

EMS Response Time Standards.

Time to move?

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AMR Medicine

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"We're not on a call. We just hit the lights to speed up the service."

"We're not on a call. We just hit the lights to speed up the service."

The background of the image is a dark, out-of-focus photograph of an ambulance at night. The ambulance's emergency lights are illuminated, showing a mix of red and yellow/white colors. The lights are blurred, creating a bokeh effect. The text "EMS is a practice of medicine" is overlaid in the center of the image in a white, sans-serif font.

EMS is a practice of medicine

Response interval.

**The original clinical
performance metric of an EMS
practice of medicine**

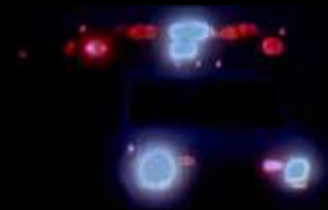
OUR OBJECTIVES...

- Describe the powerful historical role of response time standards in EMS
- Review the evidence of response time impact on patient outcome
- Discuss a patient centered approach for response time targets
- Encourage an evolution toward more pertinent outcome based metrics in EMS
- Present a case study of a clinical approach to monitoring a change in response time standards

A QUICK POLL...

- Response intervals in your system are clinically relevant?
- Response expectations are too stringent?
- Response expectations are too lenient?
- Had a role in response time standard determination
- Regularly review “outliers”?
- Break down response intervals by component / responding entity?
- Would feel comfortable increasing response expectations?
- Feel the public would perceive response change as negative?

The current EMS Climate



- Science
 - EBM in EMS
 - Research targeting OOH care
 - Significant procedural & cognitive evolution
 - Technology movement
- Art
 - Economic changes – Reimbursement focus
 - EMS subspecialty recognition
 - System design implications
 - Impact of EMS on the healthcare system
 - Transparency & accountability

THE IMPACT OF RESPONSE TIMES

- System design
 - Deployment strategy
 - Staffing
 - Communication plan
- Protocol implications
- Delivery & readiness costs
- Performance measurements
- Regulatory compliance
- Legal liability



FATAL: Doctor says EMS delay likely made no difference

(Continued from B1)

individual said. "We need to bring the individuals responsible to justice."

Blair said she was overwhelmed with media attention after the crash, but she said she had 2,000 to 3,000 people wait in the area for a downtown residence.

Blair said she was surprised about a faculty member being by the "happy" sign.

City officials later clarified that the funeral home had released the information in writing, however they said that they were looking for items of the students in connection with the crash.

"We're going to get to the bottom of this, and we're going to get to the bottom of this, and we're going to get to the bottom of this," Blair said.

Blair said she was surprised about the number of people who were at the crash site, but she said she was not surprised about the number of people who were at the crash site.

City officials have said an official investigation by Blair's family has been suspended, but Blair said she was not surprised about the number of people who were at the crash site.

Blair said she was surprised about the number of people who were at the crash site, but she said she was not surprised about the number of people who were at the crash site.

response from emergency responders in the minutes after the crash.

The Rev. Shirley Lewis II of Greater Atlanta Bible Church said members of his congregation were in the area for the accident of work in the parking lot in northwest Atlanta.

He said the son, the Rev. St. Charles, was in the area, and he said he was not surprised about the number of people who were at the crash site.

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NFPA 1710

- *“Standard for the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the Public by career fire departments” 2010*
- First Responder – 4 minutes / 90%
- ALS – 8 minutes / 90%

10 Rethinking Doctors' Pay 28 Reform: Far From Dead 33 **FOLDOUT:** Do You Promote Optimal Healing?

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IT'S ALL ABOUT THE **OUTCOMES**

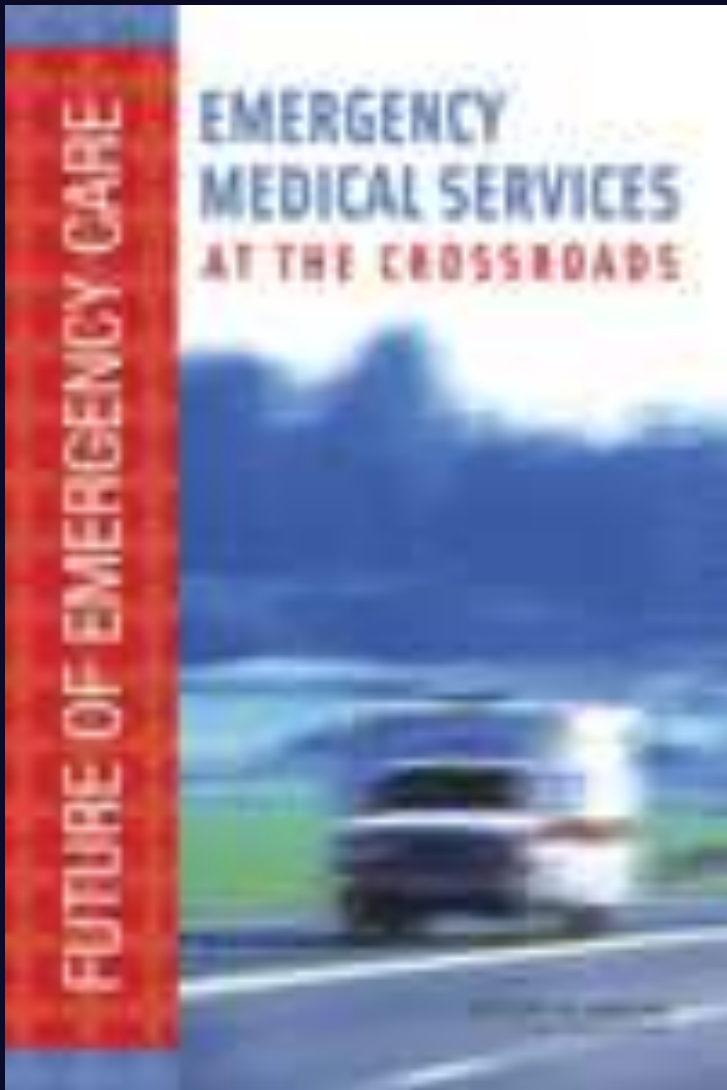
Quality organizations want hospitals to collect more data that focus on patients and outcomes rather than processes and payments

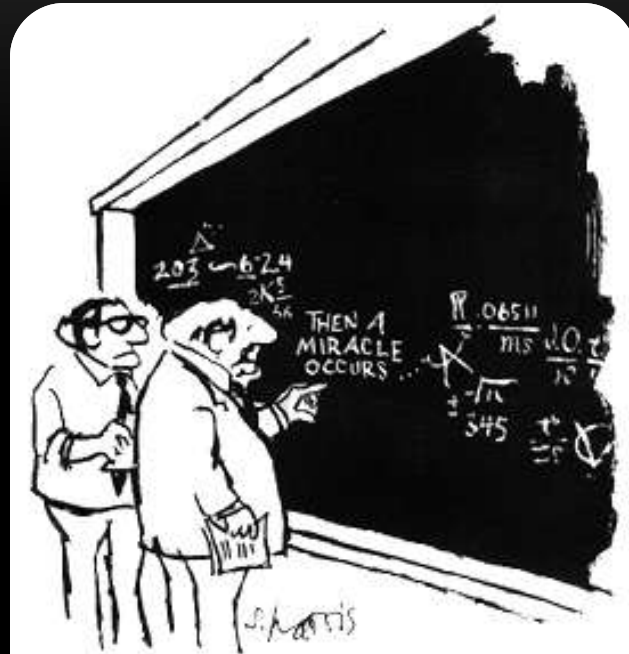
Processes and payments

outcomes rather than

processes and payments







"I think you should be more explicit here in step two."

here in step two."

