

EMERGENCY DEPARTMENT (ED) FLOOR PLAN PROPOSAL

AREAS	SPECIFICATIONS/ STANDARD
Ambulance bay	<p>Designed in conjunction with the Ambulance Service and parking.</p> <p>With Direct access to trauma/ resuscitation rooms, Isolation and Decontamination Area</p> <p>Can fit 2-3 ambulance simultaneously loading/unloading patients at ER</p> <p>Consider one way entrance/exit</p> <p>Adequate overhead weather protection</p> <p>Adequate lighting</p> <p>Rubberized floor for stretcher path towards ER entrance</p> <p>Non-slip surfaces</p> <p>With specific area entrance for PWD with hand rails</p> <p>Signage/ground marking should be visible</p>
Triage	<p>First contact of patients so must be in conjunction with ambulance/walk in entrance</p> <p>Design should allow clear line of sight from perspective of the staff</p> <p>Should provide a space for at least 2 triage officers and equipment during surge of patients</p> <p>Provision for separate triage area for highly infectious patients</p> <p>Can accommodate 1-2 stretcher/ wheelchair at a time.</p>
Security	<p>Location near the entrance with direct visualization of waiting room, triage, and reception areas</p> <p>With provision for CCTV monitoring system</p>
Reception	<p>For clerical staff and encoding of patient details</p> <p>Can accommodate at least 2 clerical staff with work stations (tables with computer, printers etc.) and a space where relative/patient can be interviewed.</p> <p>Cabinet or organizer for storing files/ED records</p> <p>Should be beside triage area</p>
Waiting area	<p>Holding area for patients waiting for their turn and relatives accompanying their patients</p> <p>Provision for space for benches/chairs to accommodate patient and companion</p> <p>With socket/ outlets for electronic displays for announcements and reminders and other communication systems</p> <p>Size: At least 15 sqm (0.65 sqm per person)</p>
Decontamination area	<p>Provision for disrobing area, decontamination area and drying off area</p> <p>Should have high pressure showers and or retractable hoses with a water drain that does not connect with main hospital sewage</p> <p>Should have own entrance aside from ER entrance</p> <p>Adequate space for at least 2-3 patients</p>

	At least 9.29 sqm
Ambulatory care/fast track area	Design should consider rapid turnover of patients With area for physician's consultation and 1-2 nurse working space at least 5.02 sqm/staff Provision of 1-2 patient beds for examination enclosed for privacy with space for at least 5 chairs for ambulatory patients
Acute care/general treatment area	Each cubicle/area should be at least 7.43 sqm/bed to accommodate the ff: Space for at least 1 companion Space for bedside equipment With at least 2.4 meters of clear floor space between beds, minimum length should be 3 meters Areas for Medicine/Surgery /Pediatric /OB Gyn Provision to ensure privacy (hospital grade accordion/division) Designed to ensure direct observation from the staff position Oxygen/socket/outlets per bed
Resuscitation area	Two (2) resuscitation areas Adequate space to accommodate the resuscitation team, portable x-rays, mechanical ventilations, portable ultrasound and the like, space for medications/equipment Circulation space for movement of staff and equipment around the area Easy access/ proximity from ambulance bay and triage With own sink/wash area Minimum size for a single bed resuscitation is 25 sqm for each bed space (not including storage area) Space to ensure 360 access to all parts of the patient for procedures Adequate sockets for machines (mechanical ventilations, cardiac monitor) and separate for other equipment (suction machines, nebulizers, etc.) At least 2 pipe-in for oxygen (1 for mechanical ventilator and one for other airway devices) Should have solid partitions between it With hospital grade sliding doors
Trauma Bay	Adequate space to accommodate the resuscitation team, portable x-rays, mechanical ventilations, portable ultrasound and the like, space for medications/equipment for trauma care and trauma procedures Adequate shelving to accommodate medications and equipment required for trauma care Circulation space for movement of staff and equipment around the area Minimum size for a single bed resuscitation is 25sq m for each bed space (not including storage area)

