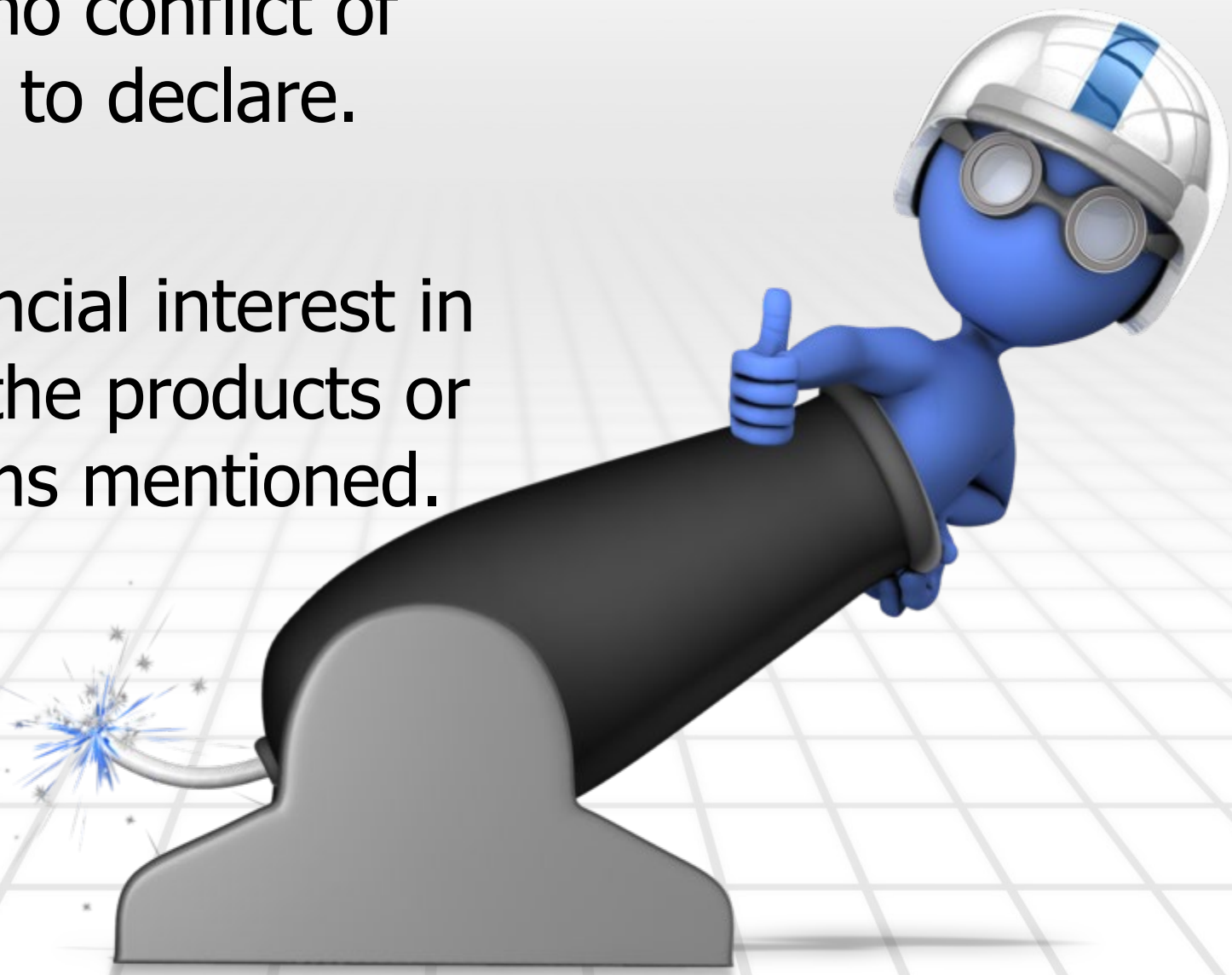
THE VALUE OF COMMUNICATION

EMResource and EMTrack

Conflict of Interest

I have no conflict of interest to declare.

No financial interest in any of the products or programs mentioned.



Funding and Implementation

BETP
Bureau of EMS, Trauma & Preparedness

JUVARE
Enterprise resilience solutions

WMRMCC
West Michigan Regional Medical Control Consortium

Our Team!

