Post-Acute Care Preparedness in a COVID-19 World

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Coronavirus disease 2019 (COVID-19) has led to a surge of patients requiring post-acute care. In order to support federal, state, and corporate planning, we offer a four-stage regionally oriented approach to achieving optimal systemwide resource allocation across a region’s post-acute service settings and providers over time. In the first stage, the post-acute care system must, to the extent possible, help relieve acute hospitals of non-COVID-19 patients to create as much inpatient capacity as possible over the surge period. In the second stage after the initial surge as subsided, post-acute providers must protect vulnerable populations from COVID-19, prepare treat-in-place protocols for non-COVID-19 admissions, and create and formalize COVID-19 specific settings. In the third stage after a vaccine has been developed or an effective prophylactic option is available, post-acute care providers must assist with distribution and administration of vaccinations and prophylaxis, develop strategies to deliver non-COVID-19 related medical care, and begin to transition to the post-COVID-19 landscape. In the final stage, we must create health advisory bodies to review post-acute sector’s response, identify opportunities to improve performance going forward, and develop a pandemic response plan for post-acute care providers. J Am Geriatr Soc 68:1150-1154, 2020.

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Coronavirus disease 2019 (COVID-19) is overwhelming the nation’s acute care hospitals, creating an immediate and dire need to increase availability of inpatient beds, ventilators, and personal protective equipment (PPE).

The supply of care provided after a hospital stay, commonly referred to as “post-acute care,” has also been disrupted by the pandemic. Post-acute care includes long-term acute care hospitals (LTACHs) that provide hospital-level care for medically complex patients; inpatient rehabilitation facilities (IRFs) that provide hospital-level intense medical rehabilitation focused on restoring functional independence for individuals with disabilities resulting from an injury, illness, or medical condition; skilled nursing facilities (SNFs) that provide skilled nursing, medical management, and therapy services to individuals who do not require services provided in a hospital; and home health agencies (HHAs) that provide skilled care delivered by healthcare professionals in the patient’s home for the treatment of a medical condition, illness, or disability.

Under normal conditions, post-acute care providers relieve capacity in inpatient hospital settings and serve a little less than one-half of all Medicare patients discharged by hospitals. Their normal roles are defined and somewhat constrained by regulatory requirements, clinical capabilities, and other legacy issues. For example, SNFs take a high portion of post-acute discharges for rehabilitative care, and they also serve as the nursing home residence for a very frail population that lives in these facilities for long periods of time.

The role these providers will play now, at a time when hospital capacity is most constrained, is in tremendous flux. Congress and the Centers for Medicare & Medicaid Services (CMS) recently invoked emergency authority through legislation and waivers to offer significant new flexibilities to reduce constraints on the types of patients these providers may serve and when they can provide care. Despite these flexibilities, the potential for COVID-19 infection of buildings and post-acute care workers (whose access to PPE is much lower than in hospital settings) continues to pose significant and growing public health threats that hamper the ability of post-acute providers to help address hospital capacity constraints.

States and local healthcare delivery systems are responding to capacity constraints in widely varying ways, ranging from prohibiting transfer of any patients to post-acute settings, regardless of a patient’s tested or suspected COVID-19 status, to mandating that post-acute providers accept any or all such patients to relieve hospital capacity issues. These inconsistencies suggest the need to approach nonhospital resources systemically, locally, and from a public health perspective.

Given the ongoing risk of inundation at hospitals, with the concomitant demand to identify alternative settings of
care for noninfectious patients displaced by COVID-19 patients, public health professionals should be considering how to ensure optimal use of post-acute care resources. Most immediately, they need to ensure that hospitals have access to multiple postdischarge care options for non–COVID-19 patients. This can alleviate capacity constraints on their ability to care for critically ill patients infected with the novel coronavirus while protecting the frail residential populations that SNFs serve.