	<p>Space to ensure 360 access to all parts of the patient for procedures</p> <p>Adequate sockets for machines (mechanical ventilations, cardiac monitor) and separate for other equipment (suction machines, nebulizers, etc)</p> <p>2 pipe in for oxygen (1 for mechanical ventilator and one for other airway devices)</p> <p>Should have solid partitions</p> <p>With hospital grade sliding door</p>
Procedure area/Minor operating Room	<p>Adequate space and lighting to perform procedures</p> <p>With sink/lavatory</p> <p>At least 7.43 sqm/bed and can accommodate at least 2 stretchers at a time</p> <p>At least 20 sq m</p> <p>With cabinet/shelves for storage</p>
Isolation Rooms	<p>Should be designed in conjunction with the ff</p> <ul style="list-style-type: none"> - Entrance at ED - Triage - Ante-room (for hand hygiene and donning and doffing) <p>Should have own toilet</p> <p>At least 9.29 sqm</p> <p>Should have own entrance aside from ER entrance</p> <p>2 isolation rooms and can accommodate at least 2 beds each room</p> <p>Provision for negative ventilation with at least 6 air changes per hour or 12 air changes per hour</p> <p>Air exhaust be directed away from people and air intakes</p>
Nurses station	<p>Should be located at the center to facilitate monitoring and mobility of nurses and medical staff</p> <p>With work stations/ medication areas/sink for handwashing</p> <p>Provision of work station area to place central monitors, computers, printers and area for nurses/physicians to order and write</p> <p>With shelves/organizers for ED records, patient charts and medications</p> <p>Separate area for medication preparation, counter should be made of granite</p> <p>5.02 sqm/staff or at least 25 sqm</p>
Staff call room/pantry	<p>Should be adequate to seat all staff on a rostered meal break at least 5 staff per break at least 15 sq m</p> <p>Located away from patient areas</p> <p>With toilet/sink/lavatory</p>
Staff change/lockers/toilet/shower facility	<p>Built in cabinet for staff bags/personal items</p> <p>With male and female rooms and toilet</p> <p>Should be adjacent with staff call room/pantry</p>
Storage room	<p>At least 4.25 sq m size</p> <p>Located near staff call room or admin areas in the ED</p>

	<p>For central and decentralized storage of equipment and disposables</p> <p>Sufficient space and power sockets for charging battery powered equipment</p> <p>With built in cabinets for storage</p>
Observation units	<p>Holding area or buffer area of the acute care/treatment area</p> <p>Should be in proximity with Acute Care area</p> <p>At least 7.43 sqm per bed</p> <p>Can accommodate at least 5 patients</p> <p>With provision of one working area for staff and space for some medications/equipment</p>
Acute mental health area	<p>Should be conducive for managing patients in acute psychiatric crises</p> <p>Minimum of 9.29 sqm</p>
WCPU/counseling room	<p>Should be private and soundproofed space</p> <p>Provision for at least 1 examination table 7.43 sqm</p> <p>Consultation areas of at least 5 sqm</p>
Admitting Section	<p>Area for the admitting staff</p> <p>Can accommodate at least 2 staff with working stations for computer, printing and processing of papers</p> <p>At least 10 sq m</p>
Satellite Laboratory	<p>For rapid access and to minimize turnaround time for lab requests. Proximity to medicines and prescriptions for ER patients.</p> <p>At least 10 sq m</p> <p>With access for pneumatic tube transport system to main laboratory (if applicable)</p>
Satellite Pharmacy	<p>Provision for ED needs on medication and supplies</p> <p>Adequate space for shelves/storage of medicine and supplies</p> <p>At least 10 sq m</p>
Satellite CSSU	<p>Provision for ED needs on supplies</p> <p>Adequate space for shelves/storage of medicine and supplies</p> <p>At least 10 sq m</p>
Satellite Cashier	<p>For easier access to Cashier/Billing for ED patients</p> <p>Can accommodate at least 1 staff with working station for computer, printing and processing of papers</p> <p>At least 8 sqm</p>
Utility room	<p>Sufficient size for storage</p>
Physicians room	<p>For ER consultants/doctors/rotators rest place/call room</p> <p>Can fit at least one double deck</p> <p>With enough working space for computers, for writing, encoding</p> <p>With own toilet and shower</p> <p>2 rooms (male/female)</p>
Emergency Medicine Office	<p>Office for the Department Head</p> <p>Provision for working space for ED secretary and head 5.02 sq m per staff</p>

