

# **EmEx-Compare Report for**

# **Community Regional Hospital**

10/01/2016



©2010 Emergency Excellence, LLC. This document is for the sole use of the EmEx client. All rights reserved.

# Door-to-Triage Time



How many minutes from patient arrival until triage (ESI or other measure) is assigned?





Discussion:

The door-to-triage time is defined as the time period (in minutes) from a patient's emergency department arrival until the triage score is assigned. Rapidly and accurately categorizing patients into severity groups, particularly during busy periods, prevents "sick" patients from being neglected while awaiting physician assessment. This is a critical benchmark since patients with time-sensitive conditions are at risk until assessed. In addition, delays in triage score assignment are indicative of flawed processes, insufficient front-end staffing, or both.

Three-level systems were quite common until the advent of more precise, 5-level systems. The 3-level systems divide patients into the groups "emergent" (cannot safely wait until a space in the clinical area becomes available), "urgent" (can safely wait a short amount of time until a space in the clinical area becomes available), and "non-urgent" (can safely wait a long time until a space in the clinical area becomes available).

Currently, over half of US emergency departments use a 5-level system (i.e., ESI, CTAS/Canadian, Australian or modified versions). The Emergency Severity Index (ESI), the most prevalent 5-level system used in the US, is a 5-level triage rule that categorizes patients into five groups as follows:

•ESI 1 - Severely unstable, must be seen immediately by a physician, often require an intervention (i.e.

intubation) to be stabilized. ESI 1 cases represent 2% of all patients and 73% of ESI 1 cases are admitted.

•ESI 2 - Potentially unstable, must be seen promptly by a physician (within 10 minutes), often require laboratory and radiology testing, medication, and (often) admission. ESI 2 cases represent 22% of all patients and 54% of ESI 2 cases are admitted.

•ESI 3 - Stable and should be seen urgently by a physician (within 30 minutes), often require laboratory and radiology testing, medication, and are most often are discharged. ESI 3 cases represent 39% of all patients and 24% of ESI 3 cases are admitted.

•ESI 4 - Stable, may be seen non-urgently by a physician (or MLP), require minimal testing or a procedure, and are expected to be discharged. ESI 4 cases represent 27% of all patients and 2% of ESI 4 cases are admitted.

•ESI 5 - Stable, may be seen non-urgently by a physician (or MLP), require no testing or a procedure, and are expected to be discharged. ESI 5 cases represent 10% of all patients and 0% of ESI 5 cases are admitted.

(Note that use of the word 'stable' above is from the perspective of whether patient likely to deteriorate while awaiting the physician assessment and is not equivalent to the EMTALA definition.)

In correlating ESI to a 3-level system, ESI 1 and 2 are considered "emergent," ESI 3 is considered "urgent," and ESI 4 and 5 are considered "non-urgent." Since ESI is standardized and tested, its use allows emergency departments to be compared by acuity and inpatient bed utilization. Additionally, it is possible to look at a group of ESI-assigned patients to predict the number of inpatient beds needed before they are requested.

In a study of 32,000 patients triaged in Europe (using the Canadian Emergency Department Triage and Acuity Scale, CTAS), 85% were completed within 10 minutes of arrival. In 98%, the duration of the triage process was under 5 minutes. And, VHA, a healthcare cooperative, demonstrated an average arrive-to-triage time of 5 minutes, with the best performer reaching 1 minute. Furthermore, the time needed to perform triage was an average of 4 minutes, with the best performer reaching 2 minutes.

Appropriate front-end staffing is needed to minimize door-to-triage times. Triage staffing needs should be adjusted to correspond with increased demand during day and time periods with a higher number of patient arrivals. Often this can be accurately predicted by looking at previous trends. Protocols should be in place for adding additional triage personnel temporarily as demand scales up, rather than after a large backlog has already occurred. Ancillary personnel should assist triage nurses in performing tasks that do not require a trained triage nurse, such as identifying open beds, preparing empty stretchers, or taking vital signs, allowing each triage nurse to become significantly more productive.

Inefficient processes can lead to significant door-to-triage delays. When patients encounter multiple staff (i.e. greeter, security guard, registration) before the triage nurse, there will be unnecessary delays in door-to-triage time. Non-patient care processes should be done in parallel to patient care processes whenever possible, so as not to cause delays in patient assessment and treatment. Many emergency departments have been successful with bedside registration using mobile workstations to shorten door to ESI times.

Appropriate education and mentoring can help nurses inexperienced with triage quickly become top performers. Triage systems such as ESI can be learned easily and effectively, especially using widely available printed materials as a guide.