Dispatch Providers
Juvare
State and Regional Preparedness
Ambulance Services
Hospitals

WMRMCC Participants

Population of 1,709,206 (17% of state)

13 – Medical Control Authorities

20 - Ambulance Services

202 - ALS Transport units

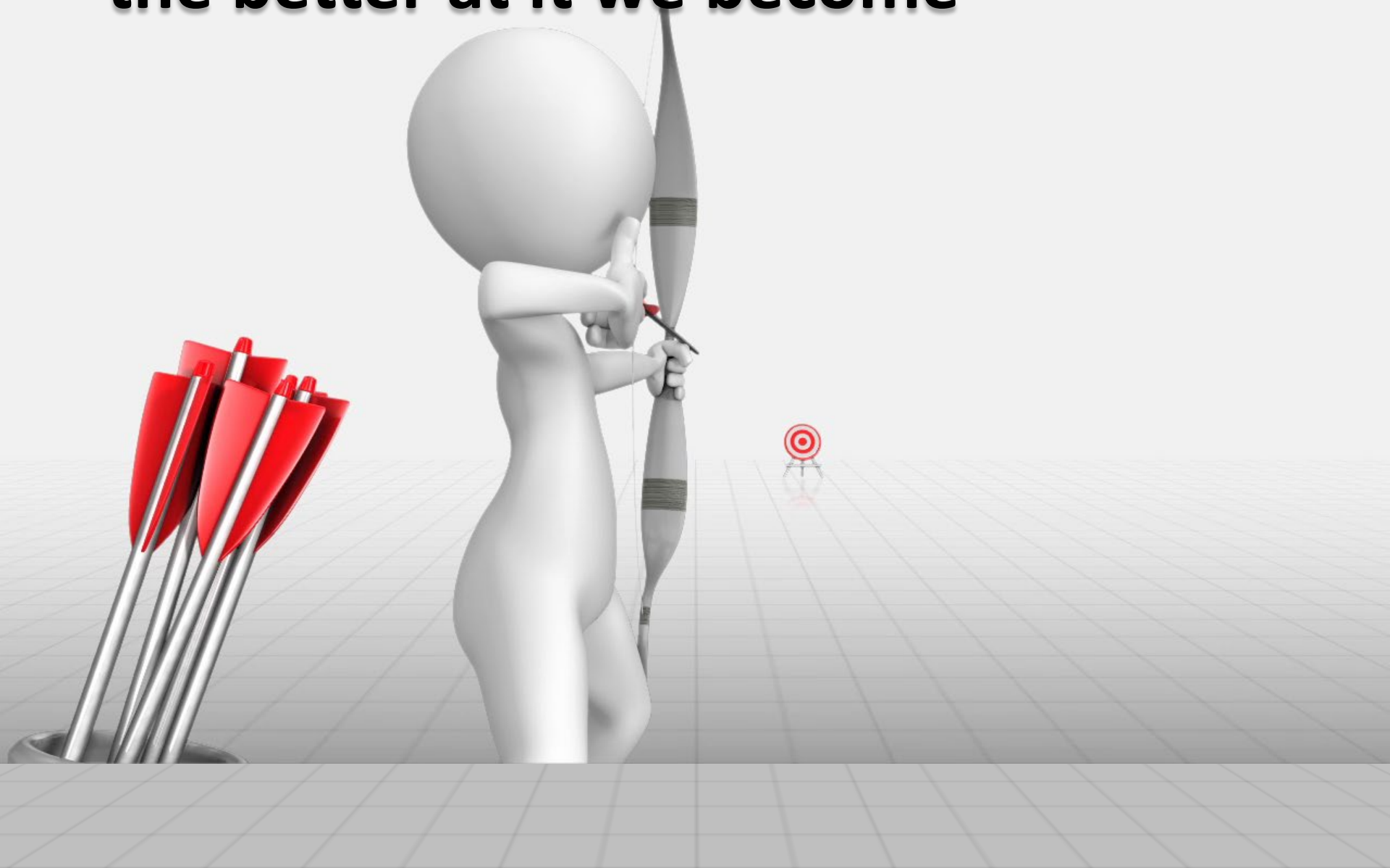
26 - Hospitals

What wasn't working during MCI's?

Communications and Process Changes

- Portable radio coverage
- Channel changes
- Checklists
- Broad Situational Awareness
- EOC – access to information
- Misinformation and conflicting reports to hospitals

The more often we do something, the better at it we become



Practice + Easy Process = Success

Every day I tie my shoes.

I have practiced for years and the process is simple with a clearly defined goal.

Tying my shoes in a crowd is no more difficult, nor is tying them in the dark….

Other than taking more time, tying 100 pairs of shoes is no great feat…

Why do we miss the target?

