

1. Presentation Title:

A Dynamic Interdisciplinary Approach to Address Prolonged Mechanical Ventilation

2. Authors:

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3. Objective of Program:

Management of critically ill, medically complex ventilator patients with multiple co-morbidities pose significant challenges in the areas of throughput, increased length of stay, readmissions and hospital acquired conditions. The COVID 19 Pandemic has complicated this situation even more. These patients are typically treated in various units within the hospital with multiple physicians and respiratory personnel involved in weaning activities. There is a significant fatigue factor associated with these very complicated patients. With growing importance on quality metrics and customer service, these risks and challenges can have negative impacts on hospital's clinical and financial outcomes. The Objective of this Program is to illustrate how a major teaching hospital responded to this clinical and financial challenge, by partnering with an outside provider to develop and inhouse multi-disciplinary special ventilator weaning unit.

4. Planning/research methods:

The University of Alabama Hospital, partnering with TriVent Healthcare designed and developed a highly specialized intermediate care unit specializing and focusing on the complex longer term ventilator patients, specifically DRG's 003 and 004 as defined by CMS (patients with tracheostomy on the ventilator for at least 21 days both with and without additional complications such as ECMO, etc.) The 12 bed unit was staffed by Acute Care Registered Nursing Staff, 24/7 dedicated Respiratory Therapist operating with therapist driven weaning protocols, dedicated Physical Therapists, Occupational Therapists, dedicated Speech Language Pathologists, and dedicated Case Manager. Patients were/are evaluated based upon criteria as outlined in the presentation and cohorted within the Special Care Unit within this 1100 bed Academic Medical Center.

5. Implementation methods, including sample sizes:

Unit admission guidelines were developed and implemented. Consults were generated within the EHR for all patients throughout the hospital's various ICU's and based upon those guidelines, patients were transferred into the unit for ventilator weaning and liberation. Sample size includes the average daily census from October 2016 to July 2022 on patients (N=658) discharged from the Special Care Unit.

6. Results:

Average Ventilator Wean / Liberation Rate: 83.4%

Average Length of Stay (on unit): 23.8 days. A reduction of 9 days in overall hospital stay.

Readmission Rate: 5.9%