Mission: Quality

Can Mission Lifeline Help Your Performance Improvement Program?

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Disclosures

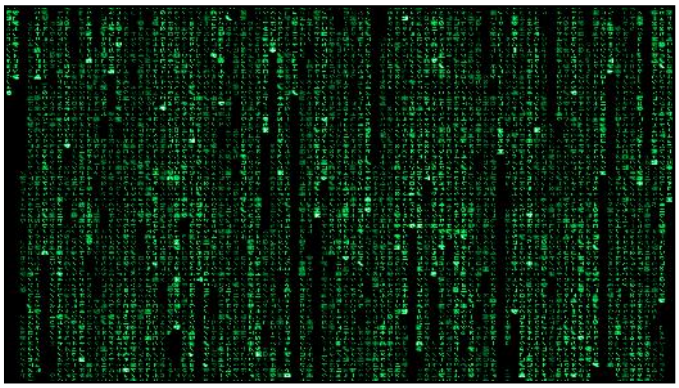
None

The Goals of Mission Lifeline

Focus on Systems of Care

- STEMI
- Cardiac Arrest
- Stroke

- Algorithms
- Performance Improvement
- Education



The Need

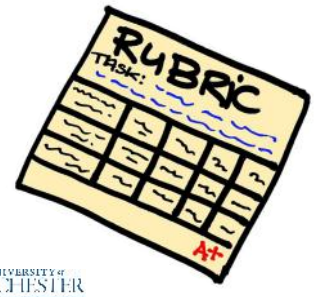
- Information that describes practice
- Generalizable and actionable information
- A means to facilitate a culture of performance improvement

The Problem

- Conventional "chart review"
  - Reviewer dependent
  - Lacks consistency
  - May lack focus
  - Relies on a "chosen few"
  - Difficult to perform across agencies or platforms
- Care record "data mining"
  - Dependent upon data entry
  - Only measures defined variables
  - May lack context
  - Difficult to perform across agencies or platforms

The Evaluation Rubric

- A guide listing specific criteria for grading or scoring
- Aimed at accurate, fair, and consistent assessment



How it works

1. Identify an area of focus

The Focus…

- Clinical Presentations
  - Chest Pain/ACS
  - Stroke
  - Major Trauma
  - Mental Health/Psych
  - Refusal
  - Lift Assist
  - Pain Management
  - "Sick Kids"
  - Tachycardia Management
- Skills
  - Patella Reduction
  - Intubation
  - EKG Interpretation
- Medication Administration
  - Ketamine
  - Naloxone
  - Epinephrine 1:1,000
  - IV Fluid Administration
  - BLS Albuterol

How it works

1. Identify an area of focus
2. Determine clinical performance components to evaluate

Mission Lifeline STEMI Measures

Measure	Metric
12 Lead ECG Acquisition	% >35 years with s/s of ACS getting 12 Lead ECG
FMC to 12 Lead ECG	% within 10 minutes
12 Lead ECG to Notification	% notified within 10 minutes of STEMI ECG
FMC to PCI	% within 90 minutes
EMS Arrival to Lytic	% within 30 minutes
OOHCA ROSC 12 Lead	% of OOHCA with sustained ROSC with 12 Lead ECG

Mission Lifeline Translation to "Care Bundles"

Acute Coronary Syndrome Bundle

Metric	Goal
At Patient to ECG Time	10 minutes or less
ASA 324 mg	At any time
Serial ECG	Serial 12-lead EMS ECG

STEMI Bundle

Metric	Goal
At Patient to ECG Time	10 minutes or less
Prehospital Notification	Within 5 minutes of STEMI identification
ASA 324 mg	At any time
On Scene Time	10 minutes or less
Serial ECG	Serial 12-lead EMS ECGs
Defib Pads	Applied for bradycardia or hemodynamic instability

How it works

1. Identify an area of focus
2. Determine clinical performance components to evaluate
3. Identify records; create and distribute rubric to auditors

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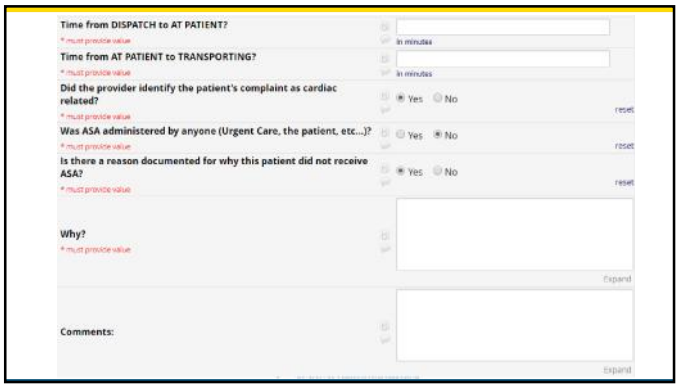
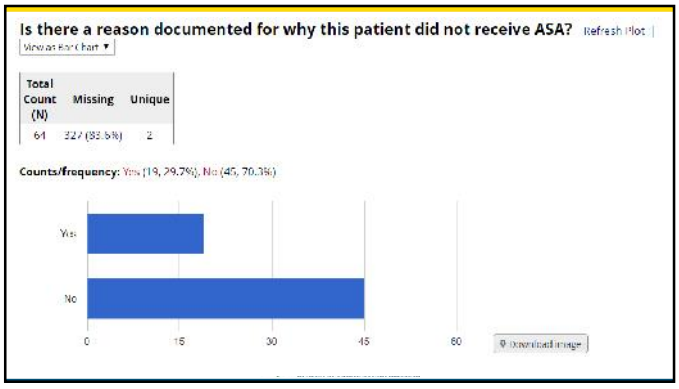


