
Facility Planning Concept of Operations (CONOPS)

Hotel to Health Care (H2HC) Acute/Non-Acute COVID-19 Positive

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Prepared by: U.S. Army Health Facilities Planning Agency and Defense Health Agency

1.0 INTRODUCTION

1.1 Coronavirus disease 2019 (COVID-19) is a respiratory tract infection caused by a newly emergent coronavirus, SARS-CoV-2, that was first recognized in Wuhan, China, in December 2019. Genetic sequencing of the virus suggests that SARS-CoV-2 is a beta coronavirus closely linked to the SARS virus (1). While most people with COVID-19 develop mild or uncomplicated illness, approximately 14% develop severe disease requiring hospitalization and oxygen support and 5% require admission to an intensive care unit. In severe cases, COVID-19 can be complicated by acute respiratory disease syndrome (ARDS), sepsis, and septic shock, multi-organ failure, including acute kidney injury and cardiac injury. Older age and co-morbid disease have been reported as greater risk factors for death (World Health Organization).

1.2 The American Hospital Association projected that 30% (96 million) of the U.S population will test positive for COVID-19, with 5% (4.8 million) being hospitalized. Of the hospitalized patients, 40% (1.9 million) would be admitted to the ICU, and 50% of the ICU admissions (960,000) would require ventilator support. Such projections, however, are gross estimates (Society of Critical Care Medicine).

2.0 OVERVIEW

The Hotel to Health Care (H2HC) COVID-19 Positive facility provides healthcare to 18 and older COVID-19 patients. Patients will be admitted either in an acute state and are intubated and ventilated or non-acute state and are not intubated but still require some nursing care.

All Hotel Rooms will be considered to be NFPA 99 Category 2 Plus applies standard Category 2 considerations (General Care -risk of minor injury) plus additional Category 1 provisions

(Critical Care -risk of major injury or death) as relates to the specific needs of a COVID-positive patient on a ventilator. These rooms shall also support NFPA 99 Cat 3 patients defined as basic care: space where failure of equipment or a system is not likely to cause injury to patients, staff or visitors but can cause patient discomfort.

The first floor of the facility is for administrative/patient support functions only; patients arriving at the facility will be admitted directly through the use of a "dirty" elevator. All staff and patients leaving the nursing unit will exit via the "dirty" elevator.

Depending on the size of the facility and operational guidance, food may be prepared in the facility kitchen and/or food may be delivered to the facility kitchen.

3.0 DEFINITIONS

3.1 Acute: A patient that is on ventilator support.

3.2 Non-acute/Step Down: A patient that is not on ventilator support, but requires continued nursing support.

3.3 Patient Care Rooms: Hotel rooms converted into negative pressure rooms.

4.0 FACILITY SCOPE OF SERVICES

4.1 The H2HC acute COVID-19 Positive scope of services include the following: hospital care with or without assisted ventilation requiring nursing care, point of care laboratory; Laboratory Shipping and Receiving, Pharmacy; portable radiology; dietary services, nursing and patient administration support services, environmental services (EVS); and logistics.

5.0 STAFFING - Significant staffing challenges are expected with contingency operations.

5.1 A physician who is trained in critical care and/or regularly manages ICU patients may be augmented by non-ICU physicians who have experience but do not regularly work in the ICU to provide care for the maximum number of critical care patients.

5.2 To augment the ability to mechanically ventilate more patients, experienced ICU respiratory therapists and advanced practice practitioners may be augmented by adding clinicians such as physicians, nurse-anesthetists, and certified anesthesiologist assistants who are experienced in managing patients' ventilation needs.

6.0 ASSUMPTIONS

6.1 Patients 18 and older are acute or non-acute COVID-19 positive.

6.2 Patients under 18 years of age that are COVID-19 positive will be cared for in a hospital setting to provide security and staff skill set needed for this patient category.

6.3 Each room will be designated for one patient and provide negative pressure isolation.

- 6.4 Beds need to support hospital care of patients with ventilators to include ability to raise and lower head of bed and raise and lower the entire bed.
- 6.5 The medical staff will work 12 hour shifts. Staff will need a respite time during the twelve hour shift for a mental and physical break. Staff will also need a clean area to consume meals and take a break.
- 6.6 Disposable personal protective equipment (PPE) will be used.
- 6.7 Staff don PPE when they enter the ground floor and do not change between rooms/patients: no data at this time to reference re: cross-contamination or exacerbation of the virus.
- 6.8 Washable patient linens, scrubs, etc. will be used.
- 6.9 Wi-Fi capability for electronic care documentation; paper as a backup.
- 6.10 Patient telemetry monitoring is done from a monitor located at the units nurse's station.
- 6.11 Religious support services need to be considered.
- 6.12 Patients will use the bathroom facilities in their assigned room. If patient is unable to ambulate to bathroom, a bedside commode will be provided.
- 6.13 No visitors will be allowed into the hotel.
- 6.14 Communication between staff will be through cell phones.
- 6.15 Average Length of Stay: 15 ICU bed days *and* 15 Med-Surg (30 total) bed days when patient survives.
- 6.16 Average Length of Stay: 34 ICU bed days when the patient expires.

