



Leadership | Strategy | Innovation

> PROJECT PROFILE

The HCA Physician Leadership Academy: Ventilator Optimization



> CHALLENGE

- Mechanical ventilation is an important critical care procedure that is associated with a number of potential complications. The risk of complication increases by one percent for each day on the ventilator and mortality of patients with acute lung injury who require this therapy is high ranging from 20 to 60 percent.
- Based on data from the HCA clinical data warehouse as of February 8, 2015. HCA's Methodist Hospital vent days averaged 5.26 compared to the San Antonio division rate of 4.88. Our goal was to reduce vent days by 25 percent.

> APPROACH

- MHS leaders and the HCA Ventilator Optimization Clinical Excellence team met to review best practices, assess current state and plan for improvement. In multiple sessions the MH Core Team defined and formalized the necessary stakeholders, reviewed literature, MH metrics and best practices, and set the vision for future care to minimize exposure to mechanical ventilation and improve patient outcomes. The team review, led by the CMO, established relevance of the initiative to the various disciplines of the team to drive engagement. The team identified gaps and established a project plan to implement known best practices (ABCDE bundle). The team then systematically developed and deployed education and tools including a multidisciplinary team (MDT) rounding tool, a daily awakening trial (SAT) and spontaneous breathing trial (SBT) protocol, in addition to Meditech screens for documentation of SAT, SBT, CAM assessment and mobility.
- Education and documentation tools completed. MDT rounds implemented in three of five ICUS. Nurses posted daily goals on the patient's communication board to involve family in the plan of care. The protocol for daily SAT and SBT are anticipated to be in place for use by November 1, 2015. Once the entire bundle is in place, identified process metrics will be collected daily and reviewed with the team weekly to monitor progress. The MH improvement team is facilitated by quality coordinator and consists of representatives from the intensivist group, nursing, respiratory therapy, pharmacy, physical therapy, dietary, case management, advanced clinicals and clinical informatics. Physician involvement includes the project champion and an intensivist from each of the three units in which a program is established. The team holds biweekly working meetings to assess progress against the work plan. ICU dashboard metrics are reviewed monthly with the improvement team and the intensivist group.

> ABOUT HCA

HCA stands for the best practices of medicine, using reach, scale and stability to transform healthcare and help communities thrive.

One of the nation's leading providers of healthcare services, HCA is made up of locally managed facilities that include 177 hospitals and 119 freestanding surgery centers located in 20 U.S. states and in the United Kingdom.

The goal of the PLA HCA is to produce the next generation of transformational leaders, and to provide the leaders with the skills necessary to make a lasting impact on the organization and the community.

**TEAM REVIEWED
BEST PRACTICES,
ASSESSED
CURRENT STATE
& PLANNED FOR
IMPROVEMENT**



> OUTCOMES

- Even early in the improvement effort, a two percent reduction of ventilator days was observed from a baseline of 5.02 YTD 2014 to 4.92 as of YTD 2015. When segmented by ICU, a greater reduction was suggested in those units with well-established MDT rounding.
- A powerful benefit associated with this improvement effort was a notable change in the culture of the ICU team. Providing a process and forum for physicians to review clinically relevant data and to be empowered to drive change shifted the culture of the ICU care team to embrace continuous improvement based on current best evidence. Multidisciplinary rounds, with clear roles and contributions from all participants has been the key to sustaining engagement of the entire care team.

BELOW 5

The baseline number of ventilator days was reduced to below five.

> ABOUT CTI

CTI specializes in healthcare transformation and clinical optimization. We work with our clients to improve the quality of care and patient experience, realize operational efficiencies, and manage costs through process improvements and performance excellence. CTI has assisted health systems, hospitals, and medical group practices throughout the U.S. and abroad to optimize their clinical practices in areas such as hospital medicine, oncology, and pediatrics.

We help healthcare providers to:

- set organizational priorities
- manage the cost of care
- formulate growth strategies
- adapt to changing regulatory mandates
- minimize patient length of stay
- reduce readmissions
- compensate for reductions in Medicaid and Medicare
- move to a value-based care model
- facilitate interoperability with network providers
- mitigate staffing shortages
- engage key clinical staff
- improve quality of care
- increase patient satisfaction
- manage talent
- plan for smooth and effective successions
- develop clinical and administrative leaders

To learn more, please go to ctileadership.com.

We believe you can achieve transformational success by applying leadership skills to your strong base of clinical skills. CTI fosters a culture of goal setting, collaboration, teamwork, and accountability that are essential to achieve long-term objectives for our client-partners. CTI is 100 percent focused on developing healthcare leaders. Our customized programs result in skill growth, improved performance, and long-term succession planning. CTI fosters a culture of goal setting, collaboration, teamwork, and accountability that are essential to achieve long-term objectives for our client-partners. We live leadership!

> CONCLUSIONS

- Coordination across the interdisciplinary team was essential to keep stakeholders informed, identify and remove barriers quickly and maintain momentum of the project. Engaged senior leaders and physician champions were essential to help removing barriers. A shared vision for care, established by MDT rounding tool, protocols and standardized rounding improved patient care, team engagement and individual sense of accomplishment and purpose.

**CHANGED
CULTURE BY
IMPROVING TEAM
ENGAGEMENT
AND ENTHUSIASM**

**FURTHER DECREASE
IN VENTILATION
DAYS IS EXPECTED**