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

COVID-19 Clinical Knowledge Transfer from Vizient members and industry resources
Updated: April 9, 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. It’s recommended to initiate efforts by standing up a command center to streamline real-time communication, increase awareness and access to clinical and operational guidance.

Investments or partnerships in predictive analytics tools has helped organizations predict surges in number of cases tested, PUI, mortality rates as well as model supply, equipment, staffing and site of care needs. This information is being tracked in dashboards or used to build triage frameworks and develop tiered capacity plans. The use of technology has accelerated ways to assess, triage, screen, test and treat patients. Organizations are using online platforms to provide screening tools, make assessments through chatbot, triage through video conferencing as well as screen and triage through alternative sites of care (i.e. standing up tents, drive through testing, emergency bays etc.).

Telemedicine regulatory barriers continue to drop for COVID-19. View the March 17 fact sheet from CMS on Medicare Telemedicine Health Care Provider. For recommendations on rapidly expanding the healthcare workforce, review the March 30 press release from CMS on Sweeping Regulatory Changes to Help U.S. Healthcare Systems Address COVID-19 Patient Surge. In this guideline, CMS acknowledges that it will temporarily allow ambulatory surgery centers to contract with local healthcare systems to provide hospital services, or they can enroll and bill as hospitals during the emergency declaration as long as they are not inconsistent with their State’s Emergency Preparedness or Pandemic Plan.

HHS issued guidance on Optimizing Ventilator Use during the COVID-19 Pandemic and recommendations were provided from NEJM on the Toughest Triage- Allocating Ventilators in a Pandemic. CDC provides interim guidance for disposition (discharging hospitalized patients) with COVID-19 to post-acute care facilities.
Telemedicine

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

- AMA: Quick Guide to Telemedicine in Practice Guide
- CMS: General Provider Telehealth and Telemedicine Tool Kit contains electronic links to reliable sources of information regarding telehealth and telemedicine
- CMS Fact Sheet: Medicare Telemedicine Healthcare Provider Fact Sheet that reviews Medicare coverage and payment of virtual services
- CMS: Physicians and Other Clinicians—CMS Flexibilities to Fight COVID-19 (includes billing resources)
- The Ohio State University: Resources for Providing Care by Telehealth
- Wall Street Journal: ICUs Leverage Remote Doctors and Telemedicine to Manage Coronavirus Deluge

Practices shared by Vizient members:

- Offer **free video visits to triage** patients who think they may have COVID-19 (i.e. virtual visit platform managed by physicians or advanced care practitioners).
- Develop **e-learning training modules** for providers on the use of videoconferencing platforms.
- Investigate implementing a **100% telemedicine** process for patients versus a focused inpatient assessment as part of EMTALA medical screening exam.
- Scale up **video visits across all ambulatory specialties** using available telemedicine technologies.
- Develop a plan to handle **broadband and cellular service barriers** (i.e. inconsistent access to cellphones and other technologies).

*Updated 4/9/2020*

Triage and Emergency Department surge

Screening patients and staff

Practices shared by Vizient members:

- **Online screening**: provide online COVID-19 screening tool (AI-driven symptom checker); hardwire into EMR
- **Website chatbots** to answer questions, navigate available resources, divert call center traffic or automatically update the CDC information
  - CDC symptom-checker chatbot for COVID-19 (click self-checker)
  - See Providence chatbot (click Coronavirus Assessment Tool)
- **Hotline screening**:
  - Establish a COVID-19 hotline for RNs to manage, triage and screen patients.
  - Use outgoing public messaging advising patients not to present unless completely necessary.
- **Employee screening:**
  - Use an electronic temperature (infrared screening) upon entrance; employees get masked, triaged or sent home
  - Staff either takes temperatures prior to shift, self-report fever or question staff on symptoms such as cough, cold or respiratory illness

*Updated 4/9/2020*

**Testing and treatment locations**
Practices shared by Vizient members:
- **Repurpose urgent care/ambulatory facilities** into screening and assessing/testing non COVID patients; consolidate ambulatory clinics with multiple specialties into single areas
- **Establish COVID-19 clinic locations** for providers to evaluate patients with flu-like symptoms, upper respiratory illnesses, fever and cough

*Updated 4/9/2020*

**Forward and reverse triage**
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.
  - 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.
  - Available sites to consider for screening and treating non-COVID patients: tents, parking lots, walk through clinics, drive through clinics (i.e. diversion from ED and hospital).
- 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 remotely for any escalating conditions.
  - Provide education, a monitoring schedule and/or virtual check-ups.
- **Reverse triage:** Assess inpatients for discharge or movement to a step-down facility, if allowed.