"I think you should be more explicit



Health Care: The Journal of Delivery Science and Innovation



Health Care: The Journal of Delivery Science and Innovation is a quarterly journal. The journal promotes cutting edge research on innovation in health care delivery, including improvements in systems, processes, management, and applied information technology.

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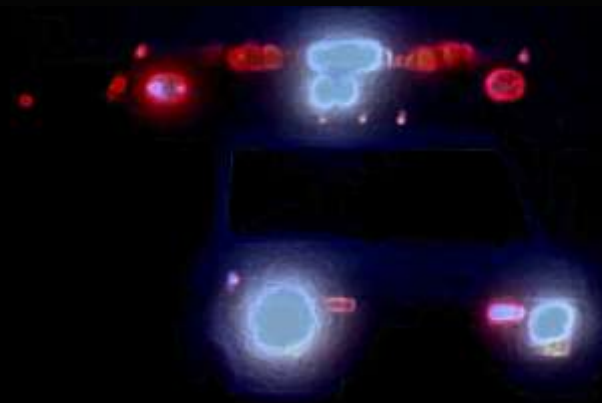
It's an American Idol day here at [#DCtoVC](#) - [@Healthloop](#) is 'such a lovely place' to work & [@CareLoop](#) wants you to call

The evidence.

DATA DEFINITION CHALLENGES

- Call received to PSAP
- Call entered
- Call dispatched
- Unit enroute (wheels moving)

- On scene (wheels stopped)
- At patient's side



AVERAGE VS. FRACTILE METHODOLOGY

“CARDIAC RESUSCITATION IN THE COMMUNITY. IMPORTANCE OF RAPID PROVISION AND IMPLICATIONS FOR PROGRAM PLANNING”

JAMA 1979

- Focused on time of collapse to defibrillation
- CPR initiation within 4 minutes
- ALS with defibrillation within 8 minutes
- Generalized response to all patients



EFFECT OF AMBULANCE RESPONSE TIMES ON CARDIAC ARREST SURVIVAL

- Scottish Ambulance Service
- Estimated the effect of reducing response times on survival
- 14 min / 90% fractile response
- All BLS-D ambulances

- Reducing response times from 14 – 8 minutes:
 - Increase survivors from 6% - 8%
 - Numerical modeling)

COMPARISON OF RESPONSE TIME & SURVIVAL

- Retrospective review – 6 month period
- 5424 patients in an urban EMS system transported to a Level I Trauma Center
- Patients categorized as Priority 1 (10:59) or 2 (12:59)
- Mean response times:
 - Survivors – 6.9 minutes
 - Non-survivors – 7.06 minutes

COMPARISON OF RESPONSE TIME & SURVIVAL

- Mortality:
 - 1.58% mortality risk for response intervals greater than 5 minutes
 - 0.51% mortality risk for response intervals less than 5 minutes
- Little evidence in these data to suggest that changing this system's response time specifications to times less than their current, but greater than 5 minutes, would have any beneficial effect on survival.

DOES PARAMEDIC RESPONSE TIME AFFECT PATIENT SURVIVAL?

- Retrospective cohort study of 9559 unselected patients transported to a single facility
- Multivariable logistic regression model applied to assess the effect of response time on survival controlling for age, gender, scene time, transport time, and 3 categories of condition severity
- Survival benefit identified in patients with response intervals less than or equal to 4 minutes
- No survival benefit in medical patients with non-arrest etiology

LACK OF ASSOCIATION BETWEEN PREHOSPITAL RESPONSE TIMES AND PATIENT OUTCOMES

Thomas H. Blackwell, MD, Jeffrey A. Kline, MD, J. Jeffrey Willis, MD, G. Monroe Hicks

ABSTRACT

Background. Limited data exist that examine the relationship between prehospital response times (RTs) and improved patient outcomes. **Objective.** We tested the hypothesis that patient outcomes do not differ substantially based on an explicitly chosen advanced life support (ALS) RT upper limit of 10 minutes 59 seconds (10:59 minutes). **Methods.** This case-control retrospective study was conducted in a metropolitan county with a population of 750,000 for the calendar year 2004. The emergency medical services (EMS) system is a single-tiered, ALS paramedic service that includes basic life support (BLS) first responders. The 90% fractile RT specification required by contractual agreement is 10:59 minutes or less for emergency, life-threatening (Priority 1) calls. Cases (study patients), defined as Priority 1 transports with RTs exceeding 10:59 minutes, were compared with controls, which comprised a random sample of Priority 1 calls with RTs of 10:59 minutes or less. Prehospital run reports and hospital outcomes were evaluated using explicit criteria by one observer for the primary outcome of in-hospital death and secondary outcomes of critical interventions performed in the field. We tested the hypothesis of equivalence using the 95% confidence intervals (CIs) for difference in proportions with $\alpha = 0.05$ and $\beta = 0.2$ to show $\Delta = \pm 5\%$. **Results.** Of the 3,270 emergency transports in 2004, we identified 373 study patients (RT > 10:59 min) and a random sample of 373 controls (RT \leq 10:59 min). Survival to hospital discharge was 80% (76% to 84%) for study patients vs. 82% (77% to 85%) for controls, yielding a 95% CI for the difference of -6 to +4%. ALS procedures were performed in 47.7% (95% CI: 43% to 53%) of study patients vs. 45.4% (40% to 51%) of controls (95% difference in proportions -10 to +5%). The most frequently performed procedures were administration of nitroglycerine and endotracheal intubation. **Conclusions.** Compared with patients who wait 10:59 minutes or less for ALS response, Priority 1 patients who wait longer than 10:59 minutes could experience between a 6% increase and a 4% decrease in mor-

tality, and do not have an increase in critical procedures performed in the field. Our data are most consistent with the inference that neither the mortality nor the frequency of critical procedural interventions varies substantially based on this prespecified ALS RT. **Key words:** emergency medical services; reaction time; outcome assessment (health care); ambulances; prehospital.

PREHOSPITAL EMERGENCY CARE 2009;13:444-450

INTRODUCTION

The provision of optimal emergency medical services (EMS) care in the prehospital environment requires integration of multiple operational and clinical components undertaken by many persons from different sites. Call taking and dispatching, scene response, on-scene patient care, triage and hospital destination decisions, continuing care during transport, and transfer to definitive care are all factors subject to online and off-line medical direction. Ambulance response time represents a high-profile target for potential process improvement. It remains self-evident that response time represents an important performance indicator, but taken alone, it does not completely predict outcome of disease severity or mortality. While prior research has evaluated the effectiveness of response time by various levels of care provision, there are limited studies that have examined the relationship between prehospital response times and patient outcome.¹⁻⁴ The purpose of this study was to examine the EMS response times, clinical care provided, and patient outcome for high-acuity 9-1-1 calls that occurred in an urban metropolitan jurisdiction to determine whether the current response time specifications set for the community are safe. As such, this report concerns the relationship between the duration of time defined by the period measured between a call received at the 9-1-1 dispatch center, arrival of an ambulance at the scene, and outcome of the patient. We further tested the hypothesis that patient outcomes do not differ substantially based on an explicitly chosen advanced life support (ALS) response time specification.

METHODS

We studied a cohort of EMS-transported patients. The data for this report were obtained by structured, secondary review of explicitly recorded data from EMS transports conducted in an urban setting between

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Presented at the National Association of EMS Physicians annual meeting, Naples, Florida, January 2007.

The authors have no relevant disclosures.

