

## 7. GENERAL HOSPITAL

In this edition appendix material appears in the main body of the document; however, it remains advisory only.

### 7.1 General Considerations

#### 7.1.A. ~~Functions~~ Functional Program

There shall be for each project a functional program for the facility in accordance with Section 1.1.F.

#### 7.1.B. Standards

The general hospital shall meet all the standards described herein. Deviations shall be described and justified in the functional program for specific approval by the authorities having jurisdiction.

#### 7.1.C. Sizes

Department size and clear floor areas will depend on program requirements and organization of services within the hospital. Some functions may be combined or shared providing the layout does not compromise safety standards and medical and nursing practices.

#### \*7.1.D. Parking

Each new facility, major addition, or major change in function shall have parking space to satisfy the needs of patients, personnel, and public. A formal parking study is desirable. In the absence of such a study, provide one space for each bed plus one space for each employee normally present on any single weekday shift. This ratio may be reduced in an area convenient to public transportation or public parking facilities, or where carpool or other arrangements to reduce traffic have been developed. Additional parking may be required to accommodate outpatient and other services. Separate and additional space shall be provided for service delivery vehicles and vehicles utilized for emergency patients.

#### \*7.1.E. Swing Beds

When the concept of swing beds is part of the functional program, care shall be taken to include requirements for all intended categories.

### 7.2 Nursing Unit (Medical and Surgical)

See other sections of this document for special-care area units such as recovery rooms, critical care units, pediatric units, rehabilitation units, and skilled nursing care or other specialty units.

Each nursing unit shall include the following (see Section 1.3 for waiver of standards where existing conditions make absolute compliance impractical):

#### 7.2.A. Patient Rooms

Each patient room shall meet the following standards:

\*7.2.A1. Unless the functional program demonstrates the value of a multiple-bed arrangement, the maximum number of beds per room shall be one. ~~Maximum room capacity shall be two patients.~~ Where renovation work is undertaken and the present capacity is more than two-one patients, maximum room capacity shall be no more than the present capacity, with a maximum of four patients.

\*7.2.A2. In new construction, patient rooms shall be constructed to meet the needs of the functional program and have a minimum of 100 square feet (9.29 square meters) of clear floor area per bed in multiple-bed rooms and 120 square feet (10.8 square meters) of clear floor area for-in single-bed rooms,

exclusive of toilet rooms, closets, lockers, wardrobes, alcoves, or vestibules. The dimensions and arrangement of rooms shall be such that there is a minimum of 3 feet (0.91 meter) between the sides and foot of the bed and any wall or any other fixed obstruction. In multiple-bed rooms, a clearance of 4 feet (1.22 meters) shall be available at the foot of each bed to permit the passage of equipment and beds. Minor encroachments, including columns and ~~lavatories~~handwashing stations, that do not interfere with functions may be ignored when determining space requirements for patient rooms. Where renovation work is undertaken, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above minimum standards, the authorities having jurisdiction may grant approval to deviate from this requirement. In such cases, patient rooms shall have no less than 80 square feet (7.43 square meters) of clear floor area per bed in multiple-bed areas and 100 square feet (9.29 square meters) of clear floor area in single-bed rooms, exclusive of the spaces noted previously in this section.

**\*7.2.A3.** Each patient room shall have a window in accordance with Section 7.~~2831~~.A10.

**\*7.2.A4.** For patient/family-centered rooms, see Appendix A.

**\*7.2.A45.** Handwashing stations shall be provided to serve each patient room. A handwashing station shall be located in the toilet room. ~~In new construction a~~ handwashing station shall be provided in the patient room in addition to that in the toilet room and shall be located outside of the patient's cubicle curtain ~~so that it is accessible and convenient~~ to staff entering the room.

**7.2.A56.** Each patient shall have access to a toilet room without having to enter the general corridor area. One toilet room shall serve no more than four beds and no more than two patient rooms. The toilet room shall contain a water closet and a handwashing station, and the door shall swing outward or be double acting. Where local requirements permit, ~~sliding or~~ folding doors may be used, provided adequate provisions are made for acoustical privacy and patient privacy.

**7.2.A67.** Each patient shall have within his or her room a separate wardrobe, locker, or closet suitable for hanging full-length garments and for storing personal effects.

**7.2.A78.** In multiple-bed rooms, visual privacy from casual observation by other patients and visitors shall be provided for each patient. The design for privacy shall not restrict patient access to the entrance, ~~lavatory~~handwashing station, or toilet.

### **7.2.B. Service Areas**

Provision for the services listed below shall be in or readily available to each nursing unit. The size and location of each service area will depend upon the numbers and types of beds served. Identifiable spaces are required for each of the indicated functions. Each service area may be arranged and located to serve more than one nursing unit but, unless noted otherwise, at least one such service area shall be provided on each nursing floor. Where the words *room* or *office* are used, a separate, enclosed space for the one named function is intended; otherwise, the described area may be a specific space in another room or common area.

**\*7.2.B1.** Administrative center(s) or nurse station(s). This area shall have space for counters and storage and shall have convenient access to handwashing stations. It ~~may~~shall be permitted to be combined with or include centers for reception and communication. ~~Preferably, the station should permit visual observation of all traffic into the unit.~~

**7.2.B2.** Dictation area. This area ~~should~~shall be adjacent to but separate from the nurse station.

**7.2.B3.** Nurse or supervisor office.

**7.2.B4.** Handwashing stations. These shall be conveniently accessible to the nurse station, medication station, and nourishment center. One handwashing station may serve several areas if convenient to each.

**7.2.B5.** Charting facilities. Charting facilities shall have linear surface space to ensure that staff and physicians may chart and have simultaneous access to information and communication systems.

**7.2.B6.** Toilet room(s). These shall be conveniently located for staff use (may be unisex).

**7.2.B7.** Staff lounge facilities. Lounge facilities shall be provided and shall be programmatically sized, but shall not be less than 100 square feet (9.3 square meters).

**7.2.B8.** Staff storage area. Securable closets or cabinet compartments for the personal articles of nursing personnel, located in or near the nurse station. At a minimum, these shall be large enough for purses and billfolds. Coats may be stored in closets or cabinets on each floor or in a central staff locker area.

**\*7.2.B9.** Multipurpose room(s). Rooms shall be provided for staff, patients, patients' families for patient conferences, reports, education, training sessions, and consultation. These rooms must-shall be accessible to each nursing unit. They may be on other floors if convenient for regular use. One such room may-shall be permitted to serve several nursing units and/or departments.

**7.2.B10.** Examination/treatment room(s). Such rooms may be omitted if all patient rooms in the nursing unit are single-bed rooms. Centrally located examination and treatment room(s) may serve more than one nursing unit on the same floor. Such rooms shall have a minimum floor area of 120 square feet (10.8 square meters). The room shall contain a handwashing station; storage facilities; and a desk, counter, or shelf space for writing. Provision shall be made to preserve patient privacy from observation from outside the exam room through an open door.

**7.2.B11.** Clean workroom or clean supply room. If the room is used for preparing patient care items, it shall contain a work counter, a handwashing station, and storage facilities for clean and sterile supplies. If the room is used only for storage and holding as part of a system for distribution of clean and sterile materials, the work counter and handwashing station may be omitted. Soiled and clean workrooms or holding rooms shall be separated and have no direct connection.

**7.2.B12.** Soiled workroom or soiled holding room. This room shall be separate from the clean workroom. ~~The soiled workroom~~ shall contain a clinical sink (or equivalent flushing-rim fixture). ~~The room shall contain and a lavatory (or handwashing station).~~ The above fixtures shall both have a hot and cold mixing faucet. The room shall have a work counter and space for separate covered containers for soiled linen and waste. ~~Rooms used only for temporary holding of soiled material may omit t~~The clinical sink and work counter may be omitted from rooms used only for temporary holding of soiled material. If the flushing-rim clinical sink is eliminated, facilities for cleaning bedpans shall be provided elsewhere.

**7.2.B13.** Medication station. Provision shall be made for distribution of medications. This may be done from a medicine preparation room or unit, from a self-contained medicine dispensing unit, or by another approved system.

a. Medicine preparation room. This room shall be under visual control of the nursing staff. It shall contain a work counter, a ~~sink adequate for~~ handwashing station, refrigerator, and locked storage for controlled drugs. When a medicine preparation room is to be used to store one or more self-contained medicine dispensing units, the room shall be designed with adequate space to prepare medicines with the self-contained medicine dispensing unit(s) present.

b. Self-contained medicine--dispensing unit. A self-contained medicine--dispensing unit may be located at the nurse station, in the clean workroom, or in an alcove, provided the unit has adequate security for controlled drugs and adequate lighting to easily identify drugs. Convenient access to handwashing stations shall be provided. (Standard cup-sinks provided in many self-contained units are not adequate for handwashing.)

**7.2.B14.** Clean linen storage. Each nursing unit shall contain a designated area for clean linen storage. This may be within the clean workroom, a separate closet, or an approved distribution system on each floor. If a closed cart system is used, storage may be in an alcove. It must be out of the path of normal traffic and under staff control.

**7.2.B15.** Nourishment area. There shall be a nourishment area with sink, work counter, refrigerator, storage cabinets, and equipment for hot and cold nourishment between scheduled meals. The nourishment area shall include space for trays and dishes used for nonscheduled meal service. Provisions and space shall be included for separate temporary storage of unused and soiled dietary trays not picked up at mealtime. Handwashing stations shall be in or immediately accessible from the nourishment area.

**7.2.B16.** Ice machine. Each nursing unit shall have equipment to provide ice for treatments and nourishment. Ice-making equipment may be in the clean work-room/holding room or at the nourishment station. Ice intended for human consumption shall be from self-dispensing ice makers. Copper tubing shall be provided for supply connections to ice machines.

**7.2.B17.** Equipment storage room or alcove. Appropriate room(s) or alcove(s) shall be provided for storage of equipment necessary for patient care and as required by the functional program. Each unit shall provide sufficient storage area(s) located on the patient floor to keep its required corridor width free of all equipment and supplies, but not less than 10 square feet (0.93 square meters) per patient bed shall be provided.

**\*7.2.B18.** Storage space for stretchers and wheelchairs. Space shall be provided in a strategic location, without restricting normal traffic.

**7.2.B19.** Showers and bathtubs. When-Where individual bathing facilities are not provided in patient rooms, there shall be at least one shower and/or bathtub for each 12 beds without such facilities. Each bathtub or shower shall be in an individual room or enclosure that provides privacy for bathing, drying, and dressing. A toilet shall be provided within or directly accessible to each central bathing facility. Special bathing facilities, including space for attendant, shall be provided for patients on stretchers, carts, and wheelchairs at the ratio of one per 100 beds or a fraction thereof. This-These facilities may be on a separate floor if convenient for use.

**7.2.B20.** Patient toilet room(s). ~~in addition to those serving bed areas, shall be conveniently located to multipurpose room(s) and within or directly accessible to each central bathing facility. Patient toilet rooms serving multipurpose rooms may shall be permitted to also be designated for public use. A toilet room(s) with handwashing station shall be located convenient to multipurpose room(s). If the functional program calls for the toilet room(s) to be for patient use, it shall be designed/equipped for patient use. If called out in the functional program, the toilet room(s) serving the multipurpose rooms(s) may also be designated for patient use.~~

**7.2.B21.** Emergency equipment storage. Space shall be provided for emergency equipment that is under direct control of the nursing staff, such as a cardiopulmonary resuscitation (CPR) cart. This space shall be located in an area appropriate to the functional program, but out of normal traffic.

**7.2.B22.** Housekeeping room. One housekeeping room shall be provided for each nursing unit or nursing floor. It shall be directly accessible from the unit or floor and may serve more than one nursing unit on a floor. At least one housekeeping room per floor shall contain a service sink or floor receptor and provisions for storage of supplies and housekeeping equipment.

**Note:** This housekeeping room may not be used for other departments and nursing units that require separate housekeeping rooms.

**7.2.B23.** Visitor lounge. Each nursing unit shall have direct access to a lounge, for visitors and family, that is programmatically sized appropriate for the number of beds and/or nursing units served. This lounge shall be conveniently located to the nursing unit(s) served, provide comfortable seating, and be designed to minimize the impact of noise and activity on patient rooms and staff functions.

### **\*7.2.C. Airborne Infection Isolation Room(s)**

**Note:** The airborne infection isolation room requirements contained in these Guidelines for particular service areas throughout a facility should be predicated on an Infection Control Risk Assessment (ICRA) and based on the needs of specific community and patient populations served by an individual ~~organization~~ health care provider. The number of airborne infection isolation rooms for individual patient units shall be increased based upon an ICRA or by a multidisciplinary group designated for that purpose. This process ensures a more accurate determination of environmentally safe and appropriate room types and spatial needs. Special ventilation requirements are found in Table 7.2. It is suggested that reference be made to the Centers for Disease Control and Prevention (CDC) "Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health Care Facilities" as they appear in the *Federal Register* dated October 28, 1994, ~~and~~ CDC's *Guidelines for Environmental Infection Control in Health-Care Facilities, December 2003 Morbidity and Mortality Weekly Report (MMWR) 1994:43 (No. RR-13)*, and the "Guidelines for Prevention of Nosocomial Pneumonia, 1994," published by CDC in the *American Journal of Infection Control* (22:247-292).

**7.2.C1.** At least one airborne infection isolation room shall be provided in the hospital. These rooms may be located within individual nursing units and used for normal acute care when not required for isolation cases, or they may be grouped as a separate isolation unit. Each room shall contain only one bed and shall comply with the acute-care patient room section of this document as well as the following:

**7.2.C2.** Each airborne infection isolation room shall have an area for handwashing, gowning, and storage of clean and soiled materials located directly outside or immediately inside the entry door to the room.

**7.2.C3.** Airborne infection isolation room perimeter walls, ceiling, and floors, including penetrations, shall be sealed tightly so that air does not infiltrate the environment from the outside or from other spaces. (See Glossary.)

**7.2.C4.** Airborne infection isolation room(s) shall have self-closing devices on all room exit doors.

**7.2.C5.** Separate toilet, bathtub (or shower), and handwashing stations shall be required for each airborne infection isolation room.

**7.2.C6.** Airborne infection isolation rooms may be used for noninfectious patients when not needed for patients with airborne infectious disease.

**7.2.C7.** Rooms shall have a permanently installed visual mechanism to constantly monitor the pressure

status of the room when occupied by patients with an airborne infectious disease. The mechanism shall continuously monitor the direction of the airflow.

7.2.C8. Rooms with reversible airflow provisions for the purposes of switching between protective environment and airborne infection isolation rooms shall not be permitted.

#### **\*7.2.D. Protective Environment Room(s)**

**Note:** The differentiating factor between protective environment rooms and other patient rooms is the requirement for positive air pressure relative to adjoining spaces, with all supply air passing through high-efficiency particulate air (HEPA) filters with 99.97 percent efficiency for particles >0.3 µm in diameter. When determined by an Infection Control Risk Assessment (ICRA), special design considerations and air ventilation to ensure the protection of patients with these conditions shall be required. The appropriate numbers and location of protective environment rooms shall be concluded by the ICRA. Protective environment room(s) shall contain only one bed and shall comply with Section 7.2.C. Special ventilation requirements are found in Table 7.2. Also see special guidelines for protective environment rooms during renovation and construction in Section 5.1.

**7.2.D1.** As designated by the functional program, both airborne infection isolation and protective environment rooms may be required. One single room, with an air-handling system switchable from negative to positive, shall not be provided to serve both functions. Many facilities care for patients with an extreme susceptibility to infection; (e.g., immunosuppressed patients with prolonged granulocytopenia, most notably bone marrow recipients; or solid-organ transplant recipients and patients with hematological malignancies who are receiving chemotherapy and are severely granulocytopenic). These rooms are not intended for use with patients diagnosed with HIV infection or AIDS, unless they are also severely granulocytopenic. Generally, protective environments are not needed in community hospitals, unless these facilities take care of these types of patients. The appropriate clinical staff should be consulted regarding room type, and spatial needs to meet facility infection control requirements should be incorporated into design programming.

**7.2.D2.** Each protective environment room shall have an area for handwashing, gowning, and storage of clean and soiled materials located directly outside or immediately inside the entry door to the room.

**7.2.D3.** Protective environment room perimeter walls, ceiling, and floors, including penetrations, shall be sealed tightly so that air does not infiltrate the environment from the outside or from other spaces.

**7.2.D4.** Protective environment room(s) shall have self-closing devices on all room exit doors.

**7.2.D5.** Separate toilet, bathtub (or shower), and handwashing stations shall be provided directly accessible from ~~for~~ each protective environment room.

**7.2.D6.** Rooms shall have a permanently installed visual mechanism to constantly monitor the pressure status of the room when occupied by patients requiring a protective environment. The mechanism shall continuously monitor the direction of the airflow.

**\*7.2.D7.** Rooms in Allogeneic bone marrow transplant units should shall be designed to meet specific patient needs.

7.2.D8. Rooms with reversible airflow provisions for the purpose of switching between protective environment and airborne infection isolation functions are not acceptable.