With proper planning and coordination, post-acute care providers can help achieve several important goals in both the short and long term:

1. Serve as a hospital relief valve for non–COVID-19 patients, freeing up desperately needed capacity to manage the surge in COVID-19–positive patients;
2. Help to prevent hospitalization of non–COVID-19 patients;
3. Protect current post-acute patients and workers from contracting the virus; and
4. In targeted cases, operate exclusively as designated post-acute COVID-19 centers.

To achieve these goals, we suggest a four-stage regionally oriented approach to achieving optimal systemwide resource allocation across a region’s post-acute service settings and providers over time. This framework is available to support federal, state, and corporate planning. But we caution that any plan’s effectiveness will depend on strong local and regional leadership and timely implementation of strategies and tactics as outlined.

Nationally, Congress and CMS have a continued obligation to continuously monitor the effectiveness of current and forthcoming regulatory waivers and to adjust post-acute care payment systems to account appropriately for costs associated with treating COVID-19 patients.

Our framework borrows heavily from a report by Gottlieb and colleagues that focused on the broader economic recovery (Figure 1).² We have adapted their framework to reflect the realm of post-acute care:

- Stage 1: Survive the Surge
- Stage 2: Regroup and Prepare
- Stage 3: Restructure to Recovery
- Stage 4: Redesign to Reality

### Framework for Post-Acute Care Preparedness in a COVID-19 World:

#### Key Strategies

| Stage 1: Survive the Surge | Stage 2: Regroup and Prepare | Stage 3: Restructure to Recovery | Stage 4: Redesign to Reality |
|---------------------------|-------------------------------|--------------------------------|-----------------------------|
| 1. Outplace non-COVID patients in non-acute hospitals | 1. Protect vulnerable populations from COVID infection | 1. Tap post-acute providers to participate in front lines of distribution and administration of prophylaxis, vaccinations | 1. Create local hospital/ post-acute/public health advisory bodies |
| 2. Assess capacity of SNFs and HHAs and other sources of care to enable hospital discharges for non-COVID-19 patients | 2. Prepare treat-in-place protocols for non-COVID admissions | 2. Continue and deepen strategies to deliver non[en]COVID-related medical care at home and in residential care communities | 2. Identify opportunities to optimize post-acute care at market level for system performance moving forward |
| 3. Direct regional post-acute care providers to identify separate, specialized capacity for COVID-positive discharges | 3. Create and formalize post-acute care COVID designations and create transfer protocols for various designations | 3. Prepare strategic plan for transition | 3. Create, revise, and revisit pandemic response plan to include optimal use of all delivery system resources, supplies/equipment, and staff necessary to meet demand |

Figure 1. Framework for post-acute care preparedness in a COVID-19 world: key strategies. HHA, home health agency; SNF, skilled nursing facility.
2. Undertake rapid regional assessments of the immediate and usable capacity of SNFs, HHAs, and other sources of care to enable hospital discharges for non-COVID-19 patients. Not all markets have IRFs or LTACHs, and even in those that do, beds are limited. However, until accurate testing equipment is widely available, with priority given to first responder, hospital, and post-acute staff, we believe it is inadvisable to require nonhospital post-acute providers (SNFs in particular) to accept any or all discharges from acute care hospitals. Without timely and reliable testing, we cannot assure the safety of current nursing home residents and post-acute patients. Further, many SNFs lack the building design and staffing resources to isolate infected or quarantined admissions.

In some markets, and assuming effective testing regimes, some post-acute providers may have new available capacity, as well as the capabilities and willingness to accept non-COVID-19 or even COVID-19–positive patients (see capability assessment recommendations). Further, some patients may be able to be safely discharged to home, with a combination of home health and physician care (eg, through telehealth), assuming appropriate testing regimes for in-person caregivers.