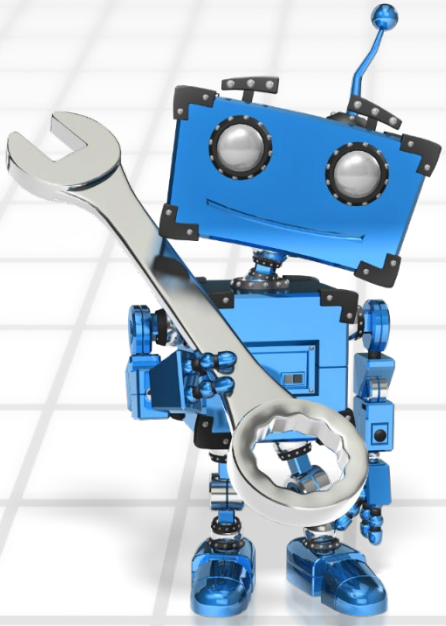
Changing the way we do things when bad things happen.

- Expecting people to function well at something they seldom do……
- Tracking Patients with a program we never use
- Creating events
- Expecting computers to work after sitting in a closet waiting for the MCI

New Approach

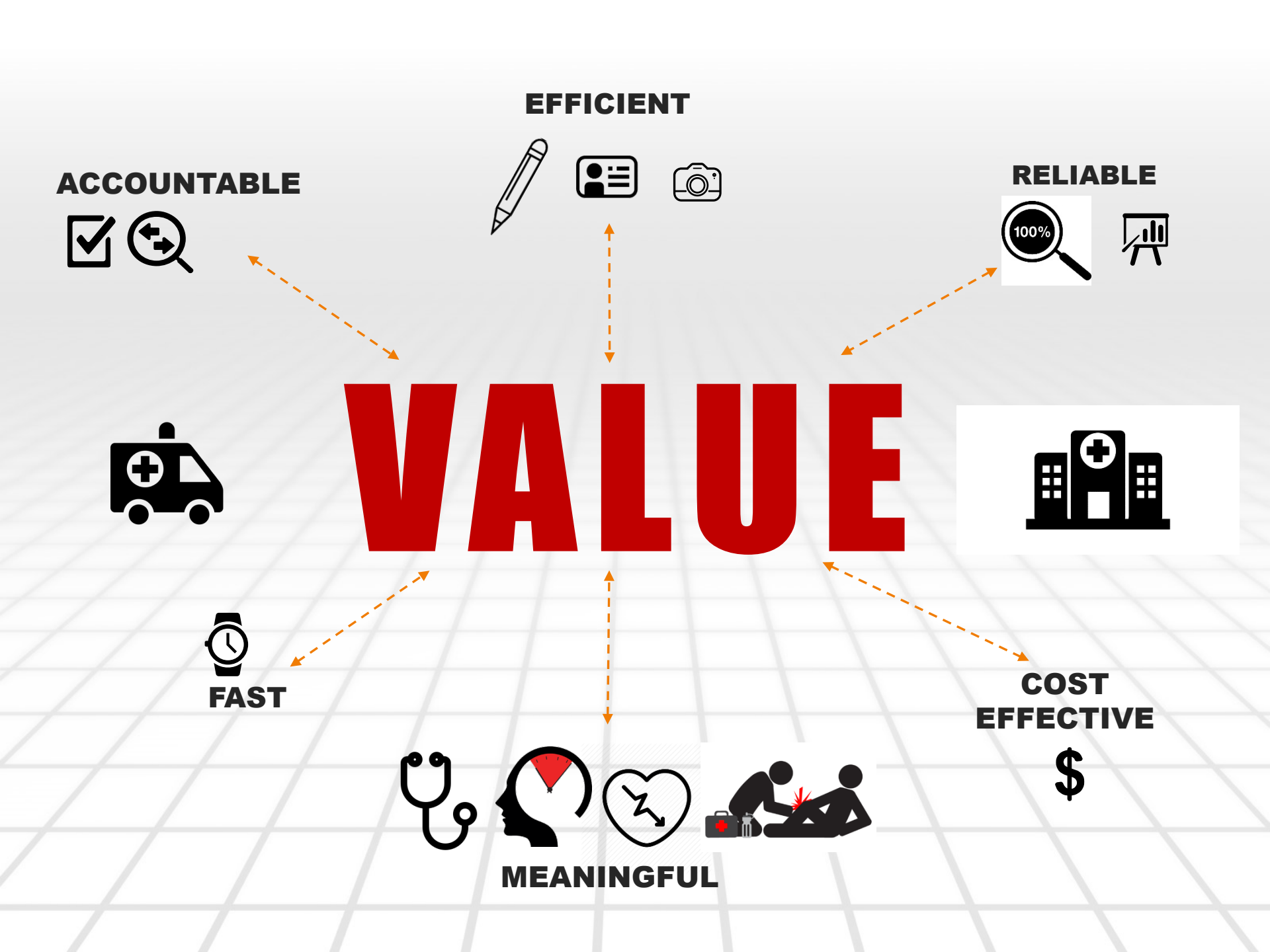
Problem

- Lack of familiarity
- Computer updates
- Too busy on scene
- Passwords: expire and forget
- Reliability
- Buy in
- Bad press



