

Client Achievements

Encompass Health and Cerner develop predictive model to reduce acute care transfers, win CHIME Collaboration Award



Key Benefits

- **Won CHIME Collaboration Award** through work developing predictive model to reduce acute care transfers

“The model was created using the knowledge, skills and capabilities utilized by both organizations to not only provide enhanced care and better outcomes for patients but also to do so in a manner that achieves business success for Encompass Health.”

Rusty Yeager,
Senior Vice President and
Chief Information Officer
Encompass Health

When a patient learns they must unexpectedly return to the hospital from a post-acute care facility, it is easy to imagine them feeling let down. Unplanned transfers from inpatient rehabilitation facilities to acute-care settings are not only inconvenient for patients but are also costly to post-acute care organizations, especially if the Centers for Medicare and Medicaid Services fines the hospital with a readmissions penalty. Encompass Health and Cerner partnered to develop a solution and The College of Healthcare Information Management Executives (CHIME) awarded the two organizations the 2019 CHIME Collaboration Award for their partnership.

Encompass Health, one of the largest providers of post-acute healthcare services in the U.S., paired with Cerner in 2009 to implement a post-acute electronic medical record (EMR) at each of its 133 inpatient rehabilitation hospitals across 37 states. The system, named ACE IT for Advancing Clinical Excellence through Information Technology, transformed Encompass Health from a paper-based system to a completely electronic workflow and documentation system.

Following the successful EMR deployment, the organizations collaborated on a predictive model to identify patients at risk for an unplanned acute care transfer (ACT) leveraging original research, machine learning and statistical analysis. Thirty statistical predictors of risk for an ACT were identified and these findings enabled the development of a first of its kind ACT algorithm that runs within Encompass Health’s EMR throughout each patient’s stay. The algorithm runs in near real-time and categorizes each patient’s risk level as new information is entered into the system. If a patient is

Client Information

- 133 inpatient rehabilitation hospitals
- 100+ inpatient rehabilitation hospitals with disease-specific care certifications
- 327 home health and hospice locations
- 37 states

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Adam Laskey,
Vice President, Long Term
and Post-Acute Care,
Cerner

categorized as high risk at any time, an alert is triggered to care team for the patient to receive an additional clinical assessment, which typically leads to enhanced monitoring and treatment.

“The model was created using the knowledge, skills and capabilities utilized by both organizations to not only provide enhanced care and better outcomes for patients but also to do so in a manner that achieves business success for Encompass Health,” said Rusty Yeager, senior vice president and chief information officer, Encompass Health. “We saw some of our best acute care transfer rate in more than a decade while simultaneously increasing our discharge to community rate, despite serving more complex patients during this period.”

Inspired by the success of ReACT, Encompass Health and Cerner launched the Post-Acute Care Innovation Center to develop additional clinical decision support tools to design innovations to more effectively and efficiently manage patients across multiple care settings.

“Working alongside Encompass Health in developing a tool to reduce acute care transfers directly aligns with our company commitment to imagine, design and implement intelligent health networks. We are proud to be recognized by CHIME for innovation and collaboration in this space,” said Adam Laskey, vice president, Long Term and Post-Acute Care, Cerner. “We are eager to expand upon this work through the Post-Acute Innovation Center, helping drive ideas that enhance and improve healthcare outcomes and experiences for all.”

Client outcomes were achieved in respective settings and are not representative of benefits realized by all clients due to many variables, including solutions scope, client capabilities and business and implementation strategies.

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