

22.0 Hospital Morgue Unit

22.1 Introduction

22.1.1 Description

The Hospital Morgue Unit is a facility for the viewing and/or identification of a body and the temporary holding/storage of bodies prior to transfer to a Mortuary.

The needs of hospital staff, relatives of the deceased and attendant authorized persons should be considered in the design, layout and functionality of the unit to provide a safe and private environment.

The design must address the following:

- Number of bodies to be stored
- Method of storage i. e. refrigerated cabinets, cool room, freezing capacity
- Separation of entries for families to view/identify bodies, and
- Delivery of bodies from inside the hospital and external delivery (if applicable).

It should be noted that the standard hospital Morgue facility should not be used for storage of a body associated with a criminal investigation. In this case the body is evidence and enhanced security should be provided.

22.2 Planning

22.2.1 Operational Model

Hours of Operation

Working hours will be on a routine eight hours per day, five days per week. Work times are assumed 8. 00am– 5. 00pm. The Hospital Morgue Unit will also be accessible to authorized personnel 24-hours per day, 7-days per week.

22.2.2 Model of Care – Body Holding

Two options are available as follows:

- Walk-in cool room for individual trolleys; or
- Bank of refrigerated cabinets.

Consideration should be given to the following:

- Security of bodies
- Isolation and bariatric needs; and
- Expected length of time for retention of bodies.

There are two types of morgue cold chambers:

- Positive temperature +2/+4°C (the most common type),
- Negative temperature -15°C/-25°C (used by forensic institutes for the storage of bodies that have not yet been identified).

22.2.3 Planning Models

The Unit should be located in the same building as the main health facility away from any public area to ensure that is appropriately screened from visibility.

It should be located to ensure easy and discrete access to deliver and/or remove bodies via an exit lobby.

22.2.4 *Functional Areas*

The Hospital Morgue Unit will consist of the following Functional Areas depending on the size of the facility and the Operational Policy:

- Entry Lobby/Administration/Exit Lobby
- Body Holding Area
- Waiting/Viewing Area
- Staff Area.

Entry/Administration/Exit Lobby

The Entry and Exit Lobbies form part of a single space with direct access to the Body Holding Area. The area should include

- Hand basin
- Workstation for body registration and removal details
- Parking space for the transport trolley
- Parking space for a hoist/elevating trolley.

Body Holding Area

The Body Holding Area provides refrigerated space for the temporary storage of bodies. The area should allow for the following:

- Separate spaces/cabinets should be allowed for isolation
- Maneuvering space in front of refrigerated cabinets to insert/withdraw the trays
- 3m² is required for a body on a loose tray or trolley in a cool room.

Waiting/Viewing Area

The area should allow for the following:

- Discrete entrance away from the main hospital to the Waiting Area for relatives, police and others
- Direct visibility into the adjoining Viewing Area.

Storage

The area should allow for the following dedicated areas:

- Lockable storage area for the deceased's personal effects
- Clean linen area
- Cleaning materials and agents
- Used linen collection area
- Plastic body bags and sealing machine area.

Staff Areas

The area should allow for the following:

- Staff areas comprising of office, workstations, meeting/teaching rooms and amenities
- Office for use by the pathologist and police.

22.2.5 *Functional Relationships*

External

Mortuary/Holding facilities shall be accessible through an exterior entrance and shall be located to avoid the need for transporting bodies through public areas. Close proximity to Anatomical Pathology laboratories and relevant clinical areas is desirable for transportation of laboratory specimens.

Internal

The Waiting Area and Viewing Area should be collocated however there should be no access to other sections of the Morgue for viewers.

Entry Lobby, Exit Lobby and Administrative Area form part of a single area.

22.3 Design

22.3.1 Accessibility

External

Morgue Unit is to have separate access as follows:

- Direct access from the Hospital for delivery of the body
- Direct but separate and discreet access for relatives of the deceased from all relevant areas of the hospital to Morgue waiting/viewing area
- Adequate access for funeral directors for vehicle parking and discrete, weather protected, facilities for the collection of bodies
- Adequate access for ambulances delivering bodies
- Adequate access for police vehicles.