## 7.2.E. Seclusion Room(s)

If indicated by the functional program, the hospital shall provide one or more single bedrooms for patients needing close supervision for medical and/or psychiatric care. ~~This~~ These rooms may be part of the psychiatric unit described in Section 7.67. If the single bedroom(s) is part of the acute-care nursing unit, the provisions of Section 7.67.A shall apply, with the following exceptions: each room shall be for single occupancy; each shall be located to permit staff observation of the entrance, preferably adjacent to the nurse station; and each shall be designed to minimize the potential for escape, hiding, injury, or suicide. If vision panels are used for observation of patients, the arrangement shall ensure patient privacy and prevent casual observation by visitors and other patients.

## \*7.2.F. Protected Units

### 7.3 Intermediate Care Units

Intermediate care units, sometimes referred to as stepdown units, are routinely utilized in acute care hospitals for patients who require frequent monitoring of vital signs and/or nursing intervention that exceeds the level needed in a regular medical/surgical unit but is less than that provided in a critical care unit.

Intermediate care units can be progressive care units or specialty units such as cardiac, surgical (i.e., thoracic, vascular, etc.), neurosurgical/neurological monitoring, or chronic ventilator respiratory care units.

These standards shall apply to adult beds designated to provide intermediate care, but not pediatric or neonatal intermediate care.

In hospitals that provide intermediate care, beds shall be designated for this purpose. These beds may constitute a separate unit or be a designated part of another unit.

There shall be a separate physical area devoted to nursing management for the care of the intermediate patient.

### 7.3.A Patient Rooms

The following shall apply to all intermediate care units unless otherwise noted.

7.3.A1. Maximum room capacity shall be four patients.

7.3.A2. In new construction, patient rooms shall be constructed to meet the needs of the functional program and have a minimum of 120 square feet (10.8 square meters) of clear floor area per bed in multiple-bed rooms and 150 square feet (13.94 square meters) of clear floor area for single-bed rooms, exclusive of toilet rooms, closets, lockers, wardrobes, alcoves, or vestibules. The dimensions and arrangement of rooms shall be such that there is a minimum clearance of 4 feet (1.22 meters) between the sides of the beds and other beds, walls, or fixed obstructions. A minimum clearance of 6 feet (1.83 meters) shall be available at the foot of each bed to permit the passage of equipment and beds. Where renovation work is undertaken, every effort shall be made to meet these standards. If it is not possible to meet these minimum standards, the authorities having jurisdiction may grant approval to deviate from this requirement. In such cases, patient rooms shall have no less than 100 square feet (9.29 square meters) of clear floor area per bed in multiple-bed rooms and 120 square feet (10.8 square meters) of clear floor area in single-bed rooms.

7.3.A3. Each patient room shall have a window in accordance with Section 7.31.A10.

7.3.A4. Access to at least one airborne infection isolation room shall be provided unless provided elsewhere in the facility. The number of airborne infection isolation rooms shall be determined on the basis of an Infection Control Risk Assessment. Each room shall contain only one bed and shall comply with the requirements of Section 7.2.C. Special ventilation requirements are found in Table 7.2.

7.3.A5. Handwashing stations shall be provided to serve each patient room. At least one handwashing station shall be provided for every four patients.

In new construction and renovation, a handwashing station shall be provided in the patient room in addition to that in the toilet room and located outside the patient's cubicle curtain so that it is convenient to staff entering the room.

7.3.A6. Each patient shall have access to a toilet room without having to enter the general corridor. One toilet room shall serve no more than four beds and no more than two patient rooms. The toilet room shall contain a water closet and a handwashing station, and the room door shall swing outward or be double acting. Where local requirements permit, folding doors may be used, provided adequate provisions are made for acoustical privacy and patient privacy.

7.3.A7. Patients shall have access to bathing facilities within their rooms or in a central bathing facility. Each shower or bathtub in a central bathing facility shall be in an individual room or enclosure that provides privacy for bathing, drying, and dressing. A water closet and lavatory in a separate enclosure shall be directly accessible to each central bathing facility.

7.3.A8. Each patient shall have within his or her room a separate wardrobe, locker, or closet suitable for hanging full-length garments and for storing personal effects.

7.3.A9. In multiple-bed rooms, visual privacy shall be provided for each patient. The design for privacy shall not restrict patient access to the room entrance, lavatory, toilet, or room windows.

7.3.A10. Nurse calling systems for two-way voice communication shall be provided in accordance with Section 7.35.G. The call system for the unit shall include provisions for an emergency code resuscitation alarm to summon assistance from outside the intermediate care unit.

### **7.3.B. Service Areas**

Provision for the services listed below shall be in or readily available to each intermediate care unit. The size and location of each service area will depend upon the numbers and types of beds served. Identifiable spaces are required for each of the indicated functions. Services may be shared with adjacent units. Where the words "room" or "office" are used, a separate, enclosed space for the one named function is intended; otherwise, the described area may be a specific space in another room or common area.

**7.3.B1. Administrative center or nurse station.** This area shall have space for counters and storage and shall have convenient access to handwashing stations. The station shall provide direct visual observation of each patient and all traffic into and out of the unit.

**7.3.B2. Dictation area.** This shall be adjacent to but separate from the nurse station.

**7.3.B3. Charting facilities.** Charting facilities shall have linear surface space to ensure that staff and physicians may chart and have simultaneous access to information and communication systems.

7.3.B4. Handwashing facilities. Handwashing facilities shall be conveniently accessible to the nurse station, medication station, and nourishment station. One handwashing station may serve several areas if convenient to each.

7.3.B5. Staff lounge facilities. Staff lounge facilities shall be provided and shall be programmatically sized, but shall not be less than 100 square feet (9.3 square meters). These facilities shall be located convenient to the intermediate care unit.

7.3.B6. Toilet room(s). They shall be conveniently located for staff use (may be unisex).

7.3.B7. Storage facilities. Securable closets or cabinet compartments for the personal articles of nursing personnel shall be located in or near the nurse station. At a minimum, they shall be large enough for purses and billfolds. Coats may be stored in closets or cabinets on each floor or in a central staff locker area.

7.3.B8. Examination/treatment room(s). An examination/treatment room shall be located immediately adjacent to the intermediate care unit. Each room shall have a minimum floor area of 120 square feet (11.15 square meters). The room shall contain a handwashing station; storage facilities; and a desk, counter, or shelf space for writing. This service may be shared with the other units on the floor. Provision shall be made to preserve patient privacy from observation from outside the exam room through an open door.

7.3.B9. A clean workroom. This room shall be separate from the soiled workroom. The clean workroom shall contain a work counter, a handwashing station, and storage space for clean and sterile supplies. This room shall have a minimum clear floor area of 100 square feet (9.29 square meters).

7.3.B10. A soiled workroom. This room shall be separate from the clean workroom. The soiled workroom shall contain a clinical sink (or equivalent flushing-rim fixture), a work counter, a handwashing station, and separate space for covered containers for soiled linen and waste. This room shall have a minimum clear floor area of 100 square feet (9.29 square meters).

7.3.B11. Medication station. Provision shall be made for 24-hour distribution of medications. This may be done from a medicine preparation room or unit, from a self-contained medicine dispensing unit, or by another approved system.

a. Medicine preparation room. This room shall be under visual control of the nursing staff. It shall contain a work counter, a sink adequate for handwashing, a lockable refrigerator, and locked storage for controlled drugs. This room shall have a minimum of clear floor area of 50 square feet (4.65 square meters).

b. Self-contained medicine dispensing unit. A self-contained medicine dispensing unit may be located at the nurse station, in the clean workroom, or in an alcove, provided the unit has adequate security for controlled drugs and adequate lighting to easily identify drugs. Convenient access to handwashing stations shall be provided.

7.3.B12. Nourishment area. There shall be a nourishment area with a work counter, a handwashing station, a refrigerator, storage cabinets, and equipment for preparing and serving hot and cold nourishments between scheduled meals. This room shall have a minimum clear floor area of 50 square feet (4.65 square meters).

7.3.B13. Ice machine. A self-dispensing ice machine shall be provided to supply ice for treatments and

nourishment.

7.3.B14. Equipment storage room. An equipment storage room shall be provided for storage of equipment necessary for patient care. This room may serve more than one unit.

7.3.B15. Emergency equipment storage. Space shall be provided for emergency equipment that is under direct control of the nursing staff, such as a cardiopulmonary resuscitation (CPR) cart. This space shall be located in an area appropriate to the functional program, but out of normal traffic.

7.3.B16. A housekeeping room. This service may be shared with the other units on the floor.

7.3.C Mechanical standards. Ventilation, oxygen, vacuum, medical air, electrical and plumbing requirements shall be as per sections 7.35.E2 and 7.35.G4 and Tables 7.2 and 7.5.

### **7.34 Critical Care Units**

Critical care units require special space and equipment considerations for safe and effective patient care, staff functions, and family participation. Families and visitors to critical care units often wait for long periods ~~of time~~, including overnight ~~stays~~, under highly stressful situations. They tend to congregate at unit entries to be readily accessible to staff interaction. Clinical personnel perform in continuously stressful circumstances over long hours. Often they cannot leave the critical care unit necessitating space and services to accommodate their personal and staff group needs in close proximity to the unit. Design shall address such issues as privacy, atmosphere, and aesthetics for all involved in the care and comfort of patients in critical care units. ~~In addition, space arrangement shall include provisions for immediate access of emergency equipment from other departments.~~

Not every hospital will provide all types of critical care. Some hospitals may have a small combined unit; others may have separate, sophisticated units for highly specialized treatments. Critical care units shall comply in size, number, and type with these standards and with the functional program. The following standards are intended for ~~the more common types of typical~~ critical care services. Design shall comply with these standards and shall be appropriate to needs ~~defined of the in~~ functional programs. Where specialized services are required, additions and/or modifications shall be made as necessary for efficient, safe, and effective patient care.

#### **7.34.A. Critical Care (General)**

The following shall apply to all types of critical care units unless otherwise noted. ~~Each unit shall comply with the following provisions:~~

**7.34.A1. Unit location.** The location shall offer convenient access from the emergency, respiratory therapy, laboratory, radiology, surgery, and other essential departments and services as defined by the functional program. It shall be located so that the medical emergency resuscitation teams ~~may be able to~~ can respond promptly to emergency calls with ~~in~~ minimum travel time. In addition, space arrangement shall include provisions for immediate access to emergency equipment from other departments. The location shall be arranged to eliminate the need for through traffic.

**\*7.34.A2. Elevator transport.** In new construction, where elevator transport is required for critically ill patients, the size of the cab, door width, and mechanisms and controls shall meet the specialized needs.

**\*7.34.A3. Room size.** In new construction, each patient space (whether separate rooms, cubicles, or multiple ~~--~~ bed space) shall have a minimum of 200 square feet (18.58 square meters) of clear floor area

with a minimum headwall width of 13 feet (3.96 meters) per bed, exclusive of anterooms, vestibules, toilet rooms, closets, lockers, wardrobes, and/or alcoves. Bed clearances for all adult and pediatric units shall be a minimum of 4 feet (1.21 meters) at the foot of the bed to the wall, 5 feet (1.52 meters) on the transfer side, 4 feet (1.21 meters) on the non-transfer side, and 8 feet (2.43 meters) between beds.

In renovation of existing ~~intensive-critical~~ care units, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above square-foot standards, the authorities having jurisdiction may grant approval to deviate from this requirement. In such cases, separate rooms or cubicles for single patient use shall be no less than 150 square feet (13.94 square meters), and multiple-bed space shall contain at least ~~130-150~~ square feet (~~12.08~~13.94 square meters) of clear floor area per bed, exclusive of the spaces noted in the previous paragraph.

#### 7.34.A4. Privacy.

a. When private rooms or cubicles are provided, view panels to the corridor shall be required with a means to ~~provide-ensure~~ visual privacy.

b.- Each patient bed area shall have space at each bedside for visitors, and shall have provisions for visual privacy from casual observation by other patients and visitors.

#### 7.4.A5. Doors

a. Where only one door is provided to a bed space, it shall be at least 4 feet (1.22 meters) wide and arranged to minimize interference with movement of beds and large equipment. Sliding doors shall not have floor tracks and shall have hardware or a breakaway feature that minimizes jamming possibilities.

b. Where sliding doors are used for access to cubicles within a suite, a 3-foot-wide (0.91 meter) swinging door ~~may~~shall be permitted also be provided for personnel communication.

~~7.34.A5. Each patient bed area shall have space at each bedside for visitors, and shall have provisions for visual privacy from casual observation by other patients and visitors. For both adult and pediatric units, there shall be a minimum of 8 feet (2.44 meters) between beds.~~

#### 7.34.A6. Windows

a. Each patient bed shall have visual access, other than skylights, to the outside environment, with not less than one outside window in each patient bed area, in accordance with Section 7.31.A10.

b. In renovation projects, clerestory windows with windowsills above the heights of adjacent ceilings may be used, provided they afford patients a view of the ~~exterior-outside~~ and are equipped with appropriate forms of glare and sun control. Distance from the patient bed to the outside window shall not exceed 50 feet (15.24 meters). ~~When-Where~~ partitioned cubicles are used, patients' view to outside windows ~~may~~ shall be through no more than two separate clear vision panels.

7.34.A7. Nurse call system. ~~Systems for rapid and easy information exchange with a hospital are important.~~ Nurse call~~ing~~ systems for two-way voice communication shall be provided in accordance with Section 7.325.G. The ~~call-communication~~ system for the unit shall include provisions for an emergency code resuscitation alarm to summon assistance from outside the critical care unit.

7.43.A8. Handwashing stations. Handwashing stations shall be convenient to nurse stations and patient bed areas. There shall be at least one handwashing station for every three beds in open plan areas, and one in each patient room. The handwashing station ~~should~~shall be located near the entrance to the patient cubicle or room, ~~should be~~ sized to minimize splashing water onto the floor, and ~~should be~~ equipped with hands-free operable controls. Where towel dispensers are provided, they shall operate so that dispensing

requires only the towel to be touched.

\*7.34.A9. Administrative center or nurse station. This area shall have space for counters and storage. It ~~may shall be permitted to~~ be combined with or include centers for reception and communication. There shall be direct or remote visual observation between the ~~administration~~ administrative center, ~~or nurse station, or staffed charting stations~~ and all patient beds in the critical care unit.

7.34.A10. Monitoring equipment. Each unit shall contain equipment for continuous monitoring, with visual displays for each patient at the bedside and at the nurse station. Monitors shall be located to permit easy viewing and access but not interfere with access to the patient.

7.34.A11. Emergency equipment storage. Space that is easily accessible to the staff shall be provided for emergency equipment such as a cardiopulmonary resuscitation (CPR) cart.

\*7.34.A12. Medication station. Provision shall be made for storage and distribution of emergency drugs and routine medications. This may be done from a medicine preparation room or unit, from a self-contained medicine ~~dispensing~~ unit, or by another system. If used, a medicine preparation room or unit shall be under visual control of nursing staff. It shall contain a work counter, cabinets for storage of supplies, sink with hot and cold water supply, refrigerator for pharmaceuticals, and ~~doubled~~ locked storage for controlled substances. Convenient access to handwashing stations shall be provided. (Standard cup-sinks provided in many self-contained units are not adequate for handwashing.)

7.34.A13. The electrical, medical gas, heating, ventilation, and communication services ~~air conditioning~~ shall support the needs of the patients and critical care team members under normal and emergency situations.

7.34.A14. Airborne infection isolation room. At least one airborne infection isolation room shall be provided, unless provided in another critical care unit. The number of airborne infection isolation rooms shall be determined based on an ~~Infection Control Risk Assessment~~ ICRA. Each room shall contain only one bed and shall comply with the requirements of Section 7.2.C; however, the requirement for the bathtub (or shower) may be eliminated. Compact, modular toilet/sink combination units may replace the requirement for a “toilet room.” Special ventilation requirements are found in Table 7.2.

\*7.34.A15. Service spaces. The following additional service spaces shall be immediately available within each critical care suite. ~~These~~ They may be shared by more than one critical care unit provided that direct access is available from each.

a. Securable storage areas for staff. ~~e~~Closets or cabinet compartments shall be provided for the personal effects of ~~nursing~~ personnel, located in or near the nurse station. At a minimum, these shall be large enough for purses and billfolds. Coats ~~may shall be permitted to~~ be stored in closets or cabinets on each floor or in a central staff locker area.

b. Clean workroom or clean supply room. If the room is used for preparing patient care items, it shall contain a work counter, a handwashing station, and storage facilities for clean and sterile supplies. If the room is used only for storage and holding as part of a system for distribution of clean and sterile supply materials, the work counter and handwashing station may be omitted. Soiled and clean workrooms or holding rooms shall be separated and have no direct connection.

c. Clean linen storage. There shall be a designated area for clean linen storage. ~~This~~ It may be within the clean workroom, a separate closet, or an approved distribution system on each floor. If a closed cart system is used, storage may be in an alcove. It must be out of the path of normal traffic and under staff

control.

d. Soiled workroom or soiled holding room. This room shall be separate from the clean workroom. ~~The It soiled workroom~~ shall contain a clinical sink (or equivalent flushing-rim fixture); ~~and The room shall contain~~ a lavatory (or handwashing station). The above fixtures shall both have a hot and cold mixing faucet. The room shall have a work counter and space for separate covered containers for soiled linen and a variety of waste types. Rooms used only for temporary holding of soiled material may omit the clinical sink and work counter. If the flushing-rim clinical sink is eliminated, facilities for cleaning bedpans shall be provided elsewhere.

e. Nourishment station. There shall be a nourishment station with sink, work counter, refrigerator, storage cabinets, and equipment for hot and cold nourishments between scheduled meals. The nourishment station shall include space for trays and dishes used for nonscheduled meal service. Provisions and space shall be included for separate temporary storage of unused and soiled dietary trays not picked up at meal time.

f. Ice machine. ~~There Equipment~~ shall be available ~~equipment~~ to provide ice for treatments and nourishment. Ice-making equipment may be in the clean work-room or at the nourishment station. Ice intended for human consumption shall be from self-dispensing ice makers.

