IMPLEMENTING MIDTRACK PROCESS TO IMPROVE LEFT WITHOUT BEING SEEN RATES
GOOD SAMARITAN HOSPITAL MEDICAL CENTER

Publication Year: 2010

Summary:
A new service model that segments ESI III patients at triage into a designated area with dedicated staff, the goal being to provide an environment geared towards treating those types of patients and making better use of resources.

Hospital: Good Samaritan Hospital Medical Center

Location: 1000 Montauk Highway
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Category:
- A: Arrival
- B: Bed Placement
- C: Clinician Initial Evaluation

Key Words:
- Triage
- Left-Without-Being-Seen
- Rapid Intake

Hospital Metrics:
(Taken from the American Hospital Directory)
- Annual ED Volume: Approximately 100,000
- Hospital Beds: 437
- Ownership: Nongovernment, Catholic Services of Long Island
- Trauma Level: I
- Teaching Status: Yes

Tools Provided:
- MidTrack Evaluation Form
- MidTrack Flow Chart Emergency Department Worksheet

Clinical Areas Affected:
- Emergency Department
- Ambulatory Surgery Unit
- Radiology

Staff Involved:
- Physicians
- Non-Physician Providers
- Nurses
- Technicians
Innovation
A new service model that segments ESI III patients at triage into a designated area with dedicated staff, the goal being to provide an environment geared towards treating those types of patients and making better use of resources.

Results
The overall left without being seen rate (LWBS) decreased from 2.6% to 1.9%. Specifically, the LWBS rate among ESI III patients dropped from 4.9% to 3.1%. The LWBS rate of MidTrack patients dropped from 7% to 3.9%.

From the Experts
“The MidTrack is a necessary service function in the ED, allowing us to deliver timely care to these types of patients who are statistically more prone to leave but then return in worse shape. We think that is truly a model of how most EDs will be organized in the future.” Adhi Sharma, Emergency Department Medical Director, Good Samaritan Hospital Medical Center

Timeline
Preparation and planning for implementation of the MidTrack process took approximately six months to achieve before going live, but Good Samaritan expects it can be done in a shorter time period following their learnings.

Innovation Implementation
Recognizing the significant potential for high morbidity associated with mid-acuity patients who leave prior to being seen, the hospital chose to develop a solution to address this problem. Similar to a Fast Track protocol—where patients with minor medical emergencies receive prompt treatment and are released relatively quickly—the goal of the MidTrack is improving how the ED cares for the mid-acuity (ESI level III triage category) patients. Patients affected by this system are those triaged to category ESI III with one of the six more common ESI III complaints—abdominal pain, flank pain, headache, pregnancy-related complaints, vaginal bleeding or vomiting.

Under the MidTrack system, a physician is dedicated to manage the diagnostic phase for these patients immediately after their triage. Patients are treated in the Ambulatory Surgery Unit (ASU) space located directly over the ED; their care is directed by that same physician and coordinated by nurse practitioners. Focus was placed on this group, as they are too complex for a typical fast track, but not so ill that they need to be seen immediately, during times of peak census. Experience has demonstrated that this mid level severity group have significant potential for morbidity and are at increased risk when they leave without being seen.

In the MidTrack area the selected patients can be given more dedicated and timely attention in an environment geared towards treating their illnesses. It optimizes ED resources and ensures that these patients are monitored closely.

To date, the strategy has been successful and, if remaining effective, Good Samaritan hopes that it will have larger implications for future ED redesign at hospitals everywhere.

Advice and Lessons Learned

1. **Choose the triage physician carefully.** This project could hinge on who you pick to serve as your triage physician, so think about the qualities that would allow someone to succeed in this role. They shouldn’t order every test on every patient, but they shouldn’t be a minimalist either.

2. **Be vigilant about maintaining proper supplies.** Good Samaritan found that improper stocking of supplies, created inefficient work flows for nurses. Determining proper supplies and par levels are critical for a successful implementation.

3. **Promote ambulatory patients.** Good Samaritan advises putting patients in recliners, rather than in stretchers in order to keep things moving. It promotes a dynamic environment.
4. **Keep dedicated technicians nearby.** Due to the increased number of diagnostic tests that ESI III patients typically need, the hospital found that having the additional, dedicated technician nearby was critical, and their implementation would have likely suffered without it.

5. **Be persistent and don’t fear failure.** Implementation of a version of this program was attempted several years ago with limited success. Rather than become discouraged, the staff learned from their mistakes which led to a successful implementation this time.

**Tools to Download**
- MidTrack Evaluation Form
- MidTrack Flow Chart Emergency Department Worksheet

**Related Resources**
- Urgent Matter E-Newsletter: Focus on Learning Network II – Good Samaritan Hospital Medical Center
Patient complains of headache. Vital signs: Review vital signs. Acknowledges a history of headaches. Patient is photophobic. Patient confirms she is on the following anticoagulants(s): Aspirin, Heparin.
**Mid-Track Evaluation Form**

### Vital Signs

<table>
<thead>
<tr>
<th>Time</th>
<th>Temp (F)</th>
<th>Route</th>
<th>Pulse</th>
<th>Resp</th>
<th>Syst</th>
<th>Diast</th>
<th>Position</th>
<th>SpO2</th>
<th>O2 LM</th>
<th>Pain Sc</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/16/2009 10:35:16 AM</td>
<td>98°</td>
<td>Oral</td>
<td>55</td>
<td>20</td>
<td>150</td>
<td>80</td>
<td>Standing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Known pregnancy?
- Yes
- No