How it works

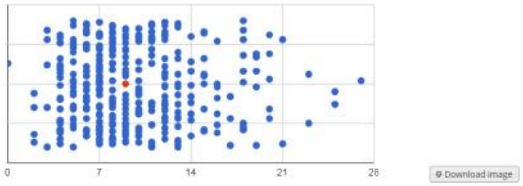
1. Identify an area of focus
2. Determine clinical performance components to evaluate
3. Identify records; create and distribute rubric to auditors
4. Evaluate the results and make system change



Time from patient contact to first 12-Lead performed? Refresh Plot

Total Count (N)	Missing	Unique	Min	Max	Mean	StDev	Sum	Percentile						
								0.05	0.10	0.25	0.50 Median	0.75	0.90	0.95
340	152 (30.9%)	24	0.00	27.00	9.66	4.53	3,285.00	4.00	4.90	6.75	9.00	12.00	16.00	18.05

Lowest values: 0, 2, 2, 2, 2
Highest values: 23, 23, 25, 25, 27



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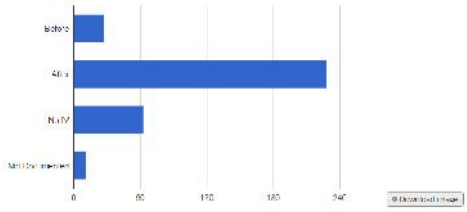
Was an IV attempted or placed before or after 12 Lead acquisition? Refresh Plot

Total Count (N)	Missing	Unique
340	152 (30.9%)	4

Counts/Frequency: Before (27, 8.2%) After (228, 69.5%) No IV (65, 19.7%) Not Documented (8, 2.4%)



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EMS Provider's Last Name:
* must provide value

Do you agree with ECG interpretation:
* must provide value
Yes
No
reset

What is your interpretation:
Expand

Was this a STEMI:
* must provide value
Yes
No
reset

Did the EMS provider identify this as a STEMI:
* must provide value
Yes
No
reset

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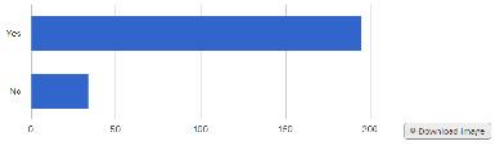
Do you agree with ECG interpretation: Refresh Plot | View as User Chart

Total Count (N)	Missing	Unique
229	0 (0.0%)	2

Counts/frequency: Yes (195, 85.2%), No (34, 14.8%)



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Provider	Agree?	Why not?
Bartolick	No	disagree with no ST changes. No obvious stemi at this time, but appears to have diffuse ST segment depressions with ST elevation in aVR- this could be a stemi equivalent (high LAD vs left main lesion) versus triple vessel disease. Agree with management initially, ASA, quick transport and not activating cath lab.
Clark	No	Agree majorily, also include STE in AvL
Cole	No	She wrote as ECG unable to be interpreted, but subsequently treated this as a non-MI (which is appropriate from the history). However, although, this ECKG does not have the best baseline (especially in V3), this is not a STEMI. This did not affect patient care.
comella	No	NSR - 'no specific findings' is a minimal amount of information
Dalton	No	EKG read was NSR with LVH. I believe this is just NSR at 73 with normal intervals, axis and ST segments. I would not call LVH on this EKG.
Decarlo	No	No ecg interpretation documented. Mine is sinus bradycardia with possible S-T depressions in lateral leads
goodness	No	NSR with T wave inversions in V1 & V2 without ST elevations or depressions
Goodness	No	NSR, LBBB with appropriate ST discordance
Goodness	No	NSR, T wave inversions in anterior septal leads(V4/V5) with flattended tw aves in remainder of leads.
goodness	No	ST elevation in aVL with ST depressions in II and III
Gustina	No	No rhythm strip attached. Unclear whether patient is in a 2nd degree heart block vs NSR with PACs.
handy	No	LVH with secondary repolarization abnormalities
Handy	No	Anterior t waves inversions(V1-V3), lateral appears OK(I/AvL, V5/V6). would recommend repeating EKG after nitro to see if these resolve or progress
Holevinski	No	Profound T-wave inversion relieved with SL nitro, and reappears once nitro wears off. I am concerned about a Type B Wellens vs unstable Angina. Albeit the provider is correct that this is not a STEMI, this is a patient that needs to see cardiology immediately, especially given his bradycardia.