\*g. Equipment storage room or alcove. Appropriate room(s) or alcove(s) shall be provided for storage of large items of equipment necessary for patient care and as required by the functional program. Each critical care unit shall provide sufficient storage area(s) located on the patient floor to keep its required corridor width free of all equipment and supplies, but not less than 20 square feet (1.86 square meters) per patient bed ~~shall be provided~~.

h. An x-ray viewing facility. ~~The unit~~ shall ~~have an x-ray viewing facility~~ ~~be in the unit~~.

\*i. Documentation and information review spaces. The requirements for documenting patient information by providers have become substantial and continue to grow. A growing number of providers and others review patient records in critical care units. Confidentiality of patient information is important. Computers are increasingly used to meet these expectations

(1) Space shall be provided within the unit to accommodate the recording of patient information. The documentation space shall be located within or adjacent to the patient bed space. It shall include countertop that will provide for a large flow sheet typical of critical care units and a computer monitor and keyboard. There shall be one documentation space with seating for each patient bed.

(2) There shall be a specifically designated area within the unit for information review within each unit and located to facilitate concentration.

**7.34.A16.** The following shall be provided and may be located outside the unit if conveniently accessible.

a. ~~A~~ Visitors' waiting room. ~~This room~~ shall be ~~provided that is~~ designed to accommodate the long stays and stressful conditions common to such spaces, including provisions for privacy, means to facilitate communications, and access to toilets. The locations and size shall be appropriate for the number of patients and units served, with a seating capacity ~~for~~ not less than one family member ~~seating~~ per patient bed.

\*b. Office space. Adequate office space immediately adjacent to the critical care unit ~~will~~ shall be available for critical care medical and nursing management/administrative personnel. ~~The offices should~~

~~be large enough to permit consulting with members of the critical care team and visitors.~~ The offices **will shall** be linked with the unit by telephone or an intercommunications system.

c. Staff lounge(s) and toilet(s). **These** shall be located so that staff may be recalled quickly to the patient area in emergencies. The lounge shall have telephone or intercom and emergency code alarm connections to the critical care unit it serves. If not provided elsewhere, provision for the storage of coats, etc., shall be made in this area. ~~Consideration should be given to providing a~~adequate furnishings, equipment, and space for comfortable seating and the preparation and consumption of snacks and beverages **shall be provided unless provisions have been made elsewhere**. One lounge ~~may~~**shall be permitted to** serve adjacent critical care areas.

d. **Special procedures room.** A special procedures room shall be provided if required by the functional program.

e. **Staff accommodations.** Sleeping and personal care accommodations **shall be provided** for staff on 24-hour, on-call work schedules.

f. Multipurpose room(s). **Multipurpose room(s) shall be provided** for staff, patients, and patients' families for patient conferences, reports, education, training sessions, and consultation. These rooms ~~must~~**shall** be accessible to each nursing unit.

g. **Housekeeping room.** A housekeeping room shall be provided within or immediately adjacent to the critical care unit. It shall not be shared with other nursing units or departments. It shall contain a service sink or floor receptor and provisions for storage of supplies and housekeeping equipment.

h. Storage space. ~~Space to store for~~ stretchers and wheelchairs shall be provided in a strategic location, without restricting normal traffic.

i. **Service areas.** Laboratory, radiology, respiratory therapy, and pharmacy services shall be available. These services ~~may~~**shall be permitted to** be provided from the central departments or from satellite facilities as required by the functional program.

#### **7.34.B. Coronary Critical Care Unit**

Coronary patients have special needs. They are often fully aware of their surroundings but still need immediate and critical emergency care. In addition to the standards ~~set forth~~ in Section 7.34.A, the following standards apply to the coronary critical care unit:

**7.34.B1.** Each coronary patient shall have a separate room for acoustical and visual privacy.

**7.34.B2.** Each coronary patient shall have access to a toilet in the room. ~~(Portable commodes may be used)~~**shall be permitted** in lieu of individual toilets, but provisions must be made for their storage, servicing, and odor control.)

#### **7.34.C. Combined Medical/Surgical and Coronary Critical Care**

If medical, surgical, and coronary critical care services are combined in one critical care unit, at least 50 percent of the beds ~~must~~**shall** be located in private rooms or cubicles. ~~(Note: Medical/surgical patients may utilize open areas or private rooms as needed and available but, insofar as possible, coronary patients should not be accommodated in open ward areas.)~~

#### **7.34.D. Pediatric Critical Care**

Critically ill pediatric patients have unique physical and psychological needs. ~~Not every hospital can or~~

~~should attempt to have a separate pediatric critical care unit. Many hospitals will be able to safely transfer their patients to other facilities offering appropriate services. If a facility has a specific pediatric critical care unit, the functional program must include consideration for staffing, isolation, and the safe transportation of critically ill pediatric patients, along with life support and environmental systems, from other areas. At least one airborne infection control room shall be provided, with provisions for observation of the patient. The total number of infection control rooms shall be increased based upon an Infection Control Risk Assessment. All room(s) shall comply with the requirements of Section 7.2.C. If a facility has a specific pediatric critical care unit, the functional program shall include consideration for staffing, isolation, transportation, life support, and environmental systems.~~

In addition to the standards previously set forth for a critical care unit--general (i.e., Section 7.4.A), a pediatric critical care unit shall provide the following:

~~In addition to the standards previously listed for critical care units, each pediatric critical care unit shall include:~~

**7.34.D1.** Space at each bedside for families and visitors in addition to the space provided for staff. The space provided for parental accommodations as defined by the functional program shall not limit or encroach upon the minimum clearance requirements for staff and medical equipment around the patient's bed station.

**\*7.34.D2.** Sleeping space for parents who may be required to spend long hours with the patient. If the sleeping area is separate from the patient area, it ~~must~~ shall be in communication with the critical care unit ~~staff~~.

**7.34.D3.** Consultation/demonstration room within, or convenient to, the pediatric critical care unit for private discussions.

**\*7.34.D4.** Provisions for formula storage. ~~These may be outside the pediatric critical care unit but must be available for use at all times.~~

**7.34.D5.** Separate storage cabinets or closets for toys and games ~~for use by the pediatric patients.~~

**\*7.34.D6.** ~~Additional storage space (see Section 7.4.A15.g) for cots, bed linens, and other items needed to accommodate parents overnight.~~

~~**\*7.3.D7.** Space allowance.~~

**\*7.34.D87.** Examination and treatment room(s). ~~Centrally located examination and treatment room(s) may serve more than one nursing unit, and shall be located within or immediately adjacent to each unit. Examination and treatment rooms shall have a minimum floor area of 120 square feet (11.15 square meters). The room shall contain a handwashing station; storage facilities; and a desk, counter, or shelf space for writing.~~

#### **7.34.E. Newborn Intensive Care Units**

The following standards apply to the ~~Each~~ newborn intensive care unit (NICU) ~~shall include or comply with the following:~~

**\*7.34.E1. Entries.** All entries to the NICU shall be controlled. The family entrance and reception area ~~shall be~~ The NICU shall have a clearly identified entrance and reception area for families. The area shall permit visual observation and contact with all traffic entering the unit.

**7.34.E2. Handwashing stations.** In a multiple-bed room, every bed position shall be within 20 feet (6 meters) of a hands-free handwashing station. Where an individual room concept is used, a hands-free handwashing station shall be provided within each infant care room. All ~~sinks~~ handwashing stations shall be ~~hands-free operable and~~ large enough to contain splashing.

**7.34.E3. Doors.** At least one door to each patient room in the unit must be large enough in both width and height to accommodate portable x-ray and ultrasound equipment. ~~A door 44 inches (1117.6 millimeters) wide should accommodate most x-ray equipment. Both width and height must be considered.~~

~~7.3.E4. There should be efficient and controlled access to the unit from the labor and delivery area, the emergency department, or other referral entry points.~~

**7.34.E54. Viewing windows.** When viewing windows are provided, provision shall be made to control casual viewing of infants.

~~\*7.34.E65. Noise control. In the interest of noise control, sound attenuation shall be a design factor. Infant bed areas and the spaces opening onto them shall be designed to produce minimal background noise and to contain and absorb much of the transient noise that arises within the NICU. The combination of continuous background sound and transient sound in any patient care area shall not exceed an hourly  $L_{eq}$  of 50 dB and an hourly  $L_{10}$  of 55 dB, both A-weighted slow response. The  $L_{max}$  (transient sounds) shall not exceed 70 dB, A-weighted slow response.~~

~~\*7.34.E76. Lighting. Provisions shall be made for indirect lighting and high-intensity lighting in all nurseries the NICU. Controls shall be provided to enable lighting to be adjusted over individual patient care spaces. Darkening sufficient for transillumination shall be available when necessary. No direct ambient lighting shall be permitted in the infant care space, and any direct ambient lighting used outside the infant care area shall be located or framed so as to avoid any infant's direct line of sight to the fixture. This does not exclude the use of direct procedure lighting. Lighting fixtures shall be easy to clean.~~

~~At least one source of daylight shall be visible from newborn care areas. External windows in infant care rooms shall be glazed with insulating glass to minimize heat gain or loss, and shall be situated at least 2 feet (0.6 meter) away from any part of a baby's bed to minimize radiant heat loss from the baby. All external windows shall be equipped with easily-cleaned shading devices that are neutral color or opaque to minimize color distortion from transmitted light.~~

**7.34.E87. Control station.** A central area shall serve as a control station, shall have space for counters and storage, and shall have convenient access to handwashing stations. It ~~may~~ shall be permitted to be combined with or to include centers for reception and communication and patient monitoring.

**7.34.E98. Dimensions.** Each patient care space shall contain a minimum of 120 square feet (11.2 square meters) of clear floor area per bassinet excluding sinks and aisles. ~~There shall be an aisle for circulation adjacent to each patient care space with a minimum width of 3 feet (0.91 meter). There shall be an aisle adjacent to each infant care space with a minimum width of 4 feet (1.2 meters) in multiple-bed rooms. When single-patient rooms or fixed cubicle partitions are utilized in the design, there shall be an adjacent aisle of not less than 8 feet (2.4 meters) in clear and unobstructed width to permit the passage of equipment and personnel. In multiple-bed rooms, there shall be a minimum of 8 feet (2.4 meters) between infant care beds.~~ Each ~~infant-patient~~ care space shall be designed to allow privacy for the baby-infant and family.

**7.34.E109. Ceilings.** Ceilings shall be easily cleanable and nonfriable and shall have a noise reduction

coefficient (NRC) of at least 0.90. Ceiling construction shall limit passage of particles from above the ceiling plane into the clinical environment.

**7.34.E1110. Safety.** The NICU shall be designed as part of an overall safety program to protect the physical security of infants, parents, and staff and to minimize the risk of infant abduction.

**7.34.E1211. Airborne infection isolation room.** An airborne infection isolation room ~~is~~ shall be required in at least one level of nursery care. The room shall be enclosed and separated from the nursery unit with provisions for observation of the infant from adjacent nurseries or control area(s). All airborne infection isolation rooms shall comply with the requirements of Section 7.2.C, except for separate toilet, bathtub, or shower.

**7.34.E1312. Support spaces.** Support space shall be accessible for respiratory therapy, blood gas lab, developmental therapy, social work, laboratory, pharmacy, radiology, and other ancillary services when these activities are routinely performed on the unit.

**7.34.E1413.** Physician's sleeping facilities with access to a toilet and shower shall be provided. If not contained within the unit itself, the area shall have a telephone or intercom connection to the patient care area.

**\*7.34.E1514. Parent-infant room(s).** A room(s) shall be provided within the NICU that allow(s) parents and infants extended private time together. The room(s) shall have direct, private access to sink and toilet facilities, communication linkage with the NICU staff, electrical and medical gas outlets as specified for other NICU beds, sleeping facilities for at least one parent, and sufficient space for the infant's bed and equipment. The ~~se~~ room(s) ~~can~~ may be used for other purposes when they are not required for family use. The room(s) shall have electrical and medical gas outlets as specified for other NICU beds.

**7.34.E1615. Dedicated space.** Space shall be provided for lactation support and consultation in or immediately adjacent to the NICU. Provision shall be made, either within the room or conveniently located nearby, for handwashing stations, ~~sink~~, counter, refrigeration and freezing, storage for pump and attachments, and educational materials.

**7.34.E1716. Charting facilities.** Charting facilities shall have adequate linear surface space to ensure that staff and physicians may chart and have simultaneous access to information and communication systems.

**7.34.E1817. Medication station.** ~~A~~ Medication station shall be provided. See Section 7.34.A12.

**\*7.34.E1918. Clean room.** ~~A~~ Clean workroom or clean supply room shall be provided. See Section 7.34.A.15b.

**7.34.E2019. Soiled room.** ~~A~~ Soiled workroom or soiled holding room shall be provided. See Section 7.34.A.15d.

**7.34.E2120. Staff facilities.** ~~Provide a~~ lounge, locker room, and staff toilet shall be provided within or adjacent to the unit suite for staff use.

**7.34.E2221. Emergency equipment storage.** Space shall be provided for emergency equipment that is under direct control of the nursing staff, ~~such as a CPR cart~~. This space shall be located in an area appropriate to the functional program, but out of normal traffic.

**7.34.E2322. Housekeeping room.** ~~One~~ A housekeeping room shall be provided for the unit. It shall be

directly accessible from the unit and be dedicated for the exclusive use of the ~~NICU~~neonatal critical care unit. It shall contain a service sink or floor receptor and provisions for storage of supplies and housekeeping equipment.

~~7.34.E2423~~. Space ~~should~~shall be provided for the following:

a. ~~A~~Visitors' waiting room. See Section 7.~~34~~4.A.16a.

b. Nurses/supervisors office or station. See Section 7.~~34~~4.A.16b.

c. Multipurpose room(s) for staff, patients, and patients' families for patient conferences, reports, education, training sessions, and consultation. These rooms must be accessible to each nursing unit. They may be on other floors if convenient for regular use. One such room may serve several nursing units and/or departments.

### ~~\*7.45~~ Nurseries

Infants shall be housed in nurseries that comply with the standards below. All nurseries other than pediatric nurseries shall be convenient to the postpartum nursing unit and obstetrical facilities. The nurseries shall be located and arranged to preclude the need for unrelated pedestrian traffic. No nursery shall open directly onto another nursery.

#### ~~7.45.A~~. General

~~The following standards shall apply to nurseries~~Each nursery shall contain the following:

~~7.45.A1~~. At least one lavatory, equipped with a hands-free handwashing ~~station~~facility, for each eight ~~or~~fewer infant stations.

~~7.45.A2~~. Glazed observation windows to permit the viewing of infants from public areas, workrooms, and adjacent nurseries.

~~7.45.A3~~. Convenient, accessible storage for linens and infant supplies at each nursery room.

~~7.45.A4~~. A consultation/demonstration/breast feeding or pump room ~~shall be provided~~ convenient to the nursery. Provision shall be made, either within the room or conveniently located nearby, for ~~sink~~handwashing station, counter, refrigeration and freezing, storage for pump and attachments, and educational materials. ~~If conveniently located, This ancillary area provided for the unit for these purposes, when conveniently located, may~~ shall be permitted to be shared for other purposes.

~~7.45.A5~~. Enough space ~~shall be provided~~ for parents to stay 24 hours.

~~7.45.A6~~. An airborne infection isolation room ~~is required~~ in or near at least one level of nursery care. The room shall be enclosed and separated from the nursery unit with provisions for observation of the infant from adjacent nurseries or control area(s). All airborne infection isolation rooms shall comply with the requirements of Section 7.2.C, except for separate toilet, bathtub, or shower.

#### ~~\*7.45.A7~~. Workroom(s).

Each nursery room shall be served by a connecting workroom. The workroom shall contain scrubbing and gowning facilities at the entrance for staff and housekeeping personnel, work counter, refrigerator, storage for supplies, and a hands-free handwashing ~~fixture~~station. One workroom may serve more than one nursery room provided that required services are convenient to each.

The workroom serving the full-term and continuing care nurseries may be omitted if equivalent work and storage areas and facilities, including those for scrubbing and gowning, are provided within that nursery. Space required for work areas located within the nursery is in addition to the area required for infant care.

~~Adequate~~ provision shall be made for storage of emergency cart(s) and equipment out of traffic and for the sanitary storage and disposal of soiled waste.

Visual control shall be provided via borrowed lights and/or view panels between the staff work area and each nursery.

**7.45.A8** Neonate examination and treatment areas. Such areas, when required by the functional program, shall contain a work counter, storage facilities, and a hands-free handwashing station.

