Discharge Implementation Project: Ascertaining if discharge implementation orders overall improves discharge metrics at a Texas Hospital

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Introduction

There are several factors preventing discharges out of the hospital within 24 hours that ultimately affects metrics for both hospital systems and physicians. These factors include pending labs, imaging, or procedures; pending placement approval at a facility outside of the hospital upon discharge; notification of family and caretakers; secured funding for devices and medicines; and others. In an attempt to mitigate preventable extra days spent in the hospital once a patient is medically ready for discharge, a Texas hospital implemented a discharge order set for providers to utilize that informs all involved parties including case management, PT/OT, social work, nurses, and others that the patient is medically ready to discharge. This plan was implemented with the primary goal of improving metrics for the hospital and providers that are related to discharge and length-of-stay, and was previously piloted at another hospital in Austin, TX with inconclusive data. The goal, as set by the hospital corporation, was to increase discharges out of the hospital at 11:00 AM and 1:00 PM to 20% and 45%, respectively; before the project was implemented the percentage of discharges by 11:00 AM and 1:00 PM were 5% and 27%, respectively.

Methods

QI Framework: Plan, Do, Study, Act. This framework is appropriate for this type of QI project because the goals were clearly defined by the hospital when the discharge order set was created. In our project specifically, the Plan was the conception of the order set, Do was the implementation of the order set, Study was the analysis of the results, and Act was the removal of the order set due to goal failure and determination of changes that need to be made if this is to be attempted again in the future.

While it was initially planned to collect data on the rate of use of the order set on one floor, the data was unable to be extracted from data across all floors, so the rate of order set implementation on each specific floor remains unknown. This is likely due to the hospitalist group using an integrated model for patient distribution. Additionally, the nurses reported not seeing the order set once implemented because it was grouped in with a large number of other regular orders in the EMR, instead of being prioritized.

Despite implementation of the order set, the hospital failed to see significant changes in discharge metrics compared to before the order set was implemented. As detailed in Figure 3, discharges by 11AM did not change from February 2023 to March 2023, starting and ending at 5%. Similarly, as shown in Figure 4, discharges by 1PM did not improve and actually decreased, from 27% to 24% in the same time period. Consequently, the order set was abandoned.

As implemented, this project did not meet either of the goals established, and was therefore determined to be a failure. Possible barriers to the success of the project include technological barriers and study design issues, that could potentially be addressed if this projected were to be attempted again. Future studies on similar measures to improve discharge metrics should include robust data collection methods for detailed analysis of results. Additionally, future studies should be done to see what measures from physician-led notification systems are effective in improving discharge metrics, and how those could be implemented in the hospital setting.

Results are likely not publishable. What can be learned from this attempt at a solution is that more robust methods are necessary for data collection to be useful in the proper evaluation of the success of an attempted solution to this problem. Future studies are needed in order to determine if this solution is viable as an option to help reduce the delays in discharge of patients.