Emerging Practices to Combat Coronavirus Disease (COVID-19):
Surge capacity

COVID-19 Clinical Knowledge Transfer from Vizient members and industry resources
Updated: April 16, 2020

Vizient is committed to ongoing research of Vizient members’ emerging practices and other related updates to federal and regulatory guidelines in support of efforts to combat the COVID-19 pandemic. The purpose of this document is to assist our members with critical information to supplement this work. As new information surfaces, updates will be provided.

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Practice trends

Organizations continue to develop strategies in collaboration with local, state and federal agencies to predict and respond to COVID-19 surge demands within their local areas. To address supply and equipment shortages, states are starting to work together to form regional alliances/purchasing consortiums to create greater purchasing power or aim to send excess supplies to hot spots.

Organizations continue to invest and use predictive analytics to estimate impact, prepare and allocate resources. This includes identifying ways to scale technology tools to screen, triage, test and treat patients as well as health care employees across care settings.

On April 13, CMS provided supplemental information for transferring or discharging residents between skilled nursing facilities (SNFs) and/or nursing facilities based on COVID-19 status (i.e., positive, negative, unknown/under observation) for cohorting purposes. In general, if two or more long-term care facilities are non-certified, approval is needed from the state survey agency.

On April 13, CDC updated operational considerations for infection control in non-U.S. facilities, triaging sick patients, identifying sick workers and inpatients and managing visits.

On April 9, CMS issued a press release that provides flexibilities for healthcare frontline professionals to practice across state lines and work at top of license to handle the incoming surge of patients (applies to Critical Access Hospitals (CAHs), Rural Health Clinics (RHCs), Federally Qualified Health Centers (FQHCs), Skilled Nursing Facilities (SNFs), Home Health Agencies (HHAs), and Hospice.

- Doctors can now directly care for patients at rural hospitals, across state lines via phone, radio, or online communication (telehealth), without having to be physically present.
- Nurse practitioners, in addition to physicians, may now perform some medical exams on Medicare patients at skilled nursing facilities, even if they are not COVID-19 related.
- Occupational therapists that work for home health agencies can now perform initial assessments on certain homebound patients.
- Hospice nurses will be relieved of participating in hospice aide in-service training activities, among other waivers.

On April 8, CDC issued new guidance on essential critical healthcare workers. The guidance offers expanded recommendations: screening and discharging COVID-19 patients, visitor restrictions, staff screening and testing and return-to-work policies. Dialysis centers can also protect patients with end-stage renal disease.

On April 8, CMS also provided updated infection control measures information to prevent the spread of COVID-19 in Hospitals, Psychiatric Hospitals, and Critical Access Hospitals (CAHs) which updates FAQs, Considerations for Patient Triage, Placement, Limits to Visitation and Availability of 1135 waivers.
On April 2, CMS issued a memorandum for separate staff that care for COVID 19 patients and separate dedicated COVID 19 facilities in a region.

**Telemedicine**

New and reduced regulations are allowing providers to quickly stand up and expand telemedicine operations.

- American Physician Therapy Association Summary of Commercial Payer Telehealth or E-visits Coverage
- Wall Street Journal: Hospitals monitor some Coronavirus patients at home
- View the full list of 85 new CPT codes launched recently for reimbursable virtual health services for CMS

Practices shared by Vizient members:

- With mobile telemedicine apps, EMS can remain outside the patient’s home or remote physician providers can text a link to the patient’s mobile device to establish a secure telehealth video conference.
  - One organization is piloting using telehealth technology to have first responders communicate in real time with the Emergency Department physicians to evaluate patients and discuss the risks and benefits of transporting.
- Offer **video visits to triage** patients with symptoms consistent with COVID-19 (i.e. virtual visit platform managed by physicians or advanced care practitioners, quarantined providers, retirees, etc.).
- Develop **e-learning training modules** for providers on the use of videoconferencing platforms.
- **Virtual grand rounds** can foster sharing training information across specialties and facilities.
- Scale up **video visits across all ambulatory specialties** using available telemedicine technologies.
  - Virtual visits are increasing recognition of social needs and the importance of developing targeted approaches to address the needs.