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Leveraging Mission Lifeline

- Engages Hospitals in EMS Performance Improvement
  - Common terms
  - Registry staff
  - Data source
  - Outcome feedback

American Heart Association | American Stroke Association
Learn and Live.

GET WITH THE GUIDELINES.

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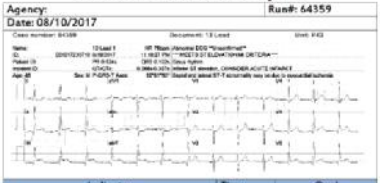
UR MEDICINE | STRONG MEMORIAL HOSPITAL

STEMI Feedback Report

Agency: Run#: 64359

Date: 08/10/2017



Indicator	Time (mins)	Goal
First Medical Contact to 12 Lead ECG	7	<10 minutes
STEMI Recognition to Hospital Notify	7	<5 minutes
First Medical Contact to Depart Scene	13	<10 minutes
First Medical Contact to Device	59	<90 minutes
ASA Administered	ASA	At any time
Findings		
100% OM2 branch stented		

Stroke "Care Bundle"

Metric	Goal
Early Identification	Within 5 minutes of patient contact
Cincinnati Stroke Scale	Obtained during initial assessment and documented
Time Last Known Well	Obtained and documented; green stroke sticker applied
On Scene Time	10 minutes or less
Prehospital Notification	Within 5 minutes of identification
Blood Glucose	Obtained and documented
Surrogate Contact Information	Obtained and documented; green stroke sticker applied

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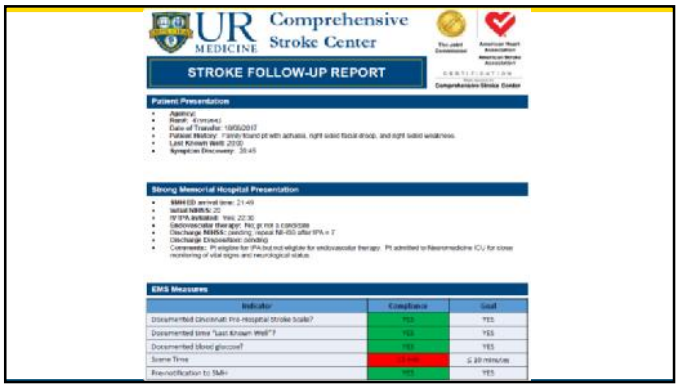

UR MEDICINE Comprehensive Stroke Center

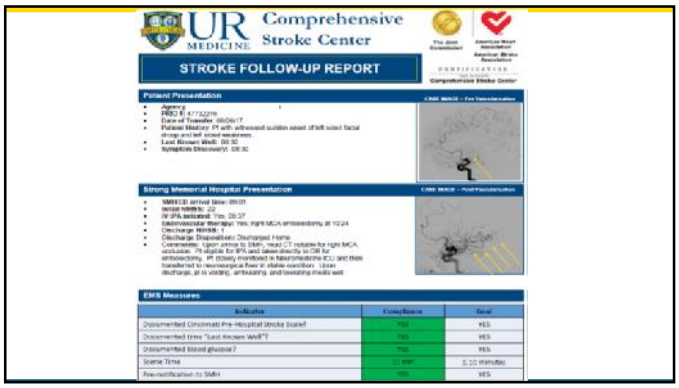
STROKE FOLLOW-UP REPORT

Patient Presentation

Strong Memorial Hospital Presentation

EMS Measures

Indicator	Compliance	Goal
Documented Cincinnati Pre-Hospital Stroke Scale?	YES	YES
Documented time "Last Known Well"?	YES	YES
Documented blood glucose?	YES	YES
Scene Time	[illegible]	≤ 20 minutes
Pre-notification to SMH	YES	YES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STROKE FOLLOW-UP REPORT

Patient Presentation

Strong Memorial Hospital Presentation

EMS Measures

Indicator	Compliance	Goal
Documented Cincinnati Pre-Hospital Stroke Scale?	YES	YES
Documented time "Last Known Well"?	YES	YES
Documented blood glucose?	YES	YES
Scene Time	[illegible]	≤ 20 minutes
Pre-notification to SMH	YES	YES

Opportunities

- Framework for performance assessment
- Leveraging Mission Lifeline GWTG hospital programs
- System improvement

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Going Back To The Need

- Information that describes practice
- Generalizable and actionable information
- A means to facilitate a culture of performance improvement

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