EFFECTIVELY HANDLING SURGES IN EMERGENCY DEPARTMENT VOLUME

A Case Study

Presented by: Mark Brodeur, FACHE

Senior Vice President
Compirion Healthcare Solutions

Mark Brodeur

- Over 17 years as a Hospital CEO
- Over 30 years experience as a Senior Manager in Hospitals
- Currently consults on projects to improve:
  - -ED Throughput
  - -Inpatient Throughput
  - -OR Turnaround
- Familiar with operational issues that impact the following:
  - -Patient Satisfaction
  - -Physician Relations
  - -Quality of Care
  - -Financial Performance

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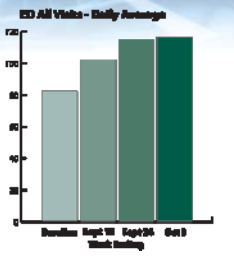
Introduction

Is your ED ready to respond to the next pandemic?

What if you get a large surge of patients suspecting that they have:

- H1N1 Virus?
- Bird Flu?
- The Next Pandemic



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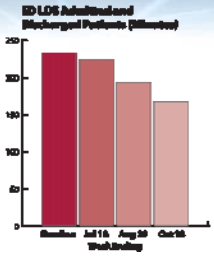
Imagine an ED with a 42% increase in patients per day achieving the following:



Overall Throughput Time decreased by 30%

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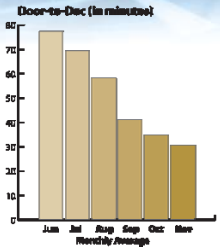
Imagine an ED with a 42% increase in patients per day achieving the following:

Door-to-MD time decreased from 77.3 to 30.5 minutes



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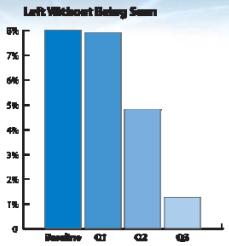

LWBS decreased by 66%

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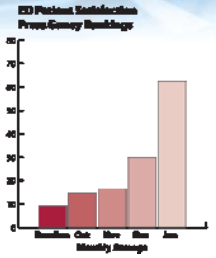
Imagine an ED with a 42% increase in patients per day achieving the following:

ED Patient Satisfaction increased by 715%



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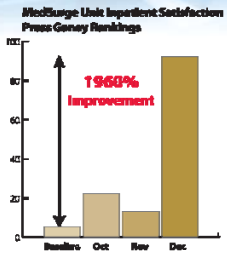
Imagine an ED with a 42% increase in patients per day achieving the following:

Med Surg Unit Patient Satisfaction improvement of 1960%



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Introduction

All of this really happened at East Texas Medical Center in Athens, Texas and you will learn how they did it

Introduction

You too can prepare your Emergency Department to thrive, not just survive, under a surge of new patients

Background

- Historically hospitals have prepared for rapid comprehensive response to an external (or possible internal) disaster
- Almost all plans are based on the Incident Command System
- This system is designed for immediate adjustment to handle a significant number of patients hitting your ED almost at once

Background

- But it is also designed to be short term; hours, not days or weeks
- An H1N1 outbreak or similar pandemic lasts significantly longer than a disaster with a smaller but sustained spike in service

Preparing for a Potential Surge

- The Incident Command System can be effectively used for initial response but it is not designed for sustained use
- It significantly impairs normal operation of the rest of the facility
- To deal with a surge such as H1N1 you must have a plan to increase capacity over an extended period without compromising normal operations

The Story of East Texas Medical Center Athens

- ETMC Athens is located in Athens, Texas
- It is part of the ETMC System that has 14 hospitals and multiple service locations spread out over 18 counties in east Texas
- They have 115 Acute Beds and 15 ED Beds
- They were planning construction of a new 22-Bed ED when this all occurred

The Story of East Texas Medical Center Athens

- Rather than just focus on a surge plan, ETMC Athens conducted a complete process improvement throughout the Emergency Department