Whenever possible, patients should be brought back to the treatment area immediately (bypassing a triage area) when there are adequate open beds available. If all ED nurses have been educated on performing triage, triage can be completed in individual treatment rooms, shortening door-to-triage times, as well as

door-to-doctor times. Triage performed in individual rooms significantly expands the number of effective "triage nurses," eliminating the bottleneck at the front. For very low acuity cases (i.e., suture removal, minor abrasion), the in-treatment room triage process can be abbreviated or even eliminated (saving nursing resources), as certain cases can be quickly evaluated and discharged by a physician or midlevel provider without any nursing assessment or intervention needed.

The door-to-triage time is a key indicator of a basic yet vital emergency department process and should be regularly tracked. The goal for every comprehensive emergency department should be to assign a triage score that accurately identifies emergent and urgent cases in less than 5 minutes.

References:

Gilboy N, Tanabe P, Travers DA, Rosenau AM, Eitel DR. Emergency Severity Index, Version 4: Implementation Handbook. AHRQ Publication No. 05-0046-2, 2005. Source: Agency for Healthcare Research and Quality website -- http://www.ahrq.gov/research/esi/

Wuerz RC, Milne LW, Eitel DR Travers D Gilboy N. Reliability and Validity of a New Five-level Triage Instrument Acad Emerg med. 2000 ;7(3):236-242. http://www3.interscience.wiley.com/cgibin/fulltext/119827131/PDFSTART

Are You Ready for a 5-level Triage Scale? Be Prepared: Most EDs Will Switch Soon. ED Nursing 2003 January; http://www.ahcpub.com/hot\_topics/?htid=1&httid=1614

SoRelle R. The Mystery of Triage Unraveled with the Emergency Severity Index Emergency Medicine News:2001; 23(8):41-42. http://www.emnews.com/pt/re/emmednews/fulltext.00132981-200108000-00001.htm;jsessionid=LGZZbntKj2pfYc1zt5h82Kg8vp62yzdHpZtm5tdrVGz6wqLSdTt3!353761397!1811956 28!8091!-1?&fullimage=true

Eitel D, Fixing the Front End: Using ESI Triage v.4 To Optimize Flow (2006) Source: Institute of Industrial Engineers website -- http://www.iienet2.org/uploadedFiles/SHS/Resource\_Library/Details/60.pdf

Jiménez JG, Murray MJ, Beveridge R, Pons Pons J, Cortés EA, Ferrando Garrigós, et al. Implementation of the Canadian Emergency Department Triage and Acuity Scale (CTAS) in the Principality of Andorra: Can triage parameters serve as emergency department quality indicators? Can J Emerg Med 2003;5(5):315-22 -- http://www.caep.ca/template.asp?id=99DFADFEE34E482FBCCD2A877DF2D5AD

Kolker A, Kulkarni RG, A Reader and Author Respond to "Going Lean in the Emergency Department: A Strategy for Addressing Emergency Department Overcrowding" in The Medscape Journal of Medicine (Letters) (02/01/2008) -- http://www.medscape.com/viewarticle/569069

McGrayne J. ED Benchmarks and Best Practices. EMLRC. 2003. http://www.femf.org/education/2003Benchmarks/McGrayne%20syllabus\_files/frame.htm

Travers DA, Waller AE, Bowling JM, et al. Five-level triage system more effective than three-level in Tertiary Emergency Department. J Emerg Nurs 2002; 28:395-400. http://linkinghub.elsevier.com/retrieve/pii/S0099176702000338

# Excollonce

## Order-to-CBC Time

How many minutes from order placed/blood collected until CBC resulted?

Your Value: 36		Pillar:	Systems and Safety	
Percentile Ranking (EmEx EDs):				
All EDs	42%	Suburban EDs		30%
<35K Census EDs	23%	Community EDs		39%



#### Discussion:

Lab turnaround time has a large impact on overall emergency department turnaround times. Emergency department and hospital leadership should regularly track laboratory performance, and the laboratory leadership should be accountable for their performance. Many emergency departments have had dramatic improvements in lab turnaround times using point-of-care testing in the emergency department. Some larger emergency departments have been successful in implementing ED-based, satellite laboratories.

VHA demonstrated that from order to CBC result was 28 minutes in the best performer and 50 minutes on average. About one-third of the time required was spent from order to-collection and two-thirds from collection-to-result. CBC testing is typically faster than chemistry testing since the specimen is not spun down and the machines often result faster. The College of American Pathologists (CAP) Q-Probes Study identified TAT from phlebotomy to reporting of results as the most important performance measure for the laboratory. A median TAT for hemoglobin was 25 minutes.

