Caring for Patients in Inpatient and Outpatient Settings During Episodes of Surge
American Academy of Pediatrics Interim Clinical Guidance
September 27, 2021

The American Academy of Pediatrics (AAP) strongly supports the uninterrupted care of children during the COVID-19 pandemic to ensure timely access and optimal care outcomes. Enhancing the capacity for emergency readiness on a day-to-day basis in all settings is the first step towards operational preparedness and resiliency for large-scale disasters and pandemics. The AAP recognizes that many areas of the United States have experienced and continue to experience surge episodes related to the COVID-19 pandemic. This document provides a framework of prevention strategies as well as proactive surge planning to guide efforts for continued response and additional preparedness, focusing primarily on responses that can be implemented.

Patient volume or disease prevalence surges are common occurrences in pediatric care. Winter virus seasons, such as those attributable to influenza or respiratory syncytial virus (RSV), typically occur annually, and pediatricians and children's hospitals are generally able to anticipate and respond to these events. The COVID-19 pandemic has resulted in an extraordinarily prolonged surge with substantial increases in morbidity and mortality seen across multiple "waves" of illness, as well as unprecedented stresses on health care workers and support structures.

Surge capacity refers to the ability to evaluate and care for a markedly increased volume of patients—one that challenges or exceeds normal operating capacity. Surges may require alternate care processes and additional resources to meet the demand for services. Critical surges may require consideration of contingency planning or crisis care standards. During a public health emergency, surge requirements may extend beyond direct patient care to include tasks such as laboratory screening or epidemiologic investigations.

Planning should include readiness for increased numbers of patients seeking care, whether caused by COVID-19, other communicable diseases, extreme weather events, mental and behavioral health challenges, or the many other concerns prompting patients to seek care. Active response during the current pandemic must address ongoing shortages of health care staff, financial stresses on health care systems and providers, and supply chain issues affecting needed equipment and supplies. Ongoing collaboration with community and regional partners is necessary to address the current surge of patients requiring care, as well as consideration of situations that could lead to worsening this fall and winter.

I. Ambulatory Care Settings

As with any infectious disease, the ambulatory care setting (office, clinic, urgent care setting) is often the first place affected by a patient surge. Ideally, many children with suspected COVID-19 infection or mild, confirmed disease can receive triage and initial care in the medical home (see AAP Guidance on Providing Acute Care in the Ambulatory Setting). Referral to hospitals, especially hospital emergency departments (EDs), should be reserved for those children whose illness severity or associated medical disorders require a higher level of care to avoid overcrowding, extended patient waiting times, and delay of care in those facilities. Ambulatory care pediatricians and pediatric clinicians should remain current with disease prevalence, incidence, and severity in their communities.

Unique Challenges

- Ambulatory settings may experience challenges related to limitations of space (eg, limited room availability, location other than ground floors making outdoor visits difficult) and materials and supplies (eg, oxygen, syringes, and needles).
- Routine referral practices during normal operations (eg, transfer of children to an inpatient setting, limited ambulance availability) may be disrupted.
- Increased acuity of patients and increased volumes of non-COVID infectious diseases may occur.

Materials and Equipment:
Having appropriate supplies for pediatric patients is critical.

- Ensure adequate personal protective equipment (PPE) for staff and patients. Maintain appropriate supplies and anticipate the need to order supplies in advance.

AAP interim guidance on the use of PPE and Occupational and Safety Health Administration (OSHA) requirements for the protection of office workers should be followed. Specific to PPE shortages, allocation of limited resources should be managed in compliance with state and local public health guidance. Requests for testing related to surge may increase the need for diagnostic testing for a variety of reasons. The need for testing supplies should be anticipated, and these supplies should be made available for point-of-care use and/or for sending specimens to a reference laboratory.

Space:
The AAP supports the continuation of routine well-child care and vaccinations during the pandemic and times of anticipated and unanticipated patient surge.