Solution

- Use for **Every Patient**
- Use **Every Day**
- Data entry at departure
- Eliminate Passwords
- Fix fail points
- Increase **VALUE**
- Increase **Reliability** and **Value**


EFFICIENT
ACCOUNTABLE
RELIABLE
100%
VALUE
FAST
COST
EFFECTIVE
$
MEANINGFUL

Not the Old EMSystem

OLD

- MCI focus
- Not meant for daily use
- Needed to create MCI events
- Triage tags - expense
- Users access complicated
- No two-way messaging
- No diversion without creating a new record
- No pictures or scan a license
- Not HIPAA compliant
- Slow refresh rates
- DOS screens
- Timeouts
- Local install for upgrades
- No mobile app

NEW

- Fixed everything on the other list

Region Default

ED - Clare County	Current
Mid-Michigan Med Ctr.-Clare	Open

ED - Ionia County	Current
Sparrow Ionia Hospital	Open

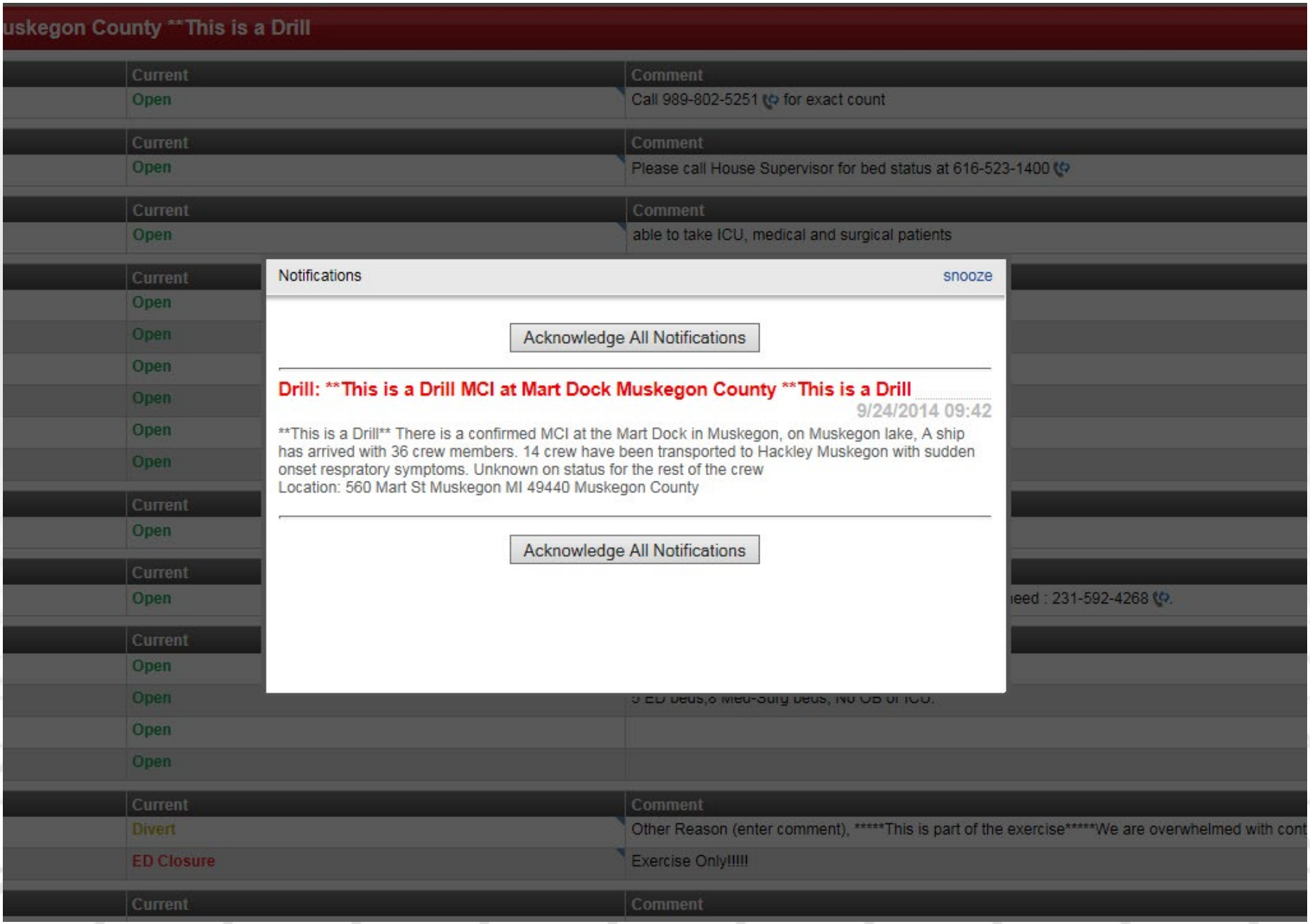
ED - Isabella County	Current
McLaren Central Michigan Hospital	Open
Mid-Michigan Medical Center Mt Pleasant	Open

