Advancing Efficiencies in Throughput:

Advanced Practice Clinician (APC) and Physician Collaboration Improves Early Discharges in a High-Volume Hospitalist Service

CHALLENGE
Discharging patients earlier, when clinically appropriate, can significantly improve patient flow and hospital throughput (prior to 9 a.m. and 11 a.m. in hospital medicine patients). Poorly timed discharges result in bottlenecks, causing a block of access to inpatient beds which leads to patient boarding, hospital congestion, poor patient experience scores and – in some cases – higher mortality rates. The correlation between early morning inpatient discharges and improved throughput is well known, but often underachieved.

One Richmond-area medical center sought to improve early discharge times to help speed improvement in board times of emergency department (ED) patients. Inpatient admission times were generally shorter if the patient was admitted earlier in the day.

Hospital leadership turned to TeamHealth, looking for guidance in the form of a sister facility in Myrtle Beach, South Carolina, and the adoption of best practices and improvements made in early discharges.

SOLUTION
Over a 12-month period, the Myrtle Beach hospital analyzed discharges of hospital medicine patients. Prior to the launch of the initiative, the hospitalist group averaged 7% of discharge orders placed by 9 a.m. and 29% by 11 a.m.

These low discharge percentages prompted the facility’s decision to partner with TeamHealth to make substantial improvements in early discharges. They implemented a staffing model change of an APC acting as a designated discharge APC for each calendar day.

Working collaboratively, HM physicians identified patients for potential discharge, and on discharge day, the APC assessed each patient, determining if barriers to discharge were overcome. The final steps occurred when patients were determined to be ready for discharge, at which point the patients were reported to the physician, the physician saw the patient and finalized the plan of care with the APC before entering the discharge order into the EHR.

Studying a total of 12,909 patients over a one-year period, the Myrtle Beach facility’s goal was to achieve 25% of discharge orders placed by 9 a.m., and 40% by 11 a.m. on the hospitalist medicine service.

Encouraged by the Myrtle Beach results and working with TeamHealth’s HM performance improvement specialists, in July 2020 the Richmond area hospital began adopting the APC/HM model in hopes of replicating its sister hospital’s positive results.

Hospital Information
A 360-bed medical facility in Myrtle Beach, South Carolina and its sister facility, a 466-bed hospital in Richmond, Virginia

TeamHealth Services
Emergency Medicine (EM)
Hospital Medicine (HM)
In July 2020, encouraged by the Myrtle Beach results and in collaboration with TeamHealth’s HM performance improvement specialists, the Richmond area hospital began adopting the APC/HM model.

**One month prior to implementation in June 2020, Richmond’s percentages were as follows:**

- **7%** Discharge orders by 9 a.m.
- **25%** Discharge orders by 1 p.m.

In just over one month, the comparative percentages showed significant increases:

- **18%** Discharge orders by 9 a.m.
- **36%** Discharge orders by 11 a.m.

**RESULTS**

**Myrtle Beach**

Following the implementation of the interventions, the hospital noticed the following improvements:

- Percentage of discharges prior to 9 a.m. increased from **8.2% to 22.6%**
- Percentage of discharges prior to 11 a.m. increased from **29.2% to 42.5%**

**RESULTS**

**Richmond**

Following implementation of the early discharge protocols, the hospital noticed the following improvements:

- Percentage of discharges prior to 9 a.m. increased from **7% to 18%**
- Percentage of discharges prior to 11 a.m. increased from **36% to 47%**
- Percentage of discharges prior to 1 p.m. increased from **25% to 36%**

These improved averages at the Richmond hospital surpassed even the parent system’s division averages. Team Health’s Hospital Medicine Performance Director said the positive results were highlighted at goals progress meetings and multiple venues in the following weeks.

Designed to standardize the discharge process, FMDs believe the consistent use of the APC is a “best practice” model to improve hospital throughput and overcome challenges associated with the timely discharge of medicine patients.

The South Carolina study demonstrated the effectiveness of implementing an APC and physician discharge team as the primary intervention to achieving expedited inpatient discharges from a high-volume inpatient hospital medicine program. The results from the Virginia hospital, which successfully replicated that success, continue to demonstrate the value of the APC role in hospital medicine to streamline hospital throughput and improve overall metrics.