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ASSOCIATION BETWEEN RESPONSE TIMES AND PATIENT OUTCOMES

- Case controlled retrospective analysis – 2004
- Priority 1 calls (10:59)
- Comparison of cases (patients exceeding 10:59) vs. controls (random sample of patients within 10:59)
 - 373 patients in each group
- Primary outcome = in-hospital death
- Secondary outcome = critical field intervention

ASSOCIATION BETWEEN RESPONSE TIMES AND PATIENT OUTCOMES

- Survival to hospital discharge:
 - Cases – 80% (95% CI: 76%to 84%)
 - Controls – 82% (95% CI: 77%to 85%)
- Critical field procedures:
 - Cases - 47.7% (95% CI: 43% to 53%)
 - Controls - 45.4% (40% to 51%)
- No evidence of increased mortality for priority patients where ALS response time exceeded 10:59 minutes.

EMS RESPONSE TIME AND MORTALITY

- One-year retrospective cohort study of adults with a life-threatening event as assessed at the time of the 9-1-1 call (MPDS Echo or Delta)
- All-cause mortality at hospital discharge
- 7760 responses evaluated

EMS RESPONSE TIME AND MORTALITY

- Mortality:
 - > 8 minutes – 7.1%
 - < 7:59 minutes – 6.4%
- Adjusted odds ratio of mortality for ≥ 8 minutes was 1.19 (95% CI: 0.97, 1.47)

EMS RESPONSE TIME AND MORTALITY

- “These results call into question the clinical effectiveness of a dichotomous 8-minute ALS response time on decreasing mortality for the majority of adult patients identified as having a life-threatening event at the time of the 9-1-1 call. However, this study does not suggest that rapid EMS response is undesirable or unimportant for certain patients. This analysis highlights the need for further research on who may benefit from rapid EMS response, whether these individuals can be identified at the time of the 9-1-1 call, and what the optimum response time is”

...and by the way.



Perception...

ACTUAL VS PERCEIVED EMS RESPONSE TIME

- Convenience sample of EMS transported patients
- Survey
 - Response time
 - Scene time
 - Definitive care
 - Expectations

ACTUAL VS PERCEIVED EMS RESPONSE TIME

- Compared to actual intervals:
 - Overestimate response times (12.4 v 9.1)
 - Underestimate on scene (9.1 v 12.4)
 - Underestimate time to definitive care (29.4 v 35.0)
 - Actual response times often meet patient expectations (although perceived not)



How do we evaluate the
clinical impact of
change?

RAPID ACUTE PHYSIOLOGY SCORE

- Developed and tested as a severity score for critical care transports
 - Abbreviated version of APACHE II using only parameters available in the field
 - Pulse, B/P, RR, GCS
 - Scoring 0 (normal) to 16
-

RAPS

The Rapid Acute Physiology Score

KENNETH J. RHEE, MD,* CHARLES J. FISHER, JR., MD,†
NEIL H. WILLITIS, PhD‡

The Rapid Acute Physiology Score (RAPS) was developed and tested for use as a severity scale in critical care transports. RAPS is an abbreviated version of the Acute Physiology and Chronic Health Evaluation (APACHE-II) using only parameters readily available on all transported patients (a, pulse, blood pressure, respiratory rate, and Glasgow Coma Scale). RAPS has a range from 0 (normal) to 16. Two hundred eighty-three patients were transported by helicopter to 12 sites. Posttransport RAPS was available on 262 of 352 patients (mean, 1.8; median, 3). Because of death, discharge, or transfer, 107 complete APACHE-II scores using best physiologic values for the first 24 hours after transfer were collected (mean, 14.8; median, 13). Stepwise logistic regression showed that when all APACHE-II and RAPS values were available, the best single predictor of mortality was worst value APACHE-II ($\text{OR} = 1.78, P < .01$). When posttransport RAPS was considered as a single respiratory variable, it had no significant predictive power for mortality ($\text{OR} = 1.23, P < .01$). Correlative analysis comparing RAPS with APACHE-II values at similar points in time revealed a significant mismatch in all cases, with the highest correlation between RAPS and APACHE-II being weekly ($r = .602, P < .01$). It was concluded that RAPS can be applied usefully to complement with APACHE-II and may have limited utility when used alone. (*Am J Emerg Med* 1987; 5:216-20)

Severity scales have been used for both clinical evaluation of patients and system-wide assessment. Two areas in which clinical scoring methods have been applied are out-of-hospital resuscitation, where significant factors have been identified that predict stratification of patients into risk groups,¹⁻³ and trauma care, where severity scales have been used widely for system evaluations and triage.^{4,5} The care of critically ill patients who must be transported either to

or between hospitals might be similarly improved by the use of severity scoring. Because there is no widely accepted severity score that can be applied rapidly to almost all critical care transports, a simplified version of the Acute Physiology and Chronic Health Evaluation (APACHE-II)⁶ score was developed. The usefulness of this score, the Rapid Acute Physiology Score (RAPS), was evaluated using a group of helicopter-transported patients.

METHODS

The Rapid Acute Physiology Score was developed by taking those elements of APACHE-II that can be obtained reliably on all patients in the field or in a hospital emergency department. These elements consist of pulse, blood pressure, respiratory rate, and Glasgow Coma Scale (GCS).⁷ Point values for these factors were identical to APACHE-II except for GCS points, which were scored as follows: GCS = 14-15/RAPS = 0, GCS = 11-15/RAPS = 1, GCS = 8-10/RAPS = 2, GCS = 5-7/RAPS = 3, GCS = 3-4/RAPS = 4 (Tables 1 and 2). Two thirds of the points for APACHE-II are laboratory generated and therefore not included. Because RAPS has only about one third the potential uses of APACHE-II, the GCS contribution to RAPS was decreased by two thirds to keep its proportional contribution similar for the two scores. The possible RAPS range is 0 (normal) to 16.

Adult patients (older than 18 years) returning to the University Medical Center (UMC) by helicopter were assigned RAPS using information obtained before transfer, on arrival at UMC, following one day of hospitalization, and using worst values (best physiologic values) obtained during the first 24 hours at UMC. APACHE-II scores also were calculated at these times when possible.

If the patient had any missing values he or she was excluded from analysis with the following exceptions: 1) If creatinine was not available but BUN was normal, creatinine was assumed to be normal. 2) If arterial blood gas testing was not performed because the patient's clinical condition did not indicate the need for this measurement, arterial blood gases were assumed to be normal.

The power of APACHE-II and RAPS to predict mortality was assessed using stepwise logistic regression. This method assumes that $\ln[\text{Probability}]/\text{Probability}$ is linear in the explanatory variables. The model fit the data reasonably well and allowed a predicted survival curve to be generated. Because we were interested also in the relationship between

From the *Division of Emergency Medicine and Clinical Toxicology, Department of Internal Medicine, the Department of Statistics, University of California, Davis, California; and the †Division of Critical Care Medicine, Department of Internal Medicine, University Hospital of Cleveland and Case Western Reserve University, Cleveland, Ohio. Manuscript received May 23, 1986; revision accepted November 24, 1986.