**7.45.A9.** Neonate formula facilities. Where infant formula is prepared on-site, direct access from the formula preparation room to any nursery room is prohibited. The room may be located near the nursery or at other appropriate locations in the hospital. The formula preparation room shall, but must, include the following:

a. Cleanup facilities-area for washing and sterilizing supplies. This area shall include a handwashing station, facilities for bottle washing, a work counter, and sterilization equipment.

b. Separate room for preparing infant formula. This room shall contain warming facilities, refrigerator, work counter, formula sterilizer, storage facilities, and a handwashing station.

c. Refrigerated storage and warming facilities for infant formula accessible for use by nursery personnel at all times.

**7.45.A10.** Commercial neonate formula. If a commercial infant formula is used, the separate cleanup and preparation rooms may be omitted. The storage and handling may be done in the nursery workroom or in another appropriate room ~~in the hospital~~ that is conveniently accessible at all hours. The preparation area shall have a work counter, a handwashing station, and storage facilities.

**7.45.A11.** Housekeeping/environmental services room. A housekeeping/environmental services room shall be provided for the exclusive use of the nursery unit. It shall be directly accessible from the unit and shall contain a service sink or floor receptor and provide for storage of supplies and housekeeping equipment.

**7.45.A12.** Charting space. Charting facilities shall have linear surface space to ensure that staff and physicians may chart and have simultaneous access to information and communication systems.

7.5.A13. Soiled workroom or soiled holding room. See Section 7.2.B12.

**\*7.45.B. Newborn Nursery**

Each newborn nursery room shall contain no more than 16 infant stations. The minimum floor space shall be 24 square feet (2.23 square meters) per bassinet, exclusive of auxiliary work areas. When a rooming-in program is used, the total number of bassinets ~~provided~~ in these units ~~may be appropriately shall be~~ permitted to be reduced, but the newborn nursery shall not be omitted in its entirety from any facility that includes delivery services. ~~(When facilities use a rooming-in program in which all infants are returned to the nursery at night, a reduction in nursery size may not be practical.)~~

~~7.4.B1. Baby holding nursery. Hospitals may replace traditional nurseries with baby holding nurseries in~~ postpartum and labor-delivery-recovery-postpartum (LDRP) units, a baby--holding nursery shall be permitted instead of a traditional nursery. The minimum floor area per bassinet, ventilation, electrical, and medical vacuum and gases shall be the same as that required for a full-term nursery. One bassinet shall be provided for each postpartum bed in the facility. These holding nurseries ~~should~~shall be next to the nurse station on these units. The holding nursery shall be sized to accommodate the percentage of newborns who do not remain with their mothers during the postpartum stay.

#### **7.45.C. Continuing Care Nursery**

For hospitals that provide continuing care for infants requiring close observation (for example, low birth-weight babies who are not ill but require more hours of nursing than do normal neonates), the minimum floor space shall be 50 square feet (4.65 square meters) per bassinet, exclusive of auxiliary work areas, with provisions for at least 4 feet (1.22 meters) between and at all sides of each bassinet. The continuing care bassinets are permitted to be within the hospital's NICU in a defined location for these infants.

#### **7.45.D. Pediatric Nursery**

To minimize the possibility of cross-infection, each nursery room serving pediatric patients shall contain no more than eight bassinets; each bassinet shall have a minimum clear floor area of 40 square feet (3.72 square meters). Each room shall contain a ~~lavatory equipped for~~ hands-free handwashing station, a nurses emergency calling system, and a glazed viewing window for observing infants from public areas and workrooms. (Note: Limitation on number of patients in a nursery room does not apply to the pediatric critical care unit.)

#### **\*7.56 Pediatric and Adolescent Unit**

The unit shall meet the following standards:

##### **\*7.56.A. Patient Rooms**

~~Each patient room shall meet the following standards:~~

**7.56.A1.** Maximum room capacity shall be four patients.

**7.56.A2.** The space requirements for pediatric patient beds shall be the same as for adult beds due to the size variation and the need to change from cribs to beds; and vice-versa. See Section 7.2.A2 for requirements. Additional provisions for hygiene, toilets, sleeping, and personal belongings shall be ~~included~~made where the program indicates that parents will be allowed to remain with young children. (See Sections 7.34.D for pediatric critical care units and 7.45 for newborn nurseries.)

**7.56.A3.** Each patient room shall have a window in accordance with Section 7.2831.A10.

##### **7.56.B. Examination/Treatment Rooms**

~~This~~An examination/treatment room shall be provided for pediatric and adolescent patients. A separate area for infant examination and treatment ~~may be provided~~shall be permitted within the pediatric nursery workroom. Examination/treatment rooms shall have a minimum floor area of 120 square feet (11.15 square meters). The room shall contain a handwashing station; storage facilities; and a desk, counter, or shelf space for writing.

##### **7.56.C. Service Areas**

The service areas in the pediatric and adolescent nursing units shall conform to Section 7.2.B and shall also meet the following standards:

**7.56.C1.** Multipurpose or individual room(s) shall be provided within or adjacent to areas serving pediatric and adolescent patrons for dining, education, and developmentally appropriate play and recreation, with access and equipment for patients with physical restrictions. If the functional program requires, an individual room shall be provided to allow for confidential parent/family comfort, consultation, and teaching. Insulation, isolation, and structural provisions shall minimize the transmission of impact noise through the floor, walls, or ceiling of the ~~se~~ multipurpose room(s).

**7.56.C2.** Space for preparation and storage of infant formula shall be provided within the unit or other convenient location. Provisions shall be made for continuation of special formula that may have been prescribed for the infant prior to admission or readmission.

**7.56.C3.** Patient toilet room(s) with handwashing station(s) in each room, in addition to those serving bed areas, shall be conveniently ~~located~~ to multipurpose room(s) and to each central bathing facility.

**7.56.C4.** Storage closets or cabinets shall be provided for toys, educational, and recreational equipment ~~shall be provided~~.

**7.56.C5.** Storage space shall be provided to permit exchange of cribs and adult beds. Provisions shall also be made for storage of equipment and supplies (including cots or recliners, extra linen, etc.) for parents who stay with the patient overnight.

**7.56.C6.** At least one airborne infection isolation room shall be provided in each pediatric unit. The total number of infection isolation rooms shall be determined by an ~~Infection Control Risk Assessment~~ ICRA. Airborne infection isolation room(s) shall comply with the requirements of Section 7.2.C.

**7.56.C7.** Separate clean and soiled workrooms or holding rooms shall be provided as described in Sections 7.2.B11 and 12.

## **7.67 Psychiatric Nursing Unit**

~~When part of a general hospital, these units shall be designed for the care of inpatients. Nonambulatory inpatients may be treated in a medical unit until their medical condition allows for transfer to the psychiatric nursing unit.~~ See Section 7.2.E for psychiatric care in a medical unit. Provisions shall be made in the design for adapting the area for various types of medical and psychiatric therapies as described in the approved functional program.

The facility shall provide a therapeutic environment appropriate for the planned treatment programs. Security appropriate for the planned treatment programs shall be provided. In no case shall adult and pediatric clients be mixed. This does not exclude sharing of nursing stations or support areas, as long as the separation and safety of the units can be maintained.

A safe environment is critical; however, no environment can be entirely safe and free of risk. The majority of persons who attempt suicide suffer from a treatable mental disorder or a substance abuse disorder or both. Patients of inpatient psychiatric treatment facilities are considered at high risk for suicide; the environment should avoid physical hazards while maintaining a therapeutic environment. The built environment, no matter how well designed and constructed, cannot be relied upon as an absolute preventative measure. Staff awareness of their environment, latent risks of that environment, and the behavior risks and needs of the patients served in the environment are absolute necessities. Different organizations and different patient populations will require greater or lesser tolerance for risk.

The facility should provide a therapeutic environment appropriate for the planned treatment programs. The environment should be characterized by a feeling of openness with emphasis on natural light. In every aspect of building design and maintenance it is essential to make determinations based on the potential risk to the specific patient population served.

Consideration should be given to visual control (including electronic surveillance) on nursing units of corridors, dining areas, and social areas such as dayrooms and activities areas. Hidden alcoves or blind corners or areas should be avoided.

The openness of the nurse station will be dependant on the planned treatment program. Consideration should be given to patient privacy and also to staff safety.

The guidelines noted in Sections 11.1 through 11.3, shall apply , with the following exceptions:

- The patient room size shall meet the requirements in Section 7.2.A2.
- Adequate storage shall meet the requirements in Section 7.2.A7.
- A desk or writing surface for patient use may be provided in each room, but this is not required.
- A quiet room is not required on units of 12 beds or fewer unless required by the functional program.
- The functional needs of the program shall determine the need for a nurse call system. If a nurse call system is provided, it shall meet the requirements of Section 7.35.G. However, provisions shall be made for easy removal or covering of the call system.
- Visual privacy in multibed rooms(e.g., cubicle curtains) is not required.
- The functional needs of the program will determine the need for medical gas and/or vacuum systems. If a medical gas/vacuum system is provided, it shall meet the requirements of Section 7.32.E5. However, provisions shall be made for easy removal and/or covering of the medical gas/vacuum system.

#### **7.7.A. Patient Rooms**

See Section 11.2.A.

#### **7.7.B. Support Areas**

See Section 11.2.B.

#### **7.7.C. Seclusion Treatment Rooms**

See Section 11.2.C.

~~The environment of the unit should be characterized by a feeling of openness with emphasis on natural light and exterior views. Various functions should be accessible from common areas while not compromising desirable levels of patient privacy. Interior finishes, lighting, and furnishings should suggest a residential rather than an institutional setting. These should, however, conform with applicable fire safety codes. Security and safety devices should not be presented in a manner to attract or challenge tampering by patients.~~

~~Where glass fragments pose a hazard to certain patients, safety glazing and/or other appropriate security features shall be used.~~

~~Details of such facilities should be as described in the approved functional program. Each nursing unit shall provide the following:~~

#### **7.6.A. Patient Rooms**

~~The standard noted in Section 7.2.A shall apply to patient rooms in psychiatric nursing units *except as*~~

follows:

~~7.6.A1. A nurses call system is not required, but if it is included, provisions shall be made for easy removal, or for covering call button outlets.~~

~~7.6.A2. Bedpan flushing devices may be omitted from patient room toilets in psychiatric nursing units.~~

~~7.6.A3. Handwashing stations are not required in patient rooms.~~

~~7.6.A4. Visual privacy in multibed rooms (e.g., cubicle curtains) is not required.~~

~~7.6.A5. The ceiling and the air distribution devices, lighting fixtures, sprinkler heads, and other appurtenances shall be of a tamper resistant type.~~

~~7.6.A6. Each patient room shall be provided with a private toilet that meets the following requirements:~~

~~a. The door shall not be lockable from within.~~

~~b. The door shall be capable of swinging outward.~~

~~c. The ceiling shall be of tamper resistant construction, and the air distribution devices, lighting fixtures, sprinkler heads, and other appurtenances shall be of the tamper resistant type.~~

#### ~~7.6.B. Service Areas~~

~~The standards noted in Section 7.2.B shall apply to service areas for psychiatric nursing units with the following modifications:~~

~~7.6.B1. A secured storage area shall be provided for patients' belongings that are determined to be potentially harmful (e.g., razors, nail files, cigarette lighters); this area will be controlled by staff.~~

~~7.6.B2. Medication station shall include provisions for security against unauthorized access.~~

~~7.6.B3. Food service within the unit may be one, or a combination, of the following:~~

~~a. A nourishment station.~~

~~b. A kitchenette designed for patient use with staff control of heating and cooking devices.~~

~~c. A kitchen service within the unit including a handwashing station, storage space, refrigerator, and facilities for meal preparation.~~

~~7.6.B4. Storage space for stretchers and wheelchairs may be outside the psychiatric unit, provided that provisions are made for convenient access as needed for disabled patients.~~

~~7.6.B5. In psychiatric nursing units, a bathtub or shower shall be provided for each six beds not otherwise served by bathing facilities within the patient rooms. Bathing facilities should be designed and located for patient convenience and privacy.~~

~~7.6.B6. A separate charting area shall be provided with provisions for acoustical privacy. A viewing window to permit observation of patient areas by the charting nurse or physician may be used if the arrangement is such that patient files cannot be read from outside the charting space.~~

~~7.6.B7. At least two separate social spaces, one appropriate for noisy activities and one for quiet activities, shall be provided. The combined area shall be at least 40 square feet (3.72 square meters) per patient with at least 120 square feet (11.15 square meters) for each of the two spaces. This space may be shared by dining activities.~~

~~7.6.B8. Space for group therapy shall be provided. This may be combined with the quiet space noted above when the unit accommodates not more than 12 patients, and when at least 225 square feet (20.90 square meters) of enclosed private space is available for group therapy activities.~~

~~7.6.B9. Patient laundry facilities with an automatic washer and dryer shall be provided.~~

~~The following elements shall also be provided, but may be either within the psychiatric unit or immediately accessible to it unless otherwise dictated by the program:~~

~~7.6.B10. Room(s) for examination and treatment with a minimum area of 120 square feet (11.15 square meters). Examination and treatment room(s) for medical surgical patients may be shared by the psychiatric unit patients. (These may be on a different floor if conveniently accessible.)~~

~~7.6.B11. Separate consultation room(s) with minimum floor space of 100 square feet (9.29 square meters) each, provided at a room to bed ratio of one consultation room for each 12 psychiatric beds. The room(s) shall be designed for acoustical and visual privacy and constructed to achieve a noise reduction of at least 45 decibels.~~

~~7.6.B12. Psychiatric units each containing 15 square feet (1.39 square meters) of separate space per patient for patient therapy/multipurpose use, with a minimum total area of at least 200 square feet (18.58 square meters), whichever is greater. Space shall include provision for handwashing, work counter(s), storage, and displays. This space may serve more than one nursing unit. When psychiatric nursing unit(s) contain less than 12 beds, the therapy and other functions may be performed within the noisy activities area, if at least an additional 10 square feet (0.93 square meter) per patient served is included.~~

~~7.6.B13. A conference and treatment planning room for use by the psychiatric unit.~~

### **7.6.C. Seclusion Treatment Room**

~~There shall be at least one seclusion room for up to 24 beds or a major fraction thereof. If a facility has more than one psychiatric nursing unit, the number of seclusion rooms shall be a function of the total number of psychiatric beds in the facility. Seclusion rooms may be grouped together.~~

~~The seclusion treatment room is intended for short term occupancy by a violent or suicidal patient. Within the psychiatric nursing unit, this space provides for patients requiring security and protection. The room(s) shall be located for direct nursing staff supervision. Each room shall be for only one patient. It shall have an area of at least 60 square feet (5.57 square meters) and shall be constructed to prevent patient hiding, escape, injury, or suicide. Where restraint beds are required by the functional program, 80 square feet (7.43 square meters) shall be required.~~

~~Room doors shall be designed with hardware that will permit the doors to swing out. Outside corners shall be omitted where possible. The ceiling shall be of tamper resistant construction and the air distribution devices, lighting fixtures, sprinkler heads, and other appurtenances shall be of the tamper-resistant type. The walls shall be completely free of objects. Special fixtures and hardware for electrical circuits shall be used. Minimum ceiling height shall be 9 feet (2.74 meters). Doors shall be 3 feet 8 inches (1.12 meters) wide and shall permit staff observation of the patient while also maintaining provisions for~~

~~patient privacy. Seclusion treatment rooms shall be accessed by an anteroom or vestibule that also provides direct access to a toilet room. The toilet room and anteroom shall be large enough to safely manage the patient.~~

~~Where the interior of the seclusion treatment room is padded with combustible materials, these materials shall be of a type acceptable to the local authority having jurisdiction. The room area, including floor, walls, ceilings, and all openings, shall be protected with not less than one-hour rated construction.~~

### **7.8 In-Hospital Skilled Nursing Units**

**Note:** Many facilities have incorporated in-hospital skilled nursing units for patients requiring skilled nursing care as part of their recovery process. Many of these facilities are intended for elderly patients undergoing various levels of rehabilitation, and recuperating stroke victims or brain trauma victims requiring rehabilitation. The basic requirements contained in Section 7.2.A apply and shall be supplemented with the following requirements.

**7.8.A.** The location shall provide convenient access to the Physical and Rehabilitation Medicine Departments.

**7.8.B.** The unit shall be located to exclude unrelated traffic going through the unit to access other areas of the hospital.

**7.8.C.** Wherever possible, the unit shall be located to provide access to outdoor spaces that can be utilized for therapeutic purposes.

**7.8.D.** In addition to the general spaces required under Section 7.2.B, the following rooms and support elements shall be provided:

**7.8.D1.** A living dining recreation space(or spaces) shall be provided within the nursing unit and shall have a minimum aggregate square footage of 25 square feet (7.62 square meters) per bed.

**7.8.D2.** A room for patient grooming shall be provided with spaces for hair-washing stations, hair clipping and hair styling, in addition to other grooming needs. A handwashing station, mirror, work counters, storage shelving, and sitting areas for patients shall be provided as part of the room. The minimum area shall not be part of the aggregate area under Section 7.8.D.1 and shall be as determined by the facility program.

**7.8.D3.** A physical rehabilitation room shall be provided for the use of the skilled nursing unit if the unit is not located adjacent to the facility's physical and rehabilitation therapy departments. The room size and the equipment provided shall be adequate to provide the therapeutic milieu required by the facility's narrative program.

