COVID-19 Hospital Resource Compilation

This document lists key COVID-19 guidance and resources for hospital administrators, hospital emergency planners, infection control practitioners and other healthcare system preparedness professionals in the following topical areas: hospital surge, crisis standards of care, staffing surge and resilience, workforce protection, regulatory relief, equipment supply surge, healthcare recovery and resumption of services during COVID-19, and telemedicine. Each section contains links to federal and non-federal guidance to help hospitals prepare for and respond to a COVID-19 outbreak. These sections are then broken down into sub-sections with guidance that can be used during a crisis/actual patient surge, or when a hospital is in the planning phase for the crisis/patient surge. All guidance in this document is accessible to the public, subject to the disclaimer below for non-Federal resources.[1]

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[1] This document references non-Federal websites. Linking to a non-Federal website does not constitute an endorsement by the U.S. government, or any of its employees, of the information and/or products presented on that site.

Crisis Standards of Care

The following section includes guidance and information to prepare hospitals to implement crisis standards of care (CSC). Guidance includes steps hospitals can take ***before a crisis occurs*** and during a crisis as it relates to COVID-19.

    i. Pre-Crisis Planning

        1. **Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response, Volume 1: Introduction and CSC Framework** – Crisis Standards of Care provides a framework for a systems approach to the development and implementation of CSC plans, and addresses the legal issues and the ethical, palliative care, and mental health issues that agencies and organizations at each level of a disaster response should address. The chapters in the document on EMS and hospitals have discipline-specific information and use of the templates at the end of each section can help guide preparedness. ***Note:*** *When sent to the webpage, click on "Read Online" or "Download Free PDF" and download the PDF as a guest.*

    ii. Crisis Response

        1. **Rapid Expert Consultation on Crisis Standards of Care for the COVID-19 Pandemic (2020)** – This rapid expert consultation articulates the guiding principles, key elements, and core messages that support CSC decision-making at all levels.

        2. **Duty to Plan: Health Care, Crisis Standards of Care, and Novel Coronavirus SARS-CoV-2** – In this discussion paper for healthcare planners and clinicians, the authors discuss the application of CSC principles to clinical care, including personal protective equipment, critical care, and outpatient and emergency department capacity challenges posed by a coronavirus or other major epidemic or pandemic event.

        3. **ASPR TRACIE Technical Assistance Request: Crisis Standards of Care** – This document contains resources and key information related to CSC from ASPR TRACIE's subject matter experts (SMEs).

        4. **March 2020 Civil Rights, HIPAA, and COVID-19 Bulletin –** In this bulletin, the HHS Office for Civil Rights (OCR) offers guidance to ensure that entities covered by civil rights authorities keep in mind their obligations under laws and regulations that prohibit discrimination on the basis of race, color, national origin, disability, age, sex, and exercise of conscience and religion in HHS-funded programs. The bulletin is also available in Spanish.

        5. Rapid Expert Consultation on Staffing Considerations for Crisis Standards of Care for the COVID-19 Pandemic (July 28, 2020) – This new resource from the National Academies of Science, Engineering, and Medicine builds upon prior consultation (issued on March 28, 2020) and focuses on CSC and staffing needs--including deployment and allocation of expert clinical staff--to ensure the care of COVID-19 patients.

To access more resources, review the ASPR TRACIE COVID-19 Crisis Standards of Care Resources Page.

Equipment Supply Surge

The following section outlines key tools hospitals can use to determine approximate PPE needs along with the rate at which PPE will be used. It also includes important information for ventilator and other equipment optimization.

     i. Personal Protective Equipment

        1. **Hospital Personal Protective Equipment Planning Tool** – This tool is designed to help hospitals determine approximate PPE needs based on special pathogen category and a number of facility specific variables. Calculators are included for Ebola Virus Disease/Viral Hemorrhagic Fever (EVD/VHF) as well as special respiratory pathogens such as Middle East Respiratory Syndrome/Severe Acute Respiratory Syndrome (MERS/SARS), and for pandemic influenza.

        2. **Personal Protective Equipment (PPE) Burn Rate Calculator** – The PPE Burn Rate Calculator is a spreadsheet-based model that provides information for healthcare facilities to plan and optimize the use of PPE for response to COVID-19. Similarly, non-healthcare facilities (e.g., correctional facilities) may find this tool useful for planning and optimizing PPE use as part of the response to COVID-19.