- To safely care for patients and reduce the risk of disease transmission in the office, all patients should be screened for symptoms. Sick patients should be separated from children seeking well-child care. This cohorting can be accomplished by scheduling changes, separating patients spatially, such as placing patients seeking care for illness in different areas of the primary care clinic, outdoors, or in another location from patients in the facility for well visits. All patients over 2 years of age and all family members should be required to wear a face mask. See AAP Guidance on Face Masks and CDC information on the Use of Masks to Slow the Spread of COVID-19.
- Communication/messaging and plans for vaccinating younger children for COVID-19, when authorized by the FDA and recommended by the CDC, should be developed in advance of the need. See the AAP policy on COVID-19 Vaccines in Children and Adolescents and COVID-19 Vaccine for Children information and resources.

Staff:
A surge in patient volume impacts all staff.

- Options for enhancing staffing should be assessed and planned for prior to need.
- All office staff should be vaccinated and all should adopt and demonstrate compliance with infection prevention and control procedures. The exclusion of infected staff members from health care settings may produce additional strain on the remaining staff.
- The mental health and wellness of pediatricians, pediatric clinicians, and staff should be supported. Offices are encouraged to incorporate wellness into staff initiatives/meetings/work flow and to increase mental health support for patients, families, clinicians, and other staff.
- The ability to expand patient care hours can assist with surges in patient volume, yet this approach may be severely limited by the availability of staff and clinician resources. Expansion of care hours should only be undertaken with consideration of staff availability and clinician workload limits.
- The use of telehealth care may allow shifting of less acute care to a time when pediatricians and pediatric clinicians are removed from in-office stresses. This may serve to increase capacity for both

routine and acute illness visits. Telephone advice lines, using appropriate protocols, can also reduce the time burden on providers.

Structure:

- Increase the use of telehealth visits for conditions as appropriate. See Guidance on the Necessary Use of Telehealth during the COVID-19 Pandemic and the new AAP policy on Telehealth: Access to and Quality of Pediatric Health Care.
- Develop and utilize mechanisms for patient referrals or testing that cannot be performed in ambulatory clinic.
- Increase communication with families: utilize nursing staff to provide clinical advice and encourage the use of asynchronous communication methods such as web-based patient portals for nonurgent communications.
- Use social media to communicate on practice updates such as wait times and public health information such as testing sites.
- Maintain vigilance on compliance with infection prevention and control practices.

Other issues to consider:

- Increase mental health supports for families and staff during or after events. Maintain updated awareness of available community resources.

II. Community Hospitals

Unique Challenges:

- Many community hospitals may not care for large numbers of children during normal operating conditions. This may change dramatically during a surge.
- Routine referral practices during normal operations (eg, transfer of children to a pediatric facility) may be disrupted.
- Many community hospitals have decreased or ceased their delivery of pediatric inpatient care because of low volumes; this was further accelerated by adult patient surge earlier in the pandemic.
- Reduced capacity and access to interfacility transport providers has caused increased length of stay at referring EDs.
- Increased volumes of non-COVID infectious diseases created challenges for predicting future needs.

Materials and Equipment:

- Ensure that pediatric equipment, supplies, and medications for all ages of children and adolescents are available (including face masks suitable for children).
- Consult with hospital incident command leaders to develop strategies for obtaining pediatric supplies and conserving PPE and critical medications.
- Consider supplies/assistance needed to support telehealth, such as reliable Wi-Fi, tablets or mobile computers, and technical support.

Space:

- Consider the family-centered care model that would work best in a facility during a surge. Optimal care of children requires the presence of at least 1 parent or family member at the bedside. This might mean keeping families together (especially if several members of the family present with potentially the same type of illness) or separating the treatment of children from adults. Partnering with families

may help to reduce the care burden on limited numbers of staff. See AAP interim guidance on Family Presence Policies in In-Patient Settings During the COVID-19 Pandemic.

Staff:

- Review staffing guidelines in advance to ensure the capacity and capability to ramp up and address surges as they occur. Plan for circumstances when staffing becomes limited.
- Encourage staff to seek and maintain pediatric training (eg, Pediatric Advanced Life Support [PALS], Certified Pediatric Emergency Nurse Specialization) and ensure they are comfortable caring for children. Consider conducting pediatric disaster simulations/exercises involving scenarios that include sick children with staff.
- Utilize pediatricians in advisory roles for the hospital's incident command structure and for hospital-wide planning and response for pediatric surge and in the development of alternate and crisis care standards.
- Ensure staff have access to up-to-date pediatric management evidence-based guidelines on critical SARS-CoV-2 topics (such as multisystem inflammatory syndrome in children (MIS-C) and use of monoclonal antibody therapy) as well as more routine pediatric illnesses, such as bronchiolitis.