*Updated 4/9/2020*

**Inpatient surge planning and response**

**Inpatient surge planning**
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).

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 safely.

• **Identify alternative sites** such as unused or closed hospital space, doctor-owned hospitals, conference rooms, break rooms, hospital lobbies, inpatient rehab centers, ambulatory surgery centers, dorms, convention centers, empty malls, hotels, warehouses, etc. to analyze physical capacity for optimization opportunities and cohort and/or transfer patients.
  
  o This space is being used to develop dedicated temporary field hospitals specifically for COVID-19 patients who do not require a ventilator while still receiving hospital payments under Medicare.
  
  o Others may use field hospitals to address emergency department surge by offloading urgent care and routine outpatient populations.
  
  o Some are partnering with hotels or college dorms to provide temporary housing options for employees.

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

• **Optimize in-house capacity**: Reduce elective office visits, surgeries, procedures and transfers; implement alternative care models, including virtual care and shifts to outpatient care. Organizations are striving to increase capacity by 50%, 100%, 150%; making adjustments as CDC requirements adjust.
  
  o Develop special accommodations for bone marrow transplant, oncology, solid organ transplant and pregnant patients where special units are created if they become COVID-19 positive.
  
  o Use the American Academy of Surgeons Acuity Scale.
  
  o Others are developing a contingency plan to develop care plans for patients with Strokes, MIs, Trauma patients.
  
  o Case by case decisions are made in collaboration with transfer centers, incident command centers, ER/EMS, etc. and from reviewing data capacity models on negative pressure rooms, ICU, vents, etc.

*Updated 4/9/2020*

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**Command Centers**

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

Practices shared by Vizient members:

- Establish an Incident Command Center early; staff the center 24/7 to enhance communication and provide coordinated efforts on procuring supplies, equipment for screening, testing, etc.

*Updated 4/9/2020*

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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's Surge Calculator
- NYC Health: Bed Surge Capacity Expansion Tool
- Penn Medicine: COVID-19 Hospital Impact Model for Epidemics
- Rand Corporation interactive tool
- The University of Washington population health research center: The Institute for Health Metrics and Evaluation COVID-19 projections

*Updated 4/9/2020*

**Cohorting patients**

Resources:

Kaiser Permanente Coronavirus Mitigation Playbook

Practices shared by Vizient members:

- Develop plans and allocate space to cohort COVID-19 positive patients and PUI patients.
- Cohorting pediatric patients to stand-alone pediatric hospitals to create adult bed capacity across the region, if possible.
- 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.

*Updated 4/9/2020*

**Goals of care conversations with patients and families**

Resources to facilitate communication:

- 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

*Updated 4/2/2020*

**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.

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.

On March 13, CMS issued guidance for infection control and prevention of COVID-19 in nursing homes to restrict visitors. On March 23, CMS announced nursing home insights from focused infection control surveys.

Practices shared by Vizient members:

- Practice patient flow best practices twice a day (rounding, discharge early, by noon or earlier) to improve hand-off communication.
- Initiate discharge planning during the admission process, implement warm structured hand-off and schedule post-discharge calls within 24 - 48 hours of discharge and schedule a telehealth visit within seven days for all patients to ensure patients are receiving the intended care and to avoid readmissions.
  - High-risk patients will require additional bundled interventions and testing requirements.

Updated 4/9/2020

Disposition of non-hospitalized patients with COVID-19

Practices shared by Vizient members:

- Develop specialized post-acute care environments for patients who may be contagious. Plan to cohort and isolate COVID-19 patients from others. Ensure access to supplies and equipment.
- Long-term care hospitals and hospital-based skilled nursing facilities may be able to adopt this specialized role to accept COVID-19 (+) patients.
- Use rural hospitals, with less than 50% occupancy rates, as post-acute care sites as many have "swing bed" capacity.
- Admit patients to rehab based on the level of medical complexity.
- Maintain programming for traditional patients, yet, work with compliance to document the details of any admissions and care of non-traditional patients to manage to any regulatory considerations.