ED - Kent County	Current
Mercy Health Southwest Campus	Open
Mercy Health St. Mary's Main Campus	Open
Metro Health Hospital	Open
Spectrum Health - Blodgett Hospital	Open
Spectrum Health - Butterworth Hospital	Open
Spectrum Helen DeVos Children's Hospital ICS	Open

ED - Mason County	Current
Spectrum Health - Ludington Hospital	Open

ED - Mecosta County	Current
Spectrum Health - Big Rapids Hospital	Open

Action	Icon	Event Template ▲
Create		Hepatitis A Outbreak: Hospital Response
Create		HHS Situational Assessment
Create		Hourly Update
Create		Influenza Like Illness Data Collection
Create		KENT COUNTY - AIRPORT ALERT
Create		LTC Bed Availability
Create		LTC Equipment Availability
Create		Michigan HAvBED 4.0
Create		Pediatric Census
Create		PPE Inventory
Create		R6 MCC Activation
Create		Region 6 - HAZMAT ALERT
Create		Region 6 - Hospital and EMS Announcement
Create		Region 6 - LTC Announcement
Create		Region 6 - MCI Incident
Create		Test Template


uskegon County **This is a Drill
Current
Comment
Open
Call 989-802-5251 for exact count
Current
Comment
Open
Please call House Supervisor for bed status at 616-523-1400
Current
Comment
Open
able to take ICU, medical and surgical patients
Notifications
snooze
Acknowledge All Notifications
Drill: **This is a Drill MCI at Mart Dock Muskegon County **This is a Drill
9/24/2014 09:42
This is a Drill There is a confirmed MCI at the Mart Dock in Muskegon, on Muskegon lake, A ship has arrived with 36 crew members. 14 crew have been transported to Hackley Muskegon with sudden onset respratory symptoms. Unknown on status for the rest of the crew
Location: 560 Mart St Muskegon MI 49440 Muskegon County
Acknowledge All Notifications
Current
Open
Open
Open
Open
Open
Open
Current
Open
Current
Open
eed : 231-592-4268 .
Current
Open
Open
Open
Open
Current
Comment
Divert
Other Reason (enter comment), *****This is part of the exercise*****We are overwhelmed with cont
ED Closure
Exercise Only!!!!!
Current
Comment

EMResource Process

- Bad thing happens
- EMS notified and responding
- EMResource Event Created by Dispatch or Life EMS
- Alert goes off on web, email, phones
- Hospitals enter a bed poll & EMS updates available unit #

One Action

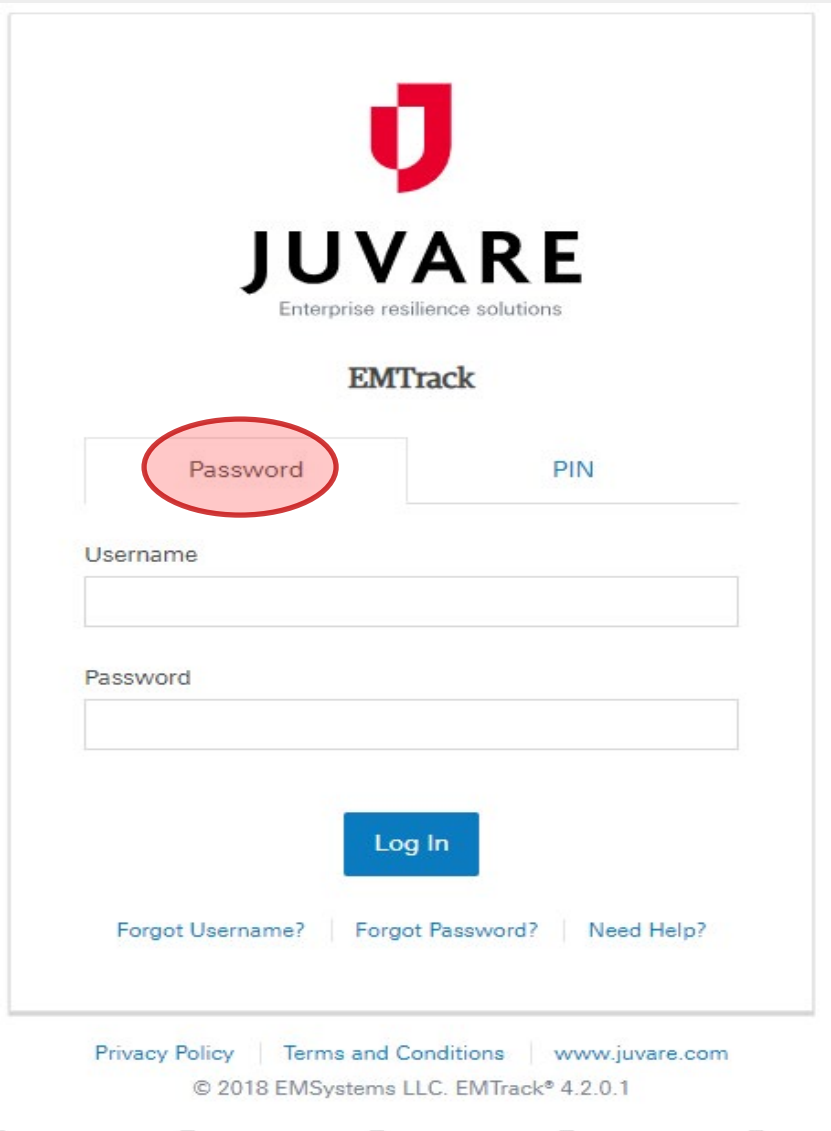
A single event creation, taking less than one-minute, results in:

- 50 status updates from EMS and hospitals
- Notification of approximately 100 regional key personnel

EMResource

- MCI Alerts
- Bed Polling
- Open and Close
- Resource queries
- Diversion logging
- Inbound patient notifications through EMTrack
- Communication with inbound EMS

EMTrack


JUVARE
Enterprise resilience solutions
EMTrack
Password
PIN
Username
Password
Log In
Forgot Username?
Forgot Password?
Need Help?
Privacy Policy
Terms and Conditions
www.juvare.com
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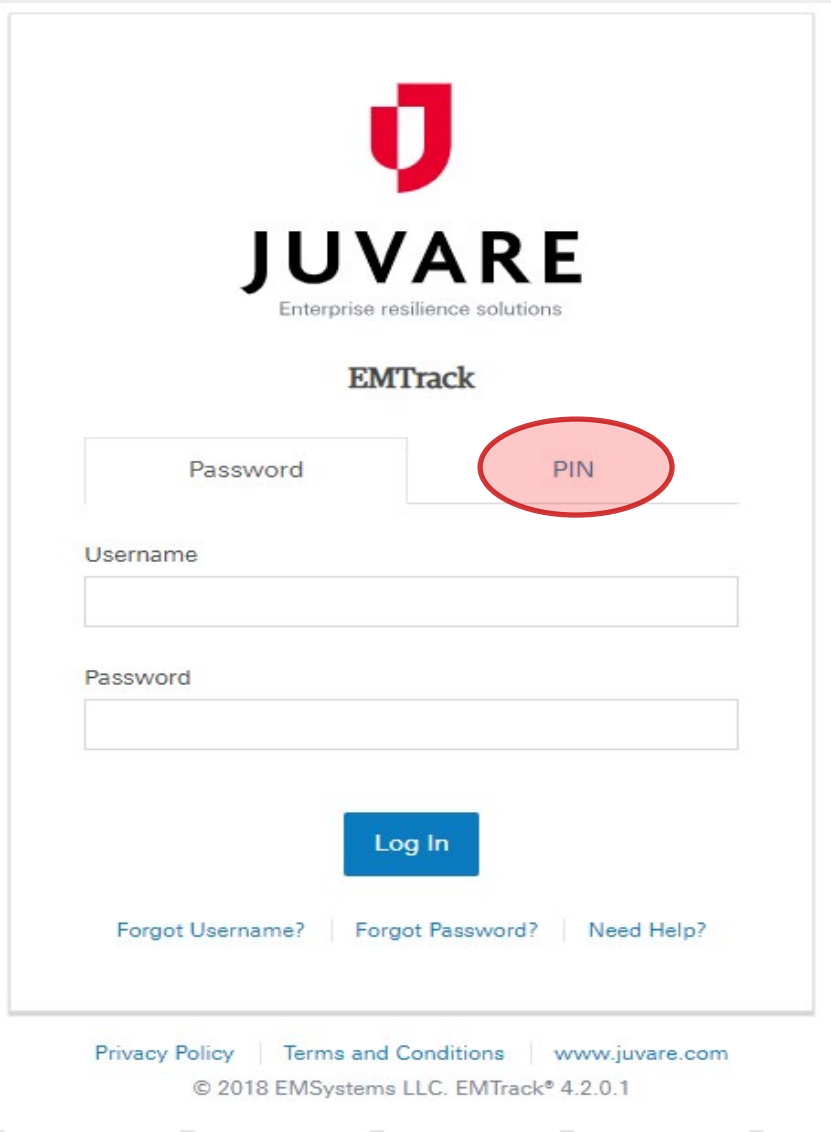
EMTrack