Internal

The Body Holding Room is to have direct access to/from:

- The hospital corridor for use by staff
- Viewing Room
- Discreet access from body hold/cool room to hearse and ambulance parking bays.

22.3.2 Infection Control

Bodies stored in the Morgue which may contain infectious diseases that must be contained.

Cleaned instruments and materials shall be re-circulated under normal procedures through the Sterile Supply Unit or autoclaved within the Morgue Unit. The unit shall be designed to control infection utilizing the following:

- Layout designed to minimize cross contamination in work areas
- Provision of a small wash-down/disposal/booting area
- Provision of an adequate number of hand wash facilities
- Provision of appropriate cleaning, waste storage and waste disposal
- Use of suitable materials and finishes
- Specimen storage facilities
- First aid facilities
- Adequate isolation of space and ventilation systems which present potential hazard.

22.3.3 Environmental Considerations

General

The Morgue Unit needs to be designed to provide staff with sufficient space, working surfaces and appropriate equipment to safely carry out their duties.

Interior Design

The interior design of the Morgue Unit shall have due consideration for the following as primary items of design:

- Infection control
- Cooling and ventilation.

The Viewing Room should be a pleasant space and consideration given to adjustable lighting and a music system in the room.

Acoustics

Acoustic design shall ensure that conversations in adjoining rooms cannot be overheard by relatives in the viewing area.

22.3.4 *Space Standards and Components*

Ergonomics

The Morgue Unit shall be ergonomically designed to any potential avoid injury to staff, patients, visitors or maintenance personnel.

Access and Mobility

Where necessary the layout shall comply with the requirements of the Americans with Disabilities Act (ADA) Accessibility Guidelines for Building Facilities.

Doors should be provided with hold-open devices to permit easy transfer of trolleys.

22.3.5 *Safety and Security*

Safety

The interior design of the Morgue Unit shall consider the impact of finishes, surfaces and fittings on safety including the following:

- Floor covering selection
- Adequate drainage
- Protection from protrusions or sharp edges
- Stability and height of equipment or fittings
- Adequate protection against infection and any other hazards.

Security

The security aspects of the Morgue Unit shall consider the following:

- Deceased bodies
- Valuables left on the body
- Specimens removed during autopsy
- Staff personal belongings and security
- Access and egress, particularly after-hours.

22.3.6 *Finishes*

Refer also to Part C of these Guidelines.

Ceiling Finishes

Ceilings must be washable, impermeable and non-porous.

Floor Finishes

Floor finishes shall be non-slip for all wet areas or areas subject to water. It should be impervious, easy to clean, sealed with coving at the edges and have adequate drainage. Drains should be fitted with appropriately filtered traps for ease of hosing down.

Wall Finishes

Wall surfaces in the body holding area should be washable and/or scrubbable.

22.3.7 *Fixtures and Fittings*

Refer also to Part C of these Guidelines and Standard Components for Fixtures and Fittings.

The equipment layout of the Morgue Unit shall ensure:

- Adequate provision for operation and maintenance
- Provision of services as required
- Doors sized to allow for delivery and removal of the equipment
- Design for the required heat loads
- Adequate provision for weight loads.

Safety Showers and Eye Washes

Provide safety shower and eyewash or eye/face wash equipment.

22.3.8 *Building Service Requirements*

Refer also to Part E of these Guidelines.

Air-Conditioning, Heating and Ventilation

The temperature of the body holding area should be maintained within a comfortable range not exceeding 20–21°C. The ventilation system should be isolated from other ventilation systems by being designed to minimize the spread of odors and airborne pathogens.

Air-conditioning to the unit is to be isolated – there should be no return air. Discharge air should be treated with UV to destroy pathogens coming from infected bodies. The exhaust air distributive elements should be with low speed (up to 0.5 m/s) and depending upon the type of dissecting utilized, the air extraction may be at the top (utilizing a hood) or at low level.

In gross specimen storage rooms, the extraction grill should be in the ceiling, above the sink counter area to exhaust chemical fumes with another grille installed at low level. It may be also be beneficial to consider installing an oxygen depletion sensor in the vicinity.