        3. **Decontamination and Reuse of Filtering Facepiece Respirators using Contingency and Crisis Capacity Strategies** – Disposable filtering facepiece respirators (FFRs) are not approved for routine decontamination and reuse as standard of care. However, FFR decontamination and reuse may need to be considered as a crisis capacity strategy to ensure continued availability. This document summarizes research about decontamination of FFRs before reuse.

     ii. Ventilators and Other Equipment

        1. **Strategies to Optimize the Supply of PPE and Equipment** – This CDC guidance lists strategies to optimize the following equipment: eye protection, isolation gowns, facemasks, N95 respirators, PPE, and ventilators. It also includes the PPE Burn Rate Calculator listed above.

        2. **Strategies to Optimize Ventilator Use during the COVID-19 Pandemic** – The U.S. Department of Health and Human Services (HHS) and the Federal Emergency Management Agency (FEMA) are working with multiple partners-healthcare systems, academic institutions, professional medical societies, and the National Academies of Science, Engineering and Medicine-to develop CSC strategies for ventilator support when resources are limited.

To access more resources, review the ASPR TRACIE COVID-19 Personal Protective Equipment Resources Page and the ASPR TRACIE COVID-19 Supply Chain Resources Page.

Healthcare Recovery and Resumption of Services

The following section outlines key resources that discuss resumption of service during COVID-19 and recovery topics.

i. *General Recovery/Resumption of Services Resources*

1. **Healthcare Delivery Impacts** - Community mitigation actions, often driven by government orders and mandates, may lead to a change in demand for traditional healthcare services. This tip sheet can help healthcare system planners prepare to mitigate these potential healthcare delivery impacts.
2. **Healthcare System Considerations for Resumption of Services during COVID-19** - This quick sheet, along with the ASPR TRACIE Healthcare System Considerations for Resumption of Services resource, provides considerations for healthcare system emergency planners and executives and individual facility or practice managers tasked with any aspect of re-opening, resumption of services, recovery, and ongoing operations during this COVID-19 pandemic.
3. **Healthcare System Preparedness for Secondary Disasters During COVID-19** - Secondary/ dual disasters (e.g., natural disasters, cyberattacks, large-scale transportation accidents, mass casualty incidents) that strike during the COVID-19 pandemic will further stress the health and medical system and threaten vulnerable residents and infrastructure. This resource describes planning considerations.
4. **Rural Health and COVID-19** - This ASPR TRACIE quick sheet, along with the ASPR TRACIE Rural Health and COVID-19 considerations resource identifies challenges faced by rural areas specific to COVID-19. The challenges are grouped into two main categories: those specific to healthcare facilities, and those related to at-risk populations who reside in rural areas. Considerations for meeting each challenge are also provided.

ii. *Financial Recovery Resources*

1. **Alternate Care Site Funding Summary** – This resource describes potential sources of funding for Alternate Care Site Establishment and Operations.
2. **FEMA: Coronavirus Pandemic Medical Care Costs Eligible for Public Assistance** - This policy defines the framework, policy details, and requirements for determining the eligibility of medical care costs under the PA Program to ensure consistent and appropriate implementation across all COVID-19 emergency and major disaster declarations.
3. **HHS CARES Act Provider Relief Fund** - The Provider Relief Funds supports American families, workers, and the heroic healthcare providers in the battle against the COVID-19 outbreak. HHS is distributing $175 billion to hospitals and healthcare providers on the front lines of the coronavirus response.

HHS and CMS Regulatory Relief

The following section provides information related to regulatory requirements for COVID-19. It focuses on highlighting regulatory requirements that have been waived to improve the ability to care and expedite the type of care provided to COVID-19 patients.

- i. *Crisis Response*
    1. **COVID-19 Emergency Declaration Blanket Waivers for Health Care Providers** – This fact sheet outlines the 1135 blanket waivers given by CMS to support the US government's COVID-19 response.
    2. **Coronavirus Waivers and Flexibilities** – This site lists various resources hospitals can use to review news and information related to CMS' new coronavirus waivers and flexibilities.
    3. **Guidance for Infection Control and Prevention of COVID-19 in Hospitals, Psychiatric Hospitals, and Critical Access Hospitals (CAHs): FAQs, Considerations for Patient Triage, Placement, Limits to Visitation and Availability of 1135 waivers** – This memorandum responds to questions CMS received and provides important guidance for hospitals and critical access hospitals in addressing the COVID-19 pandemic and minimizing transmission to other individuals.