JUVARE
Enterprise resilience solutions
EMTrack
Password
PIN
Username
Password
Log In
Forgot Username?
Forgot Password?
Need Help?
Privacy Policy
Terms and Conditions
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JUVARE

Enterprise resilience solutions

EMTrack

Password | PIN

Username

amr200

PIN

••••

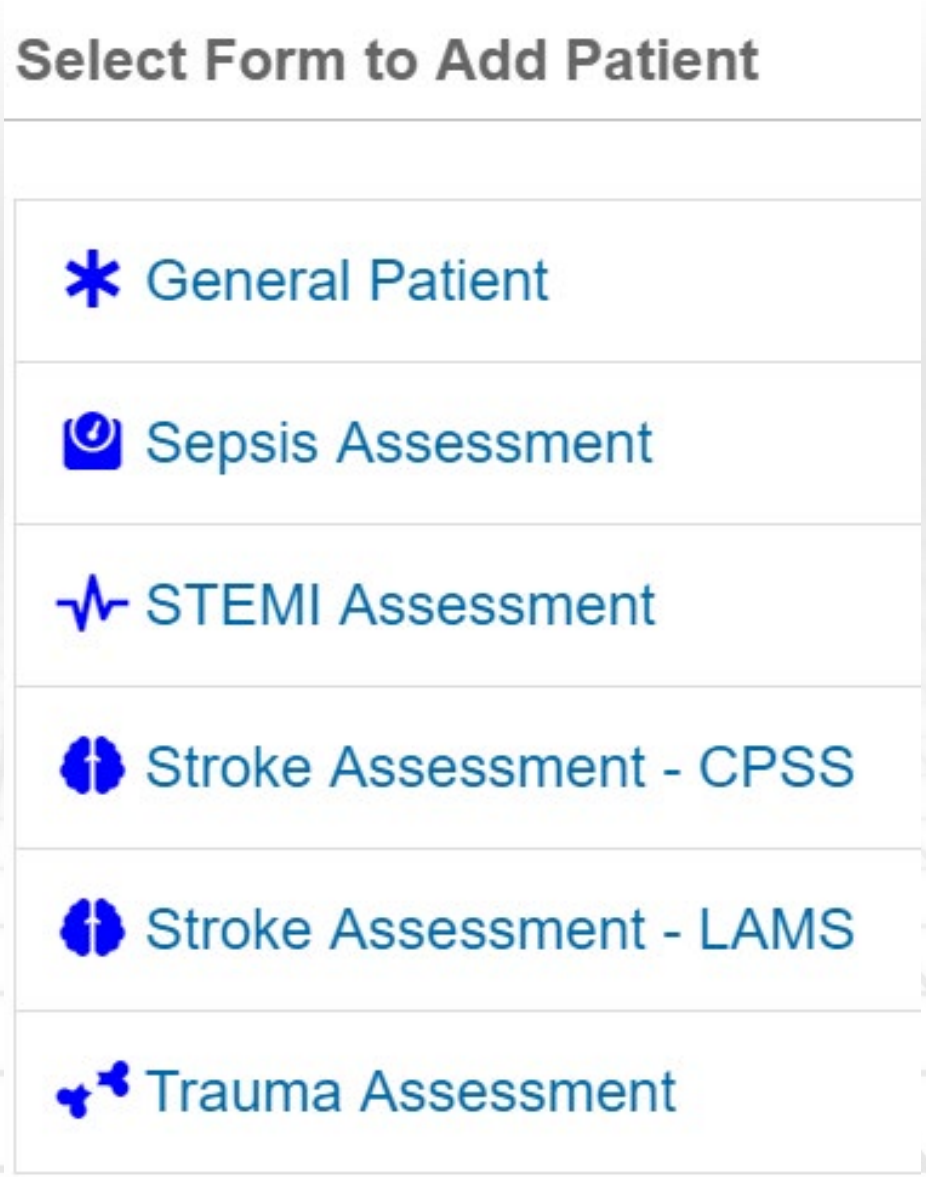
By proceeding, you agree to Juvare's
Privacy Policy and Terms & Conditions.

Log In

Forgot Username? | Forgot Password? | Need Help?

EMTrack – EMS Screen

Select the form template to use



Vital Signs

Vital Signs Evaluation

- (•) Unspecified
- ( ) Stable
- ( ) Unstable

Blood Pressure [ ] / [ ]

Pulse [ ]

Respiratory Rate [ ]

Temperature [ ] °F

SpO2 [ ]

End Tidal CO2 [ ] mmHg

Pain [Select or search...]

