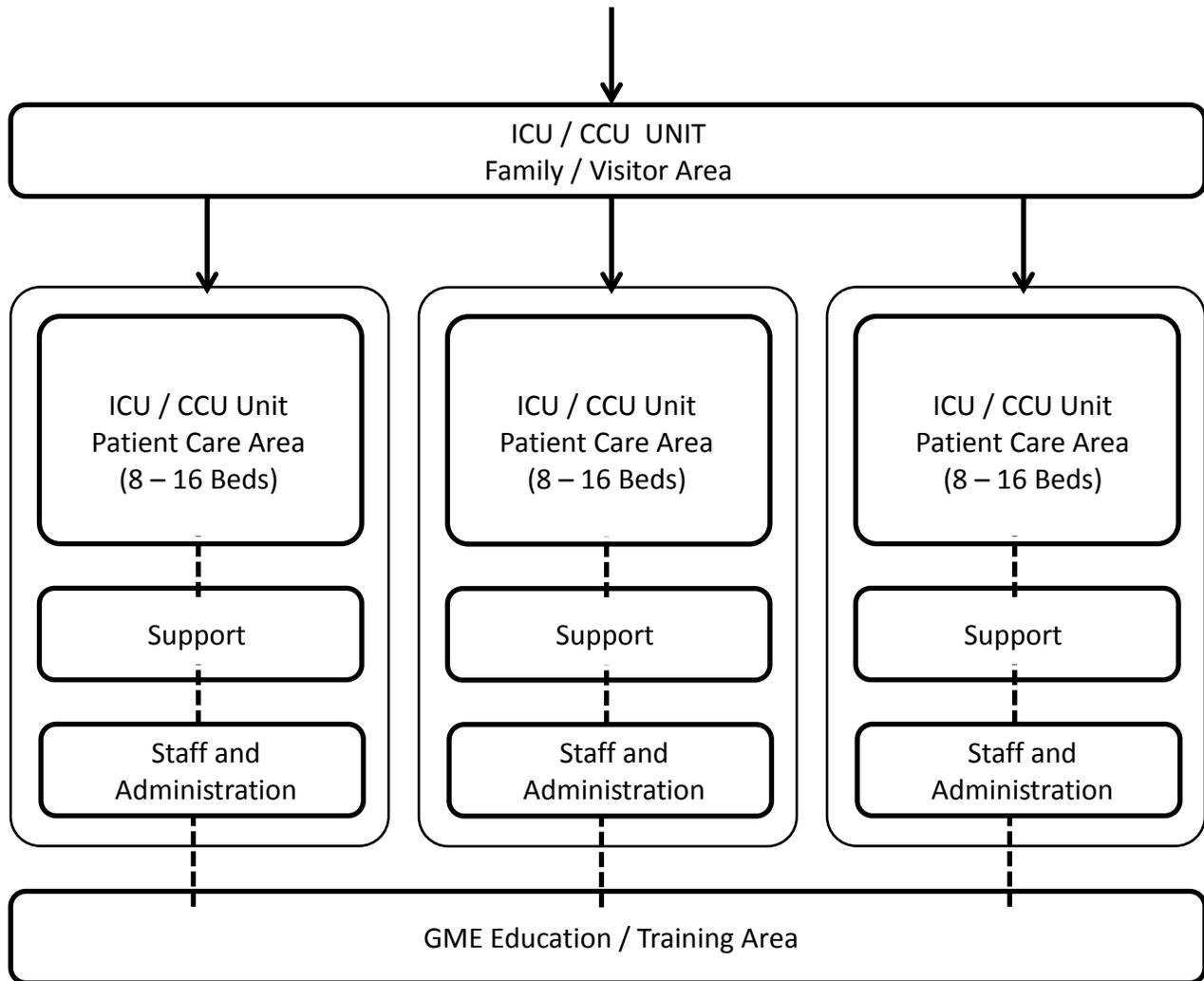


LEGEND

- > Patient Circulation
- - - - - Staff Circulation

SECTION 11: FUNCTIONAL DIAGRAM: ICU / CCU UNITS

11.1.

