

Republic of the Philippines Department of Health

OFFICE OF THE SECRETARY

February 4, 2020

DEPARTMENT MEMORANDUM

No. 2020 - 0062

TO:

ALL UNDERSECRETARIES AND ASSISTANT SECRETARIES; MINISTER OF HEALTH - BANGSAMORO AUTONOMOUS REGION IN MUSLIM MINDANAO (MOH-BARMM); CENTERS FOR HEALTH DEVELOPMENT (CHD), BUREAU AND SERVICE DIRECTORS; EXECUTIVE DIRECTORS OF **SPECIALTY** HOSPITALS; CHIEFS OF MEDICAL CENTERS, HOSPITALS AND SANITARIA; AND OTHERS CONCERNED

SUBJECT:

Guidelines on the Standards of Airborne Infection Isolation Room and Conversion of Private Rooms and/or Wards into Temporary **Isolation Rooms for the Management of Patients Under Investigation** (PUI) for 2019 Novel Coronavirus (nCoV)

In response to the current or potential influx of Patients Under Investigation (PUI) for 2019 Novel Coronavirus (nCoV) in our health facilities, all DOH Hospitals are hereby urged to comply with the patient placement guidelines and isolation standards adopted from the CDC Guidelines and Standards for Transmission-based Precautions. This shall facilitate the management of PUIs and prevent the transmission of the virus within the health facility.

I. For health facilities with Airborne Infection Isolation Room (AIIR), the following standards shall be followed:

A. Isolation of Patients Under Investigation for nCoV Patients

- 1. Place patient with known or suspected nCoV
- 2. Airborne Infection Isolation Room (AIIR).
- 3. While transfer to AIIR or discharge from the facility is pending, put face mask on the patient and isolate in an examination room with the door closed. The patient must not be placed in any room where room exhaust is re-circulated within the building without high-efficiency particulate air (HEPA) filtration.
- 4. Follow CDC guidelines on placement of patient with known or suspected nCoV infection and adhere to standard, contact, and airborne precautions (ANNEX A).

B. Standards of Airborne Infection Isolation Room (AIIR)

- 1. AIIR must be single-occupancy rooms with negative pressure relative to the surrounding areas.
- 2. There must be at least six (6) air changes per hour, or twelve (12) air changes per hour for newly constructed or renovated rooms.

- 3. Air exhaust should be directed away from people and air intakes. If this is not possible, air must be filtered through a HEPA filter before recirculation.
- 4. Doors must be kept closed except when entering or leaving the room. Minimize unnecessary entry and exit.
- 5. Air pressure must be monitored daily with visual indicators (e.g smoke tubes, flutter strips), regardless of the presence of differential pressure sensing devices (e.g. manometers).
- 6. For the standard floor plan for AIIR, refer to ANNEX B.

II. For facilities with limited Airborne Infection Isolation Rooms, private rooms may be utilized for the management of PUIs.

A. Conversion of Single Private Room

For the conversion of private rooms to isolation rooms, the following guidelines must be followed:

- 1. Use private rooms at the end of the hallway for conversion into a temporary isolation room. It must be away from the stairs and nurses' station.
- 2. Keep doors closed except when entering or leaving the room. Entry and exit should be minimized.
- 3. Keep the windows in the converted isolation rooms open regardless of use and non-use of air conditioning. Windows connecting to hallways should not be opened.
- 4. The use of air conditioning in the isolation room is allowed provided it is not part of the general air conditioning system of the facility.
- 5. Use temporary portable solutions, such as exhaust fans or unidirectional fans, to create a negative pressure environment in the converted area. Discharge air directly outside, away from people and air intakes, or through HEPA filters before introducing to other air spaces.
- 6. All healthcare personnel shall strictly adhere to hand hygiene following the World Health Organization's *Multimodal Hand Hygiene Strategy: 5 Moments of Hand Hygiene*.
- 7. Place wall-mounted alcohol-based hand rubs at point of care and outside the isolation room
- 8. Medical supplies needed for patient care shall be made readily available at point of care.
- 9. Ensure that the relatives or carers of minors and elderly patients are provided with Personal Protective Equipment (PPEs). Instructions on the appropriate use and disposal of PPEs must be provided.
- 10. Refer to ANNEX C for the Proposed Floor Plan for Converted Private Room. If access to a lavatory in the ante room is not feasible, wall mounted alcohol-based hand rubs are recommended.