Issues To Be Addressed

- Patient Satisfaction for ED and I/P
- Patient Throughput
- Door to Treatment Time in the ED
- LWBS
- ED Disposition to I/P Admit Time
- Core Measures Compliance
- Developing a Service Recovery Program

Keys To Success

Key #1: Working on Improving ED Performance Well in Advance of the Surge

- ETMC Athens management recognized in April, 2009 that they needed to take action
- They wanted issues resolved prior to moving to the new ED which was in the final planning stages

Keys To Success

- They also recognized the real possibility of an H1N1 outbreak in their community

(Since April, 2009 44 people have died from H1N1 in Texas)

- By the time the surge hit, they already had a highly functioning ED in place

Keys to Success

Key #2: Bringing in a Partner to Expedite the Process

- Compirion Healthcare Solutions was selected and charged with fully implementing the culture change needed; not just making recommendations

Keys to Success

- Using full time "live-in" consultants who worked side-by-side with the staff and rapid cycle improvement techniques, they accelerated the change process

Keys to Success

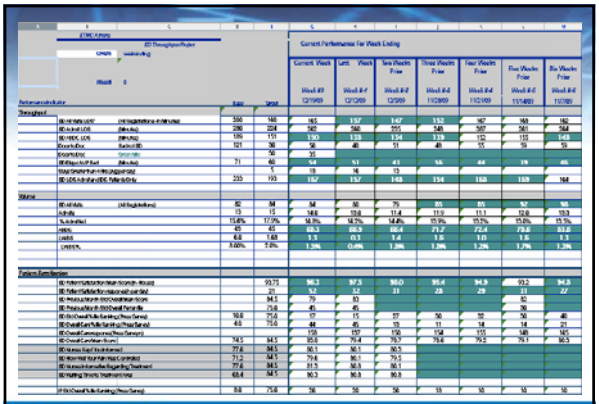
Key #3: A Comprehensive and Coordinated Approach Applied Over an Extended Period Allowed for Sustained Cultural Change

Keys to Success

Steps in the process were:

1) Define the issues and set specific, measurable goals with:

- Accurate baseline
- Defined target
- Clear timeframe for reaching the goal
- Put on a Weeky Dashboard



Keys to Success

2) Establish Core Teams to:

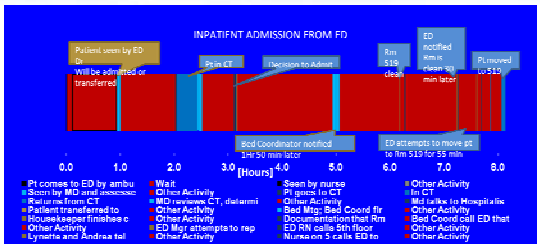
- Flowchart processes
- Identify barriers
- Establish "Quick Fixes" and Pilot Projects

Keys to Success

3) Observations

- Must be done for 2 hours
- Minute by minute documentation of activities
- Graph results

Keys to Success



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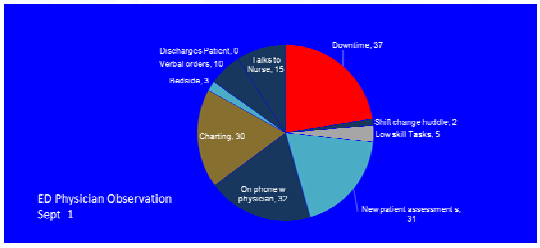


Keys to Success

4) Rounding

- Must be Purposeful
- Covers Your Areas of Responsibility
- At Least 4 Times per Week

Obstacles

- Getting buy-in from the staff
- Dealing with low morale
- Overcoming lack of consistency, shift to shift
- Getting staff to see need
- Patient flow issues related to physician staffing

The Process

- Core teams of management and front line staff were created, each assigned to a specific problem in a critical area
- Teams observed and assessed all processes from registration to discharge (or inpatient admission)
- Bottlenecks were identified and addressed; such as physician staffing at peak times