Alarms

The operating temperatures of all cooled and freezing facilities should be continuously monitored and fitted with alarms which are activated when the temperature exceeds a predetermined level. The alarms should be transmitted to a permanently manned station.

Communications

It is recommended that an intercom be provided from the main/exit door to the to the body preparation room, to alert attendants.

Lighting

Provide adequate lighting in all areas.

Power Supply

Provide protective covers to power supply outlets to protect outlets from wetting. Provide an emergency back-up system for the power supply to the refrigeration, high priority equipment and illumination.

22.4 Components of the Unit

22.4.1 *Standard Components*

The Hospital Morgue Unit will contain Standard Components. Provide Standard Components to comply with details in the Standard Components described in these Guidelines. Refer also to Standard Components, Room Data Sheets and Room Layout Sheets.

22.5 Schedule of Accommodation

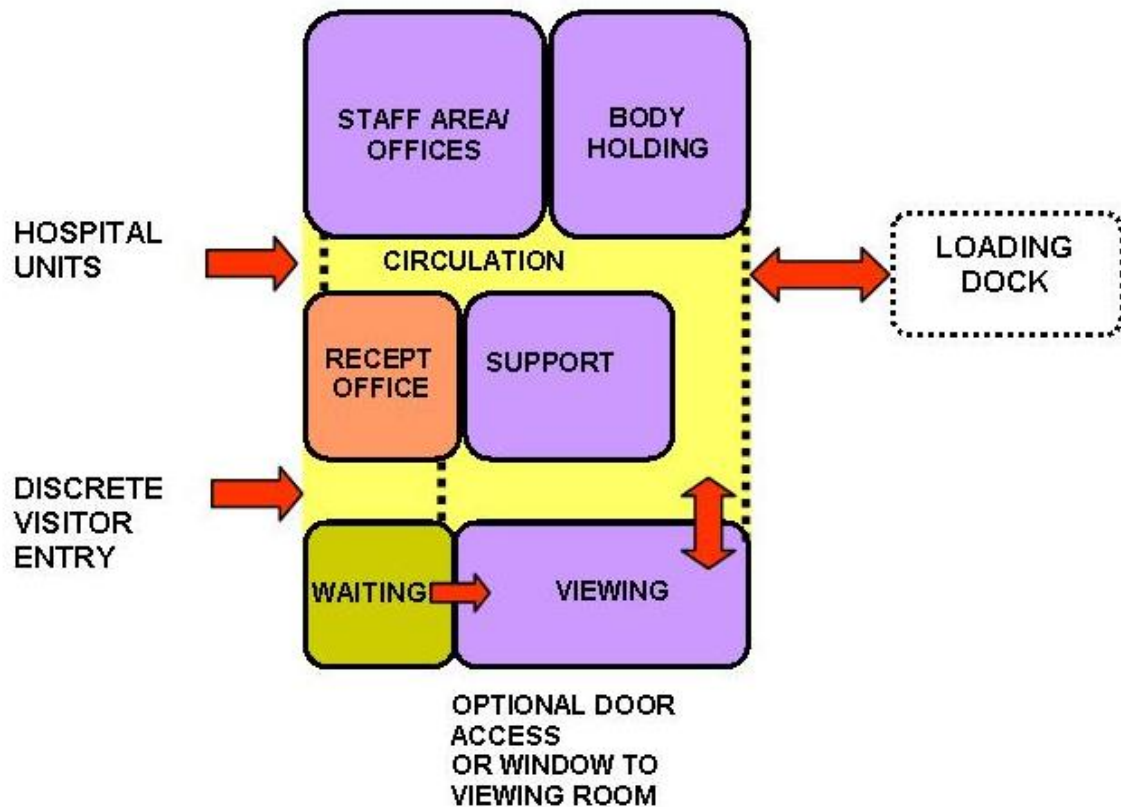
Typical Hospital Morgue Unit at levels 3 to 6

