Coronavirus Disease 2019 (COVID-19)

Considerations for Alternate Care Sites

Infection Prevention and Control Considerations for Alternate Care Sites

Summary of Changes

- April 6, 2020: Updated to align with the level of care categories defined in the Federal Healthcare Resilience Task Force Alternate Care Sites (ACS) Toolkit: First Edition, which included General (non-acute) Care and Acute Care
- April 23, 2020: Updated to align with the level of care categories defined in the Federal Healthcare Resilience Task Force Alternate Care Sites (ACS) Toolkit : Second Edition, which include Non-Acute Care, Hospital Care, and Acute Care

Key Concepts

- Establishing alternate care sites will help address surge in the response to COVID-19.
- Since care will be provided in a non-traditional environment, it is critical to ensure these facilities can support implementation of recommended infection prevention and control practices.

A local surge in the need for medical care might require jurisdictions to establish alternate care sites (ACS) where patients with COVID-19 can remain and receive medical care for the duration of their isolation period. These are typically established in non-traditional environments, such as converted hotels or mobile field medical units.[1] Depending on the jurisdictional needs, ACS could provide three levels of care:

1. **Non-Acute Care**: General, low-level care for mildly to moderately symptomatic COVID-19 patients. These patients may require oxygen (less than or equal to 2L/min), but do not require extensive nursing care or assistance with activities of daily living (ADL). This level of care corresponds to Level 5 (ambulatory care) and Level 4 (minor acuity care) patients in medical care terminology.
2. **Hospital Care:** Mid-level care for moderately symptomatic COVID-19 patients. These patients require oxygen (more than 2L/min), nursing care, and assistance with ADL. This level of care corresponds to Level 3 (medical-surgical care) patients in medical care terminology.
3. **Acute Care**: Higher acuity care for COVID-19 patients. These patients require significant ventilatory support, including intensive monitoring on a ventilator. This level of care corresponds to Level 2 (step-down care) and Level 1 (intensive care unit [ICU] care) patients in medical care terminology.

The expected duration of care for patients in ACS would be based on their clinical needs and potentially the timeline for discontinuation of Transmission-Based Precautions. If ACS will be used to care for both confirmed and suspected COVID-19 patients or for patients without COVID-19 who require care for other reasons, additional infection prevention and control considerations will apply. For example, planning would need to address physical separation between the cohorts and assigning different HCP with dedicated equipment to each section.

This guidance provides critical infection prevention and control (IPC) considerations for ACS and is intended to supplement existing plans (created by jurisdictions as part of pandemic planning). It does not address other important aspects of an ACS, such as supplies, accessibility (e.g., doors are wide enough for wheelchairs and stretchers) and patient transportation to and from nearby healthcare facilities. Jurisdictions should consider how close the ACS is to nearby healthcare facilities, including acute care hospitals, and may need to have agreements in place with surrounding healthcare facilities regarding patient transfer.

The ACS Toolkit is available to provide technical assistance for jurisdictions establishing and operationalizing ACS.

Ex 7

Physical Infrastructure

Component	Planning Considerations	Examples
Layout	• Layout plan for all areas of the facility, consideration should be given for the type of personal protective equipment (PPE) that should be worn in each area	• Patient triage • Staff respite area separate from patient care area with a bathroom for staff use only: staff can store personal belongings, take breaks, and eat • Area for staff to put on and remove PPE • Patient care area or rooms with access to patient bathrooms/shower areas • Designated area in patient care area where staff can document and monitor patients • Clean supply area • Medication storage/preparation area • Dirty utility area, that includes space for reprocessing reusable medical equipment

Air conditioning and heating	• Functional HVAC (heating and cooling) system	• ACS with individual patient rooms (e.g., hotel): ideally a facility whose HVAC units are mounted on an external wall and able to accommodate some outdoor air dilution as opposed to internal, 100% recirculation units
		• ACS with open floor plan: care is provided in a large open space; ideally the HVAC has air supply at one end of the space and air return at the other end of the space
		  ◦ Staff respite area would ideally be in a room separate from the patient care area; at a minimum it should not be in a location near the air return
		  ◦ Facilities with generator support are optimal