### Trimester
- 1st
- 2nd
- 3rd

### Vaginal bleeding?
- Yes
- No

### Quantity of bleeding
- Mild
- Moderate
- Severe

### Pain?
- Yes
- No

### Area
- Back
- RLQ
- LLQ
- Suprpubic

### Urinary Symptoms
- Frequency/Legacy
- Dysuria
- Bloody/Dark urine

### Exam
- Tenderness?
- Yes
- No

- Diffuse
- RLQ
- LLQ
- Suprpubic

### Fundal Height
- Pelvic brim
- Umbilicus
- Non-palpable

### Vomiting?
- Yes
- No

### Additional Note:

Patient complains of pregnancy complications. Vital signs reviewed. Patient confirms she is pregnant. Patient confirms she is vaginally bleeding. Patient complains of pain. She complains of the following urinary symptom(s): Patient complains of tenderness. She is experiencing vomiting.
GOOD SAMARITAN
HOSPITAL MEDICAL CENTER
MID-TRACK PROCESS FLOW CHART

Ambulatory patient
or Rescue/
wheelchair entry to
Registration desk
for Quick Reg.

To Triage

TRIAGE
Patient brought
into Triage

TRIAGE
ESI score of 3 and
appropriate chief complaint:
ABDOMINAL PAIN
GYN COMPLAINTS
HEADACHE
FLANK PAIN
VOMITING
VAGINAL BLEED

Pt. follows normal
decision making
tree. Nurse directs
Pt. to waiting
room, F/T or Peds.

Pt. to Reg.
or
Family to Reg.
Or
Reg. to Patient

REGISTRATION

If Not Already
registered

MD completes
form for
Clinical Placement
Decision in
Midtrack or Main
ED

Tech completes
orders &
transports to “O”
unit.

“O”
status

Pt. seen, treated,
H&P
completed
& released to home

Pt. seen/treated, H&P
care not completed in
prior to unit closing
time.
Hand-off to MAIN

Pt. Discharged to
home

Pt. hand-off from
“O” to Main ED

Pt. requires admission
from “O” unit

Pt. admitted to
hospital from “O”
Focus on Learning Network II: Good Samaritan Hospital Medical Center

**Hospital Metrics**

- **Location:** Suffolk County, NY
- **Number of ED Visits Annually:** Approximately 100,000
- **Number of Beds:** 437
- **Affiliations:** Mount Sinai Hospital and Mount Sinai School of Medicine
- **Ownership:** Non-Profit, Catholic Health Services of Long Island
- **Teaching Status:** Yes

Good Samaritan Hospital is a high-volume, Level-II trauma center, with both an adult and pediatric emergency department (ED). Patient flow has always been a concern for this busy community hospital that seen significant growth in volume in recent years. “For Good Samaritan, participation in Urgent Matters Learning Network II provided a great opportunity to gain access to the collective brain trust of other hospitals working through patient flow issues,” said Susan Dries, RN, Vice President Quality/Care Management, Good Samaritan Hospital Medical Center.

“In addition to a large ED and the ability to leverage a state of the art electronic medical record, Good Samaritan also had a hard working staff that was open to change and innovation”, noted Adhi Sharma, MD, FACMT, FACEP, Chairman Emergency Medicine, and Co-Project Director of Urgent Matters.

Since starting work on the Urgent Matters Project, the Good Samaritan team has seen enormous success with their chosen change strategy of improving the time to treatment for ‘MidTrack’ patients. Recognizing the relatively high morbidity levels of non-urgent or mid acuity patients returning to the ED after leaving without being seen on a previous visit, the hospital chose to focus on a solution to this problem. The innovation is similar to Fast Track – patients with select chief complaints within emergency severity index (ESI) level 3 triage category are evaluated by a dedicated team and the diagnostic work-up is begun immediately upon arrival. The strategy so far has been a successful as left-without-being rates for ESI level 3 patients has decreased from 7% to 4%. Left-without-being rates for the entire ED have decreased from 2.4% to 1.7% since the addition of MidTrack.

“The data collection, status updates, and required reports kept the project moving forward,” said Sharma when asked about the benefits of being involved in Urgent Matters LNII. He also explained that the team benefited greatly from the opportunity to share information, experience, and skills with others working on the same issues.
The benefit of the Urgent Matters LN II initiative to Good Samaritan lies not only in the specific improvement strategies and measures that the hospitals will produce, but also in the way participation in project like this changes the hospital culture. “The opportunity to utilize flex-space in the development and implementation of the project was critical,” said Sharma. “The way that we were able to re-purpose existing space and provide the resources and staff necessary to create MidTrack speaks volumes about the adaptability and innovative nature of our ED and its staff,” explained Sharma.

The support from senior hospital administration was vital in the development and implementation of the project. Cooperation from top officials also gave the project increased importance and encouraged buy-in from staff across the ED. “As a result of Good Samaritan’s participation in the Urgent Matters project, there has been a greater awareness of crowding as a hospital-wide issue, not just an ED problem,” says Dries.

Dries noted that when forming their Urgent Matters LNII team they wanted to establish a core group of people encompassing many different aspects of patient flow across the ED. The hospital’s LNII team included ED nurses and physicians, as well as representatives from security, and the information technology departments.

The hospital hopes this project will have larger implications for future ED redesign at hospitals everywhere. “The ideas of flex-space and MidTrack are hardwired into our hospital’s modernization project,” noted Sharma. With the dedicated space and staff the hospital will be able to increase the hours of operation for the MidTrack and open up treatment to all ESI 3 patients.