

Improving Outcomes for Complex Pulmonary Patients



Recent research indicates that acute respiratory failure mortality rates are continuing to increase, further heightened by the COVID-19 pandemic and demographic changes.¹ For patients experiencing pulmonary conditions, such as acute respiratory distress syndrome (ARDS), specialized care after the ICU is being shown to play a critical role in patient survival and recovery.

This guide details the increasing need for pulmonary care expertise to treat the growing number of medically complex patients and explains the role long-term acute care hospitals (LTACHs) can play in caring for these patients.

Understanding the prevalence and severity of acute respiratory conditions

Despite advances in science, the fatality of ARDS, one cause of respiratory failure that affects about 190,000 Americans each year, continues to challenge healthcare providers.² Some key statistics related to ARDS are:

- Mortality of ARDS remains consistent around 35-40%.³
- Sepsis and pneumonia cause 40-60% of all ARDS diagnoses.⁴
- Patients with chronic illnesses and comorbidities are more susceptible to developing ARDS.⁵

There is currently no cure for ARDS and therefore treatment involves addressing the immediate hypoxia, thus allowing time to treat underlying conditions.⁶ The primary tool for supporting ARDS patients is ventilation, which has increased in demand with the emergence of COVID-19.

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The Increasing Demand for Respiratory Care

There are two key factors contributing to the rise in serious pulmonary diseases such as ARDS.

- **COVID-19:** COVID-19 and its variants can cause serious lung injury. Observational studies conducted in Wuhan, China found that 42-67% of COVID patients developed ARDS and that over 81% of patients that had expired were diagnosed with ARDS.^{7,8}
- **Chronic Illnesses:** Chronic illnesses are becoming more prevalent in patients of all ages, but especially among the elderly population, which is itself growing. Currently, 64% of the population age 65 and older have at least two chronic conditions.⁹ By 2030, 20% of the US population will be in that age category.¹⁰ Advanced age and chronic conditions are two risk factors that increase the likelihood of developing severe respiratory diseases such as ARDS.

As the COVID-19 virus mutates and surges, and as population changes increase the susceptibility to lung disease, America's health systems can expect a greater demand for pulmonology expertise.

LTACH Expertise in Pulmonary Care and Recovery

Patients with acute lung conditions, including those with COVID-19, often require long-term respiratory support and weaning from mechanical ventilation. At an LTACH, respiratory patients receive care from a team led by pulmonologists, a benefit not found in other PAC settings. LTACH clinicians are also educated and trained in their ability to liberate ventilator-dependent patients.

Studies have found that ventilator care at a specialized LTACH can benefit both patients and hospitals:

- One study showed that protocol-driven ventilator weaning led by respiratory therapists at LTACHs can significantly decrease time on ventilator, mortality and cost of care.¹¹
- Another showed that an earlier discharge of ventilated patients from the ICU to an LTACH is associated with higher weaning probability for patients on prolonged mechanical ventilation.¹²

LTACHs also provide treatment of the underlying causes of persistent lung diseases. Their interdisciplinary care teams of physicians and nurses are trained in the care of patients with chronic illnesses and multiple comorbidities. They also specialize in treating conditions such as pneumonia and sepsis which are significant causes of severe lung complications like ARDS.

How Kindred Can Help Your Respiratory Patients

Acute care providers need partners who can continue to provide physician-directed care that the extended recovery respiratory patients—particularly those on mechanical ventilation—require. Kindred Hospitals specialize in the treatment of medically complex patients who require intensive care and pulmonary rehabilitation in an acute hospital setting. With daily physician oversight, ICU- and CCU-level staffing, 24/7 respiratory care and specially trained caregivers, we work to improve functional outcomes, reduce costly readmissions and help patients transition home or to a lower level of care.



Clinical Protocol

Kindred Hospitals have proven success in treating patients with pulmonary disease and respiratory failure, including a long history of liberating patients from mechanical ventilation and artificial airways. Their program structure and management protocol include:

- A review of every new admission for inclusion in our Respiratory Failure Program
- Focused interdisciplinary care team and ventilator rounds for program participants
- Development of an individualized plan of care and creation of interdisciplinary goals targeting the patient's pulmonary needs
- Daily multidisciplinary assessment, evaluation, treatment and therapy following established clinical practice guidelines for ventilator liberation, early mobility, oral care, and maintenance of skin integrity.
- Disease-specific education for patients and their families in the Respiratory Failure Program
- Structured performance measure and patient perception data tracking to assess and assure program quality and ongoing success



Care Initiatives

Kindred Hospitals are committed to providing excellent care to patients and their families. In order to provide patients with an even higher level of clinical expertise, Kindred Hospitals are achieving disease-specific certifications from The Joint Commission for both respiratory failure and sepsis in all locations across the country.

Additionally, Kindred's early mobility program incorporates movement as early as is safe and possible into the recovery plan for patients, including those on mechanical ventilation. The goal of this program is to combat potentially detrimental consequences of immobility.

If you have a patient in need of pulmonary care after a hospital stay, call a Kindred Clinical Liaison for a patient assessment. Our experts will help you determine whether an LTACH stay is appropriate for your patient. If you are unsure of who your Kindred representative is, please feel free to contact us via recoveratkindred.com and speak with a Registered Nurse who can assist.

References

1. [https://journal.chestnet.org/article/S0012-3692\(20\)34937-0/fulltext](https://journal.chestnet.org/article/S0012-3692(20)34937-0/fulltext)
2. <https://www.yalemedicine.org/conditions/ards>
3. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7912364/>
4. <https://www.yalemedicine.org/conditions/ards>
5. <https://www.yalemedicine.org/conditions/ards>
6. [https://doi.org/10.1016/S0140-6736\(21\)00439-6](https://doi.org/10.1016/S0140-6736(21)00439-6)
7. [https://www.thelancet.com/journals/lanres/article/PIIS2213-2600\(20\)30079-5/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30079-5/fulltext)
8. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7070509/>
9. https://www.cdc.gov/pcd/issues/2020/20_0130.htm
10. <https://www.businessinsider.com/aging-population-healthcare>
11. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7774095/>
12. <https://bmcpulmed.biomedcentral.com/articles/10.1186/s12890-021-01454-1>