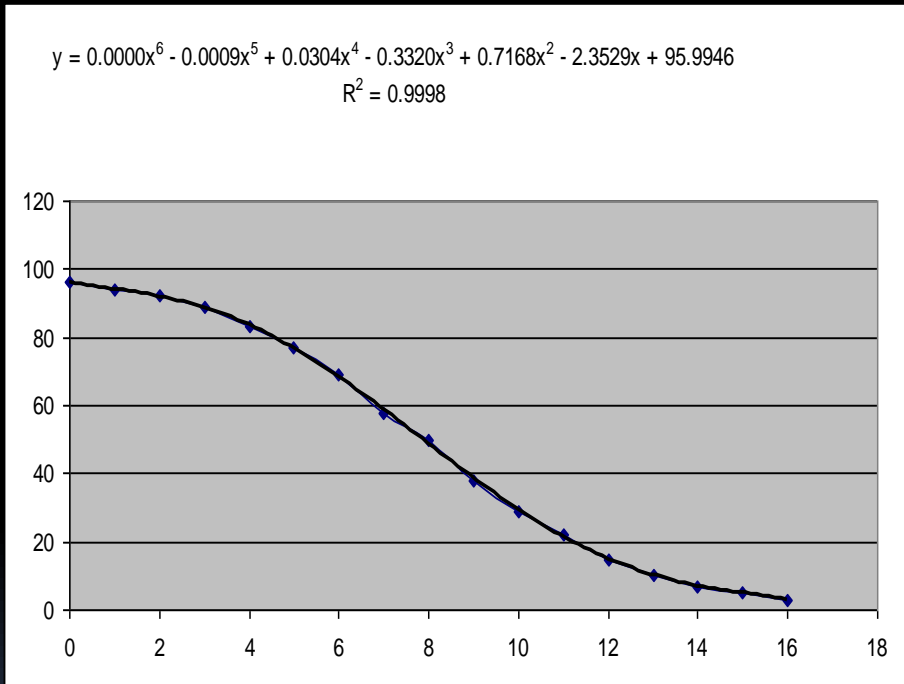
Presented at the University Association of Emergency Medicine Meeting, May 14, 1986, Portland, Oregon. Funded in part by a grant from the Aeromedical Helicopter Corporation.

Address reprint requests to Dr. Rhee, Division of Emergency Medicine and Critical Toxicology, Trauma 1218, University of California Davis Medical Center, 2315 Lakeside Blvd., Sacramento, CA 95817.

Key Words: Acute Physiology and Chronic Health Evaluation; critical care transport; helicopter; Rapid Acute Physiology Score; severity scale.

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Based on Rhee's Work

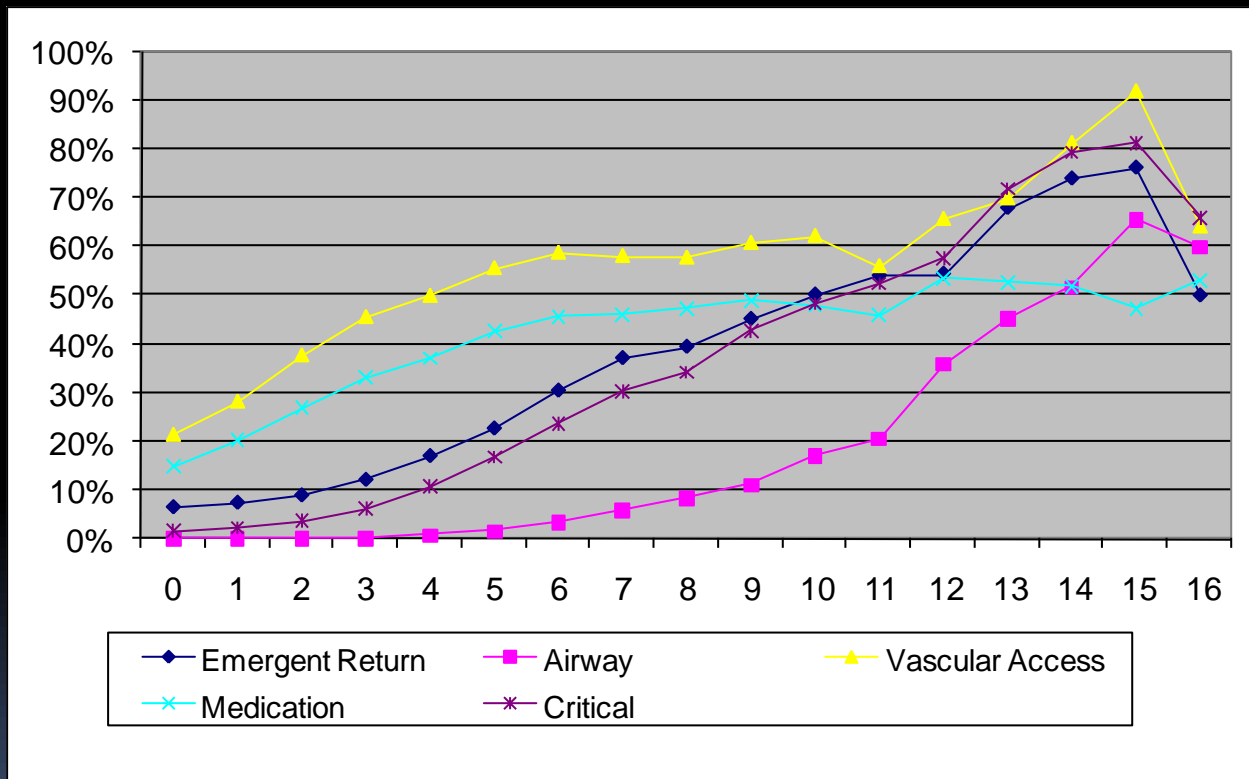


RAPS	Survival %
0	96
1	94
2	92
3	89
4	83
5	77
6	69
7	58
8	50
9	38
10	29
11	22
12	15
13	10
14	7
15	5
16	3