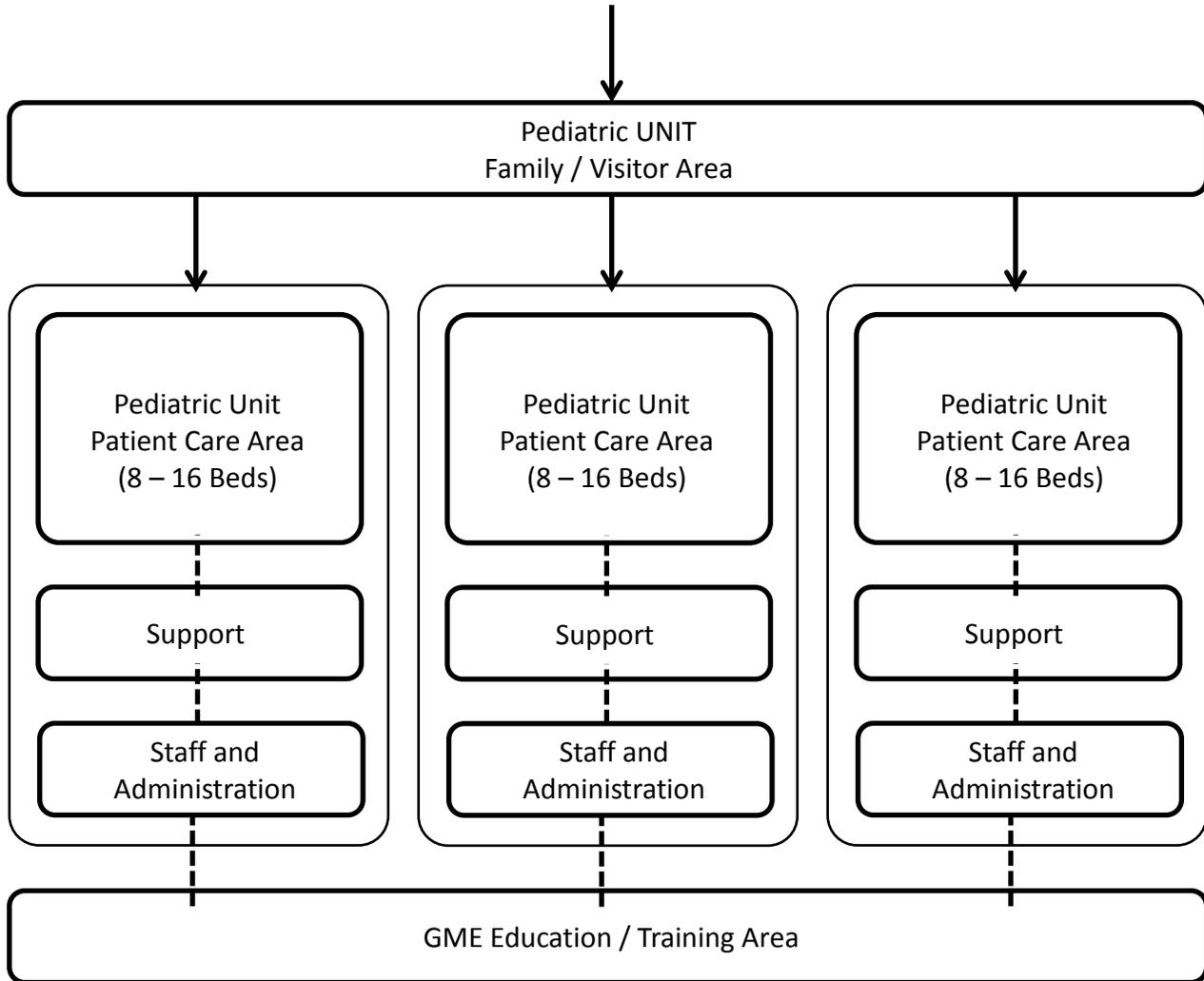


LEGEND

- > Patient Circulation
- - - - - Staff Circulation

SECTION 12: FUNCTIONAL DIAGRAM: PEDIATRIC UNITS

12.1.



LEGEND

- Patient Circulation
- - - Staff Circulation

GLOSSARY

G.1. DEFINITIONS

Acuity Adaptable Room: An acuity adaptable patient room is a single-occupancy room that can be utilized for most any level of care including intensive care, intermediate care, and acute care by altering its monitoring equipment, furnishings, and staffing levels. Also referred to as “universal” patient rooms, these patient rooms can also be adapted to changing demand and patient populations over time with minimal or no renovation.

Airborne Infection Isolation (AII) Room: A negative pressure isolation room that is provided for the isolation of patients with airborne contagious diseases such as tuberculosis and is designed to direct air flow from outside corridors and rooms into the patient room, preventing the chance for contaminated air to flow to other parts of a building. The use of an anteroom is not mandatory; however, its need should be determined by the Infection Control Risk Assessment.