B. Conversion of Ward

Wards may also be utilized for the management of PUIs. For the conversion of wards into isolation rooms, the following guidelines must be followed:

- 1. Follow the same guidelines for conversion of private rooms.
- 2. Place cohorted PUIs in a converted ward room provided that they have the same test results. Do not include patients with pending confirmatory test results in the cohort.

- 3. General ward rooms must have adequate ventilation with at least 60 L/s of air flow per patient.
- 4. All patient beds should be placed at least three (3) feet apart with a curtain separator for privacy.

III. Exclusive Use of Converted Private Rooms and Wards

Private rooms and wards converted into isolation rooms must not be used for the management and treatment of patients other than PUIs until after appropriate environmental cleaning and disinfection procedures are undertaken.

IV. Additional Information on Isolation Rooms

Additional reference materials on establishment and types of isolation rooms are listed on ANNEX D.

For guidance and strict compliance.

By Authority of the Secretary of Health:

LILIBETH C. DAVID, MD, MPH, MPM, CESO I

Undersecretary of Health

Health Facilities Infrastructure and Development Team

CDC STANDARD, CONTACT, AND AIRBORNE INFECTION PRECAUTIONS FOR PATIENT WITH KNOWN OR SUSPECTED 2019-nCoV

(Source: https://www.cdc.gov/coronavirus/2019-nCoV/hcp/infection-control.html)

- 1. Once in an Airborne Infection Isolation Room (AIIR), the patient's facemask may be removed. Transport and movement of the patient outside of the AIIR must be limited to medically-essential purposes. When not in an AIIR (e.g. during transport), patients must wear a facemask to contain secretions.
- 2. Personnel entering the room must use PPEs, including respiratory protection (i.e. fit-tested disposable N95 mask).
- 3. Only essential personnel must enter the room. Staffing policies must be strictly observed to minimize the number of healthcare professionals (HCP) who enter the room.
- 4. Facilities must take precautions to minimize the risk of transmission and exposure to other patients and other HCP.
- 5. Facilities must keep a log of all persons who provide care and enter the room or care areas of these patients.
- 6. Dedicated or disposable noncritical patient-care equipment must be used (e.g., blood pressure cuffs). If equipment will be used for more than one patient, clean and disinfect such equipment before use on another patient according to manufacturer's instructions.
- 7. HCP entering the room after a patient vacates the room must use respiratory protection. Standard practice for pathogens spread by the airborne route (e.g., measles, tuberculosis) is to restrict unprotected individuals, including HCP, from entering a vacated room until sufficient time has elapsed for enough air changes to remove potentially infectious particles. Currently, there is no data on how long 2019-nCoV remains infectious in the air. In the interim, apply a similar time period before entering the room without respiratory protection as used for pathogens spread by the airborne route (e.g., measles, tuberculosis). In addition, the room should undergo appropriate cleaning and surface disinfection before it is returned to routine use.
- 8. HCP must perform hand hygiene before and after contacts with patients, potentially infectious material and PPE, including gloves.
- 9. Healthcare facilities must ensure that hand hygiene supplies are readily available in every care location.