Spacing between patients	• Determine maximum number of patients who can safely receive care in the facility
	• Plan for safe spacing between patients
		• ACS with individual patient rooms (e.g., hotel): ideally each patient should have a separate room with a separate bathroom
		• ACS with open floor plan: To prevent the spread of other pathogens, there should be:
		  ◦ At least 6 feet of space between beds
		  ◦ Physical barrier between beds, if possible
		  ◦ Bed placement alternating in a head-to-toe configuration; ideally beds and barriers should be oriented parallel to directional airflow (if applicable)

Storage areas	• Space for clean storage	• Clean storage would ideally have a

	• Space for dirty storage	refrigerated section for medications that require refrigeration and a room temperature section for other medications and clean supplies (e.g., linen, PPE) • Dirty storage would have space for medical and non-medical waste and dirty equipment waiting to be reprocessed
Floors and surfaces	• Cleanable floors and surfaces[1]	• Avoid porous surfaces (e.g., upholstered furniture, carpet, and rugs) as much as possible
Visitor access	• Prohibit visitors and pets in order to avoid unnecessary risks to patients and staff; post signage at entrances to the facility indicating this policy	

Services

Component	Planning Considerations	Examples
Food services	• Catering provided with disposable plates/utensils • Separate place for staff to eat without wearing PPE	
Environmental services	• Environmental services can be provided regularly and safely by trained staff • Environmental services staff have all necessary training and wear appropriate PPE for exposure to disinfectants and patients with COVID-19 • EPA-registered disinfectants from List N are used according to label instructions for routine cleaning and disinfection • Protocols are in place for cleaning spills of blood or other body fluids[2] • Responsibility for reprocessing reusable medical equipment is assigned to appropriately trained personnel	• ACS with individual patient rooms (e.g., hotel): environmental services staff perform terminal cleaning of rooms and patients ideally perform daily cleaning ◦ Patients should be provided cleaning materials (i.e., disinfectant wipes, gloves) and instructed to clean high-touch surfaces and any surfaces that may have blood, stool, or body fluids on them daily, according to the label instructions ◦ Establish a process for at least daily removal of trash from rooms • ACS with open floor plan: environmental services staff would perform both daily and terminal cleaning ◦ Wipe-down of all floors and horizontal surfaces at least once daily ◦ Immediate clean-up of all spills of blood or body fluids[2] ◦ Regular disinfection of high-touch surfaces (e.g., doorknobs) ◦ At least daily cleaning of bathrooms
Sanitation	• Sanitation and waste services are available for medical waste (if required); refer to	

	local regulations for handling of medical waste • Sanitation and waste services are available for routine waste
Laundry facilities	• Laundry services are provided in accordance with routine laundering practices using either washer and dryers on site or through a contract with a laundry service
Pharmacy access	• Medications are properly labeled and stored • The layout has designated a space for medication preparation activities that is not in the immediate patient care area and is away from potential sources of contamination (e.g., sink) • Staff who prepare and administer medications have been appropriately trained on methods to prevent medication errors and contamination; those who prepare or administer injectable medications should be educated on safe injection practices such as not reusing single-dose medications or injection practices (e.g., not reusing single-dose medications or injection equipment, preparing medications as close as possible to the time of administration)[3]
Diagnostics	• If point of care testing meters (e.g., blood glucose, anticoagulation meters) must be used for more than one patient they should be labeled for multi-patient use and be cleaned and disinfected after each use, according to the instructions for use. Otherwise, each individual should have their own dedicated glucometer for exclusive use at the ACS. • Care must also be taken to ensure that only single-use auto-disabling lancets are used to perform fingerstick procedures for point-of-care testing. • Diagnostic testing should not be performed in the same area where medications are stored or prepared