**7.8.D4.** When required by the narrative program, the unit shall contain private living space for the use of individual patients, family, and caregivers to discuss the specific patients needs, or private family matters. It shall have a minimum square foot of 250 square feet (76.20 square meters) of clear area and is permitted to be considered part of the square footage per bed outlined in Section 7.8.D1.

**7.8.D5.** Handrails located in accordance with ADA and all local, state, and federal requirements shall be installed on both sides of the patient use corridor for the use of the patients during the daytime.

**7.8.D6.** Additional storage spaces to accommodate the increase in wheelchair and walking aids used by this patient population shall be included in the design of the unit, with an additional square footage of 7 square feet (2.13 square meters) per bed.

### **\*7.79 Surgical Suites/Surgery**

~~**Note:** The number of operating rooms and recovery beds and the sizes of the service areas shall be based on the expected surgical workload. In the program, the size, location, and configuration of the surgical~~

suite and support service departments shall reflect the projected volume of outpatients. This may be achieved by designing either an outpatient surgery facility or a combined inpatient-outpatient surgical suite. The surgical suite shall be located and arranged to prevent nonrelated traffic through the suite.

When outpatient surgery is provided in the surgical suite of the hospital facility, it shall comply with the requirements for outpatient surgery in Section 7.10. When outpatient surgery and PACU is provided in a separate unit of the hospital facility or in a separate facility, it shall comply with the requirements for outpatient surgery in Section 9.6.

~~When bronchoscopy is performed on persons who are known or suspected of having pulmonary tuberculosis, the procedure room shall meet the airborne infection isolation room ventilation requirements.~~

~~When invasive procedures are performed on persons who are known or suspected of having airborne infectious disease, these procedures should not be performed in the operating suite. They shall be performed in a room meeting airborne infection isolation ventilation requirements or in a space using local exhaust ventilation. If the procedure must be performed in the operating suite, see the [okay here] "CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Facilities." [move to appendix]~~

Additions to, and adaptations of, the following elements shall be made for the special-procedure operating rooms found in larger facilities.

~~The following shall be provided:~~

#### ~~7.79.A. **Surgery/Surgical Suites**~~

~~The clinical practice setting shall be designed to facilitate movement of patients and personnel into, through, and out of defined areas within the surgical suite. Signs shall clearly indicate the surgical attire required.~~

~~The surgical suite shall be divided into three designated areas—unrestricted, semirestricted, and restricted—that are defined by the physical activities performed in each area.~~

~~**7.89.A1. Unrestricted area.** The unrestricted area includes a central control point established to monitor the entrance of patients, personnel, and materials. Street clothes are permitted in this area, and traffic is not limited.~~

~~**7.89.A2. Semirestricted area.** The semirestricted area includes the peripheral support areas of the surgical suite. ~~It and~~ has storage areas for clean and sterile supplies, work areas for storage and processing of instruments, and corridors leading to the restricted areas of the surgical suite. Traffic in this area is limited to authorized personnel and patients. Personnel are required to wear surgical attire and cover all head and facial hair.~~

~~**7.89.A3. Restricted area.** The restricted area includes operating and procedure rooms, the clean core, and scrub sink areas. Surgical attire and hair coverings are required. Masks are required where open sterile supplies or scrubbed persons may be located.~~

#### ~~\*7.9.B. **Operating and Procedure Rooms**~~

~~**\*7.79.AB1.** General operating room(s). In new construction, each room shall have a minimum clear area of 400 square feet (37.16 square meters) exclusive of fixed or wall-mounted cabinets and built-in shelves, with a minimum of 20 feet (6.10 meters) clear dimension between fixed cabinets and built-in shelves; and~~

a system for emergency communication with the surgical suite control station. X-ray film ~~illuminators viewers~~ for handling at least four films simultaneously ~~or digital image viewers~~ shall ~~also~~ be provided. Where renovation work is undertaken, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above square-foot standards, ~~the authorities having jurisdiction may grant approval to deviate from this requirement. In such cases,~~ each room shall have a minimum clear area of 360 square feet (33.45 square meters), exclusive of fixed or wall-mounted cabinets and built-in shelves, with a minimum of 18 feet (5.49 meters) clear dimension between fixed cabinets and built-in shelves. ~~(For renovation projects, see Section 7.7.AB6.)~~

**7.79.AB2.** Room(s) for cardiovascular, orthopedic, neurological, and other special procedures that require additional personnel and/or large equipment.

**a.** When included, this room shall have, in addition to the above, a minimum clear area of 600 square feet (55.74 square meters), with a minimum of 20 feet (6.10 meters) clear dimension exclusive of fixed or wall-mounted cabinets and built-in shelves.

**b. ~~When-Where~~** open-heart surgery is performed, an additional room in the restricted area of the surgical suite, preferably adjoining this operating room, shall be designated as a pump room where extra corporeal pump(s), supplies, and accessories are stored and serviced.

**c. ~~When-Where~~** complex orthopedic and neurosurgical surgery is performed, additional rooms shall be in the restricted area of the surgical suite, preferably adjoining the specialty operating rooms, which shall be designated as equipment storage rooms for the large equipment used to support these procedures.

**d.** Appropriate plumbing and electrical connections shall be provided in the cardiovascular, orthopedic, neurosurgical, pump, and storage rooms.

**e.** Where renovation work is undertaken, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above square-foot standards, ~~the authorities having jurisdiction may grant approval to deviate from this requirement. In such cases,~~ orthopedic surgical rooms ~~may shall~~ have a minimum clear area of 360 square feet (33.5 square meters), ~~and with~~ a minimum dimension of 18 feet (5 meters). Rooms for cardiovascular, neurological, and other special procedures ~~may shall~~ have a minimum clear area of 400 square feet (44.39 square meters).

**7.79.AB3.** A room for orthopedic surgery. ~~When-Where~~ included, this room shall, in addition to the above, have enclosed storage space for splints and traction equipment. Storage may be outside the operating room but must be conveniently located. If a sink is used for the disposal of plaster of Paris, a plaster trap shall be provided.

**7.79.AB4.** Room(s) for surgical cystoscopic and other endo-urologic procedures. This room shall have a minimum clear area of 350 square feet (32.52 square meters) exclusive of fixed or wall-mounted cabinets and built-in shelves, with a minimum of 15 feet (4.57 meters) clear dimension between fixed cabinets and built-in shelves. X-ray viewing capability to accommodate at least four films simultaneously ~~will shall~~ be provided. In renovation projects, rooms for surgical cystoscopy may have a minimum clear area of 250 square feet (23.28 square meters).

**7.79.AB5.** Endoscopy suite ~~requirements~~. (See Section 9.9.)

~~7.7.A6. The functional program may require additional clear space, plumbing, and mechanical facilities to accommodate special functions in one or more of these rooms. When existing functioning operating rooms are modified, and it is impractical to increase the square foot area because of walls or structural~~

~~members, the operating room may continue in use when requested by the hospital.~~

7.9.B6. Operating room perimeter walls, ceiling, and floors, including penetrations, shall be sealed. (See Glossary.)

### 7.79.BC. Pre - and Postoperative Holding Areas

7.79.BC1. Preoperative patient holding area(s). In facilities with two or more operating rooms, areas shall be provided to accommodate stretcher patients as well as sitting space for ambulatory patients ~~not requiring stretchers~~. These areas shall be under the direct visual control of the nursing staff and may be part of the recovery suite to achieve maximum flexibility in managing surgical case-loads. Each stretcher station shall be a minimum of 80 square feet (7.43 square meters) exclusive of general circulation space through the ward and shall have a minimum clearance of 4 feet (1.22 meters) on the sides of the stretchers and the foot of the stretchers. Provisions shall be made for the isolation of infectious patients. Provisions ~~for patient privacy~~ such as cubicle curtains shall be made for patient privacy.

\*7.79.BC2. Post-anesthetic care units (PACUs). Each PACU shall contain a medication station; handwashing stations; nurse station with charting facilities; clinical sink; provisions for bedpan cleaning; and storage space for stretchers, supplies, and equipment. Additionally, the design shall provide a minimum of 80 square feet (7.43 square meters) for each patient bed, exclusive of general circulation space within the PACU, with a space for additional equipment described in the functional program, and for clearance of at least 5 feet (1.52 meters) between patient beds and 4 feet (1.22 meters) between patient bedsides and adjacent walls. Provisions shall be made for the isolation of infectious patients. Provisions ~~for patient privacy~~ such as cubicle curtains shall be made for patient privacy. In new construction, at least one door to the recovery room shall provide access directly from the surgical suite without crossing public hospital corridors.

a. An airborne infection isolation room is not required in a PACU. Provisions for the recovery of a potentially infectious patient with an airborne infection shall be determined by ~~the-an ICRA~~ Infection Control Risk Assessment.

b. A staff toilet shall be located within the working area to maintain staff availability to patients.

c. ~~At least one Hh~~ Handwashing stations with hands-free operable controls shall be available ~~with at least one~~ for every four beds, uniformly distributed to provide equal access from each ~~patient~~ bed.

### 7.79.CD. Service Areas

Services, except for the enclosed soiled workroom mentioned in ~~item-Section~~ 7.79.CD6 and the housekeeping room in ~~item-Section~~ 7.79.CD19, may be shared with the obstetrical facilities in accordance with if the functional program ~~reflects this concept~~. Service areas, ~~when-where~~ shared with delivery rooms, shall be designed to avoid the passing of patients or staff between the operating room and the delivery room areas. The following ~~services~~ shall be provided:

7.79.CD1. A control station located to permit visual observation of all traffic into the suite.

7.79.CD2. A supervisor's office or station. The number of offices, stations, and teaching areas in the surgical suite shall depend upon the functional program.

7.79.CD3. A substerile areas(s). This area acts as a service area between two or more operating or procedure rooms. It and shall be equipped with a flash sterilizer, warming cabinet, sterile supply storage area, and handwashing station with hands-free controls. A sterilizing facility(ies) with high-speed

sterilizer(s) or other sterilizing equipment for immediate or emergency use ~~must~~ shall be grouped to service several operating rooms for convenient, efficient use. A work space and handwashing station ~~may~~ shall be ~~included~~ provided if required by the functional program. Other facilities for processing and sterilizing reusable instruments, etc., ~~may be~~ typically located in another hospital department, such as central services.

**7.79.CD4.** Medication station. Provision shall be made for storage and distribution of drugs and routine medications. This may be done from a medicine preparation room or unit, from a self-contained medicine--dispensing unit, or by another system. If used, a medicine preparation room or unit shall be under visual control of nursing staff. It shall contain a work counter, sink, refrigerator, and double-locked storage for controlled substances. Convenient access to handwashing stations shall be provided. (Standard cup-sinks provided in many self-contained units are not adequate for handwashing.)

**7.79.CD5.** Scrub facilities. Two scrub positions shall be provided near the entrance to each operating room. Two scrub positions may serve two operating rooms if both positions are ~~located~~ adjacent to the entrance of each operating room. Scrub facilities ~~should~~ shall be arranged to minimize incidental splatter on nearby personnel, medical equipment, or supply carts. In new construction, view windows at scrub stations permitting observation of room interiors ~~should~~ shall be provided. The scrub sinks ~~should~~ shall be recessed into an alcove out of the main traffic areas. The alcove shall be located off the semirestricted or restricted areas of the surgical suite. Scrub sinks shall be located outside the sterile core.

**7.79.CD6.** An enclosed soiled workroom (or soiled holding room that is part of a system for the collection and disposal of soiled material) for the exclusive use of the surgical suite ~~shall be provided~~. It shall be located in the restricted area. The soiled workroom shall contain a flushing-rim clinical sink or equivalent flushing-rim fixture, a handwashing station, a work counter, and space for waste receptacles and soiled linen receptacles. Rooms used only for temporary holding of soiled material may omit the flushing-rim clinical sink and work counters. However, if the flushing-rim clinical sink is omitted, other provisions for disposal of liquid waste shall be provided. The room shall not have direct connection with operating rooms or other sterile activity rooms. Soiled and clean workrooms or holding rooms shall be separated.

**7.79.DE7.** Clean workroom or clean supply room. This room ~~should~~ shall not be used for food preparation.

a. A clean workroom ~~is required~~ shall be provided when clean materials are assembled within the surgical suite prior to use or following the decontamination cycle. It shall contain a work counter, a handwashing station, storage facilities for clean supplies, and a space to package reusable items. The storage for sterile supplies must be separated from this space. If the room is used only for storage and holding as part of a system for distribution of clean and sterile supply materials, the work counter and handwashing station may be omitted. Soiled and clean workrooms or holding rooms shall be separated.

b. Storage space for sterile and clean supplies ~~should~~ shall be ~~adequate for~~ sized to meet the functional plan. The space ~~should~~ shall be moisture and temperature controlled and free from cross--traffic.

c. An operating room suite design with a sterile core ~~must~~ shall provide for no cross--traffic of staff and supplies from the decontaminated/soiled areas to the sterile/clean areas. The use of facilities outside the operating room for soiled/decontaminated processing and clean assembly and sterile processing ~~will~~ shall be designed to move the flow of goods and personnel from dirty to clean/sterile without compromising universal precautions or aseptic techniques in both departments.

**7.79.DE8.** Medical gas storage facilities. Main storage of medical gases may be outside or inside the

facility in accordance with NFPA 99. Provision shall be made for additional separate storage of reserve gas cylinders necessary to complete at least one day's procedures.

**7.79.DC9.** The anesthesia workroom for cleaning, testing, and storing anesthesia equipment shall contain work counter(s) and sink(s) and racks for cylinders. Provisions shall be made for separate storage of clean and soiled items. In new construction, depending on the functional and space programs, the anesthesia workroom ~~should~~ shall provide space for anesthesia case carts and other anesthesia equipment.

**\*7.79.DC10.** Equipment storage room(s) for equipment and supplies used in surgical suite. Each surgical suite shall provide sufficient storage area to keep its required corridor width free of equipment and supplies, but not less than 150 square feet (13.94 square meters) or 50 square feet (4.65 square meters) per ~~Operating room~~, whichever is greater.

**7.78.9DC11.** Staff clothing change areas. Appropriate areas shall be provided for male and female personnel (orderlies, technicians, nurses, and doctors) working within the surgical suite. The areas shall contain lockers, showers, toilets, ~~lavatories equipped for handwashing stations~~, and space for donning surgical attire. These areas shall be arranged to encourage a one-way traffic pattern so that personnel entering from outside the surgical suite can change and move directly into the surgical suite.

**7.79.DC12.** Staff lounge and toilet facilities. Separate or combined lounges ~~for male and female staff~~ shall be provided for male and female staff. Lounge(s) shall be designed to minimize the need to leave the suite and to provide convenient access to the recovery room.

**7.79.DC13.** Dictation and report preparation area. ~~This~~ It may be accessible from the lounge area.

**7.79.DC14.** Phase II recovery. Where outpatient surgeries are to be part of the surgical suite, and where outpatients receive Class B or Class C sedation, a ~~second~~ separate Phase II or step-down recovery room shall be provided. The room shall contain handwashing stations, a nurse station with charting facilities, clinical sink, provision for bedpan cleaning, and storage space for supplies and equipment. In addition, the design shall provide a minimum of 50 square feet (4.65 square meters) for each patient in a lounge chair, with space for additional equipment described in the functional program and for clearance of 4 feet (1.22 meters) ~~between~~ on the sides of the lounge chairs and the foot of the lounge chairs. Provisions shall be made for the isolation of infectious patients. Provisions ~~for patient privacy~~ such as cubicle curtains shall be made for patient privacy. In new construction, at least one door shall access the PACU without crossing unrestricted corridors of the hospital. A minimum clear floor area of 100 square feet (30.48 square meters) shall be provided in single-bed rooms. A handwashing station shall be provided in each room.

**a.** A patient toilet shall be provided with direct access to the Phase II recovery unit for the exclusive use of patients.

**b.** A staff toilet shall be provided with direct access to the working area to maintain staff availability to patients.

**c.** ~~At least one~~ Handwashing stations with hands-free operable controls shall be provided available with at least one for every four lounge chairs, uniformly distributed to provide equal access from each ~~patient bed~~ lounge chair.

**7.79.DC15.** Change areas for outpatients and same-day admissions. If the functional program defines outpatient surgery as part of the surgical suite, a separate area shall be provided where outpatients may change from street clothing into hospital gowns and be prepared for surgery. ~~This would~~ It shall include a

waiting room, locker(s), toilet(s), and clothing change or gowning area. ~~Where private holding room(s) or cubicle(s) are provided, a separate change area is not required. Changing may also be accommodated in a private holding room or cubicle.~~

**7.79.DC16.** Provisions ~~shall be made~~ for patient examination, interviews, preparation, testing, and obtaining vital signs of patients for outpatient surgery.

**7.79.DC17.** Patient holding area. In facilities with two or more operating rooms, an area shall be provided to accommodate stretcher patients waiting for surgery. This holding area shall be under the visual control of the nursing staff.

**7.79.DC18.** Storage areas for portable x-ray equipment, stretchers, fracture tables, warming devices, auxiliary lamps, etc. These areas shall be out of corridors and traffic.

**7.79.DC19.** Housekeeping facilities. Housekeeping facilities shall be provided for the exclusive use of the surgical suite. ~~They~~ shall be directly accessible from the suite and shall contain a service sink or floor receptor and provisions for storage of supplies and housekeeping equipment.