Anteroom: An enclosed ventilated room adjacent to the isolation room whose purpose is to provide a barrier against the entry/exit of contaminated air into/out of the isolation room. As well, it provides a controlled environment for donning/removal of personal protective equipment (PPE), decontaminating equipment, and handwashing. The anteroom is not mandatory for Airborne Infection Isolation (AII) rooms, but is required for Protective Environment (PE) rooms.

Average Length of Stay (ALOS): The length of stay for an individual patient is the total amount of time that he/she stays in a healthcare facility between arrival (admission) and departure (discharge) and is determined based on the midnight census. The average length of stay for a specific patient population or facility is the total of all patient days (lengths of stay) divided by the number of patient admissions / discharges.

Coronary Care Unit (CCU): An intensive care unit that provides care to patients with a variety of cardiovascular illnesses and related medical issues. The nursing staff receives specialized training in the care of patients with cardiac arrhythmias, chest pain, heart failure, and other critical medical conditions.

Care Giver Workstation: Workstation for nursing unit personnel. Workstations can be “centralized” or “decentralized”. An example of “centralized” is the central nursing station that serves as the information hub of the unit and contains workspace for all care givers. An example of the “decentralized” workstation are care giver workstations that are distributed throughout the nursing unit, often located outside each patient room or between every two patient rooms to allow a caregiver to work efficiently while observing and caring for patients.

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.

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.

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 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 a 40-hour work week.

Functional Area (FA): 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.

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.

Input Data Statement (IDS): 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.

Intensive Care Unit (ICU): A nursing unit that is specially staffed and equipped for the observation / monitoring, care, and treatment of high-acuity patients with life threatening illnesses or injuries. The ICU provides special expertise and facilities for the support of vital function and utilizes the skill of nurses and other staff experienced in the management of these problems.

Medical - Surgical Nursing Unit: A Medical - Surgical or “Med-Surg” nursing unit provides general and acute care for patients with medical problems or for those recovering from surgery. For example, it may be a nursing unit for patients who are being served by physicians trained and/or practicing the following specialties: allergy, dermatology, pulmonary disease, cardiology, gastroenterology, communicable disease, neurology, malignant disease (oncology), telemetry, other medical specialties, gynecology, otology, thoracic surgery, neurosurgery, otorhinolaryngology, plastic surgery, orthopedics, proctology, and other surgical specialties.

Medication Room: Room dedicated to the storage and preparation of patient medications. Allocated space provides for work counter, sink, refrigerator and locked storage for biological agents or drugs. Also provides space for automated medication dispensing machine.

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.

Pediatric Unit: A group of inpatient beds with all the functions necessary to provide care to infants and children less than 18 years of age on the unit.

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.

Point of Care Laboratory: A laboratory that is located permanently away from the central laboratory, with one or several analyzers operated by either laboratory or non-laboratory personnel. The objective of creating this laboratory is to provide rapid point-of-care tests and improve turnaround time for critical tests.

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.

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

Protective Environment (P.E.) Bedroom (also called Positive Pressure Isolation): A patient room that is designed with positive pressure / air flow to maintain a flow of air out of the room, thus protecting the patient from possible contaminants and pathogens which might otherwise enter.

Provider: A medical professional, such as a physician, psychiatrist, psychologist, social worker, 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. A behavioral health provider provides one or more of a variety of behavioral health services. Such a professional could be a psychiatrist, psychologist, therapist, social worker or psychiatric nurse practitioner.

Resident Collaboration Room: This room is provided for the Residents. It will contain one cubicle per Resident, a table with chairs for collaboration space and bookcases.

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 from the main corridor.

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.

Telemetry: Medical telemetry is the measurement of physiological parameters and other patient-related information at a distance from the patient (e.g., cardiac data, temperature, oxygen saturation, blood pressure, and respiration). Wireless medical telemetry monitors patient physiological parameters over a distance via radio-frequency (RF) communications between a transmitter worn by the patient and a central monitoring station. These devices have the advantage of allowing patient movement without tethering the patient to a bedside monitor with a hard-wired connection.

Unit: A unit is an area of patient care that includes a number of patient rooms and all of the support functions necessary to provide care to the patients on that unit. Examples include a medical - surgical unit, an intensive care unit, an obstetric ward (unit), or an LDR unit. The number of units varies and is provided in the formula below in Table 1 under Section 3: Operating Rationale and Basis of Criteria.

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.