#### **References:**

McGrayne J. ED Benchmarks and Best Practices. EMLRC. 2003. http://www.femf.org/education/2003Benchmarks/McGrayne%20syllabus files/frame.htm Fernandes C, Worster A, Hill S, McCallum C, Eva K. Root cause analysis of laboratory turnaround times for patients in the emergency department. Canadian J of Emerg Med, 6(2):116. http://www.caep.ca/template.asp?id=80E2EFDD732E4D7193A8675F6971EE71

Steindel SJ, Howanitz PJ. Physician satisfaction and emergency department laboratory test turnaround time. Arch Pathol Lab Med 2001;125:863-71. http://www.ncbi.nlm.nih.gov/sites/entrez/11419969

Howanitz PJ, Steindel SJ, Cembrowski GS, Long TA. Emergency department stat test turnaround times. Arch Pathol Lab Med 1992;116:122-8. http://www.ncbi.nlm.nih.gov/sites/entrez/1733401

Howanitz PJ, Cembrowski GS, Steindel SJ, Long TA. Physician goals and laboratory test turnaround times. A College of American Pathologists Q-Probes study of 2763 clinicians and 722 institutions. Arch Pathol Lab Med 1993;117:22-8. http://www.ncbi.nlm.nih.gov/sites/entrez/8418756

Howanitz JH, Howanitz PJ. Laboratory test results. Timeliness as a quality attribute and strategy. Am J Clin Pathol 2001; 116:311-5. http://www.ncbi.nlm.nih.gov/sites/entrez/11554156

Wilson PF, Dell LD, Anderson GF. Root cause analysis: a tool for total quality management. Milwaukee: American Society for Quality Control; 1993. pp. 59-72, 131-50. http://www.amazon.com/Root-Cause-Analysis-Quality-Management/dp/0873891635/ref=sr\_1\_1?ie=UTF8&s=books&qid=1220812666&sr=1-1

Juran JM. Juran on planning for quality by design. New York: The Free Press; 1988. http://www.amazon.com/Juran-Quality-Design-Planning-Services/dp/0029166837

Beveridge R, Clarke B, Janes L, Savage N, Thompson J, Dodd G, et al. Canadian Emergency Department Triage and Acuity Scale: implementation guidelines. Can J Emerg Med 1999;1(3 Suppl). www.caep.ca/002.policies/002-02.ctas.htm

Fernandes CMB, Walker R, Price A, Marsden J, Haley L. Root cause analysis of laboratory delays to an emergency department. J Emerg Med 1997;15:735-9. http://www.ncbi.nlm.nih.gov/sites/entrez/9348070



## Patients per Emergency Physician per Hour

We calculate adjusted patients per physician per hour (PPH) by comparing ED census and ED physician hours and adjusting for any resident or midlevel hours.



#### Discussion:

We calculate adjusted patients per physician per hour (PPH) by looking at emergency department census and emergency department physician hours, adjusting for resident and midlevel hours.

We recommend staffing such that PPH is no greater than 2.3 in emergency departments with typical acuity and optimal nurse/ancillary staffing. In general, a midlevel provider or emergency medicine resident physician can help extend an emergency attending by an additional 50%, so an attending-MLP or attending-resident team can has an equivalent PPH of 3.5.

In recent years, the complexity of emergency medicine has increased with more acute patients, more diagnostic testing expected, and more intense documentation and regulatory burdens. Physicians cannot safely see the same patient load as a decade ago. EmEx highly discourages understaffing (excessive patients per hour per physician) in an attempt to maximize profit per physician. Understaffing leads to treatment delays, medical errors and poor patient outcomes, poor patient satisfaction, poor staff satisfaction, and poor retention of physicians.

References:

AAEM Position Statement on Emergency Physician-to-Patient ED Staffing Ratios. 2001; http://www.aaem.org/positionstatements/physiciantopatient.php

Scaletta TA. What Is a Reasonable Clinical Workload? Common Sense (AAEM Rules of the Road). Sep/Oct 1999; 6(5). http://www.aaem.org/commonsense/rules2.php



## **Emergency Nurse Perspective of Job Satisfaction**

Emergency Nurse Survey: How professionally satisfied are you when working in the ED? (1=very dissatisfied 4=dissatisfied 7=satisfied 10=very satisfied)



#### Discussion:

To successfully recruit and retain physicians and nurses, hospital leaders should pay particular attention to the anonymous, self-reported nurse satisfaction data and to the staff comments at the end of the report. Is your emergency department a difficult place to work? How are relationships with other emergency department staff, the medical staff, and the administration? Are your physicians and nurses overworked? Do your physician and nurses earn fair compensation? Is your organization committed to workplace fairness? What have you done to improve morale in your emergency department? Leaders can deepen staff loyalty and appreciation by addressing these concerns in an effective and non-threatening manner.