Emergent procedure / returns by RAPS

2006-2008

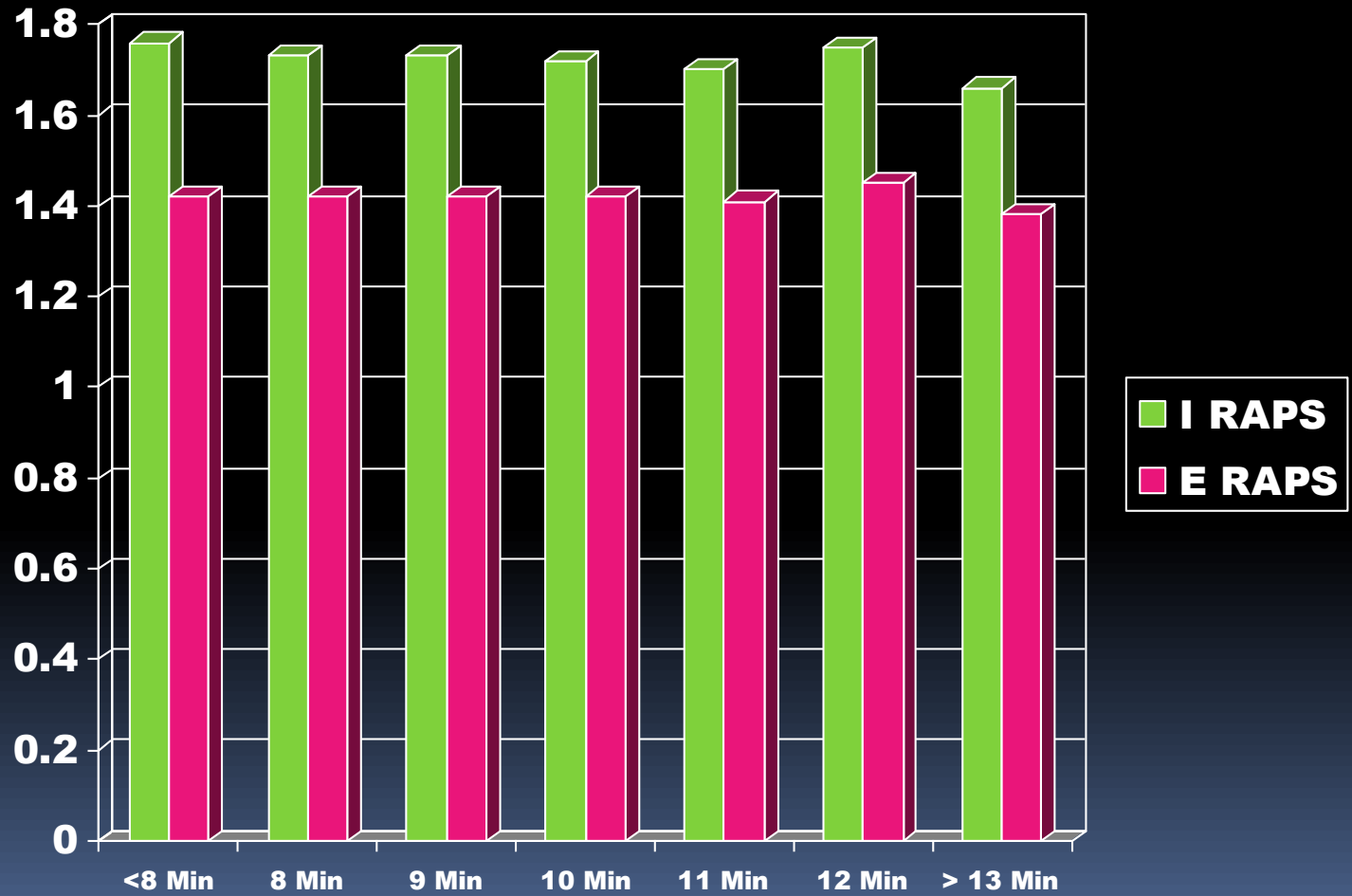
750,000 Patients



Data

Original Database 11-1-06 to 10-31-08	1,077,666
Remove non emergent calls	-423,679
Emergent to Scene	653,987
Remove Non Transported Calls	-142,404
Transported	511,583
Record Number used in Report	269,364

Initial-Ending RAPS by Response Time - All Calls





Evansville, Indiana

- City Population 117,429 (2010)
- MSA Population 350,261
- 40.7 Square Miles
- 44 Paramedics, 41 EMTs
- 28,000 calls / year



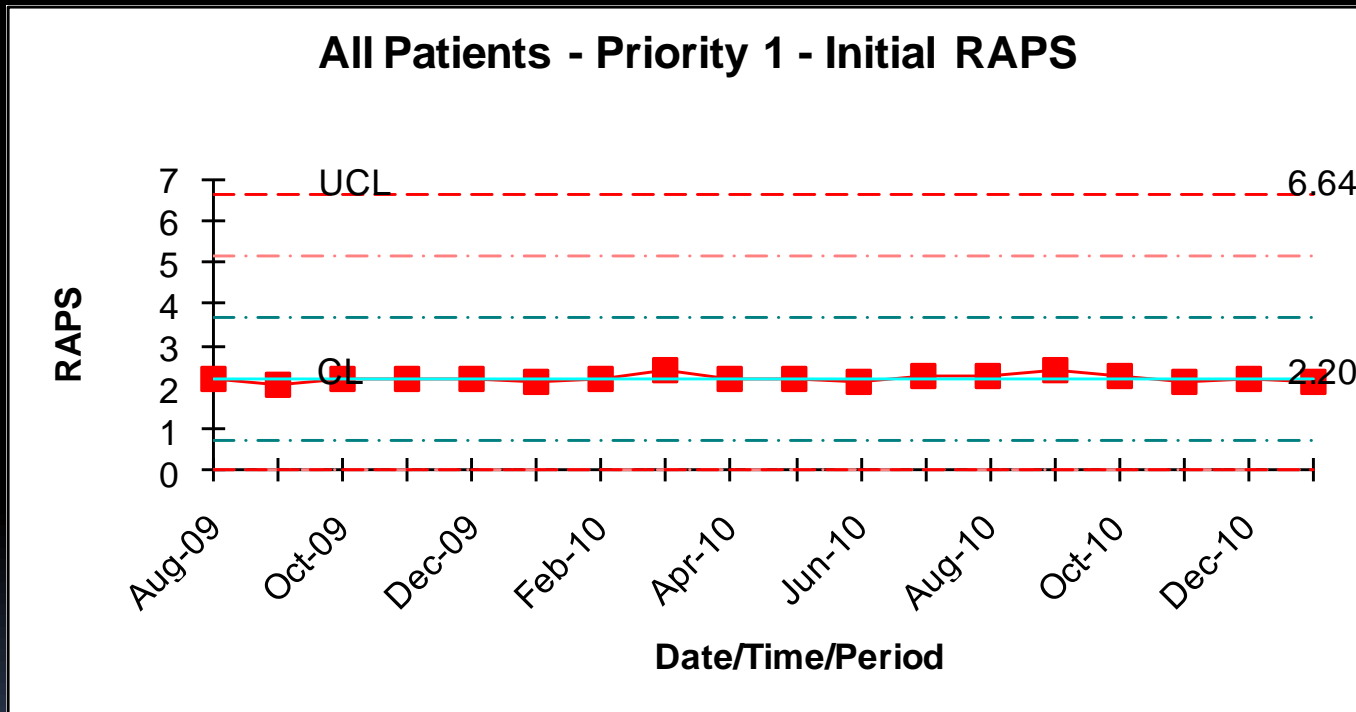
The Story

- “Costs must be decreased.” – Local Government
- Can we lengthen response times and do no harm?
- How do we answer the question?
- The RAPS option
- The First Response Protocol
 - Initially cardiac arrest and unconscious