The Process

- Dashboards with key metrics were developed and updated daily
- Protocols were simplified
- Processes were made consistent shift to shift
- Patient flow was redesigned
- Daily rounding was started to include service recovery if needed

Benchmarks of High Performers

- Decreased LWBS to under 1%
- Decreased Throughput Time for Discharged Patients to 2 Hours
- Decreased Throughput Time for Admitted Patients to 3 Hours

Benchmarks of High Performers

- Decreased Door to MD Time to 30 Minutes
- Decreased Disposition to Inpatient Admit Time to 60 Minutes

Benchmarks of High Performers

- Decreased Paid Hours per Patient from 4.7 to 2.5

Benchmarks of High Performers

- LOS Reduced by 15%
- 50% of Discharges Out by Noon

Benchmarks of High Performers

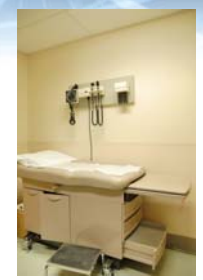
- Increased CoPay Collections by 65%
- Increased Billable ED Volume by 20%
- Increased Billable Volume of Admitted Patients by 50%
- Increased Customer Service Scores from the 10th to the 95th Percentile

Planning For A Surge

- With daily operations in the ED greatly enhanced, a surge plan was developed within three weeks

Planning For A Surge

- 5 additional rooms were identified that could temporarily be used as exam rooms
- Supplies and laptop computers were placed in the rooms



The H1N1 Surge Hits

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- In September, 2009 ETMC Athens quickly saw a 42% increase in the number of ED patients; from 82/day to 135/day

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- In September, 2009 ETMC Athens quickly saw a 42% increase in the number of ED patients; from 82/day to 135/day
- The number of ambulances/day increased to 22

The H1N1 Surge Hits

- 80% of upper respiratory patients had flu-like symptoms
- Clearly the publicity of H1N1 brought in many false alarm patients

The H1N1 Surge Hits

- By implementing the surge plan with operational efficiencies already in place, the increase in patients was handled without any issues
- As previously mentioned, all key metrics including throughput, patients who left without treatment and customer service scores actually improved during this period

Lessons Learned

The major factor allowing ETMC Athens to respond to the surge as effectively as they did was the fact that they had planned ahead and addressed the ED throughput and patient satisfaction issues already present well in advance of a surge in patients

Lessons Learned

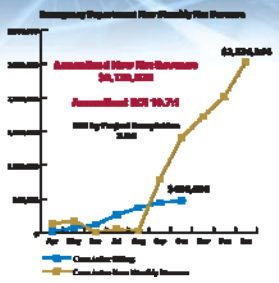
The next most important step was the establishment of additional rooms complete with supplies, computers and staff on call

A Key To Duplicating This Success

Hospitals can certainly achieve these results on their own, but it requires a full-time effort by experts in the area for an extended period (at least 6 months) to achieve significant, sustainable results

Financial Impact of Process Improvement

Although ETMC Athens committed resources of time and money for this project, they received an almost immediate return on their investment with the additional business that they effectively handled.



Summary

- ETMC Athens was planning a new ED and recognized issues with the current department function that they wanted to address prior to opening a new ED
- They were also concerned about the real threat of an H1N1 outbreak in their community

Summary

- They undertook a 6-month comprehensive performance improvement project in their ED
- They also developed a real surge plan to immediately increase their ED bed capacity by 33% if needed

Summary

When the surge hit, ETMC Athens was ready because:

- They had made significant improvements to the efficiency of their ED over the prior 6 months
- They put in place a thorough plan to immediately increase their capacity if needed

Summary

The result was that even with a 42% increase in patients, ETMC Athens handled them significantly better than they were handling routine volumes six months prior to this

In addition to the significant improvement in Quality Metrics and Patient Satisfaction, ETMC enjoyed a large financial return on their investment

Questions?

THANK YOU FOR ATTENDING TODAY