**Recommended Changes, Emergency Nurse Opinion** 



Emergency Nurse Survey: What changes would you recommend to improve the performance of the ED?

#### Unique Comments:

- currently, staffing
- proper staff in triage, intake, blue, and charge

• Better staffing ratios. Fix the problems that caused us to lose an op sup and an educator. Hire someone to do staffing so supervisors can focus pin other things.

- staff retention efforts
- Increase RN staffing and bring back double provider coverage 24 hours.
- Commitment to SNL
- Provide more staff feedback and staff to nurse ratio

• Increased base pay. Incentive for working extra and switching shifts. Offer part time. Better way for staff to express concerns and for management to listen to them.

- Increase staffing.
- better staffing
- Advertise for more experienced nurses!!!!!

• Have more staff on each shift. With the population having higher acuity illnesses along with comorbidities it's difficult to keep with especially when brand new nurses do not know yet how to delegate, or recognize the sickest patient they have. This creates more work for those senior nurses who try to take on their own patients as well as helping the newer staff who are not getting long enough orientations.

• Change from doing everything in your power to please-kiss patients ass and try to make your nurses happyhappy nurses make happy patients.

• Hire experienced RN's and staff. Have higher up leadership approve incentive shifts.

- PA/NPA 7 days a week.
- Hiring appropriate staff for the jobs, orienting appropriate length of ttime
- Maintain staffing levels

• Increased staff levels and hire more experienced nurses. The majority of our staff has less than 2 years experience.

• Job requirement prior to hire would include only hiring nurses with at least 1 year experience or prior ED tech experience.

\*Decrease the amount of tests and consults ordered in the ED by the phyisicans that does not effect patient placement \*Increase communication among ED and floors to improve continuity of care and patient placement \*More frequent education on critical skills (EX: belmont, chest tubes, art lines, CVP) – we don't use it, we lose it!

• Hire experienced RNs. Communication from management could improve (however has improved since new manager)

- increase staff accountability for all disciplines
- Better communication among staff and physicians

• I am not sure if anyone in leadership understands how grim out staffing situation has become. I think a serious staff intervention is needed, focusing on retention would be very important. There is an incredible amount of stress and burnout from being ignored and a complete lack of support and staff. There are many staff members with resumes updates and have active applications outside of the health system. I pray

someone can hear our voice to make changes before we lose some wonderful experience that our Ed desperately needs to keep

• When the most important thing is how fast can it be done other things have to suffer and just taking the time to provide better care instead of just fast care.

• stop looking at times for discharges and admits-find out what is causing the delays

• allow staff RN preceptors to decide when orient is ready to be removed from orientation NOT management. return of incentive pay for short staffing. more recognition of professional development by management within the department.

• staffing, not only hiring but possible increasing the staff allocations for certain days and times of the week

• Educate the new employees and have better support from management. Fix staffing shortages.

• When the VP of nursing doesn't even talk to her nurses in the hallway I think maybe changing from the top might change the bottom. Everything from the previous question.

• Increased pay for RN's to keep rather than leaving for another higher paid hospital. Increase mid-level respect for nursing staff.

• Better staffing=more opportunities to give good pt care

• We are so time driven, discharge within 15 minutes, admit within 45 minutes, sometimes those things are not obtainable due to circumstances beyond our control. I feel that there is such a rush to "treat and street" that we are underserving our patients. Staff is unhappy and it shows in how they treat patients and their peers. Work on getting the "bad apples" out of here or retrained. Make this the place YOU would want to work.

• Again leadership can make or break a team and right now ours is very dysfunctional

Increased nursing staff

• N/A

• Increase our staffing with quality nurses, get a new manager that commands respect not out of fear but from ability, knowledge, and drive to make our dept better and our staff supported, and a larger ED for our ever increasing numbers

• Always staff 2 RNs and 2 EDTs in intake at all times, 4 RNs on both sides to allow for lunches, and a EDT in triage for EKGs and vitals. I also think EKG's, lab draws, ambulances, etc... should be tracked. The employees who do not do their share of the work should be talked with and made to be held accountable.

• improve staffing and hire more qualified nurses