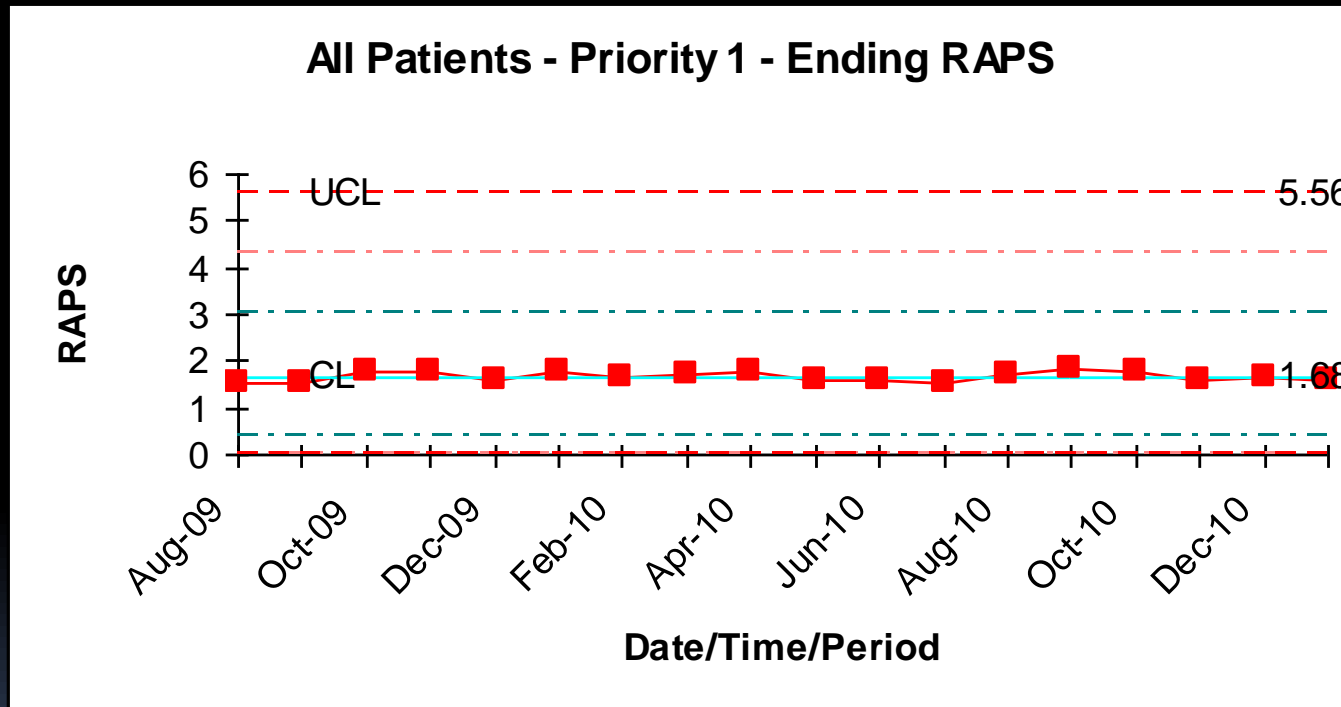
The Proposal

- Lengthen response time requirement (October 09)
 - Decrease unit hours deployed
 - Increased first response to EMD Echo / Delta
- Use RAPS as the alert mechanism to system degradation
 - One Standard Deviation
- Create clinical oversight board
- All clinical participants a part of the initiative