*Updated 4/16/2020*

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**Triage and Emergency Department surge**

**Screening patients and staff**

Practices shared by Vizient members:

- **Develop communication outreach through technology**: Artificial intelligence (AI)-powered chatbots, targeted surveys, text, e-mail campaigns to inform and educate. Repurpose or create new websites to update information based on regulatory guidance (WHO, CMS, CDC, FEMA, FDA, etc.) for staff and consumers.
- **Online screening**: provide online COVID-19 screening tool (AI-driven symptom checker). Consider hardwiring screening data in patient chart and/or EMR.
- **Website chatbots (collaboration with Microsoft online assessment tool)** keeps people at home, handles increased volume of inquiries, answers questions, navigates available resources, diverts call center traffic or automatically updates information from the CDC/CMS.
  - CDC symptom-checker chatbot for COVID-19 (click self-checker)
  - Providence Health chatbot
- **Hotline or virtual screening**:
  - Establish COVID-19 RN/nurse lines, call centers or virtually provide symptom education. Screen and triage patients to the most appropriate site of care.
- **Employee screening**:
  - Use an electronic temperature (infrared screening) upon entrance; employees get masked, triaged or sent home (or transferred to designated hotel space).

Staff either takes temperatures prior to shift, self-report fever or question staff on symptoms such as cough, cold or respiratory illness.
Forward and reverse triage for testing and treatment locations

Practices shared by Vizient members:

- **Move triage sites** outside of the traditional ED triage area.
  - Limit access to entrances and use greeters.
  - Create influenza-like illness (ILI) and non-ILI areas (cool and hot zones). Isolate positive and PUI patients separately and deploy videoconferencing or telemonitoring to limit healthcare staff exposure. Expand cool and hot zones beyond ED throughout entire hospital.
  - Create entry bay for ambulances in the ED, placing isolation tents for patient evaluation and treatment for non-COVID patients.
  - Use University of Chicago Shared Pathway to evaluate critically-ill patients only in the ED.
- **Repurpose urgent care/lab/ambulatory facilities** into screening and testing non-COVID-19 patients.
  - Consolidate ambulatory clinics with multiple specialties into single areas (walk-ins not accepted). Others may designate specific alternative sites of care to provide additional screening and testing patients with symptoms consistent with COVID-19 (i.e. drive thru testing).
  - Alternative sites to consider for screening and treating non-COVID-19 patients include tents, parking lots, walk through clinics, drive thru clinics (i.e. diversion from ED and hospital).
- **Establish COVID-19 clinic locations** for providers to evaluate patients with flu-like symptoms, upper respiratory illnesses, fever and cough.
- For COVID-19 patients not needing hospitalization who are sent home:
  - Provide remote monitoring if possible (e.g., thermometer, pulse oximeter) to self-report every four hours via a telehealth platform and monitor vital signs remotely for any escalating conditions. Some are working with third-party vendors to implement mobile apps for patients to input data on vital signs so organizations can track/trend patterns and develop care pathways.
    - Provide education, a monitoring schedule and/or virtual check-ups with providers and/or specialists.
- **Reverse triage**: Assess inpatients for discharge or movement to a step-down facility, if allowed.

Updated 4/16/2020

Inpatient surge planning and response

Inpatient surge planning

Resources:

- CMS memorandum for separate staff that care for COVID 19 patients and separate dedicated COVID 19 facilities in a region.

Practices shared by Vizient members:

- Understand if your state government is initiating regional coalitions and collaborations between public health organizations, local stakeholders, private and public health systems to identify comprehensive surge planning strategies to deploy staffing, supplies and equipment safe exchanges.
- Develop plans and allocate space to cohort COVID-19 positive patients and PUI patients.
• **Identify alternative sites** such as unused or closed hospital space, conference rooms, break rooms, hospital lobbies, hospital-based inpatient rehab and other spaces within a facility. Organizations should also consider hospital-based long-term acute care centers, rehab gyms, free standing post-acute care facilities and ambulatory surgery centers. Community spaces such as dorms, convention centers, empty malls, hotels, etc. should also be considered for capacity expansions to optimize opportunities (i.e. accept med/surg patients) and/or cohort and/or transfer COVID-19 patients:
  - Temporary field hospitals may be used specifically for COVID-19 patients who do not require a ventilator while still receiving hospital payments under Medicare. Others may use field hospitals to address emergency department surge by offloading urgent care and routine outpatient populations.
  - Airbnb, hotel associations, local hotels, college dormitories are offering temporarily housing options for frontline healthcare workers at no cost.
  - View a process flow map and guidance document developed by Vizient experts on processing attestations from ambulatory surgical centers (ASCs) temporarily enrolling as hospitals during the COVID-19 public health emergency (CMS regulatory requirements QSO-20-24-ASC).
  - View a process flow map outlining hospital alternative care sites for in-patient surge capacity algorithm.