3. Direct regional post-acute care providers to identify separate, specialized capacity for COVID-19–positive discharges. Local public health leaders must also identify post-acute care options for COVID-19–positive patients. Many of these patients will be extremely debilitated following mechanical ventilation and risk remaining in the acute care setting for 2 to 3 weeks. Post-acute care leaders should work to identify empty buildings/units or available capacity in the post-acute system that public health leaders can repurpose to permit the safe discharge or transfer of recovering COVID-19 patients to create hospital capacity. It may even be necessary, depending on the market or region, to consider the relocation of nursing home residents to create space for COVID-19–positive patients. Leaders will need to evaluate the risks and benefits of every option for post-acute COVID-19–positive care.

Implementation Tactics
Local public health officials working in collaboration with health and post-acute care system leaders should take these steps:

- Perform rapid structural capacity assessment: how many IRFs, LTACHs, and specialized SNFs and where they are.
- Contact IRF and LTACH assets in the market and develop plans for rapid discharge. Recognize that most Medicare Advantage plans have also waived authorization and other requirements. Move quickly to outplace as many patients as possible to these settings.
- Locate and map SNFs that may have the capacity and willingness to play the same role as IRF and LTACHs and accept non–COVID-19 patients. Recognize these are not hospitals, and perform functional capacity assessment to ensure protection of patients in light of imperfect COVID-19 test results. Do they have these features?
  - Separate units and/or ability to isolate post-acute patients from long-stay residents
  - Infection control capabilities and equipment
- Sufficient palliative medication supply
- Staff availability and training
- Ensure that specialized SNFs have the management, clinical team, and staff to care safely for COVID-19–positive patients. We would recommend the following components:
  - Experienced medical director
  - Separate units and the ability to isolate patients
  - Negative pressure rooms
  - Infection control capabilities
  - Adequate PPE supplies
  - Sufficient palliative medication supply
  - Experience in respiratory therapy and with patients who have received mechanical ventilation, piped-in oxygen
  - Staff availability and training
- Collaborate across acute and post-acute on testing, discharge processes, and PPE supplies. Encourage nursing homes and assisted living facilities to have resident-centered discussions about who would want a transfer to a hospital and who does not. For those who do not, ensure the nursing home or assisted living facility is prepared with adequate supplies of palliative care medications.

Per the recommendations in “National Coronavirus Response: A Roadmap to Reopening,” post-acute care optimization strategy may shift to stage 2, “regroup and prepare” when hospitals in the state are able to treat everyone without resorting to crisis standards of care, the state has the ability to test everyone who presents with symptoms, cases decline for 14 days, and the state performs active monitoring and contact tracing.

STAGE 2: REGROUP AND PREPARE (SUMMER, PRE-VACCINE)
As COVID-19 cases and deaths begin to decline following the surge, public health officials must continue to contain virus transmission, particularly as movement restrictions are eased. Further, they must prepare for possible subsequent surges by updating capacity management and patient transfer protocols, recognizing the continued need to manage post-acute care resources for all discharges, especially frail, vulnerable populations.

Top Three Strategies

1. Protect vulnerable populations from COVID-19 and other infections. Prioritize infection control and early treatment protocols in nursing homes and other hot spots of vulnerable populations. Public health officials and other healthcare system leaders collaborate to support nursing facility staff and leadership to ensure adequate training for and monitoring of infection control efforts. Prioritize testing and contact monitoring for nursing facility residents, assisted living residents, families, and workers. In preparation for infection, hospitals and nursing facilities should work collaboratively to ensure strong advance care planning protocols among nursing facility and assisted living residents as well as sufficient supply of palliative care medications.
2. **Prepare treat-in-place protocols for non–COVID-19 admissions.** Under normal circumstances, frail older adults visit an inpatient setting frequently. CMS and legislative waivers will now permit a range of strategies for delivering high levels of medical and palliative care at home, virtually through telehealth, and in facility settings. Public health officials and hospitals must explore and implement hospital-at-home programs, palliative care programming, and virtual home health. In these efforts, they should include residential care settings such as nursing home and assisted living facilities, where hospitalization rates were particularly high before COVID-19.