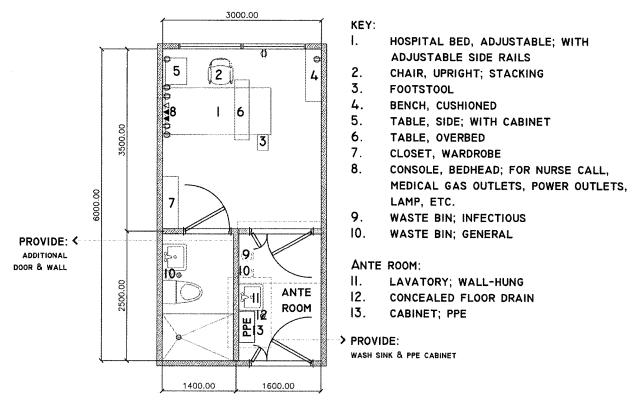
STANDARDS AND FLOOR PLAN FOR AIRBORNE INFECTION ISOLATION ROOM

Hospital:			Department of Health HEALTH FACILITY DEVELOPMENT BUREAU	
250-Bed (Level 3)	ROOM			
Updated Reference:	Department:	Room Title:	Reference Sheet Number: 250B-NU-RDS-07A	
April 2016	NURSING WARDS	ISOLATION ROOM (TYPICAL)		
FUNCTIONAL DESIGN REQ	UIREMENTS:			
This activity space provides facil	ities needed	EQUIPMENT AND	T	
for the following activities:		ACCESSORY CHECKLIST	QUANTITY	REMARKS
a. Patient arrives on foot, in	wheelchair or on a stretcher	Television	1	
trolley		Waste bin w/ yellow lining	1	infectious
b. Transfer of patient to a hospital bed from a		Waste bin w/ black fining	1	general
wheelchair or a stretcher trolley and vice versa		Water Heater	1	
c. Patient undresses/dresses in the vicinity of		Consolé, bedhead	1	
hospital bed, with or with	out assistance			
d. Patient takes meal in bed	or in sitting area	FURNITURE AND	QUANTITY	REMARKS
e. Patient receives visitors		FIXTURE CHECKLIST		
f. Patient stores clothing an	d other personal	Hospital bed, adjustable; with	1	
belongings		adjustable side rails		
g. Patient requires privacy		Chair, upright; stacking	1	
h. Patient uses toilet and ba	th	Footstool	1	
i. Patient uses monitoring/diagnostic equipment		Bench, cushioned	1	
j. Physicians and nurses check on patients		Table, side; with cabinet	1	
k. Handwashing and other clean up activities		Table, overbed	1	
I. Nurse gives medication to patient		Closet, wardrobe	1	
m. Nurse may feed or wash patient, in the absence of		Lavatory, wall-hung	1	
a relative or watcher			1	
		Cabinet, PPE	1	
		Water closet	1	
		Lavatory	-1	
People Involved:		Shower set	1	
1 x Patient				
2 x Visitors		ADDITIONAL EQUIPMENT &	т&	
1 x Resident Physician/ M	edical Specialist	ENGINEERING TERMINALS	QUANTITY	REMARKS
1 x Nurse or Nursing Aide		Window curtain rail	1	
-		Bedhead light w/ night lamp	1	fluorescent, 20W
		Outlet, 10A,2P,240V, duplex	7	grounding type,
				universal
Planning Relationships:		Outlet, 10A,2P,240V, single	1	for emergency light
a. Acessible to Nurse Station		Nurse call station, emergency	1	w/ pendant switch
b. Located at end portion of Nursing Ward		Outlet, antenna/Cable	1	
c. Close to medical/surgical services		Smoke Detector 1		

Hospital:			Department of Health
250-Bed (Level 3)	ROOM DA	HEALTH FACILITY DEVELOPMENT BUREAU	
Updated Reference:	Department:	Room Title:	Reference Sheet Number
April 2016	NURSING WARDS	ISOLATION ROOM (TYPICAL)	250B-NU-RDS-07B
TECHNICAL DESIGN DATA	:		
ENVIRONMENTAL CONDITIONS	DESIGN DATA	ENVIRONMENTAL CONDITIONS	DESIGN DATA
AIR		LIGHTING AND VISUAL	
Outdoor air temperature (°C)	ave. local station temp, reading	General illumination (LUX)	250
Room temperature (°C)	23	Night illumination (LUX)	50
Mechanical ventilation	- Haddig (1974 - 1974 - 1974) An Hall An Hall To Tradeson's Co. A state of the Associate Associated Associates Advanced Associated Associates Advanced Associated Associates Advanced Associates Associated Assoc	Task illumination (LUX)	500
Volume (cu.m./hrperson)	25	Color rendering	essential: DESIRABLE: unnecessa
Velocity (m./min.)	30	Standby light	ESSENTIAL:desirable:unnecessa
Pressure Differential:		Emergency light	ESSENTIAL: desirable: unnecessa
Negative Pressure (Pa)	10	Daylight	essential: DESIRABLE: unnecessa
Positive Pressure (Pa)	NA	View out	essential:DESIRABLE:unnecessa
% Dust filtration	93%-99%@ 1 micron	Privacy	ESSENTIAL: desirable: unnecessa
Humidity (%RH)	50	Black out	essential:desirable:UNNECESSA
Cooling load (TR)	0.75		
SOUND		SAFETY	
Acceptable sound level (db)	40	Accessible hot surface:	NA
Speech privacy	essential:DESIRABLE:unnecessary	Maximum temperature (°C)	NA
Quality which cannot be	tonal Impact	Domestic hot water:	at lavatory
tolerated		Maximum temperature (°C)	70
		Access limit	medical staff, relatives/watcher patient
		Fire risk	LOW: medium: high
	APA 1717 WHEN THE	Other risks	NA