• **Physical capacity:** Identify, optimize and expand physical spaces in the ED, ORs, Critical Care, Medical/Surgical units, pre-op, post-anesthesia care units, endoscopy suites, infusion centers to convert space to create additional intensive care units.
  - Consider re-allocating equipment (i.e. moving ICU monitors and difficult airway carts).
  - Convert older rooms with double headwalls back to semi-private rooms and transform large private rooms to semi-private.

• **Optimize in-house capacity:** Reduce elective office visits, surgeries, non-emergent cases, procedures and transfers. Implement alternative care models, including virtual care and shifts to outpatient care. Organizations are striving to increase capacity by 50%-150% as CDC requirements adjust.
  - Develop special accommodations for immunocompromised patients where special units are created if they become COVID-19 positive.
  - Consider cohorting pediatric patients to stand-alone pediatric hospitals to create adult bed capacity across the region.
  - Use the American Academy of Surgeons Acuity Scale.
  - Case-by-case decisions are being made in collaboration with organizations’ transfer centers, incident command centers, ER/EMS, etc. and from reviewing data capacity models on negative pressure rooms, ICU, vents, etc.

*Updated 4/7/2020*

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**Predictive analytic tools**

Resources to help predict demand surge:

- CDC: National Healthcare Safety Network COVID-19 Patient Impact & Hospital Capacity Module
- Chicago Healthcare Analytics: Hospital Resource Calculator for COVID-19
- Johns Hopkins University of Medicine: Coronavirus Resource Center
- Sg2 Surge Calculator
- NYC Health: Bed Surge Capacity Expansion Tool
- Penn Medicine: COVID-19 Hospital Impact Model for Epidemics
• Providence Clinical Analytics: CoVERED Tool.
• Rand Corporation interactive tool
• The University of Washington population health research center: The Institute for Health Metrics and Evaluation COVID-19 projections
• Vizient COVID-19 ventilator medication demand projections to estimate needs over a four-week period by drug and drug class. To learn more, submit your request online.

Updated 4/7/2020

Discharge planning and disposition of patients with COVID-19

Resources:
• Many of the typical discharge planning requirements have been waived: View CDC Interim guidance for disposition of hospitalized patients with COVID-19.
  o Support lower average length of stay (LOS) in the acute care facility; CMS has waived the three-day inpatient LOS requirement for skilled nursing facilities to enable a more rapid transfer out of the hospital.
  o Post-acute care beds within acute care hospitals, such as inpatient rehab units, have been waived to function as Med/Surg beds and are being used to manage the surge.
  o Long-term acute care hospitals are no longer required to maintain an average LOS for non-traditional patients.
• CMS and CDC have issued infection control guidance to protect nursing home patients and staff around screening, testing, treating and return to work policies, etc.
• View CMS April 8 updated guidance on infection control to help prevent the spread of COVID-19 in all care settings.

Practices shared by Vizient members:
• Leaders from hospitals and PAC facilities should work together to determine what role various PAC facilities can play in providing surge capacity.
• Develop patient triage, cohorting, transfer algorithms for med/surg patients, COVID-19 patients to ensure safe, rapid transitions. Maintain warm-hand off practices.
• Adopt infection control protocols and prepare for staffing, equipment and infection control needs in the PAC environment.
• Aim to eliminate the preauthorization step for insurance coverage.
• Deploy virtual telemedicine between hospitals and PAC settings to reduce the need for specialists visiting patients and unnecessary transports to hospital.
• Home health agencies are starting to cohort patients (i.e. use telemedicine to care for non-COVID patients to help divert resources for COVID-19 referrals) with support from federal and state governments.
• State governments (New York, California and Massachusetts) are advising plans to designate specific nursing homes as care centers for COVID-19 patients.
• States are looking to form special strike teams/community rapid response teams to evaluate outbreaks in residential facilities (some may consider partnering with members of the National Guard) to offer testing, provide support for cohorting staff, assess sites (equipment, supply needs), provide on-site medical triage and stabilize residents to avoid unnecessary transport to hospitals.
• Support vulnerable patient populations
  o Develop collaboration with city, health system and community service stakeholders to develop plans to screen, triage, treat, provide protective supplies, identify symptom-specific locations, provide support services (i.e. meals).
Workforce

Resources:

• CDC issues new interim guidance for essential workers exposed to coronavirus to return to work.