Patient Care

Component	Planning Considerations	Examples
Staffing	• Staffing plan (including medical, IPC,	

	occupational health, administrative, and support staff) • Implement sick leave policies for staff/employees that are flexible and non-punitive • Ensure at least one individual with IPC training is included in planning and is regularly available to address questions and concerns. ◦ This individual would ensure that staff receive job-specific IPC training, including educating them on hand hygiene, proper selection and use of PPE and to not report to work when ill • Ensure staff have access to occupational health services if they experience a work-place exposure or become ill • Ensure there are staff assigned to perform surveillance for infectious diseases (e.g., infectious diarrhea)	
Infection prevention and control supplies	• Necessary infection prevention and control supplies are available at or accessible to staff at the facility	• Examples of infection prevention and control supplies for both ACS types include: alcohol-based hand sanitizer, soap and paper towels, personal hygiene supplies, PPE, EPA-registered hospital disinfectants from List N , supplies for cleaning and disinfection (e.g., mops, buckets), sharps containers (located near point of use)

PPE	• Necessary PPE are available at or accessible to the facility	• The layout of the facility might impact the PPE used in each area.
		  ◦ At a minimum, staff should wear an N95 respirator (or a facemask if respirator is not available) and eye protection while in the patient care area; respirators should be prioritized for aerosol generating procedures
		  ◦ Staff should wear gloves for contact with patients or their environment
		  ◦ Isolation gowns should be prioritized for aerosol generating procedures, care activities where splashes and sprays are anticipated and high-contact patient care activities that provide opportunities for transfer of pathogens to the hands and clothing of HCP (e.g., dressing, bathing/showering, transferring, providing hygiene, changing linens, changing briefs or assisting with toileting, device care or use, wound care)

		◦ Staff should remove PPE and perform hand hygiene when leaving the patient care area ◦ PPE should not be worn in the staff respite area • Refer to Strategies for Optimizing PPE Supply[2] for additional guidance
Hygiene	• Adequate sinks for hand hygiene are available • Adequate numbers of toilets, including a separate toilet for staff are available • Adequate shower facilities are available • Based on the population being served, an appropriate supply of bedside commodes, urinals, and personal hygiene supplies (soap, toothpaste) should be available	• ACS with individual patient rooms (e.g., hotel): each patient ideally should have a separate room with a separate bathroom • ACS with open floor plan: ◦ Minimum of 1 toilet for every 20 persons, and 1 accessible toilet for every 6 persons with disabilities. ◦ Approximate ratio of 1 shower for every 25 persons, or 1 shower for every 6 persons with disabilities

Footnotes:

[1]https://asprtracie.hhs.gov/technical-resources/48/alternate-care-sites-including-shelter-medical-care/47

[2]https://www.cdc.gov/infectioncontrol/guidelines/environmental/index.html

[3]https://www.cdc.gov/injectionsafety/providers/provider_faqs.html

Resources:

- Some jurisdictions have developed ACS plans informed by the Crisis Standards of Care framework published by the National Academy of Medicine (formerly the Institute of Medicine) in 2012; volume 5 of the document addresses ACS. https://www.nap.edu/catalog/13351/crisis-standards-of-care-a-systems-framework-for-catastrophic-disaster
- The HHS Office of the Assistant Secretary for Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE) maintains a list of resources on ACS. https://asprtracie.hhs.gov/technical-resources/48/alternate-care-sites-including-shelter-medical-care/47
- The FEMA and American Red Cross Shelter Field Guide (not specifically for ACS, but includes considerations about spacing, lighting, toilet- and shower-to-person ratios in shelter settings): http://www.nationalmasscarestrategy.org/wp-content/uploads/2015/10/Shelter-Field-Guide-508_f3.pdf
- Army Corps of Engineers Guidance on Alternate Care Sites: https://www.usace.army.mil/Coronavirus/Alternate-Care-Sites/
- Examples of jurisdiction ACS plans include:
  - Arizona Department of Health Services ACS Plan https://azdhs.gov/documents/preparedness/emergency-preparedness/response-plans/alternate-care-site-plan.pdf
  - Kansas Department of Health ACS Emergency Operations Plan http://www.kdheks.gov/cphp/operating_guides.htm
  - Florida Department of Health ACS Standard Operating Procedure and Operations Guide http://www.floridahealth.gov/programs-and-services/emergency-preparedness-and-response/preparedness-planning/_documents/alternate-care-site-sop.pdf and http://www.floridahealth.gov/programs-and-services/emergency-preparedness-and-response/_documents/alternate-care-site-ops.PDF

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