To access more resources, review the ASPR TRACIE COVID-19 Legal/Regulatory/Authorities Resources page and this CMS Waivers and Declarations for COVID-19 technical assistance response.

Hospital Operations

The following section includes lessons learned and information from hospitals and healthcare facilities who have experienced or are experiencing surge due to COVID-19 patients in their community.

1. **Establishing Medical Operations Coordination Cells (MOCCs) for COVID-19** – This webinar and accompanying toolkit describes a process to load balance patient surge among hospitals and regions.

2. **COVID-19 Healthcare System Operations Strategies and Experiences** – This webinar featured speakers from hospitals and healthcare systems that experienced surge and described their lessons learned in managing the response from a system perspective.

3. **Ensuring Healthcare Safety Throughout the COVID-19 Pandemic** – This webinar featured speakers discussing healthcare safety during the COVID-19 response.

4. **COVID-19 Clinical Experiences from the Field** - This technical assistance response documents findings and reports from clinicians treating COVID-19 patients in the U.S. We synthesized information on clinical presentation, disease progression, predictive findings, treatment pearls, and other clinical management practices that seemed consistent with other information available.

5. **Project ECHO HHS/ASPR COVID-19 Clinical Rounds** - These interactive virtual learning sessions aim to create a peer-to-peer learning network where clinicians from the U.S. and abroad who have experience treating patients with COVID-19 share their challenges and successes; a generous amount of time for participant Q & A is also provided. Three webinar topics are covered every week:
   - EMS: Patient Care and Operations (Mondays, 12:00-1:00 PM ET)
   - Critical Care: Lifesaving Treatment and Clinical Operations (Tuesdays, 12:00-1:00 PM ET)
   - Emergency Department: Patient Care and Clinical Operations (Thursdays, 12:00-1:00 PM ET)

Hospital Surge

The following section includes guidance and information to ensure adequate space during a surge incident for critical care, morgues, and emergency departments (ED).

a. ***Emergency Department Surge***

    ii. *Pre-Crisis Planning*

        1. **Emergency Medical Treatment and Labor Act (EMTALA) Requirements and Implications Related to Coronavirus Disease 2019** – This Centers for Medicare & Medicaid Services (CMS) memorandum conveys information in response to inquiries from hospitals and critical access hospitals concerning implications of COVID-19 for their compliance with EMTALA. This guidance applies to both Medicare and Medicaid providers.

    iii. *Crisis Response*

        6. **ACEP COVID-19 Field Guide** – This frequently updated online guide compiles resources helpful to emergency physicians in the evaluation and treatment of COVID-19. Topics include personal safety, work safety, emergency medical services, triage, patient presentation, assessment, diagnosis, risk stratification, treatment, special populations, financial guidance, regulations and liability, personal well-being and resilience, and impact on education, licensure, and credentialing.

        7. **Alternate Care Site (ACS) Toolkit: Third Edition** – This Toolkit was developed to help state, local, tribal, and territorial (SLTT) entities address potential shortages in medical facilities during the 2020 COVID-19 pandemic. It is intended to provide technical assistance to SLTT entities in establishing and operationalizing Alternate Care Sites (ACS).

        8. **Considerations for the Use of Temporary Surge Sites for Managing Seasonal Patient Surge** – This ASPR TRACIE fact sheet describes the major considerations healthcare facility emergency planners should consider when developing patient surge management solutions for longer-duration events, such as weeks to months of managing seasonal illness surge.

    iv. *Operational Modifications*

        1. **COVID-19 Recovery** – This page offers detailed information for healthcare facilities to consider as they recover from COVID-19 and begin restoring usual care. It identifies specific facility management issues; pre-recovery planning activities; immediate, short-term, and long-term needs; and the new normal. It is accompanied by an Excel-based recovery checklist.

To access more resources, review the ASPR TRACIE COVID-19 Emergency Department Resources Page, the ASPR TRACIE Alternate Care Site Resources Page, and the ASPR TRACIE COVID-19 Healthcare System Operations Resources Page.

b. *Critical Care Surge*

    i. *Pre-Crisis Planning*

        1. **Critical Care Planning – COVID-19 Quick Notes** – This document outlines actionable steps hospitals can take to operationalize critical care planning in areas such as space, staffing, supply, and provision of care.

    ii. *Crisis Response*

        1. **Medical Operations Coordination Cells Toolkit** – This toolkit offers flexible and modifiable guidance, developed by the U.S. government, aimed to assist regional, state, local, tribal and territorial governments to ensure load-balancing across healthcare facilities and systems so that the highest possible level of care can be provided to each patient during the COVID-19 pandemic.