**7.79.DC20.** Area for preparation and examination of frozen sections. This area may be part of the general laboratory if immediate results are obtainable without unnecessary delay in the completion of surgery.

**7.79.DC21.** Ice machine. An ice machine shall be provided to provide ice for treatments and patient use. Ice intended for human consumption shall be from self-dispensing ice makers.

**7.79.DC22.** Provisions for refrigerated blood bank storage that meets the standards of the American Blood Banking Association.

**7.79.DC23.** Where applicable, ~~appropriate provisions for~~ refrigeration facilities for harvested organs.

**7.79.DC24.** Provisions for pathological specimens storage prior to transfer to pathology section.

**7.79.DC25.** Separate outpatient surgical unit. See Section 9.5 ~~of this document concerning the separate outpatient surgical unit.~~

### **\*7.810 Obstetrical Facilities**

A newborn nursery shall be provided ~~is required~~. See Section 7.45.

#### **7.810.A. Obstetrical Suite**

**7.810.A1.** General. The obstetrical unit shall be located and designed to prohibit non-related traffic through the unit. When delivery and operating rooms are in the same suite, access and service arrangements shall be such that neither staff nor patients need to travel through one area to reach the other. Except as permitted otherwise herein, existing facilities being renovated shall, as far as practicable, provide all the required support services.

#### **7.810.A2.** Postpartum unit

##### **a.** Postpartum bedroom.

(1) A postpartum bedroom shall have a minimum of 100 square feet (9.29 square meters) of clear floor

area per bed in multiple-bedded rooms and 120 square feet (11.15 square meters) of clear floor area in single-bedded rooms. These areas shall be exclusive of toilet rooms, closets, alcoves, or vestibules. Where renovation work is undertaken, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above square-foot standards, the authorities having jurisdiction may grant approval to deviate from this requirement. In such cases, existing postpartum patient rooms shall have no less than 80 square feet (7.43 square meters) of clear floor area per bed in multiple-bed rooms and 100 square feet (9.29 square meters) in single-bed rooms.

(2) In multiple-bedded rooms, there shall be a minimum clear distance of 4 feet (1.22 meters) between the foot of the bed and the opposite wall, 3 feet (0.91 meter) between the side of the bed and the nearest wall, and 4 feet (1.22 meters) between beds.

\*(3) The maximum number of beds per room shall be two.

(4) Each patient bedroom shall have a window in accordance with Section 7.31.A10 ~~or windows~~.

(5) Handwashing stations shall be provided in each patient bedroom. In multiple-bedded rooms, the handwashing station shall be located outside of the patients' cubicle curtains so that it is accessible to staff.

(6) Each patient shall have access to a toilet room or bathroom with handwashing stations without entering a general corridor. One such room shall serve no more than two beds and no more than two patient rooms.

b. The following support services ~~for this unit~~ shall be provided for this unit.

(1) A nurse station.

(2) A nurse office.

(3) Charting facilities.

(4) Toilet room for staff.

(5) Staff lounge.

(6) Lockable closets or cabinets for personal articles of staff.

(7) Consultation/conference room(s).

(8) Patients' lounge. The patients' lounge may be omitted if all rooms are single-bedded rooms.

(9) Clean workroom or clean supply room. A clean workroom is required if clean materials are assembled within the obstetrical suite prior to use. It shall contain a work counter, a handwashing station, and storage facilities for clean and sterile supplies. If the room is used only for storage and holding as part of a system for distribution of clean and sterile supply materials, the work counter and handwashing stations may be omitted. Soiled and clean workrooms or holding rooms shall be separated and have no direct connection.

(10) Soiled workroom or soiled holding room for the exclusive use of the obstetrical suite. This room shall be separate from the clean workroom. ~~The soiled workroom and~~ shall contain a clinical sink (or equivalent flushing-rim fixture) and a handwashing station. The above fixtures shall both have a hot and

cold mixing faucet. The room shall have a work counter and space for separate covered containers for soiled linen and waste. Rooms used only for temporary holding of soiled material may omit the clinical sink and work counter. If the flushing-rim clinical sink is omitted, facilities for cleaning bedpans shall be provided elsewhere.

(11) Medication station. Provision shall be made for storage and distribution of drugs and routine medications. This may be done from a medicine preparation room or unit, from a self-contained medicine--dispensing unit, or by another system. If used, a medicine preparation room or unit shall be under visual control of nursing staff. It shall contain a work counter, sink, refrigerator, and double-locked storage for controlled substances. Convenient access to handwashing stations shall be provided. (Standard cup-sinks provided in many self-contained units are not adequate for handwashing.)

(12) Clean linen storage. This may be part of a clean workroom or a separate closet. When a closed cart system is used, the cart may be stored in an alcove out of the path of normal traffic.

(13) Nourishment station. The nourishment station shall contain a sink, work counter, ice dispenser, refrigerator, cabinets, and equipment for serving hot or cold food. Space shall be included for temporary holding of unused or soiled dietary trays.

(14) Equipment storage room. Each unit shall provide sufficient storage area(s) ~~located~~ on the patient floor to keep its required corridor width free of equipment and supplies. This storage area shall be, but not less than 10 square feet (0.93 square meter) per postpartum room and 20 square feet (1.86 square meters) per each LDR or LDRP room, outside of the patient room. This storage area shall be in addition to any storage in patient rooms.

(15) Storage space for stretchers and wheelchairs. Storage space for stretchers and wheelchairs shall be provided in a strategic location, out of corridors and away from normal traffic.

(16) Bathing facilities. When/Where bathing facilities are not provided in patient rooms, there shall be at least one shower and/or bathtub for each six beds or fraction thereof. Handwashing and private toilet facilities shall be available without entering the corridor.

(17) Housekeeping room. A housekeeping room shall be provided for the exclusive use of the obstetrical suite. It shall be directly accessible from the suite and shall contain a service sink or floor receptor and provisions for storage of supplies and housekeeping equipment.

(18) Examination/treatment room and/or multipurpose diagnostic testing room. This room shall have a minimum clear floor area of 120 square feet (11.15 square meters). When ~~utilized~~used as a multi-patient diagnostic testing room, a minimum clear floor area of 80 square feet (7.43 square meters) per patient shall be provided. An adjoining toilet room shall be provided for patient use.

(19) Emergency equipment storage. Storage shall be ~~located in~~ close proximity to the nurse station.

c. Airborne infection isolation room(s). An airborne infection isolation room is not required for the obstetrical unit. Provisions for the care of the perinatal patient with an airborne infection shall be determined by ~~the Infection Control Risk Assessment~~an ICRA.

### 7.810.A3. Cesarean/Delivery Suite

a. Cesarean/delivery room(s) shall have a minimum clear floor area of 360 square feet (33.45 square meters) with a minimum dimension of 16 feet (4.88 meters), exclusive of built-in shelves or cabinets.

There shall be a minimum of one such room in every obstetrical unit.

b. Delivery room(s) shall have a minimum clear area of 300 square feet (27.87 square meters), exclusive of fixed cabinets and built-in shelves. An emergency communication system shall be connected with the obstetrical suite control station.

c. Infant resuscitation shall be provided within the cesarean/delivery room(s) and delivery rooms with a minimum clear floor area of 40 square feet (3.72 square meters) in addition to the required area of each room or may be provided in a separate but immediately accessible room with a clear floor area of 150 square feet (13.94 square meters). Six single or three duplex electrical outlets shall be provided for the infant in addition to the facilities required for the mother.

d. Labor room(s) (LDR or LDRP rooms may be substituted). ~~In renovation projects, existing labor rooms may shall~~ have a minimum clear area of 100 square feet (9.3 square meters) per bed.

Where LDRs or LDRPs are not provided, a minimum of two labor beds shall be provided for each cesarean/delivery room. In facilities that have only one cesarean/delivery room, two labor rooms shall be provided. Each room shall be designed for either one or two beds, with a minimum clear area of 120 square feet (11.15 square meters) per bed. Each labor room shall contain a handwashing station and have access to a toilet room. One toilet room may serve two labor rooms. Labor rooms shall have controlled access with doors that are arranged for observation from a nursing station. At least one shower (which may be separate from the labor room if under staff control) for use of patients in labor shall be provided. Windows in labor rooms, if provided, shall be located, draped, or otherwise arranged, to preserve patient privacy from casual observation from outside the labor room.

e. Recovery room(s) (LDR or LDRP rooms, when located within or adjacent to the cesarean/delivery suite, may be substituted.) ~~Each recovery room~~ shall contain at least two beds and have a nurse station with charting facilities located to permit visual control of all beds. Each room shall include a handwashing station and facilities for ~~handwashing and~~ dispensing medicine. A clinical sink with bedpan flushing device shall be available, as shall storage for supplies and equipment. When required by the functional program, ~~There should shall~~ be enough space for baby and crib and a chair for the support person. There ~~should shall~~ be the ability to maintain visual privacy of the new family.

f. Service areas

(1) Individual rooms shall be provided as indicated in the following standards; otherwise, alcoves or other open spaces that do not interfere with traffic may be used.

(2) The following ~~services~~ shall be provided:

(a) A control/nurse station located to restrict unauthorized traffic into the suite.

(b) Soiled workroom or soiled holding room. This room shall be separate from the clean workroom. The soiled workroom shall contain a clinical sink (or equivalent flushing-rim fixture). ~~The room shall contain~~ and a handwashing station. The above fixtures shall both have a hot and cold mixing faucet. The room shall have a work counter and space for separate covered containers for soiled linen and waste. Rooms used only for temporary holding of soiled material may omit the clinical sink and work counter. If the flushing-rim clinical sink is eliminated, facilities for cleaning bedpans shall be provided elsewhere.

(c) Fluid waste disposal

(3) The following services may be shared with the surgical facilities if in accordance with the functional program ~~reflects this concern~~. Where shared, areas shall be arranged to avoid direct traffic between the delivery and operating rooms

(a) A supervisor's office or station.

(b) A waiting room, with toilets, telephones, and drinking fountains conveniently located. The toilet room shall contain handwashing stations.

~~\*(c) Sterilizing facilities with high-speed sterilizers convenient to all cesarean/delivery rooms. Sterilization facilities should shall be separate from the delivery area and adjacent to clean assembly. High speed autoclaves should only be used in an emergency situation (i.e., a dropped instrument and no sterile replacement readily available). Sterilization facilities would not be necessary if the flow of materials were handled properly from a central service department based on the usage of the delivery room (DR).~~

(d) A drug distribution station with handwashing stations and provisions for controlled storage, preparation, and distribution of medication. A self-contained medication dispensing unit in accordance with Section 7.2.B13.b may be utilized instead.

(e) Scrub facilities for cesarean/delivery rooms. Two scrub positions shall be provided adjacent to entrance to each cesarean/delivery room. Scrub facilities should shall be arranged to minimize any splatter on nearby personnel or supply carts. In new construction, ~~provide~~-view windows shall be provided at scrub stations to permit the observation of room interiors.

(f) Clean workroom or clean supply room. A clean workroom shall be provided if clean materials are assembled within the obstetrical suite prior to use. ~~If a clean workroom is provided it~~ shall contain a work counter, ~~sink equipped for~~ handwashing station, and space for storage of supplies. A clean supply room may be provided when the functional program defines a system for the storage and distribution of clean and sterile supplies. See (h) below for sterile storage.

(g) Medical gas storage facilities. See Section 7.78.C8.

(h) A clean sterile storage area readily available to the DR: The size to shall be determined based on level of usage, functions provided, and supplies from the hospital central distribution area.

(i) An anesthesia workroom for cleaning, testing, and storing anesthesia equipment. It shall contain a work counter, sink, and provisions for separation of clean and soiled items.

(j) Equipment storage room(s) for equipment and supplies used in the obstetrical suite.

(k) Staff clothing change areas. The clothing change area shall be designed to encourage one-way traffic and eliminate cross-traffic between clean and contaminated personnel. The area shall contain lockers, showers, toilets, handwashing stations, and space for donning and disposing scrub suits and booties.

(l) Change areas for Mmale and female support persons ~~change area~~ (designed as described above.)

(m) Lounge and toilet facilities for obstetrical staff convenient to delivery, labor, and recovery areas. The toilet room shall contain handwashing stations.

(n) An on-call room(s) for physician and/or staff. It may be located elsewhere in the facility.

(o) Housekeeping room with a floor receptacle or service sink and storage space for housekeeping supplies and equipment.

(p) An area for storing stretchers out of the path of normal traffic.

**\*7.810.A4.** LDR and LDRP facilities. When provided by the functional program, delivery procedures in accordance with birthing concepts may be performed in the LDR (labor, delivery, recovery) or LDRP (labor, delivery, recovery, postpartum) rooms.

**a. Location.** LDR room(s) may be located in a separate LDR suite or as part of the cesarean/delivery suite. The postpartum unit may contain LDRP rooms.

**b. Size.**

(1) In new construction, ~~T~~hese rooms shall have a minimum clear floor area of 250-300 square feet (23.23-27.87 square meters) ~~of clear floor area~~ with a minimum dimension of 13 feet (3.96 meters), exclusive of toilet room, closet, alcove, or vestibules. Where required by the functional program, ~~T~~here ~~should~~ shall be enough space for a crib and reclining chair for a support person. An area within the room but distinct from the mother's area shall be provided for infant stabilization and resuscitation. Each LDR or LDRP room shall be for single occupancy and have direct access to a private toilet with shower or tub.

(2) When renovation work is undertaken, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above square-foot standards, existing LDR or LDRP rooms shall be permitted to have a minimum clear area of 200 square feet (18.58 square meters).

**c. Medical gas outlets.** See Table 7.5 for medical gas outlets. These outlets ~~should~~ shall be located in the room so that they are accessible to the mother's delivery area and infant resuscitation area. ~~When renovation work is undertaken, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above square-foot standards, the authorities having jurisdiction may grant approval to deviate from this requirement. In such cases, existing LDR or LDRP rooms may have a minimum clear area of 200 square feet (18.58 square meters).~~

~~Each LDR or LDRP room shall be for single occupancy and have direct access to a private toilet with shower or tub.~~

**d. Handwashing stations.** Each room shall be equipped with handwashing stations (handwashing stations with hands-free operation are acceptable for scrubbing).

**e. Lighting.** Portable Examination lights ~~may~~ shall be ~~portable-permitted~~, but must be immediately accessible.

**f. Finishes.** Finishes shall be selected to facilitate cleaning and ~~with-to~~ resist ~~ance-to~~ strong detergents.

**g. Privacy.** Windows or doors within a normal sightline that would permit observation into the room shall be arranged or draped as necessary for patient privacy.

## **7.911 Emergency Service**

(See Section 9.6 for the separate outpatient emergency unit.)

### **\*7.911.A. Definition**

Levels of emergency care range from initial emergency management to definitive emergency care. For classification of emergency departments/services/trauma centers, see appendix.

**7.9.11.A1.** Initial emergency management is care provided to stabilize a victim's condition and to minimize potential for further injury during transport to an appropriate service. Patients may be brought to the "nearest hospital," which may or may not have all required services for definitive emergency management. ~~In those cases, it~~ is important that the hospital, ~~in those cases,~~ be able to assess and stabilize emergent illnesses and injuries and arrange for appropriate transfer.

**7.9.11.A2.** Emergency care may range from the suturing of lacerations to full-scale emergency medical procedures. Facilities that include personnel and equipment for definitive emergency care should provide for 24-hour service and complete emergency care leading to discharge to the patient's home or direct admission to the appropriate hospital.

#### **7.9.11.B. General**

The extent and type of emergency service to be provided will depend upon community needs and the availability of other services within the area. While initial emergency management must be available at every hospital, full-scale definitive emergency services may be impractical and/or an unnecessary duplication. All services need adequate equipment and 24-hour staffing to ensure no delay in essential treatment. The following standards are intended only as minimums. Additional facilities, as needed, shall be as required to satisfy the functional program.

Provisions for facilities to provide nonemergency treatment of outpatients are covered ~~separately~~ in Section 9.3.

#### **7.9.11.C. Initial Emergency Management**

At a minimum, each hospital shall have provisions for emergency treatment for staff, employees, and visitors, as well as for persons who may be unaware of or unable to immediately reach services in other facilities. This is not only for patients with minor illnesses or injuries that may require minimal care but also for persons with severe illness and injuries who must receive immediate emergency care and assistance prior to transport to other facilities.

Provisions for initial emergency management shall include the following:

**7.9.11.C1.** A well-marked, illuminated, and covered entrance, at grade level. The emergency vehicle entry cover shall provide shelter for both the patient and the emergency medical crew during transfer from an emergency vehicle into the building.

**7.11.C2.** Reception, triage, and control station shall be located to permit staff observation and control of access to treatment area, pedestrian and ambulance entrances, and public waiting area.

**7.9.11.C23.** A treatment room with not less than 120 square feet (11.15 square meters) of clear area, exclusive of toilets, waiting area, and storage. Each treatment room shall contain an examination light, work counter, handwashing stations, medical equipment, cabinets, medication storage, adequate electrical outlets above floor level, and counter space for writing. The treatment room may have additional space and provisions for several patients with cubicle curtains for privacy. Multiple-bed treatment rooms shall provide a minimum of 80 square feet (7.43 square meters) per patient cubicle.

**7.9.11.C34.** Storage out of traffic and under staff control for general medical/surgical emergency supplies, medications, and equipment such as ventilator, defibrillator, splints, etc.