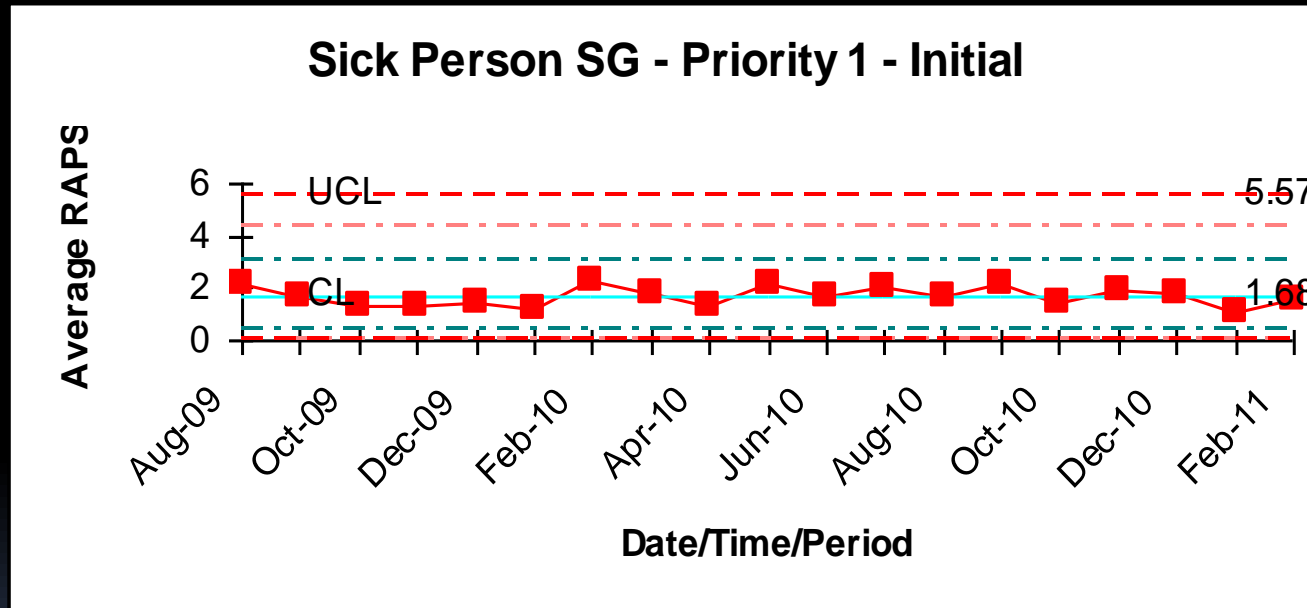
Priority Drill Down



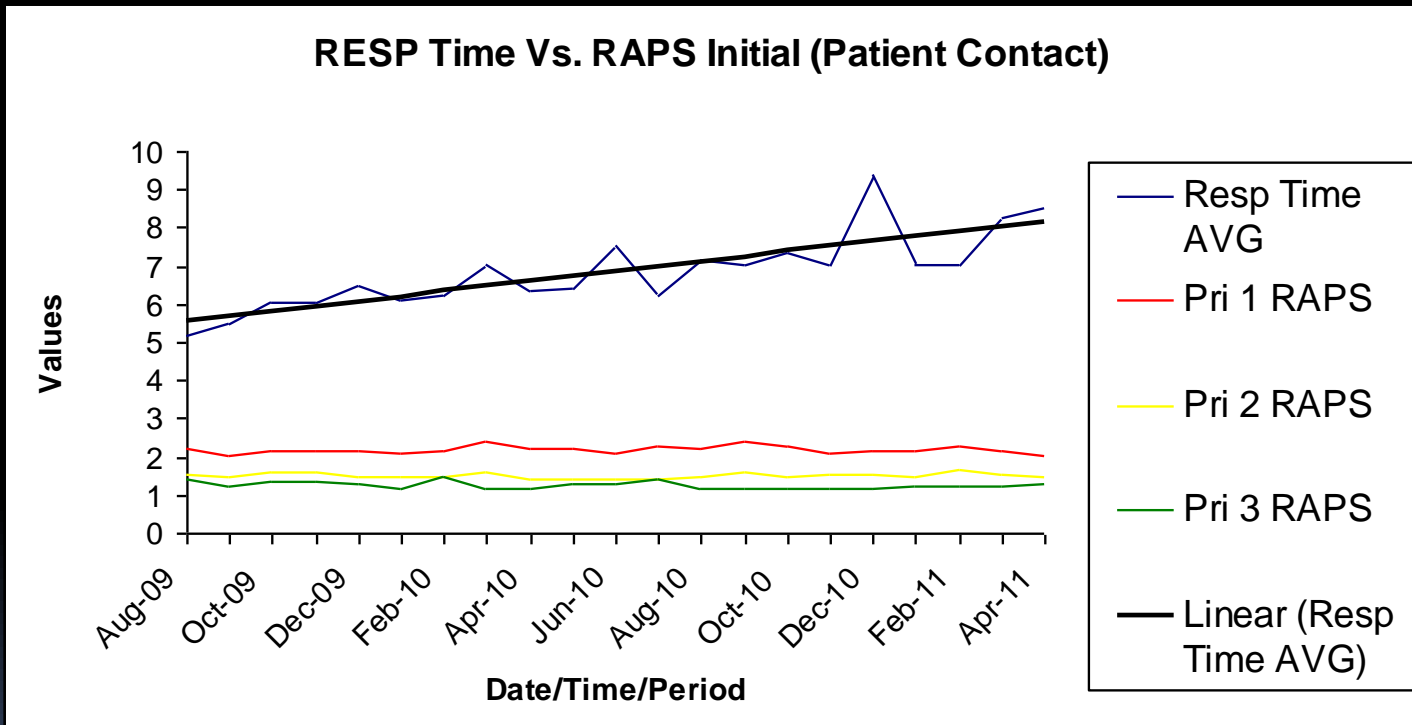
Priority Drill Down



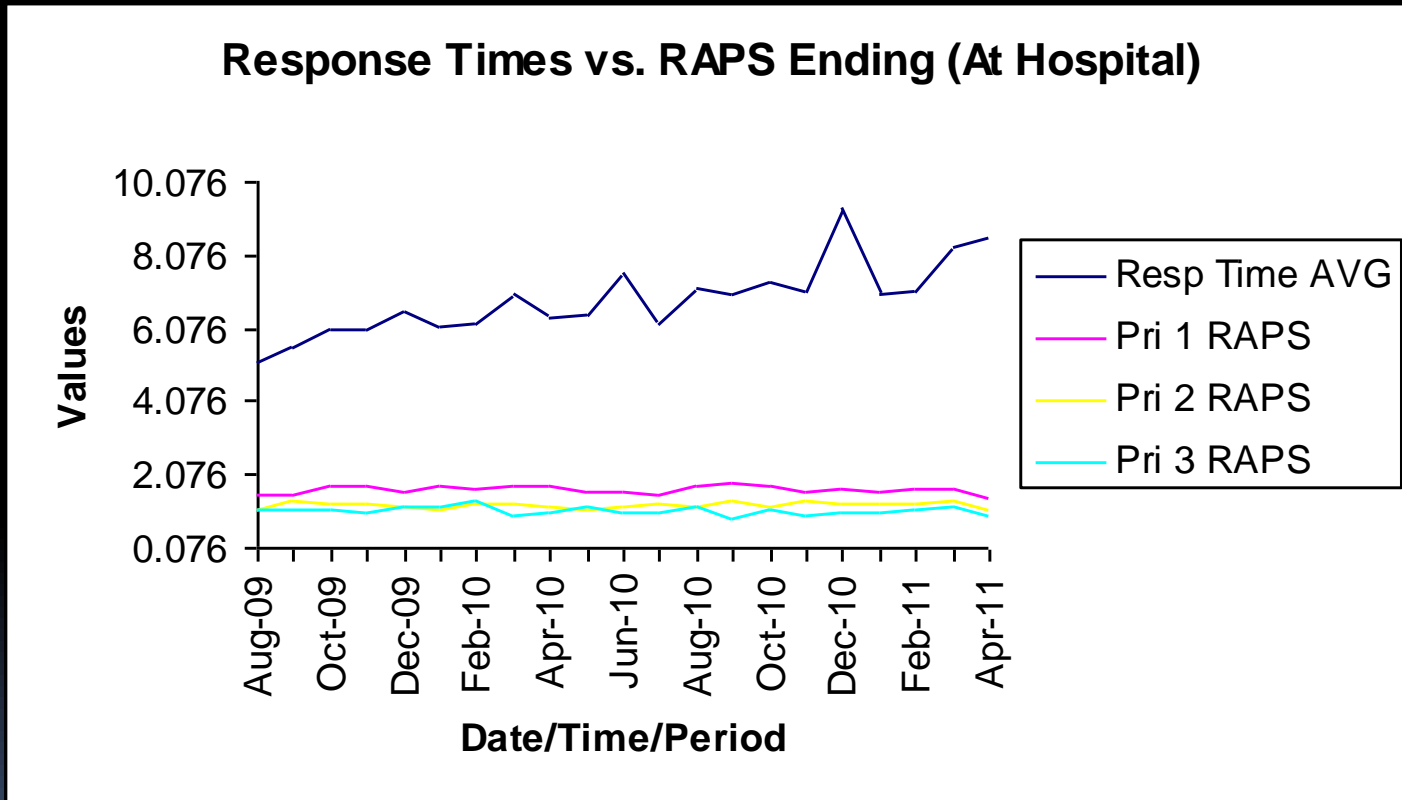
By Super Group



Response Time Overlay

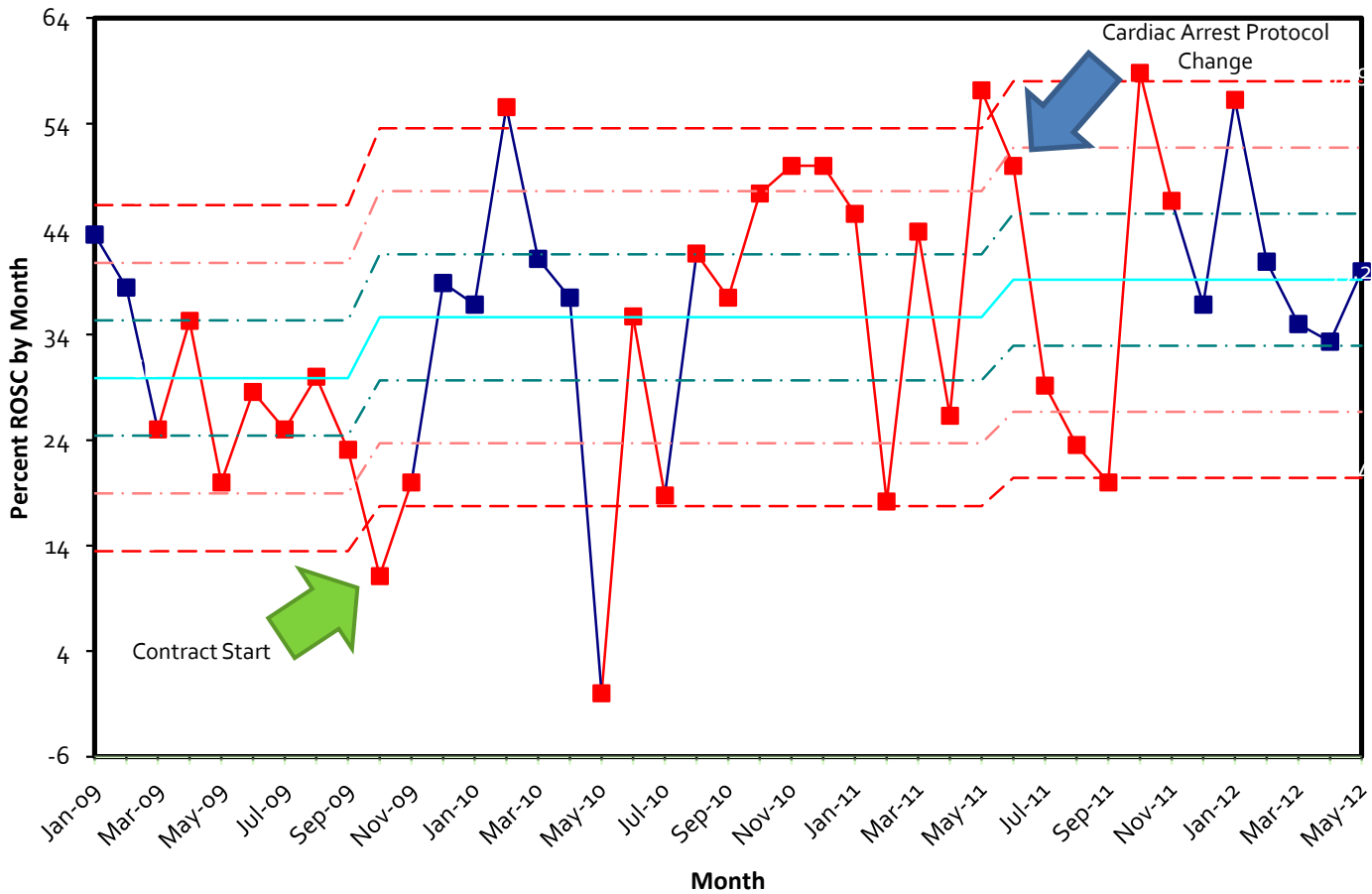


Response Time Overlay



ROSC During Data Collection

ROSC Control CHART - JAN 2009 to MAY 2012



Findings...

- The impact of changing response intervals can be prospectively evaluated using historical data
- The impact of changing response intervals can be monitored using ongoing data
- Response intervals in Evansville were safely increased with no impact on system-wide physiologic parameters

WHERE TO?