7.0 FLOW IN THE H2HC:

7.1 General

- 7.1.1 A clean and dirty flow for patient/staff/supplies/waste will be established within the facility and be consistent on each floor to include the ability to assign an elevator for clean and dirty.
- 7.1.2 Clean support functions to include: PPE Donning, Clean Utility, Clean Storage (non-sterile) will be located with access to the clean entry.
- 7.1.3 Dirty support functions to include PPE Doffing, Soiled Utility, Respiratory Decontamination Room and Haz. Mat Storage will be located with access to the dirty entry.
- 7.1.4 The ground floor of the hotel will provide the main entrance for patients, nursing and patient administrative services, clean and dirty entrances/exits to support staff and supply, and other support services such as Environmental Services (EVS), Food support, Logistics, Laboratory Shipping and Receiving and Pharmacy. There will be no patient care rooms on the ground floor.
- 7.1.5 The remaining floors will consist of an acute care and a non-acute patients rooms with dedicated nursing station, and immediate support services to include portable radiology, point of care lab, clean and soiled utility rooms and storage supply.
- 7.1.6 Dietary support for staff and patients will be a combined use of offsite meal preparation and delivery and use of the available amenities at the hotel. Food deliveries via a clean entry will be received in the ground floor dining/kitchen area.

7.2 Patient:

7.2.1 Patients will be admitted to the H2HC patient rooms through the patient entrance on the ground floor and transported by dirty elevator to a room.

7.2.2 The nursing staff will prepare the patients that expire by placing them in a body bag. The patient will be moved from the room to a holding area or moved directly to a refrigerated truck or other similar mortuary affairs holding area. Expired patient will be transported through the dirty elevator/contaminated exit with conscious consideration for passing staff within the facility.

7.3 Staff:

7.3.1 Staff will enter the H2HC facility through a clean entrance. Donning of PPE will occur in a designated room on the ground floor adjacent to the clean entrance. Staff will travel to patient care areas by means of clean elevator or clean stairwell.

7.3.2 Staff will exit patient care areas by means of dirty elevator or dirty stairwell. Doffing of PPE will occur in a dirty room on ground floor adjacent to the dirty exit. Staff will shower and change before and after their shift in designated areas on the ground floor of the hotel.

7.4 Equipment and Materials:

7.4.1 Clean equipment and material will be delivered just in time to the clean entrance of the H2HC. Dirty equipment and material will transported out the dirty exit.

7.4.2 Laundry services will be offered on the ground floor. These services will support staff scrubs and patients linens.

7.4.3 Pharmacy supplies will be restocked on an established basis and as needed.

7.4.4 Electrical outlets will need to be provided in the clean utility or equipment room for charging of ventilators or other equipment.

8.0 ADJACENCY

8.1 The Ground floor will contain a centralized operations area located at the main entrance to provide control of the facility and support administration functions for the facility such as records and paperwork.

8.2 A Security monitoring area, Supply Storage, Food Support, Laundry Services, Donning and Doffing areas for PPE, a Laboratory Shipping and Receiving, Pharmacy a break room for staff to include showers and lockers and potential for sleep spaces for staff will be located on the ground floor.

8.3 The remaining hotel floors will support acute and non-acute patients. Patient rooms will be located with minimal travel distance from the elevator and support minimal travel distance for staff caring for patients.

8.4 Nurse's station will be provided to support limited staff travel distance. Monitors to cameras in each patient room will be located in the nurses' station to provide visualization into the patient rooms. Vision Panels shall be provided on the doors to each room to allow for direct visualization into the room.

8.5 Lounge on patient care floor will be located adjacent to nurses' station and serve as a place of respite on the unit.

8.6 An automating medication dispensing unit and crash cart shall be directly accessible at each nurses' station. A staff toilet shall be located adjacent to each nurses' station.

8.7 A dedicated clean and soiled utility room with direct paths to appropriate clean and dirty entrances/exits will be provided on each floor.

8.8 Hand sanitizers will be located outside and inside of every patient room.

8.9 Staff will use sinks in patients' bathroom for hand washing.

8.10 The central corridor on each floor will be utilized for transportation of staff, patients and supplies.

8.11 Existing ice/vending areas can be utilized for ice and other support functions. Vending machines would not be utilized.

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