Building a workforce surge plan

Practices shared by Vizient members:

• **Redeploy staff** and provide cross training for physicians, hospitalists, advanced practitioners, nursing, respiratory therapy, anesthetists, nurse anesthetists, cardiologists, oncologists, cardiac/orthopedic/general surgeons, technicians, intensivists and other ancillary staff.

• **Recruit retirees and volunteers** to triage or support patient care areas.

• **Tiered structure**: Develop a tiered capacity plan that addresses capacity building, containment, collaboration and conscientious use of resources:
  
  o Some organizations are standing up a **resource management center** with an online tracking system for excess staffing that can be redeployed with tiered skill levels and staffing (i.e. tier 1: surgical/anesthesia critical care, procedural staff; tier 2: med/surg; hospitalists, non-inpatient nursing staff; tier 3: community/ambulatory teams).
  
  o Identify appropriate tiers and bridge any clinical education/onboarding/"boot camp training" processes.
  
  o Others are looking to adjust care staffing ratios (i.e. nursing, patient care aides, runner/observer, care partners) depending on COVID-19/PUI acuity levels and acuity adaptable units (i.e. ICU, med/surg).
  
  o Several organizations are adopting the **SCCM Model for Tiered Staffing Strategy for Pandemic** and blending care teams for care delivery (intubation teams, proning teams, dubbing and doffing teams).

Licensure and credentialing

Practices shared by Vizient members:

• Review regulations for clinical license portability, scope of practice and transition from:
  
  o **The National Conference of State Legislatures.**
  
  o **American Association of Colleges of Nursing.**
  
  o **State Medical Board resources** from the Federation of State Medical Boards.
  
  o **Review Pharmacy Readiness for Coronavirus Disease 2019 (COVID-19) from ASHP.**
Make adjustments to licensures: i.e. the decision on whether to deploy medical students to the front lines is up to local schools and local situation. Adhere to GME requirements and regulations to appropriately allocate workforce.

Updated 4/16/2020

Resource and supply utilization

PPE preservation/admitting COVID-19 patients

Practices shared by Vizient members:

- Cluster care to reduce number of staff entering/exiting rooms, place controls in halls, reduce cross utilization.
- States have begun working together to create regional alliances/purchasing consortiums (may include community and company partnerships) to create greater purchasing power and to send excess supplies to hot spots.
- Utilize video conferencing and telemonitoring (tele hospital service) where possible to treat and monitor COVID-19 patients, acute care patients.
  - In ICU, utilize InTouch robots, if available, to help limit staff exposure to COVID-19 and preserve PPE.
  - Consider using Ipads to improve isolation experience during acute therapy.
  - ICU patients may be monitored remotely by command center team watching ICU rooms and monitoring stats.
- PPE conservation and sterilization efforts: Implement CDC guidelines to reuse and extend the use of N95 respirators (i.e. centralize PPE and sanitize for reuse) and other personal protective equipment to cover potential shortfalls.

Updated 4/16/2020

Ventilator utilization

Resources:

- NEJM: The Toughest Triage—Allocating Ventilators in a Pandemic
- FDA: Ventilator Supply Mitigation Strategies Letter to Health Care Providers
- HHS: Optimizing Ventilator Use During the COVID-19 Pandemic
- HHS and FEMA is proposing to implement a “ventilator exchange” program that would have major U.S. health care systems identify ventilator units that are not anticipated to be used within the next one-to-two weeks and would extend potential use by other hospital providers.

Practices shared by Vizient members:

- Develop contingency plans, triage documents and policies with state and health system leaders to protect clinicians as the number of critically ill surge.
- Review FDA guidance that allows for the use of anesthesia delivery systems for continuous ventilation.

Updated 4/16/2020
ECMO utilization

Resources:

- FDA approves guidance to expand the availability of devices used in ECMO therapy to treat COVID-19.
- Extracorporeal Life Support Organization (ELSO) will continue to publish new resources and treatment guidelines.
- GlobalData estimates the number of patients that may require extracorporeal machine oxygenation (ECMO).