	<p>Provision of space for visitor area, for short consults/ meetings if possible separate from main office/anteroom</p> <p>And space for medical records/ED records</p> <p>With own Toilet</p>
Nurse Supervisor Office	<p>Office for Nurse Supervisor</p> <p>Provision of space for working on ED papers and deadlines</p>
Conference room	<p>Office space for didactics, meetings, conference</p> <p>With shelves/cabinets for EM training library, databases and other documents required</p> <p>With separate toilet</p> <p>Can accommodate a conference table for 8-10 persons</p> <p>With shelves for medical books/library for ED training</p>
ED online referral/ command center	<p>For ED online referral/command center</p> <p>Provision of working space for 2 staff with computers and printers</p> <p>Sockets/internet connection ready</p>
Other General Considerations	
Toilet/comfort rooms	<p>At least 1.67 sqm, areas with separate CR (isolation room, conference room, pantry, ED head office)</p> <p>Toilet for the main ED (1 female, 1 male, 1 PWD)</p> <p>Space conducive for patients with IV lines/wheelchair borne</p>
Fire safety	<p>Constructed to comply with fire regulations</p> <p>With fire exit doors needed and opened in case of emergency</p> <p>An area for fire extinguisher</p>
Signages	<p>Visible signages at the ED</p> <p>Floor markings</p>
Cabling	<p>Adequate cabling to all clinical and non-clinical areas, cabling for phone, internet, patient call, emergency call and computers</p> <p>Adequate sockets in every area for equipment, computers etc</p>
Medical gases	<p>Provision for internal piping for oxygen to all patient care areas</p> <p>At least one for every hospital bed in all patient areas except in resuscitation and trauma bay with at least 2</p>
Doors/windows	<p>All doors through which patients may pass must be sufficient size to accommodate a full hospital bed with attached IV lines and traction apparatus with ease.</p> <p>Main entrance doors to be motion censored with rubber studded flooring or the like in the entrance area.</p> <p>Other possible exit/entrance area at the ED should be code-generated for access of ED/hospital staff only</p> <p>Door in offices fitted with self-closing devices</p> <p>All doors with door stopper</p> <p>All window furnishings should be appropriately designed and located so that they cannot be accessed by patients and used for potential harm</p>
Corridors	<p>Adequate width to allow cross passage of two hospital beds or a hospital beds without difficulty</p>

	Adequate space for trolley to move around Unidirectional foot traffic
Air conditioning / ventilation	The ED should have a separate air system capable of rapid change from recirculation to fresh air flow. Isolation room with different ventilation All rooms with provision for aircon Centralized aircon for the acute areas and main ED
Hand washing facilities	Sink and lavatory for hand washing should be available within each treatment area and provision for cleaning of instrument
Emergency Power	Emergency lightning should be available in all areas All computer terminals should have access to emergency power
Wall finish	All wall surfaces in areas should be reinforced and protected with buffer rails/wall guards/similar esp in areas where hospital beds, wheelchairs may cause damage.
Floor	The floor covering in all patient care areas and corridors should have the ff: Non slip surface Impermeable to water, body fluids Durable Easy to clean Acoustic properties that reduce sound transmission Shock absorption to optimize staff comfort but facilitate movement of beds

*All other specifications per area should be in accordance with DOH guidelines.

*Attached is the summary of the Emergency Medicine Facilities from the departmental plans and technical requirements of a 250-bed hospital (level 3) manual, volume 3.

Basis/References:

DOH Management of the Hospital Emergency Department, 2nd ed. Chapter 4 (Infrastructure Standards)

ACEM Guidelines in ED design

All plans in accordance to functional areas required by the Philippine Boards of Emergency Medicine in possible accreditation for EM training.

MANUAL on TECHNICAL GUIDELINES For HOSPITAL PLANNING And DESIGN 250-BED HOSPITAL (LEVEL 3). 2017

