Improving Timeliness of Early Hospital Discharges: A Quality Improvement Project

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PROBLEM/BACKGROUND

- Delayed hospital discharges create bottlenecks in health care systems, increases health care costs, backlogs emergency departments, and leaves hospitalized patients susceptible to infections and emotional distress.[1,2]
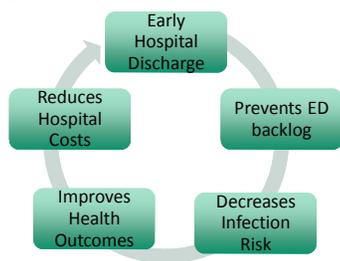
- Several studies have identified barriers to and interventions for early discharge to improve health outcomes and reduce hospital re-admissions. Barriers include:
  - Lack of unified perceptions among doctors and nurses on specific barriers[3]
  - Poor health outcomes from prolonged hospitalization such as delirium and infection[2]
  - Backflow in emergency department secondary to less bed availability[4]

OBJECTIVE

Our quality improvement project aimed to explore and identify barriers to early discharge for patients from a single teaching service within a family medicine residency program.

Picture from: https://www.todayshospitalist.com/do-discharge-before-noon-initiatives-work/

METHODS

Part 1: *Literature search and data compilation*

Part 2: *Identification of discharge barriers and environment*

- An online survey for **residents only** was distributed; basic descriptive statistics were employed to analyze pre-intervention survey responses (questions based on 5-point Likert scale).

- Semi-structured interviews with family medicine faculty, residents, and hospital floor nurses were audio-recorded over 3 months to further explore barriers to early (before noon) discharges within one tertiary academic hospital in urban Milwaukee, WI.
  - Audio recordings of interviews were transcribed
  - Transcribed interviews were reviewed using a specific coding system through qualitative software *Dedoose* 8.3.17 for thematic inductive analysis.

Part 3: *Analysis, reflection, and action*

- Analyzed data will then be shared with all faculty and residents with Aurora Family Medicine Teaching Service (FMTS).

- Findings from this study will help us create a work flow to potentially discharge patients more efficiently and in a more time sensitive manner. **(TO BE COMPLETED).**

- In addition, faculty and residents working on the FMTS will receive a weekly report of DBN (discharge by noon) rate which will be posted on a designated area in the resident work-room to help weekly track the number of discharges by noon accomplished. **(TO BE COMPLETED)**

Part 4: *Dissemination of collected data*

- Closely following data collection and analysis, as well as dissemination of results as above stated, the same online survey will be administered to all family medicine residents initially surveyed. **(TO BE COMPLETED)**

RESULTS

Part 2: *Resident pre-survey results*

- A total of 20 residents completed it.

- Results from initial survey to residents displayed in **Figure 1.**

- Most residents answered completing med rec the day before, completing med rec before 9 AM, and placing discharge order before 9 AM.
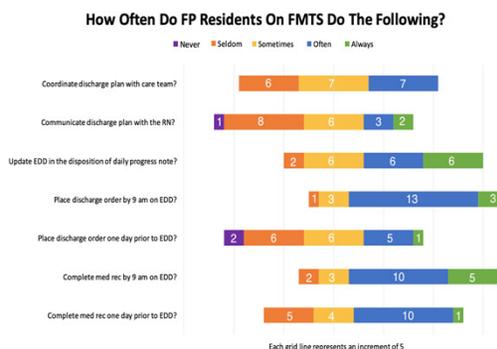

Figure 1. Resident pre-survey responses.

Figure 2. Common words throughout interviews for future recommendations.

Part 2: *Semi-structured interviews results*

- A total of 20 interviews were recorded and transcribed; 7 faculty, 6 residents, 7 nurses

- Results from key informant interview coding are in **Figure 2&3.**

- The most common sub-themes of themes identified included:
  1. Suboptimal communication
  2. Examples of Good communications
  3. Language/Transportation Barriers
  4. Specialty Clearance

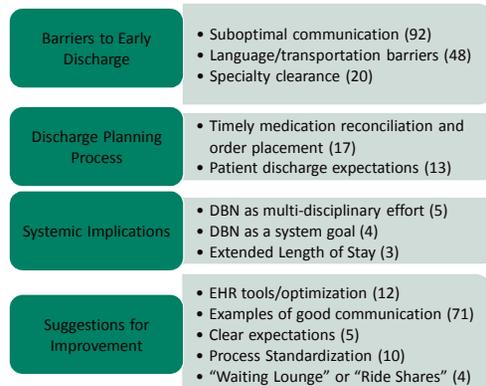| Barriers to Early Discharge	• Suboptimal communication (92) • Language/transportation barriers (48) • Specialty clearance (20)
Discharge Planning Process	• Timely medication reconciliation and order placement (17) • Patient discharge expectations (13)
Systemic Implications	• DBN as multi-disciplinary effort (5) • DBN as a system goal (4) • Extended Length of Stay (3)
Suggestions for Improvement	• EHR tools/optimization (12) • Examples of good communication (71) • Clear expectations (5) • Process Standardization (10) • "Waiting Lounge" or "Ride Shares" (4)

Figure 3. Common themes identified.
* Numbers in (X) represent the number of times it was cited in all interviews.

CONCLUSIONS

Our findings highlighted the following:
- Importance of communication between all teams to improve early discharge.
- Need for standardization of discharge workflow specifically to alleviate barriers to early discharge.

Results from this study will be used to implement interventions and educate providers on ways to optimize early hospital discharges with overall goal to reduce prolonged hospitalizations and improve health outcomes for our patients (finishing Part 3 and 4 of this project).

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