- | **7.9.11.C45.** Provisions for reception, control, and public waiting, including a public toilet with handwashing station(s), and telephone.
- | **7.9.11.C56.** A patient toilet room with handwashing station(s) convenient to the treatment room(s).
- | **7.9.11.C67.** Communication hookup to the Poison Control Center and regional emergency medical service (EMS) system.

| **7.9.11.C78.** Airborne infection control. At least one airborne infection isolation room shall be provided as described in Table 7.2 and ~~paragraphs Sections~~ Sections 7.2.C3, 7.2.C4, 7.2.C6, and 7.2.C7. The isolation toilet room is not required to have a shower or bathtub. The need for additional airborne infection isolation rooms or for protective environment rooms as described in Section 7.2.D shall be determined by ~~the~~ Infection Control Risk Assessment an ICRA.

| **\*7.9.11.D. Definitive Emergency Care**

| ~~When-Where~~ 24-hour emergency service is to be provided, the type, size, and number of the services shall be as defined in the functional program. As a minimum, the following shall be provided:

| **7.9.11.D1.** ~~Grade level~~A well-marked, illuminated, and covered entrance at grade level, with direct access from public roads for ambulance and vehicle traffic. Entrance and driveway shall be clearly marked. If a raised platform is used for ambulance discharge, ~~provide~~ a ramp shall be provided for pedestrian and wheelchair access.

| **7.9.11.D2.** Paved emergency access to permit discharge of patients from automobiles and ambulances, and temporary parking convenient to the entrance.

| **\*7.9.11.D3.** Reception, triage (see Table 7.5), and control station, ~~shall be~~ located to permit staff observation and control of access to treatment area, pedestrian and ambulance entrances, and public waiting area.

The triage area requires special consideration. As the point of entry and assessment for patients with undiagnosed and untreated airborne infections, the triage area shall be designed and ventilated to reduce exposure of staff, patients, and families to airborne infectious diseases. (See Table 7.2.)

| **7.9.11.D4.** Wheelchair and stretcher storage ~~shall be provided~~ for arriving patients. ~~This-It~~ shall be out of traffic with convenient access from emergency entrances.

| **7.9.11.D5.** Public waiting area with toilet facilities, drinking fountains, and telephones ~~shall be provided.~~ If so determined by the hospital ~~Infection Control Risk Assessment~~ICRA, the emergency department waiting area shall require special measures to reduce the risk of airborne infection transmission. These measures may include enhanced general ventilation and air disinfection similar to inpatient requirements for airborne infection isolation rooms. See the CDC “Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health Care Facilities.”

| **7.9.11.D6.** Communication center. It shall be convenient to the nursing station and have radio, telephone, and intercommunication systems. (See Section 7.2932.F.)

| **7.9.11.D7.** Examination and treatment room(s).

| **a.** ~~Each Examination rooms~~ shall have a minimum clear floor area of 120 square feet (11.15 square meters) ~~of clear area, exclusive of fixed casework.~~ The room shall contain work counter(s); cabinets;

handwashing stations; supply storage facilities; examination lights; a desk, counter, or shelf space for writing; and a vision panel adjacent to and/or in the door.

b. Where renovation work is undertaken, every effort shall be made to meet these minimum standards. If it is not possible to meet the standards, the authorities having jurisdiction may grant approval to deviate from this requirement. In such cases, each room shall have a minimum clear area of 100 square feet (9.29 square meters), exclusive of fixed or wall-mounted cabinets and built-in shelves.

c. ~~When~~ Where treatment cubicles are in open multiple-bed areas, each cubicle shall have a minimum of 80 square feet (7.43 square meters) of clear floor space and shall be separated from adjoining cubicles by curtains. Handwashing stations shall be provided for each four treatment cubicles or major fraction thereof in multiple-bed areas.

d. For oxygen and vacuum, see Table 7.5.

e. Treatment/examination rooms used for pelvic exams ~~should~~ shall allow for the foot of the examination table to face away from the door.

**\*7.9.11.D8.** Trauma/cardiac rooms for emergency procedures, including emergency surgery. Each room shall have at least 250 square feet (23.23 square meters) of clear floor space. ~~Each~~ The room shall have contain cabinets and emergency supply shelves, x-ray film illuminators, examination lights, and counter space for writing. Additional space with cubicle curtains for privacy may be provided to accommodate more than one patient at a time in the trauma room. Provisions shall be made for monitoring the patients. ~~There shall be s~~Storage shall be provided for immediate access to attire used for universal precautions. Doorways leading from the ambulance entrance to the cardiac trauma room shall be a minimum of 5 feet (1.52 meters) wide to simultaneously accommodate stretchers, equipment, and personnel. In renovation projects, every effort shall be made to have existing cardiac/trauma rooms meet the above minimum standards. If it is not possible to meet the above square-foot standards, the authorities having jurisdiction may grant approval to deviate from this requirement. In such cases, these rooms shall be no less than a clear area of 240 square feet (21 square meters), and doorways leading from the ambulance entrance to the room may be 4 feet (1.22 meters) wide.

**7.9.11.D9.** Provisions for orthopedic and cast work. These may be in separate room(s) or in the trauma room. They shall include storage for splints and other orthopedic supplies, traction hooks, x-ray film illuminators, and examination lights. If a sink is used for the disposal of plaster of Paris, a plaster trap shall be provided. The clear floor space for this area shall be dependent on the functional program and the procedures and equipment accommodated here.

**7.9.11.D10.** Scrub stations located in or adjacent and convenient to each trauma and/or orthopedic room.

**7.9.11.D11.** Convenient access to radiology and laboratory services.

**7.9.11.D12.** Poison Control Center and EMS Communications Center. If provided, they shall be permitted to be ~~may be a~~ part of the staff work and charting area.

**7.9.11.D13.** Provisions for disposal of solid and liquid waste. This may be a clinical sink with bedpan flushing device within the soiled workroom.

**7.9.11.D14.** Emergency equipment storage. Sufficient space shall be provided for emergency equipment that is under direct control of the nursing staff, such as a CPR cart, pumps, ventilators, patient monitoring equipment, and portable x-ray unit. This space shall be located in an area appropriate to the functional

program easily accessible to staff but out of normal traffic patterns.

**7.9.11.D15.** A toilet room for patients. A minimum of one patient toilet rooms per eight treatment rooms or fraction thereof shall be provided. ~~Where there are more than eight treatment areas, a minimum of two toilet facilities,~~ with handwashing station(s) in each toilet room, ~~will be required.~~

**7.9.11.D16.** Storage rooms for clean, soiled, or used supplies.

\*a. Soiled workroom or soiled holding room for the exclusive use of the emergency service. This room shall be separate from the clean workroom. The soiled workroom shall contain a clinical sink (or equivalent flushing-rim fixture). ~~The room shall contain and a lavatory (or handwashing station).~~ The above fixtures shall both have a hot and cold mixing faucet. The room shall have a work counter and space for separate covered containers for soiled linen and waste. Rooms used only for temporary holding of soiled material may omit the clinical sink and work counter. If the flushing-rim clinical sink is eliminated, facilities for cleaning bedpans shall be provided elsewhere.

b. Clean workroom or clean supply room. If the room is used for preparing patient care items, it shall contain a work counter, a handwashing station, and storage facilities for clean and sterile supplies. If the room is used only for storage and holding as part of a system for distribution of clean and sterile supply materials, the work counter and handwashing stations may be omitted. If the area serves children, additional storage shall be provided to accommodate supplies and equipment in the range of sizes required for pediatrics. Soiled and clean workrooms or holding rooms shall be separated and have no direct connection.

**7.9.11.D17.** Administrative center or nurses station for staff work and charting. These areas shall have space for counters, cabinets, and medication storage, and shall have convenient access to handwashing stations. They ~~may be permitted to~~ be combined with or include centers for reception and communication or poison control. ~~These n~~Nursing stations ~~may also be~~ decentralized near clusters of treatment rooms are permitted. Where feasible, ~~V~~visual observation of all traffic into the unit and of all patients ~~should~~ shall be provided from the nursing station, ~~where feasible.~~

**7.9.11.D18.** Securable closets or cabinet compartments for the personal effects of emergency service personnel, located in or near the nurse station. At a minimum, these shall be large enough for purses and billfolds. Coats may be stored in closets or cabinets in the unit or in a central staff locker area.

**7.9.11.D19.** Staff lounge. Convenient and private access to staff toilets, lounge, and lockers shall be provided.

**7.9.11.D20.** Housekeeping room. A housekeeping room shall be directly accessible from the unit and shall contain a service sink or floor receptor and provisions for storage of supplies and housekeeping equipment.

\***7.9.11.D21.** Security station. Where dictated by local needs, A security system ~~should~~ shall be located near the emergency entrances and triage/reception area. ~~The non-selective 24-hour accessibility of the emergency department dictates that a security system reflecting local community needs be provided.~~

**7.9.11.D22.** Airborne infection isolation room. At least one airborne infection isolation room shall be provided as described in Table 7.2 and paragraphs 7.2.C3, 7.2.C4, 7.2.C6, and 7.2.C7. The need for additional airborne infection isolation rooms or for protective environment rooms as described in Section 7.2.D shall be determined by the Infection Control Risk Assessment an ICRA.

**\*7.9.11.D23.** Bereavement room.

**\*7.9.11.D24.** Secured holding room. At least one holding/seclusion room of 120 square feet (11.15 square meters) shall be provided. This room shall allow for security, patient and staff safety, patient observation, and soundproofing.

**\*7.9.11.D.25.** Decontamination area. ~~A decontamination area shall be provided. The functional program shall define the location of the area and the types of exposure (i.e., nuclear, biological, chemical) to be considered. The location of the area shall be permitted to be on the exterior perimeter of the facility adjacent to the ambulance entrance or built within the walls of the facility. In new construction, a decontamination room shall be provided with an outside entry point as far as practical from the closest other entrance. The internal door shall open into a corridor of the emergency department, swing into the room, and be lockable against ingress from the corridor. The room shall provide a minimum 80 square feet (80 square meters) clear floor area. The room shall have all smooth, nonporous, scrubbable, nonadsorptive, nonperforated surfaces. Fixtures shall be acid resistant. The floor of the decontamination room shall be self-coving to a height of 6 inches (15.24 centimeters). The room shall be equipped with two hand-held shower heads with temperature controls and dedicated holding tank with floor drain. Portable or hard-piped oxygen shall be provided. Portable suction shall also be available. This paragraph does not preclude decontamination capability at other locations or entrances immediately adjacent to the emergency department.~~

See Table 7.2 for ventilation requirements.

**\*7.11.D26.** Pediatric care.

#### **\*7.9.11.E. Other Space Considerations**

**7.11.E1.** Observation Units. Handwashing stations shall be provided for each four treatment cubicles or major fraction thereof. Handwashing stations shall be convenient to nurse stations and patient bed areas.

Each patient bed area shall have space at each bedside for visitors, and provision for visual privacy from casual observation by other patients and visitors.

One toilet room shall be provided for each eight treatment cubicles or major fraction thereof.

One shower room shall be provided for each eight treatment cubicles or major fraction thereof; the shower room and toilet room may be combined into the same room.

A nourishment station that may be shared shall be provided, to include a sink, work counter, refrigerator, storage cabinets, and equipment for hot and cold nourishment between scheduled meals.

#### **7.10-12 Imaging Suite**

##### **7.10.12.A. General**

**\*7.10.12.A1.** Equipment and space shall be as necessary to accommodate the functional program. The imaging department provides diagnostic procedures. ~~It~~ An imaging department commonly includes fluoroscopy, radiography, mammography, tomography, computerized tomography scanning, ultrasound, magnetic resonance, angiography, and ~~other~~ similar techniques.

**7.10.12.A2.** Most imaging requires radiation protection. A certified physicist or other qualified expert

representing the owner or appropriate state agency shall specify the type, location, and amount of radiation protection to be installed in accordance with the final approved department layout and equipment selections. Where protected alcoves with view windows are required, a minimum of 1'-6" (0.45 meter) shall be provided between the view window and the outside partition edge ~~shall be provided~~. Radiation protection requirements shall be incorporated into the specifications and the building plans.

\*~~7.10.12.A3~~. Beds and stretchers shall have ready access to and from other departments of the institution.

~~7.10.12.A4~~. Floor~~ing~~ shall be adequate to meet load requirements. ~~for equipment, patients, and personnel~~ Provision for wiring raceways, ducts or conduits shall be made in floors, walls, and ceilings. Ceiling heights shall be permitted to be higher than normal. Ceiling-mounted equipment shall have properly designed rigid support structures located above the finished ceiling. A lay-in type ceiling shall be permitted to be considered for ease of installation, service, and remodeling.

### ~~7.10.12.B~~. Angiography

\*~~7.10.12.B1~~. Space shall be provided as necessary to accommodate the functional program.

~~7.10.12.B2~~. A control room shall be provided as necessary to ~~meet the needs of~~ accommodate the functional program. A view window shall be provided to permit full view of the patient.

\*~~7.10.12.B3~~. A viewing area shall be provided.

~~7.10.12.B4~~. A scrub sink located outside the staff entry to the procedure room shall be provided for use by staff.

\*~~7.10.12.B5~~. Patient holding area.

~~7.10.12.B6~~. Storage for portable equipment and catheters shall be provided.

~~7.10.12.B7~~. Provision shall be made within the facility for extended post-procedure observation of outpatients.

### ~~7.10.12.C~~. Computerized Tomography (CT) Scanning

~~7.10.12.C1~~. CT scan rooms shall be as required to accommodate the equipment.

~~7.10.12.C2~~. A control room shall be provided that is designed to accommodate the computer and other controls for the equipment. A view window shall be provided to permit full view of the patient. The angle between the control and equipment centroid shall permit the control operator to see the patient's head.

\*~~7.10.12.C3~~. The control room shall be located to allow convenient film processing.

~~7.10.12.C4~~. A patient toilet shall be provided. It shall be convenient to the procedure room and, if directly accessible to the scan room, arranged so that a patient can leave the toilet without having to reenter the scan room.

### ~~7.10.12.D~~. Diagnostic X-Ray

\*~~7.10.12.D1~~. Radiography rooms. These rooms shall be of a size to accommodate the functional program.

| \*7.10.12.D2. Tomography, radiography/fluoroscopy rooms. Separate toilets with handwashing stations shall be provided with direct access from each radiographic/fluoroscopic (R&F) room so that a patient can leave the toilet without having to reenter the R&F room. Rooms used only occasionally for fluoroscopic procedures shall be permitted to use nearby patient toilets if they are located for immediate access.

| \*7.10.12.D3. Mammography.

| 7.10.12.D4. X-ray. Each x-ray room shall include a shielded control alcove. This area shall be provided with a view window designed to provide full view of the examination table and the patient at all times, including full view of the patient when the table is in the tilt position or the chest x-ray is being utilized in use. For mammography machines with built-in shielding for the operator, the alcove shall be permitted to be omitted when approved by the certified physicist or state radiation protection agency.

| **7.10.12.E. Magnetic Resonance Imaging (MRI)**

| 7.10.12.E1. Space shall be provided as necessary to accommodate the functional program. The MRI room shall be permitted to range from 325 square feet (30.19 square meters) to 620 square feet (57.6 square meters), depending on the vendor and magnet strength.

| \*7.10.12.E2. A control room shall be provided with full view of the MRI.

| \*7.10.12.E3. A computer room shall be provided.

| \*7.10.12.E4. Cryogen storage.

| \*7.10.12.E5. Darkroom.

| 7.10.12.E6. When spectroscopy is provided, caution shall be exercised in locating it in relation to the magnetic fringe fields.

| \*7.10.12.E7. Power conditioning.

| \*7.10.12.E8. Magnetic shielding.

| \*7.10.12.E9. Patient hold area.

| 7.10.12.E10. Cryogen venting shall be provided~~is required~~.

| **7.10.12.F. Ultrasound**

| 7.10.12.F1. Space shall be provided as necessary to accommodate the functional program.

| 7.10.12.F2. A patient toilet, accessible from the procedure room, shall be provided.

| **7.10.12.G. Support Spaces**

The following spaces are common to the imaging department and are minimum requirements unless stated otherwise:

**7.10.12.G1.** Patient waiting area. The area shall be out of traffic, under staff control, and shall have seating capacity in accordance with the functional program. If the suite is routinely used for outpatients and inpatients at the same time, separate waiting areas shall be provided with screening for visual privacy between the waiting areas.

If so determined by ~~the hospital Infection Control Risk Assessment~~ an ICRA, the diagnostic imaging waiting area shall require special measures to reduce the risk of airborne infection transmission. These measures shall include enhanced general ventilation and air disinfection techniques similar to inpatient requirements for airborne infection isolation rooms (see Table 7.2). See the "CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Facilities."

**7.10.12.G2.** Control desk and reception area.

**7.10.12.G3.** Holding area. A convenient holding area under staff control shall be provided to accommodate inpatients on stretchers or beds.

**7.10.12.G4.** Patient toilet rooms. Toilet rooms with handwashing stations ~~shall be provided~~ convenient to the waiting rooms and ~~shall be~~ equipped with an emergency call system shall be provided. ~~Separate toilets with handwashing stations shall be provided with direct access from each radiographic/fluoroscopic room so that a patient can leave the toilet without having to reenter the R&F room. Rooms used only occasionally for fluoroscopic procedures shall be permitted to utilize nearby patient toilets if they are located for immediate access.~~

**7.10.12.G5.** Patient dressing rooms. Dressing rooms shall be provided convenient to the waiting areas and x-ray rooms. Each room shall include a seat or bench, mirror, and provisions for hanging patients' clothing and ~~for~~ securing valuables.