Structure:

- Develop a telehealth/pediatric consultation process or policy for higher acuity ill or injured children presenting to the hospital ED or for those requiring admission to an inpatient care unit. This consultation resource will be especially important when caring for children who require higher levels of care but cannot be transferred. See the AAP policy on Telehealth: Access to and Quality of Pediatric Health Care. The creation of transfer agreements covering patient communications and bi-directional transport options with local or regional tertiary or children's hospitals before a surge are beneficial.
- Consider credentialing requirements to support telehealth options within and across state lines and related payment.

III. Children's Hospitals and Pediatric Tertiary Care/Critical Care Facilities

Unique Challenges:

- Pediatric tertiary care/critical care facilities typically operate at high baseline bed census and therefore have limited surge capacities. This capacity has been further affected by staffing (nurses, therapists, etc) and provider shortages.
- There is a potential need for triaging resources and ethical considerations for prioritizing care under crisis care conditions.
- There are individual needs of highly complex patients that exceed intensive care unit surge capabilities.
- Collaboration in planning with community ambulatory care settings is not always easy to achieve, yet these efforts are critical.
- There is an existing mental health crisis.
- There is an economic impact of the ongoing pandemic and staffing shortages on health care professionals/staff.

Materials and Equipment:

- Consider conservation strategies of highly utilized medications (eg, oxygen, sedation medications, antimicrobials) and PPE.

Space:

- Utilize clinical spaces first as alternate care sites; consider creating alternate care sites (eg, parking lots, conference space) for routine care, vaccinations, testing, or care of children with low-acuity illnesses.
- To improve efficiency, consider negative airflow rooms in alternative care sites.
- Consider transferring children back to their local community hospital once acute issues are resolved to allow for high-acuity beds to be optimally utilized. Coordination with the child's medical home, as well as utilizing home health care programs and other community supports will help with transitioning children out of acute care settings.

Staff:

- Ensure pediatric staffing. Plan and train for crisis/alternative care standards.
- Identify providers who may have overlapping roles and may be able to help during a surge (such as med-peds nurses, respiratory therapists, hospitalists, or other staff who can assist with care in the Intensive Care Unit [ICU], ED, and inpatient settings and other areas of need).
- Seek out and cross-train adult staff with experience from previous COVID-19 pandemic surges in pediatrics.
- Recommend or ensure that pediatricians are involved with the hospital/health care system ethics committee and in policies/decisions for resource allocation, and at the community/regional level.

Structure:

- Have a process or policy on how to triage and transfer children to other facilities.
- Work with other regional pediatric tertiary centers to maximize shared inpatient care capacity and transport resources.
- Collaborate with regional community hospitals, and community pediatricians to enhance their pediatric care capabilities and capacity. This is an opportunity to leverage training and telemedicine as an asset. This planning should include mental and behavioral health.
- Connect with local health care coalitions and local or county public health departments for situational awareness and feedback on pediatric surge planning-related policies and procedures.

Resources

Overcrowding Crisis in Our Nation's Emergency Departments: Is Our Safety Net Unraveling? AAP Policy
Pediatric Readiness in the Emergency Department AAP Policy
Recommended Essential Equipment for Basic Life Support and Advanced Life Support Ground Ambulances 2020: A Joint Position Statement AAP Policy
AAP COVID-19 Interim Guidance on Caring for Children and Youth with Special Health Care Needs during the Pandemic
AAP COVID-19 Vaccines: What Pediatricians Can Do Now
ASPR Healthcare Coalition Pediatric Surge Annex Template
It's OK Not to Be OK: Physician Burnout and Mental Health National Institute for Health Care Management Foundation
National Suicide Prevention Lifeline
Physician Support Line
The Mental Health of Healthcare Workers In COVID-19 Mental Health America

Information for Families from HealthyChildren.org

COVID-19
The Science Behind COVID-19 Vaccines: Parent FAQs