Updated 4/6/2020

Resource and supply utilization

PPE preservation

Practices shared by Vizient members:

- Utilize video conferencing and telemonitoring where possible. In ICU, utilize InTouch robots, if available, to help limit staff exposure to COVID-19 and preserve PPE.
• Source personal protective equipment to have adequate supply, and 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.

• Utilize social media as a crowdsourcing solution; find open source solutions to the shortage; request donations from the community; hold “supply drives.”

Updated 4/2/2020

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

Practices shared by Vizient members:
• Develop contingency plans for items such as ventilators.
• Develop triage documents and policies with state and health system leaders to protect clinicians as number of critically ill surge.
• Review state guidelines for ventilator allocation.
• Review FDA guidance that allows for the use of anesthesia delivery systems for continuous ventilation.

Updated 4/6/2020

End of life

• CDC guidelines for mass fatality management
• 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

Updated 4/9/2020

Workforce

Building a surge strategy plan
See CDC new interim guidance for essential workers exposed to coronavirus to return to work

Practices shared by Vizient members:
• Develop a workforce strategy: inventory skills and experience of clinical staff to re-deploy and float staff.
• Understand needs and gaps including bed capacity, staff size and flex capacity. Customize strategy as situation evolves.
• **Redeploy staff** and provide cross training: 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 patient care areas.

• **Tiered structure:** Develop a tiered capacity plan that addresses capacity building, containment, collaboration and conscientious use of resources:
  - 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).
  - Identify appropriate tiers and bridge any clinical education/onboarding/“boot camp training” processes.
  - 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).
  - 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).

• For **pharmacy staff**, review **Pharmacy Readiness for Coronavirus Disease 2019 (COVID-19)** from ASHP.

*Updated 4/9/2020*

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### Onboarding and training

Practices shared by Vizient members:

• **Onboarding:** develop an abbreviated clearance process whether onboarding permanent or contingent staff.
  - Consider developing an **internal training program, just-in-time training** or collaborate with a vocation school to offer an abbreviated patient care technician course to train non-healthcare workers.
  - Clinicians treating patients with COVID-19 should **regularly review** CDC’s updated recommendations and consult with ICU leadership and/or infectious disease specialists.

*Added 4/2/2020*

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### Licensure and credentialing

Practices shared by Vizient members:

• Review regulations for clinical license portability, scope of practice and transition from:
  - **The National Conference of State Legislatures**
  - **American Association of Colleges of Nursing**
  - **State Medical Board resources** from the Federation of State Medical Boards
  - For pregnant, older or immunocompromised staff, many organizations are removing from treating COVID-19 patients, or allowing them to opt out.
  - Adjust 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.
Important guidance and resources

Overall
- Association of State and Territorial Health Officials
- CDC: Guidance for healthcare professionals
- CMS guidance: EMTALA
- CMS requirements: EMTALA
- CMS: COVID-19 Emergency Declaration Blanket Waivers for Health Care Providers
- CMS: Medicare Enrollment Guidance for Physicians that Infrequently Receive Reimbursement from the Medicare Program
- EMS COVID-19 Resources
- FEMA COVID-19 Response
- 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
- Trump Administration Provides Financial Relief for Medicare Providers
- UW Medicine COVID-19 Resource site

Elective cases
- CMS: Adult Elective Surgery and Procedures Recommendations
- 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

Long-term care
- CMS COVID-19 Emergency Declaration Blanket Waivers for Health Care Providers (retroactive effective date of 3/1/202-end of emergency declaration)
- American Medical Rehabilitation Providers Association COVID-19 resources
- The Society for Post-Acute and Long-Term Care Medicine resources

**Additional emerging practices**
Access resource documents on other topics.
- Emerging clinical practices and evidence
- Managing critical supplies
- Testing
- Staff impact
- Visitation