**EMS Makes a Difference:
Improved clinical outcomes and
downstream healthcare savings**

A Position Statement of the
National EMS Advisory Council

December 2009

SPECIAL CONTRIBUTIONS

EVIDENCE-BASED PERFORMANCE MEASURES FOR EMERGENCY MEDICAL SERVICES SYSTEMS: A MODEL FOR EXPANDED EMS BENCHMARKING

A STATEMENT DEVELOPED BY THE 2007 CONSORTIUM U.S. METROPOLITAN MUNICIPALITIES' EMS MEDICAL DIRECTORS (APPENDIX)

J. Brent Myers, MD, MPH, Corey M. Slovis, MD, Marc Eckstein, MD, MPH, Jeffrey M. Goodloe, MD, S. Marshal Isaacs, MD, James R. Loflin, MD, C. Crawford Mechem, MD, Neal J. Richmond, MD, Paul E. Pepe, MD, MPH

ABSTRACT

There are few evidence-based measures of emergency medical services (EMS) system performance. In many jurisdictions, response-time intervals for advanced life support units and resuscitation rates for victims of cardiac arrest are the primary measures of EMS system performance. The association of the former with patient outcomes is not supported explicitly by the medical literature, while the latter focuses on a very small proportion of the EMS patient population and thus does not represent a sufficiently broad selection of patients. While these metrics have their place in performance measurement, a more robust method to measure and benchmark EMS performance is needed. The 2007 U.S. Metropolitan Municipalities' EMS Medical Directors' Consortium has developed the following model that encompasses a broader range of clinical situations, including myocardial infarction, pulmonary edema, bronchospasm, status epilepticus, and trauma. Where possible, the benefit conferred by EMS interventions is presented in the number needed to treat format. It is hoped that utilization of this model will serve to improve EMS system design and deployment strategies while enhancing the benchmarking and sharing of best practices among EMS systems. **Key words:** emergency medical services; paramedics; performance improvement; quality assurance; evidence based medicine; STEMI, acute myocardial syndrome; asthma; pulmonary edema; status epilepticus

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INTRODUCTION

Evidence-based clinical measures of emergency medical services (EMS) system performance have been few in number, largely due to the limited quantity and quality of research committed to the prehospital arena.¹⁻⁴ Although there is a 9-1-1 call for EMS response every other second in the United States, and despite the fact that survival from various acute illnesses and injuries are determined in that prehospital setting, evidence for out-of-hospital emergency care procedures are clearly lacking.¹⁻³ This paucity of prehospital research is due to a number of factors, including the relatively young age of EMS as a distinct field of medical care, difficulties in terms of obtaining informed consent and accurate data collection in the prehospital environment, lack of targeted funding, the small number of dedicated EMS-focused researchers, inconsistencies in investigational protocol compliance, and actual or perceived resistance to participation in research by EMS personnel and receiving facilities.²⁻⁴

In the absence of a distinct body of literature evaluating the full spectrum of medical interventions provided in the prehospital setting, EMS performance measures have been limited to the relatively few benchmarks that have been established scientifically, such as survival from out-of-hospital cardiac arrest.^{5,6} Although treatment of cardiac arrest represents a major function of most EMS systems, it only constitutes a small fraction (1-2%) of all EMS responses. Lacking data, other performance standards generally have been based on measures of nonclinical endpoints and inconclusive, surrogate clinical markers, such as response intervals and training standards. In most cases, crude measures of stakeholder satisfaction (surveys) and other anecdotal measures are utilized to judge the performance of EMS systems.³

The Clinical Impact areas

(we can make a difference and we aren't doing everything we can)

- Cardiac Arrest / Resuscitation
- Evaluation and Management of SOB
- Airway Management
- Significant Trauma
- Ischemic Syndromes (STEMI / Stroke)
- Evaluation & Management of Pain & Discomfort
- Patient Safety





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EMSA board discussing increasing ambulance response times

TULSA, Okla. -- EMSA is looking into increasing its response time standard starting in 2013. The issue was discussed for the first time by its board of trustees in yesterday's regular board meeting.

The potential changes would increase response time to life-threatening emergencies from 8 minutes, 59 seconds to 10 minutes, 59 seconds. Non-life threatening emergencies would increase from 12 minutes, 59 seconds to 14 minutes, 59 seconds.

The recommended change would not affect first responders who are required to be on the scene within five minutes.

The change was discussed as part of the board's review of an upcoming Request for Proposal (RFP) which will be issued in November to solicit bidders for its emergency medical services contractor. EMSA contracts with and oversees a private contractor which staffs the organization with EMS and clinical personnel.

The change is proposed in response to a study issued this year by the OU Community School of Medicine and agreed upon by the Medical Control Board which oversees EMSA's clinical care.

The RFP is scheduled for final discussion and vote by the board of trustees in its September board meeting. If the recommended change is made after consideration of the bids, the change would go into effect in November 2013.

The recommended changes would have no impact patients

There is no effect to a person's health or death rate of an ambulance arriving in nine minutes, as they do now, or 11 minutes.

This is true for trauma patients as well as medical patients, even in the cases of serious life-threatening emergencies such as cardiac arrest.

Response times have been studied extensively over the last decade. The industry best practice is moving toward the extended response times in many areas.

Clinical outcomes or mortality rates, in relationship to response time, are most affected by patient care starting within the first five minutes. This is why we have a robust system of 911 dispatchers who give pre-arrival instructions and first responders who are required to respond within the five minutes.

The recommended changes are based on clinical data, not financial

The change is based solely on evidence-based clinical data. It is a more clinically efficient and safer way for us to respond to emergency calls. The recommended change will also allow for a safer driving response which is a critically important safety issue for EMS personnel and citizens.

All of the proposed clinical changes, including the response time, were made at the recommendation of the Medical Control Board and the OU School of Community Medicine study.

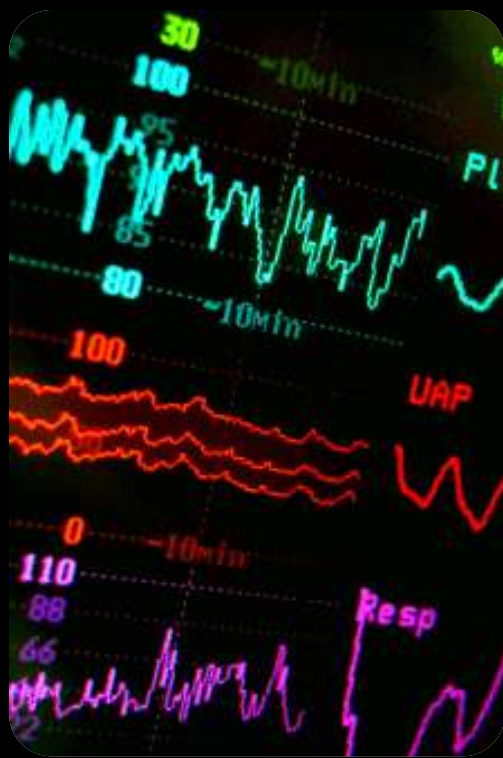
We don't know the financial impact right now. We will be asking bidders to bid using both response times, the current ones and the recommended ones.

Our sole intention with the RFP and bidding process, as always, is to purchase the best quality of patient care that we can at the most fiscally responsible price.

The background of the image is a dark, out-of-focus photograph of an ambulance at night. The ambulance's emergency lights are illuminated, showing a mix of red and yellow colors. The lights are blurred, creating a bokeh effect. The text "EMS is a practice of medicine" is overlaid in the center of the image in a white, sans-serif font.

EMS is a practice of medicine





THANKS.

**THIS WAS A
PRIVILEGE FOR
US...**