3. **Create and formalize post-acute care COVID-19 designations and create transfer protocols for various designations.** Now is the time to fully develop optimal non–COVID-19 and COVID-19 post-acute placement options that requires fully assessing market providers and creating a 12-month strategy for relieving hospital capacity at various intervals.

**Implementation Tactics**

Local public health officials working in collaboration with health and post-acute care system leaders should:

- Create community-level medical/public health task force for supporting “hospital-in-place” and COVID-19 specific palliative care programs for vulnerable populations, particularly residential care and nursing home long-stay populations.
- Perform a more thorough assessment of provider capacity for optimal deployment of systemwide post-acute care provider assets.
- Identify and request any missing waivers of current regulations and statute for payment to non-medical resources.
- Acquire and distribute necessary PPE, equipment, and supplies.
- Test and monitor staff and residents aggressively.

Per the recommendations in “National Coronavirus Response: A Roadmap to Reopening,” post-acute care optimization strategy may shift to stage 3, “restructure to recovery,” when a vaccine has been developed or an effective prophylactic option is available.

**STAGE 3: RESTRUCTURE TO RECOVERY**

As the country emerges from the initial surge in illness, deaths, and demands on our healthcare system, we will enter a period of aggressive testing, virus transmission controls, contact tracing, and, ultimately, widespread immunity through a vaccine. These disease control measures, regular testing, surveillance, and follow-up, should focus first on protecting first responders, doctors, and nurses, and then on the caregivers, residents, and staff of the post-acute care community including home health workers. By prioritizing these groups, we will assure an adequate supply of healthcare professionals to treat and manage the ongoing threat of virus infection and spread.

**Top Three Strategies**

1. Tap post-acute providers to participate in the front lines of distribution and administration of prophylaxis and vaccinations. These providers are most likely to be interacting with high-risk individuals including nursing home residents. Their staff also need maximal protection in working with populations most at risk for transmission and infection.

2. **Continue and deepen strategies to deliver non–COVID-19 related medical care at home and in residential care communities.** Begin to adopt long-term strategies that will prevent non–COVID-19 hospitalizations among populations at high risk for infection.

3. **Prepare strategic plan for transition of post-acute care resources to the post–COVID-19 landscape.** Identify community needs and demands relative to resources; redeploy as necessary.

**Implementation Tactics**

Local public health officials working in collaboration with health and post-acute care system leaders should follow these steps:

- Create communitywide healthcare task force for rationalizing and organizing distribution and administration of medications and vaccines according to Centers for Disease Control and Prevention priorities.
- Identify a frontline organizational “champion” within each provider to participate in communitywide effort, lead internal processes, and coordinate with other healthcare organizations.
- Prioritize improving and developing systems of handoff between settings of care to prevent vaccination or medication gaps.

**STAGE 4: REDESIGN TO REALITY**

Leaders in the post-acute sector are already recognizing the opportunity to improve the sector’s approach to caring for patients discharged from hospitals and/or who are frail and in need of medical and social supports. In addressing the burdens on our emergent-care systems, the post-acute sector is discovering new ways to care for patients, whether through more on-site skilled nursing or by more effective use of telehealth. We must evaluate these lessons and enhance our post-acute care provider capabilities, clarify their roles going forward, and evaluate the effectiveness of regulatory and legal payment waivers.

**Top Three Strategies**

1. Create local hospital/post-acute/public health advisory bodies. These groups will review what worked and what did not including the effectiveness of Medicare and Medicaid waivers.

2. Identify opportunities to optimize post-acute care at the market level for system performance moving forward. Document improvements in care delivery that can be made permanent.

3. Create, revise, and revisit pandemic response plan to include optimal use of all delivery system resources, supplies/equipment, and staff necessary to meet demand. Document what worked and what did not, and plan for the future.
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