Added 4/16/2020

Important guidance and resources

Overall

- Passage of HR 6074, the Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020
- Association of State and Territorial Health Officials

CDC Materials

- Guidance for Healthcare Professionals
- Alternate Care and Isolation Sites

CMS Guidance

- EMTALA Enrollment and Certification
- EMTALA Requirements
- COVID-19 Emergency Declaration Blanket Waivers for Health Care Providers
- Medicare Enrollment Guidance for Physicians that Infrequently Receive Reimbursement from the Medicare Program
- Hospital Flexibilities to Fight COVID-19
- Interim Final Rule and Waivers
- Guidance to providers related to relaxed reporting requirements for quality reporting programs
- Guidance for hospitals (including critical access hospitals and psychiatric hospitals)
- Guidance under the Emergency Medical Treatment and Labor Act (EMTALA) to establish alternate testing and triage sites to address the pandemic
Separate staff that care for COVID-19 patients and separate dedicated COVID-19 facilities in a region.

Other Guidance

- EMS COVID-19 Resources
- FEMA COVID-19 Response
- Healthcare Professional Preparedness Checklist For Transport and Arrival of Patients Potentially Infected with COVID-19
- JAMA Network COVID-19 resources
- Kaiser Permanente Coronavirus Mitigation Playbook (cohorting patients)
- NHSN Patient Impact and Hospital Capacity Module
- The Society of Critical Care Medicine COVID-19 resources
- Health Affairs blog: Implement Critical Care Surge Strategies Now to Save Lives
- National Academy of Medicine: Duty to Plan: Health Care, Crisis Standards of Care and Novel Coronavirus SARS-CoV-2
- SHEA Novel Coronavirus 2019 (COVID-19) Resources
- The Lancet COVID-19 resource center
- The Joint Commission COVID-19 Tools and Resources
- Trump Administration Provides Financial Relief for Medicare Providers
- UW Medicine COVID-19 Resource site
- Vizient COVID-19 Continuous Patient Readiness Plan: Disaster Preparedness

Telemedicine

CMS Guidance

- General Provider Telehealth and Telemedicine Tool Kit contains electronic links to reliable sources of information regarding telehealth and telemedicine
- Medicare Telemedicine Healthcare Provider Fact Sheet that reviews Medicare coverage and payment of virtual services
- CMS Flexibilities to Fight COVID-19 (includes billing resources)

Other Guidance

- The Ohio State University: Resources for Providing Care by Telehealth
- Wall Street Journal: ICUs Leverage Remote Doctors and Telemedicine to Manage Coronavirus Deluge
- AMA: Quick Guide to Telemedicine in Practice Guide

Elective cases

CMS Guidance
- Adult Elective Surgery and Procedures Recommendations

Other Guidance

- American Academy of Surgeons: Guidance and Acuity Scale
- American College of Surgeons offers triage guidance for non-emergent surgical procedures during the COVID-19 outbreak
- Ambulatory Surgery Center Association state guidance on elective surgeries

Command Centers

- FEMA Incident Command System resources
- Rush University Medical Center Command Center Structure

Goals of care conversations with patients and families

- Vital talk
- Respecting choices
- COVID-19 goals of care
- The Importance of Addressing Advance Care Planning and Decisions About Do-Not-Resuscitate Orders During Novel Coronavirus 2019 (COVID-19)
- Prepare For Your Care

End of life

CDC Guidance

- Mass fatality management

Other Guidance

- HHS Fatality management site, also includes multiple links to facility plans
- NYC Mass Fatality Management Guidance
- NH Public Health Service considerations at end of life
- National Hospice and Palliative Care Organization Covid19 resources

Long-term care

CMS Guidance

- Long Term Care Facilities (SNF and/or Nursing Facilities) Flexibilities
- Inpatient Rehabilitation Facilities Flexibilities
- Home Health Agencies Flexibilities
- Nursing home virtual health toolkit

CDC Guidance

- Preparing for COVID-19; Long Term Care Facilities, Nursing Homes
- Severe Outcomes Among Patients with COVID-19
Other Guidance

- American Medical Rehabilitation Providers Association COVID-19 resources
- The Society for Post-Acute and Long-Term Care Medicine resources
- Wall Street Journal: New York Mandates Nursing Homes Take COVID-19 patients discharged from hospitals
- Epidemiology of Covid-19 in a Long-Term Care Facility in King County, Washington
- Indiana State Department of Health COVID-19 Toolkit for Long-term Care
- Michigan Department of Health and Human Services Hospital to Post-Acute Care Transition Form

Additional emerging practices

Access resource documents on other topics.

- Managing critical supplies
- Emerging clinical evidence
- Testing
- Staff impact
- Visitation