ROOM/SPACE	Standard Component				Level 3/4 Qty x m ²	Level 5/6 Qty x m ²	Remarks
Entry/Reception							
Reception/Clerical	RECL-10-SJ				1 x 12	1 x 12	
Waiting – Male/Female	WAIT-10-SJ				2 x 10	2 x 20	Separate Female Waiting
Waiting – Family	MOR-W-SJ				1 x 20	1 x 30	
Multi-purpose Room	MEET-L-15-SJ					1 x 20	Quiet room, meetings etc.
Toilet – Accessible	WCAC-SJ				1 x 6	1 x 6	May share general public amenities
Toilet – Public, 3m ²	WCPU-3-SJ				1 x 3	1 x 3	May share general public amenities
Operational Areas							
					9 Cabinets	45 Cabinets	
Airlock – Entry	AIRLE-10-SJ Similar				1 x 6	1 x 6	
Bay – Handwashing, Type B	BHWS-B-SJ				2 x 1	2 x 1	At Entry and Exit
Bay – Mortuary Trolley Parking	BMEQ-4-SJ Similar				1 x 4	1 x 6	
Cleaner's Room	CLRM-5-SJ				1 x 5	1 x 5	
Disposal Room	DISP-8-SJ				1 x 8	1 x 8	
Mortuary – Cool Store	MOR-CS-SJ				1 x 25	1 x 75	Body holding cabinets x three tiers in height, hoist, with maintenance access
Mortuary – Viewing Room	MOR-VR-SJ				1 x 8	1 x 20	
Preparation Room (family access)					1 x 15	1 x 20	
Store – General	STGN-8-SJ				1 x 6	1 x 10	Consumable and general stock
Mortuary – Exit Lobby	MOR-EX-SJ				1 x 8	1 x 8	Visual privacy, Airlock
Staff Areas							
Change – Staff (Male/Female)	CHST-12-SJ				2 x 8	2 x 12	
Office – Manager	OFF-S9-SJ				1 x 9	1 x 9	
Office – Workstation	OFF-WS-SJ				1 x 5.5	1 x 5.5	
Net Department Total					167.5	309.5	
Circulation %					20	20	
Grand Total					201.0	371.4	

Notes:

- Areas noted in Schedules of Accommodation take precedence over all other areas noted in the FPU
- Rooms indicated in the schedule reflect the typical arrangement according to the Role Delineation
- Exact requirements for room quantities and sizes will reflect Key Planning Units identified in the Service Plan and the Operational Policies of the Unit
- Room sizes indicated should be viewed as a minimum requirement; variations are acceptable to reflect the needs of individual Unit
- Office areas are to be provided according to the Unit role delineation and staffing establishment; Executives and Managers may be responsible for more than one area but should have only one office assigned within the campus
- Staff and support rooms may be shared between Functional Planning Units dependent on location and accessibility to each unit and may provide scope to reduce duplication of facilities.

22.6 Functional Relationship Diagram



22.7 Further Reading

- Australasian Health Infrastructure Alliance (Aus.). 'Australasian Health Facility Guidelines'. Retrieved from website: www.healthfacilityguidelines.com.au 2014
- Australasian Health Facility Guidelines (Aus.). 'Part B – Health Facility Briefing and Planning 490 Hospital Mortuary/Autopsy Unit, Revision 5' 2013. Retrieved from website: [http://www.healthfacilityguidelines.com.au/AusHFG_Documents/Guidelines/\[B-0490\]%20Hospital%20Mortuary%20Autopsy%20Unit.pdf](http://www.healthfacilityguidelines.com.au/AusHFG_Documents/Guidelines/[B-0490]%20Hospital%20Mortuary%20Autopsy%20Unit.pdf) 2014
- World Health Organization Regional Office for the Eastern Mediterranean (Egypt). 'Ethical Practice in Laboratory Medicine and Forensic Pathology' 1999. Retrieved from website: <http://applications.emro.who.int/dsaf/dsa38.pdf> 2014
- The Facility Guidelines Institute (US). 'Guidelines for Design and Construction of Health Care Facilities' 2010 Edition. Retrieved from website: www.fgiguideelines.org 2014.