**7.10.12.G6.** Staff facilities. Toilets and staff lounge with lockers shall be permitted to be outside the suite but shall be convenient for staff use. In ~~larger~~ suites of three or more procedure rooms, toilets internal to the suite shall be provided.

**7.10.12.G7.** Film storage (active). A room with cabinet or shelves for filing patient film for immediate retrieval shall be provided.

**7.10.12.G8.** Film storage (inactive). A room or area for inactive film storage shall be provided. It shall be permitted to be outside the imaging suite, but must be under imaging's administrative control and properly secured to protect films against loss or damage.

**7.10.12.G9.** Storage for unexposed film. If film systems are used, Sstorage facilities for unexposed film shall include protection of film against exposure or damage and shall not be warmer than the air of adjacent occupied spaces.

**7.10.12.G10.** Offices for radiologist(s) and assistant(s). Offices shall include provisions for viewing, individual consultation, and charting of film.

**7.10.12.G11.** Clerical offices/spaces. Office space shall be provided as necessary for the functional program.

**7.10.12.G12.** Consultation area. An appropriate area for individual consultation with referring clinicians shall be provided.

**7.10.12.G13.** Contrast media preparation. If contrast media are used, ~~T~~his area shall be provided ~~with~~include a sink, counter, and storage to allow for mixing of contrast media. One preparation room, if conveniently located, shall be permitted to serve any number of rooms. Where pre-prepared media is~~are~~ used, this area shall be permitted to be omitted, but storage shall be provided for the media.

**7.10.12.G14.** Film processing room. If film systems are used, ~~A~~a darkroom shall be provided for processing film unless the processing equipment normally used does not require a darkroom for loading and transfer. When daylight processing is used, the darkroom shall be permitted to be minimal for emergency and special uses. Film processing shall be located convenient to the procedure rooms and to the quality control area.

**7.10.12.G15.** Quality control area. An area or room shall be provided near the processor for viewing film immediately after it is processed. All view boxes shall be illuminated to provide light of the same color value and intensity for appropriate comparison of several adjacent films.

**7.10.12.G16.** Cleanup facilities. Provisions for cleanup shall be located within the suite for convenient access and use. ~~#~~The facilities shall include service sink or floor receptacle as well as storage space for equipment and supplies. If automatic film processors are used, a receptacle of adequate size with hot and cold water for cleaning the processor racks shall be provided.

**7.10.12.G17.** Handwashing stations. Handwashing stations shall be provided within each procedure room unless the room is used only for routine screening such as chest x-rays where the patient is not physically handled by the staff. Handwashing stations shall be provided convenient to the MRI room, but need not be within the room.

**7.10.12.G18.** Clean storage. Provisions shall be made for the storage of clean supplies and linens. If conveniently located, storage shall be permitted to be shared with another department.

**7.10.12.G19.** Soiled holding. Provisions shall be made for soiled holding. Separate provisions for contaminated handling and holding shall be made. Handwashing stations shall be provided.

**7.10.12.G20.** Provision shall be made for locked storage of medications and drugs.

~~7.10.G21. Details and finishes; mechanical; electrical. See Section 7.28 for details and finishes; 7.31 for mechanical; and 7.32 for electrical.~~

#### **7.10.12.H. Cardiac Catheterization Lab (Cardiology)**

**Note:** The number of procedure rooms and the size of the prep, holding, and recovery areas shall be based on expected utilization. If electrophysiology/EP labs are also provided in accordance with the approved functional program, these labs may be located within and integral to the catheterization suite, or located in a separate functional area proximate to the cardiac care unit.

**7.10.12.H1.** The cardiac catheterization lab is normally a separate suite, but shall be permitted to be within the imaging suite provided that the appropriate sterile environment is provided. It can be combined with angiography in low usage situations.

**7.10.12.H2.** The procedure room shall be a minimum of 400 square feet (37.16 square meters) exclusive of fixed cabinets and shelves.

**7.10.12.H3.** A control room or area shall be provided and shall be large enough to contain and provide for the efficient functioning of the x-ray and image recording equipment. A view window permitting full

view of the patient from the control console shall be provided.

**7.10.12.H4.** An equipment room or enclosure large enough to contain x-ray transformers, power modules, and associated electronics and electrical gear shall be provided.

**7.10.12.H5.** Scrub facilities with hands-free operable controls shall be provided adjacent to the entrance of procedure rooms, and shall be arranged to minimize incidental splatter on nearby personnel, medical equipment, or supplies.

**7.10.12.H6.** Staff change area(s) shall be provided and arranged to ensure a traffic pattern so that personnel ~~can enter~~ ~~entering~~ from outside the suite ~~can enter~~, change their clothing, and move directly into the cardiac catheterization suite.

**7.10.12.H7.** A patient preparation, holding, and recovery area or room shall be provided and arranged to provide visual observation before and after the procedure.

**7.10.12.H8.** A clean workroom or clean supply room shall be provided. If the room is used for preparing patient care items, it shall contain a work counter and handwashing station. If the room is used only for storage and holding of clean and sterile supply materials, the work counter and handwashing stations shall be permitted to be omitted.

**7.10.12.H9.** A soiled workroom shall be provided. ~~It which~~ shall contain a handwashing station and a clinical sink (or equivalent flushing--rim fixtures). ~~When-If~~ the room is used for temporary holding ~~or-of~~ soiled materials, the clinical sink shall be permitted to be omitted.

**7.10.12.H10.** ~~A Hh~~housekeeping closet containing a floor receptor or service sink and provisions for storage of supplies and housekeeping equipment shall be provided.

**7.10.12.H11.** The following shall be available for use by the cardiac catheterization suite:

a. A viewing room.

b. A film file room.

### **7.13 Freestanding Emergency Service**

**7.13.A.** Freestanding emergency service shall mean an extension of an existing hospital emergency department that is physically separate from the main hospital emergency department and that is intended to provide comprehensive emergency service. A service that does not provide 24-hours-a-day, seven-days-a-week operation or that is not capable of providing basic services as defined for hospital emergency departments shall not be classified as a freestanding emergency service and shall be described under other portions of this document.

**7.13.A1.** Physically separate from the main hospital means not located on the same campus.

**7.13.A2.** Except as noted in the following sections, the requirements for freestanding emergency service shall be the same as for hospital emergency service as described in Section 7.11.

**7.13.B.** General. See Section 7.11.B.

**7.13.C.** Initial emergency management. See Section 7.11.C.

7.13.D. Definitive emergency care.

7.13.D1 through 25. See Sections 7.11.D1 through 25, respectively.

7.13.D26. The hospital shall prepare a written policy and implementing plan describing how and when patients will be transferred from the freestanding emergency service to the main hospital when admission is required. The plan shall cover patient care, medical records coordination, and transportation services including ambulance requirements for each type of patient to be transported.

7.13.D27. The freestanding emergency service shall have the following capabilities and/or functions within the facility:

a. Diagnostic imaging to include radiography and fluoroscopy.

b. Laboratory to include those functions described in Section 7.15.

c. Observation beds, at least one of which shall have full cardiac monitoring.

d. Provision for serving patient and staff meals. This may be a kitchen or a satellite serving facility.

e. Pharmacy.

f. Support services and functions, to include housekeeping, laundry, general stores, maintenance and plant operations, and security.

## **7.11-14 Nuclear Medicine**

~~\*7.11.14.A. Equipment and space shall be provided as necessary to accommodate the functional program. Nuclear medicine may include positron emission tomography, which is not common to most facilities. It requires specialized planning for equipment.~~

~~7.11.14.B. A certified physicist or other qualified expert representing the owner or state agency shall specify the type, location, and amount of radiation protection to be installed in accordance with final approved department layout and equipment selection. These specifications shall be incorporated into the plans.~~

~~7.11.14.C. Flooring should meet load requirements for equipment, patients, and personnel. Floors and walls should be constructed of materials that are easily decontaminated in case of radioactive spills. Walls should contain necessary support systems for either built-in or mobile oxygen and vacuum, and vents for radioactive gases. Provision for wiring raceways, ducts or conduits should be made in floors, walls, and ceilings. Ceilings may be higher than 8'-0" (2.44 meters). Ceiling-mounted equipment should have properly designed rigid support structures located above the finished ceiling. A lay-in type ceiling should be considered for ease of service, installation, and remodeling. Provision for wiring raceways, ducts, or conduits shall be made in floors, walls, and ceilings. Ceiling-mounted equipment shall have properly designed rigid support structures located above the finished ceiling.~~

~~7.11.14.D. Space shall be provided as necessary to accommodate the functional program. Where the functional program calls for it, the nuclear medicine room shall accommodate the equipment, a stretcher, exercise equipment (treadmill and/or bicycle), and staff.~~

**7.11.14.E.** If radiopharmaceutical preparation is performed on-site, an area adequate to house a radiopharmacy shall be provided with appropriate shielding. This area ~~should~~shall include adequate space for storage of radionuclides, chemicals for preparation, dose calibrators, and record keeping. Floors and walls should be constructed of easily decontaminated materials. Vents and traps for radioactive gases ~~should~~shall be provided if such are used. Hoods for pharmaceutical preparation shall meet applicable standards. If pre-prepared materials are used, storage and calculation area may be considerably smaller than that for on-site preparation. Space shall provide adequately for dose calibration, quality assurance, and record keeping. The area may still require shielding from other portions of the facilities.

**\*7.11.14.F. Positron Emission Tomography (PET)**

**7.11.14.G.** ~~The N~~nuclear medicine area, when operated separately from the imaging department, shall include the following:

**7.11.14.G1.** Space shall be adequate to permit entry of stretchers, and beds, and able to accommodate imaging equipment, electronic consoles, and if present, computer terminals.

~~\*7.11.14.G2. If film processing is used, An darkroom~~ on-site darkroom shall be ~~available~~provided for film processing. ~~The darkroom should contain protective storage facilities for unexposed film that guard the film against exposure or damage.~~

**7.11.14.G3.** When the functional program requires a centralized computer area, it ~~should~~shall be a separate room with access terminals available within the imaging rooms.

**7.11.14.G4.** Provisions for cleanup shall be located within the suite for convenient access and use. ~~Cleanup facilities~~ shall include service sink or floor receptacle as well as storage space for equipment and supplies.

~~7.11.G5. Film storage with cabinets or shelves for filing patient film for immediate retrieval shall be provided.~~

**7.11.14.G65.** Inactive film storage under ~~the~~ departmental administrative control and properly secured to protect film against loss or damage shall be provided and can be off site.

**7.11.14.G76.** A consultation area with view boxes illuminated to provide light of the same color value and intensity for appropriate comparison of several adjacent films shall be provided. Space ~~should~~shall be provided for computer access and display terminals if such are included in the program.

**7.11.14.G87.** Offices for physicians and assistants shall be provided and equipped for individual consultation, viewing, and charting of film.

**7.11.14.G98.** Clerical offices and spaces shall be provided as necessary for the program to function.

**7.11.14.G109.** Waiting areas shall be provided out of traffic, under staff control, and ~~shall have with~~ seating capacity in accordance with the functional program. If the department is routinely used for outpatients and inpatients at the same time, separate waiting areas shall be provided with screening or visual privacy between the waiting areas.

~~\*7.11.14.G110.~~ A dose administration area as specified by the functional program, shall be provided, ~~and~~ located near the preparation area. Since as much as several hours may elapse for the dose to take effect, the area shall provide for visual privacy from other areas. ~~Thought should be given to~~

~~entertainment and reading materials.~~

~~7.11.14.G1211.~~ A holding area for patients on stretchers or beds shall be provided out of traffic and under control of staff. ~~It and~~ may be combined with the dose administration area ~~provided there is with~~ visual privacy between the areas.

~~7.11.14.G1312.~~ Patient dressing rooms shall be provided convenient to the waiting area and procedure rooms. Each dressing room shall include a seat or bench, a mirror, and provisions for hanging patients' clothing and ~~for~~ securing valuables.

~~7.11.14.G1413.~~ Toilet rooms reserved for nuclear medicine patients shall be provided convenient to waiting and procedure rooms.

~~7.11.14.G1514.~~ Staff toilet(s) shall be provided convenient to the nuclear medicine laboratory.

~~7.11.14.G1615.~~ Handwashing stations shall be provided within each procedure room.

~~7.11.14.G1716.~~ A Ccontrol desk and reception area shall be provided.

~~7.11.14.G1817.~~ A Sstorage area for clean linen with a handwashing station shall be provided.

~~7.11.14.G1918.~~ A soiled workroom shall be provided. It shall contain a handwashing station and a clinical sink (or equivalent flushing-rim fixtures). If the room is used for temporary holding of soiled materials, the clinical sink shall be permitted to be omitted. ~~Provisions with handwashing stations shall be made for holding soiled material. Separate provisions shall be made for holding contaminated material.~~

~~7.11.G20.~~ See Section 7.28 for details and finishes; 7.31 for mechanical; and 7.32 for electrical.

#### **7.11.14.H. Radiotherapy Suite**

~~\*7.11.14.H1.~~ Rooms and spaces shall be provided as necessary to accommodate the functional program. ~~Equipment manufacturers recommendations should be sought and followed, since space requirements may vary from one machine to another and one manufacturer to another. The radiotherapy suite may contain one or both electron beam therapy and radiation therapy. Although not recommended, a simulation room may be omitted in small linear accelerator facilities where other positioning geometry is provided.~~

~~7.11.14.H2.~~ Cobalt, linear accelerators, and simulation rooms require radiation protection. A certified physicist representing the owner or appropriate state agency shall specify the type, location, and amount of protection to be installed in accordance with final approved department layout and equipment selection. The architect shall incorporate these specifications into the hospital building plans.

~~7.11.14.H3.~~ Cobalt rooms and linear accelerators shall be sized in accordance with equipment requirements and shall accommodate a stretcher for litter-borne patients. Layouts shall provide for preventing the escape of radioactive particles. Openings into the room, including doors, ductwork, vents, and electrical raceways and conduits, shall be baffled to prevent direct exposure to other areas of the facility.

~~\*7.11.14.H4.~~ Simulator, accelerator, and cobalt rooms shall be sized to accommodate the equipment with patient access on a stretcher, medical staff access to the equipment and patient, and service access.

**7.11.14.H5.** Flooring shall be adequate to meet load requirements for equipment, patients, and personnel. Provision for wiring raceways, ducts, or conduit ~~should~~ shall be made in floors and ceilings. Ceiling-mounted equipment ~~should~~ shall have properly designed rigid support structures located above the finished ceiling. ~~The ceiling height is normally higher than 8' 0" (2.44 meters). A lay-in type of ceiling should be considered for ease of installation, service, and remodeling.~~

**7.11.14.I. General Support Areas**

The following areas shall be provided and can be shared with other areas if required by the functional program unless they are accessible from other areas such as imaging or OPD:

**7.11.14.I1.** A stretcher hold area adjacent to the treatment rooms, screened for privacy, and combined with a seating area for outpatients. The size of the ~~se~~ areas will be dependent on the program for outpatients and inpatients.

**7.11.14.I2.** Exam rooms for each treatment room as specified by the functional program. ~~Each~~ Each exam room ~~to~~ shall be a minimum of 100 square feet (9.29 square meters). Each exam room shall be equipped with a handwashing station.

**7.11.14.I3.** Darkroom convenient to the treatment room(s) and the quality control area. Where daylight processing is used, the darkroom may be minimal for emergency use. If automatic film processors are used, a receptacle of adequate size with hot and cold water for cleaning the processor racks shall be provided either in the darkroom or nearby.

**7.11.14.I4.** Patient gowning area with provision for safe storage of valuables and clothing. At least one space should be large enough for staff-assisted dressing.

**7.11.14.I5.** Business office and/or reception/control area.

**7.11.14.I6.** Housekeeping room equipped with service sink or floor receptor and large enough for equipment or supplies storage.

**7.11.14.I7.** Film file area.

**7.11.14.I8.** Film storage area for unprocessed film.

**7.11.14.J. Optional Support Areas**

The following areas may be required by the functional program:

**7.11.14.J1.** Quality control area with view boxes illuminated to provide light of the same color value and intensity.

**7.11.14.J2.** Computer control area, normally located just outside the entry to the treatment room(s).

**7.11.14.J3.** Dosimetry equipment area.

**7.11.14.J4.** Hypothermia room (may be combined with an exam room).

**7.11.14.J5.** Consultation room.

**7.11.14.J6.** Oncologist's office (may be combined with consultation room).

- | **7.11.14.J7.** Physicist's office (may be combined with treatment planning).
- | **7.11.14.J8.** Treatment planning and record room.
- | **7.11.14.J9.** Work-station/nutrition station.
- | **7.11.14.K. Additional Support Areas for Linear Accelerator**
- | **7.11.14.K1.** Mold room with exhaust hood and handwashing station.
- | **7.11.14.K2.** Block room with storage. The block room may be combined with the mold room.
- | **7.11.14.L. Additional Support Areas for Cobalt Room**
- | **7.11.14.L1.** Hot lab.