        2. **Coronavirus Disease 2019 (COVID-19) Treatment Guidelines** – A COVID-19 Treatment Guidelines Panel developed these guidelines to assist clinicians caring for patients with COVID-19. Each of the recommendations in the frequently updated guidelines includes ratings of the strength of the recommendation and the quality of evidence supporting the recommendation.

        3. **COVID-19 Clinical Experiences from the Field** - This technical assistance response documents findings and reports from clinicians treating COVID-19 patients in the U.S. We synthesized information on clinical presentation, disease progression, predictive findings, treatment pearls, and other clinical management practices that seemed consistent with other information available.

To access more resources, review the ASPR TRACIE COVID-19 Critical Care Surge Resources Page and the ASPR TRACIE COVID-19 Healthcare System Operations Resources Page.

c. *Hospital Morgue Surge*

    i. *Pre-Crisis Planning*

        1. **Mass Fatality Plan Management Template** – This template serves as a guide for planners to build or refine a mass fatality plan for their healthcare facility.

        2. **Coronavirus Disease 2019 (COVID-19) Fatality Management Tabletop Exercise** – This coronavirus fatality management tabletop exercise can be used by government, private sector, and nonprofit organizations using a hypothetical scenario that depicts numbers of confirmed COVID-19 cases and deaths at the state, regional, and national levels over a period of 40 days. It is accompanied by a Situation Manual.

    ii. *Crisis Response*

        1. **Hospital Mass Fatality Plan (Checklist)** – Use this checklist to develop or update a hospital mass fatality plan. It contains detailed instructions and procedures for a mass fatality incident.

        2. **In-Hospital Fatality Surge Body Collection Point (BCP) Operation Guide** – This guide outlines steps hospitals can take to operationalize a BCP to manage morgue surge during COVID-19.

To access more resources, review the ASPR TRACIE COVID-19 Fatality Management Resources Page.

Staffing Surge and Resilience

The following section includes guidance and information that hospitals can use to ensure their workforce is able to perform all hospital duties and protected both physically and psychologically. Guidance is targeted to specific audiences and is designed to help hospitals and healthcare facilities address behavioral health needs before and during a surge to improve patient care and workforce well-being.

   i. *Staffing Surge*

   1. **Surge Priority Planning COVID-19: Critical Care Staffing and Nursing Considerations** – This document provides guidance to ensure the safety and resilience of nursing staff during a pandemic-related surge. The suggestions in this article are focused on nursing leadership and administrative considerations, strategies for optimizing staffing resources, and maintaining staff safety and resilience.

   2. **Strategies to Mitigate Healthcare Personnel Staffing Shortages** – This information is for healthcare facilities that may be experiencing staffing shortages due to COVID-19. It outlines contingency capacity strategies to mitigate staffing shortages.

   3. **Healthcare Facility Onboarding Checklist -** Hospitals and other healthcare facilities face significant challenges to quickly onboard additional healthcare providers when hospital admissions and Intensive Care Unit (ICU) occupancy increase rapidly. Surge staffing may be needed in response to natural disasters, public health emergencies (including infectious disease outbreaks or pandemics), and catastrophic environmental events. This Onboarding Checklist is a tool for hospitals and other facilities to assist in streamlining staff acquisition and the onboarding process in times of need.

   ii. *Resilience and Behavioral Health*

   1. **Mitigate Absenteeism by Protecting Healthcare Workers' Psychological Health and Well-being during the COVID-19 Pandemic** – The actions listed in this document can help healthcare facility leaders protect workers' psychological health and well-being.

   2. **SAMHSA COVID-19 Resources** – The Substance Abuse and Mental Health Services Administration (SAMHSA) has a collection of resources related to public health emergencies to support disaster responders. The **SAMHSA Disaster Distress Helpline** is also an important tool to use in times of crisis.

   iii. *Resources for Patients and Family*

   1. **Managing Patient and Family Distress Associated with COVID-19** –These strategies can help healthcare providers in alternate care settings ease stress and anxiety experienced by patients during infectious disease outbreaks.