Hospital:			Department of Health		
250-Bed (Level 3)	ROOM DAT	A SHEET	HEALTH FACILITY DEVELOPMENT BUREAU		
Updated Reference:	Department:	Room Title:	Reference Sheet Number:		
April 2016	NURSING WARDS	ISOLATION ROOM (TYPICAL)	250B-NU-RDS-07C		
TECHNICAL DESIGN D	ATA:	} <i>[</i>	D SPACE COMPONENTS:		
DIRECT SERVICES	DESIGN DATA				
Disposal	hospital solid waste type: A & G		6000		
Hot Water	required at shower	3700 2300			
Cold Water	req'd at lav & toilet fixtures	*			
Drainage	req'd at lav, toilet fixt. & floor	000g 4 1 9 10 11 13 12 7 0 10 11 13 12			
Medical Oxygen	30 lpm @ 4.0 Bar				
Medical Vacuum	40 lpm @ 450mm Hg				
Compressed Air	NA				
Steam	NA:				
Others	suction outlet required				
DIRECT DEMANDS OF	N FLOOR AND WALL				
Loading	NA				
Spillage	SLIGHT:occasional:frequent	KEY SCALE 1:100 M			
Foot Traffic	light:MEDIUM:heavy				
Wheel Traffic	light:MEDIUM:heavy	1 Hospital bed, adjustable; with adjustable side rails 2 Chair, upright; stacking 3 Footstool 4 Bench, cushioned 5 Table, side; with cabinet 6 Table, overbed 7 Closet, wardrobe 8 Console, bedhead; for nurse call medical gas outlets, power outlets, lamp, etc. 9 Waste bin, infectious 10 Waste bin, general ANTE ROOM: 11 Lavatory, wall-hung 12 Concealed floor drain 13 Cabinet, PPE			
Impacts	NA				
Abrasion	NA				
Easy Maintenance	ESSENTIAL: desirable: unnecessary				
Vibration Free	ESSENTIAL: desirable: unnecessary				
Door Set	bed, wheelchair, &				
	stretcher trolley access	SPACE DEMANDS (Total	Minimum Space Required in sq.m.):		
Windows	clear, solar control,	Space Components	Minimum Space Required/Component (sq.m.)		
	privacy control				
Internal Glazing	none				
	7000 AC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	REGULATIONS AND NOTES:			
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PROPOSED FLOOR PLAN FOR CONVERTED PRIVATE ROOM



CONVERTED PRIVATE ROOM

ADDITIONAL REFERENCE MATERIALS ON ISOLATION ROOMS

1. Administrative Order No. 2012-0012, "Rules and Regulations Governing the New Classification of Hospitals and Other Health Facilities in the Philippines," as amended.

Refer to A.O. No. 2012-0012-A, "Amendment to Administrative Order (A.O.) No. 2012-0012 entitled "Rules and Regulations Governing the New Classification of Hospitals and Other Health Facilities in the Philippines"

2. Administrative Order No. 2016-0042, "Guidelines in the Application for Department of Health Permit to Construct (DOH-PTC)"

Refer to the following documents:

- Annex H-6A, "Checklist for Review of Floor Plans, Level 1 Hospital"
- Annex H-6B, "Checklist for Review of Floor Plans, Level 2 Hospital"
- Annex H-6C, "Checklist for Review of Floor Plans, Level 3 Hospital"
- 3. Total Alliance Health Partners International (TAHPI), "International Health Facility Guidelines"

Refer to Chapter IV, "Isolation Rooms" (Visit: https://bit.ly/3bbu45L)

4. Centers for Disease Control and Prevention (2007). "2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Setting", updated July 2019. https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html