Silo Busting:
Enhancing Teamwork by Embedding a Hospitalist in the Emergency Department

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ABSTRACT

Background
According to the United States National Center for Health Statistics, since 1997 there has been a steady increase in per capita utilization of Emergency Departments (EDs). It is hypothesized that many of the patients could be discharged from the ED and appropriately/safely managed in a lower acuity outpatient setting, offsetting the need for admission.

Objective
Highlight a new and exciting Mayo Clinic innovation where a Hospital Internal Medicine (HIM) team is deployed “upstream” in the patient care pathway and embedded in the ED to assist with managing ED throughput by expediting inpatient admission processes or opening access pathways to the outpatient setting.

Planning
In 2019, 69% of patients admitted to HIM came through the ED and had an average length of stay (ALOS) of 3.8 days. It was hypothesized that some of these admissions could be avoided by implementing an HIM team into the ED environment. ED and Hospital leadership had noted that teamwork across specialties had been found to reduce unnecessary admissions.

Implementation
During the COVID-19 pandemic, the hospital’s physical capacity was tested with record high patient census. An interdisciplinary team was formed and given a 3-fold charge:
1. Reduce unnecessary hospital admissions to preserve bed capacity for patients who need hospitalization
2. Fast-track admissions for patients needing hospital care
3. Minimize disruptions, if any, to current ED workflows

Key Results
• **342 of 820** ‘admit likely’ patients were evaluated and discharged with outpatient follow up
• **No increase in bounce back rates** were identified
• **No incremental FTE** used
• **5,000 bed days of capacity** will be created annually
• **Positive ED Provider Experience**
• **Greater interdisciplinary understanding** of workflows and patient care pathways

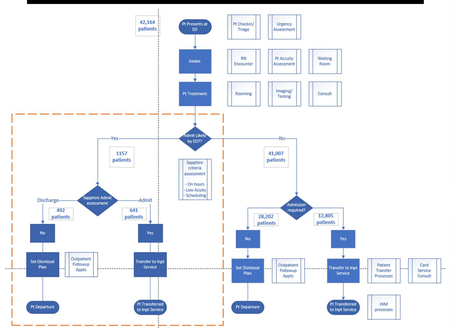
OBJECTIVES

GOALS
- Collaboration model between ED and HIM (RST)
- Alternative pathways for complex yet low acuity ED patients’ - potential to divert hospital admissions
- OP scheduling resources

METHODS

SAPPHIRE PROCESS PILOT
- HIM resources moved upstream to ED (pre-admission)
- Safe and suitable alternative care pathways identified
- Pilot ran Monday through Friday, from 7 a.m. – 4 p.m.

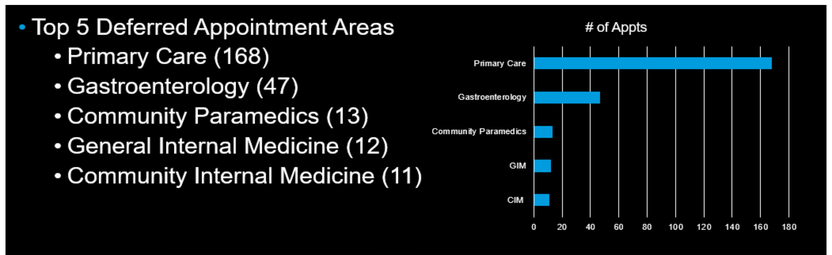
PROCESS



RESULTS

- **820** Sapphire patient interventions (**~3%** of total ED)
- **342** patients (**~4 patients** per day) safely discharged due to greater outpatient appointment access available to patients who had been evaluated by an internist
- **No increase in bounce back rates**
- An estimated **5,000 bed days** of capacity will be created annually
- **Positive ED Provider Experience**
- **No incremental FTE used:** Approximately three to four admissions were re-directed per day. Given the population’s historic 3.8-day ALOS, this was roughly the equivalent to an inpatient care team’s normal patient load of 12 to 15 patients
- **Greater interdisciplinary understanding** of workflows and patient care pathways

FIGURE 1: SAPPHIRE OUTCOMES



RESULTS

FIGURE 2: ED PROVIDER EXPERIENCE SURVEY

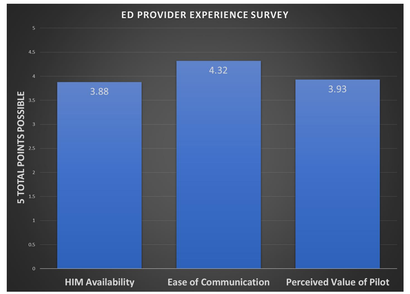


FIGURE 3: StrAtegic Pilot Program for Hospital InteRnal Medicine and Emergency Care

KEY CONSIDERATIONS

- Mutual buy-in and alignment from practice leadership
- Hand-off process created to avoid waste in duplication of efforts
- Partnership with outpatient resources
- Sapphire is not about generating revenue – it’s about getting the right care, at the right place, at the right time for the patient
- Expanding hours to 24/7 may require incremental resources and collaboration

CONCLUSIONS

- Next phase includes implementing machine learning to identify patient candidates for intervention
- Scaling model to Mayo Clinic Health System sites in the Midwest practice
- Looking to expand hours of service
- Partnering with the Harvard School of Business using Time Driven Activity Based Costing (TDABC) to quantify value

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