To access more resources, review the ASPR TRACIE COVID-19 Behavioral Health Resources Page.

Telemedicine

The following section contains resources to help users understand policy changes related to telemedicine.

    i. Pre-Crisis Planning

1. **Medicare Telemedicine Health Care Provider Fact Sheet** – This fact sheet outlines important CMS policy changes relating to Medicare due to the COVID-19 pandemic. It contains information on the expansion of the 1135 waiver and types of virtual services physicians and other professionals can provide to Medicare beneficiaries. Keep in mind, telemedicine platforms must be accessible to people with disabilities, including people who are deaf or hard of hearing and people who are blind or have low vision. In addition, people with limited English proficiency must also be able to access the services provided by telemedicine in the language they use.

2. **HIPAA and Telehealth Notice of Enforcement Discretion and FAQs** – The HHS Office for Civil Rights (OCR) is exercising its enforcement discretion and will not impose penalties for noncompliance with the regulatory requirements under the HIPAA Rules against covered health care providers in connection with the good faith provision of telehealth during the COVID-19 nationwide public health emergency. The Notification and FAQs are also available in Spanish.

    ii. Crisis Response

1. **Telehealth: Health Care from the Safety of Our Homes** – The federal government established this resource page as a single-entry point for providers and patients to learn more about the use of telehealth during the COVID-19 public health emergency.

2. **General Provider Telehealth and Telemedicine Toolkit** – This document contains links to reliable sources of information regarding telehealth and telemedicine, including specific documents that will be useful in choosing telemedicine vendors, initiating a telemedicine program, monitoring patients remotely, and developing documentation tools. Information is also included for providers who wish to care for patients through the virtual services that may be temporarily used during the COVID-19 situation.

3. **COVID-19 and Telehealth Quick Sheet** – This tip sheet describes the use of telehealth and how it has changed during the COVID-19 pandemic.

To access more resources, review the ASPR TRACIE COVID-19 Telemedicine/Virtual Medical Care Resources Page.

Workforce Protection

The following section outlines steps hospitals can take to protect their workforce when treating patients with COVID-19. Guidance includes steps hospitals can take before and during a crisis event.

     i. Pre-Crisis Planning

1. **Temporary Enforcement Guidance – Healthcare Respiratory Protection Annual Fit-Testing for N95 Filtering Facepieces During the COVID-19 Outbreak** – This memorandum provides temporary enforcement guidance to Compliance Safety and Health Officers for enforcing the Respiratory Protection standard, 29 CFR § 1910.134, with regard to supply shortages of N95 filtering facepiece respirators due to the COVID-19 pandemic.

2. **Proper N95 Respirator Use for Respiratory Protection Preparedness** – The National Institute for Occupational Safety and Health (NIOSH) Science Blog offers some strategies for identifying the best respirator fit.

3. **Sequence for Putting on Personal Protective Equipment (PPE)** – This document shows the sequence to properly don and doff PPE.

     ii. Crisis Response

1. **What Healthcare Personnel Should Know about Caring for Patients with Confirmed or Possible COVID-19 Infection** – This document details how to protect oneself when treating patients who are confirmed or possible COVID-19 patients. It includes steps for environmental cleaning and disinfection and guidance for when an individual should contact Occupational Health Services. It also includes a guide on interim infection and prevention control for patients with, or suspected of having, COVID-19 in healthcare settings.

2. **Just In Time (JIT) Skills Training Videos for COVID-19** – These videos are provided to support preparedness training activities and provide JIT training for all frontline, assessment, and treatment facilities caring for a patient suspected or confirmed to be infected with COVID-19. Topics include:
   - Laboratory Specimen Collection: Nasopharyngeal Swab
   - Personal Protective Equipment for 2019 Novel Coronavirus (COVID-19)

3. **Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with COVID-19** – This interim guidance is intended to assist with assessment of risk, monitoring, and work restriction decisions for HCP with potential exposure to COVID-19.

4. **Criteria for Return to Work for Healthcare Personnel with Confirmed or Suspected COVID-19 (Interim Guidance)** – This interim guidance is for occupational health programs and public health officials making decisions about return to work for healthcare personnel with confirmed or suspected COVID-19.

To access more resources, review the ASPR TRACIE COVID-19 Workforce Protection/Sustainability Resources Page and the COVID-19 Workforce Virtual Toolkit: Resources for Healthcare Decision-Makers Responding to COVID-19 Workforce Concerns.