Blood Glucose [ ] mg/dL

Glasgow Coma Scale (GCS)

Eye Opening [Not Recorded]

Verbal Response [Not Recorded]

Motor Response [Not Recorded]

GCS Score [ ]

AVPU

- (•) Unspecified
- ( ) A - Alert (awake and responsive)
- ( ) V - Voice (responds to verbal stimuli)
- ( ) P - Pain (responds to painful stimuli)
- ( ) U - Unresponsive (no response or unconscious)

Date and Time Measured [10/14/2019 13:15]

Transport

Destination Location *

Select or search...

Provider

Select or search...

Unit

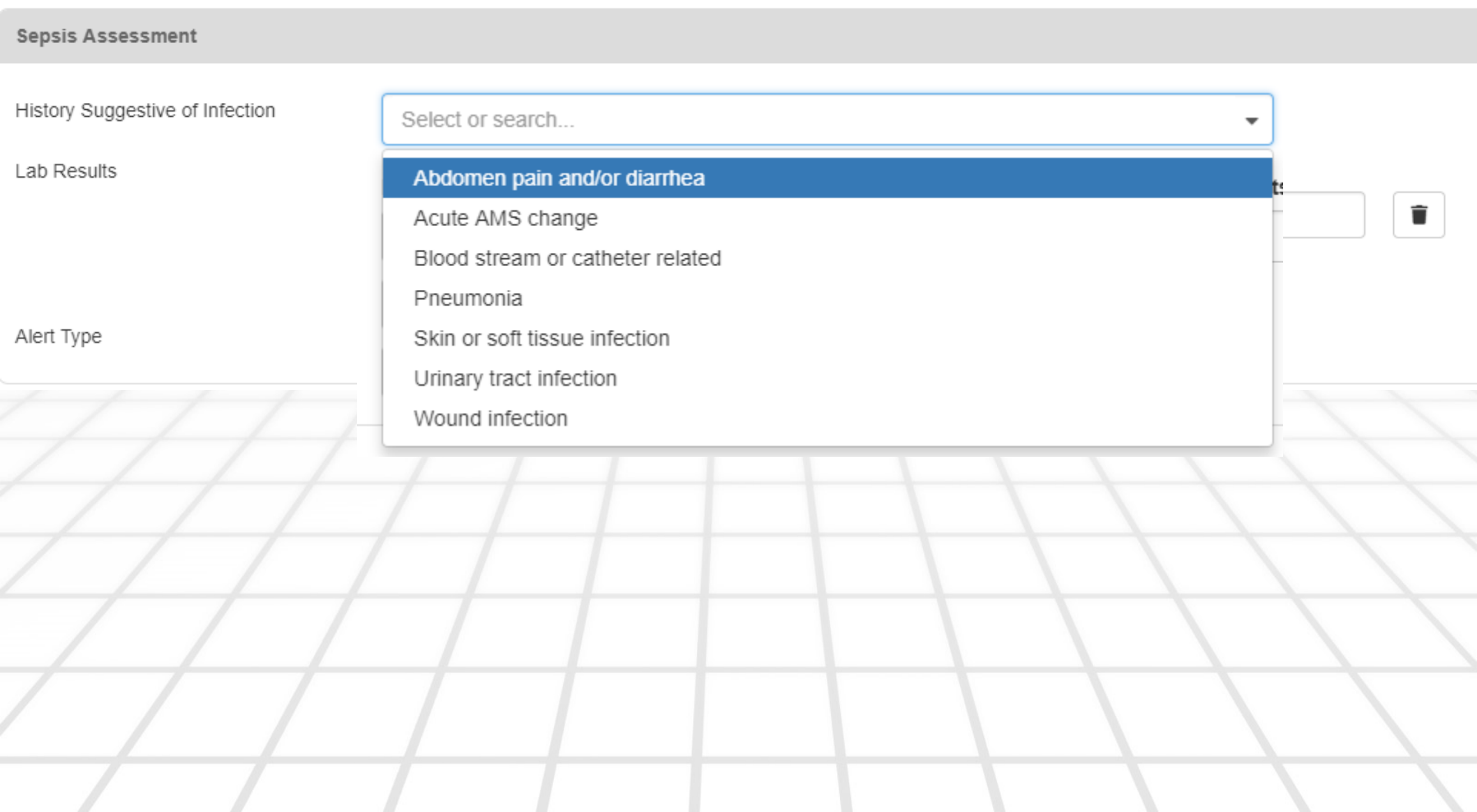
Select or search...

ETA (mins) *

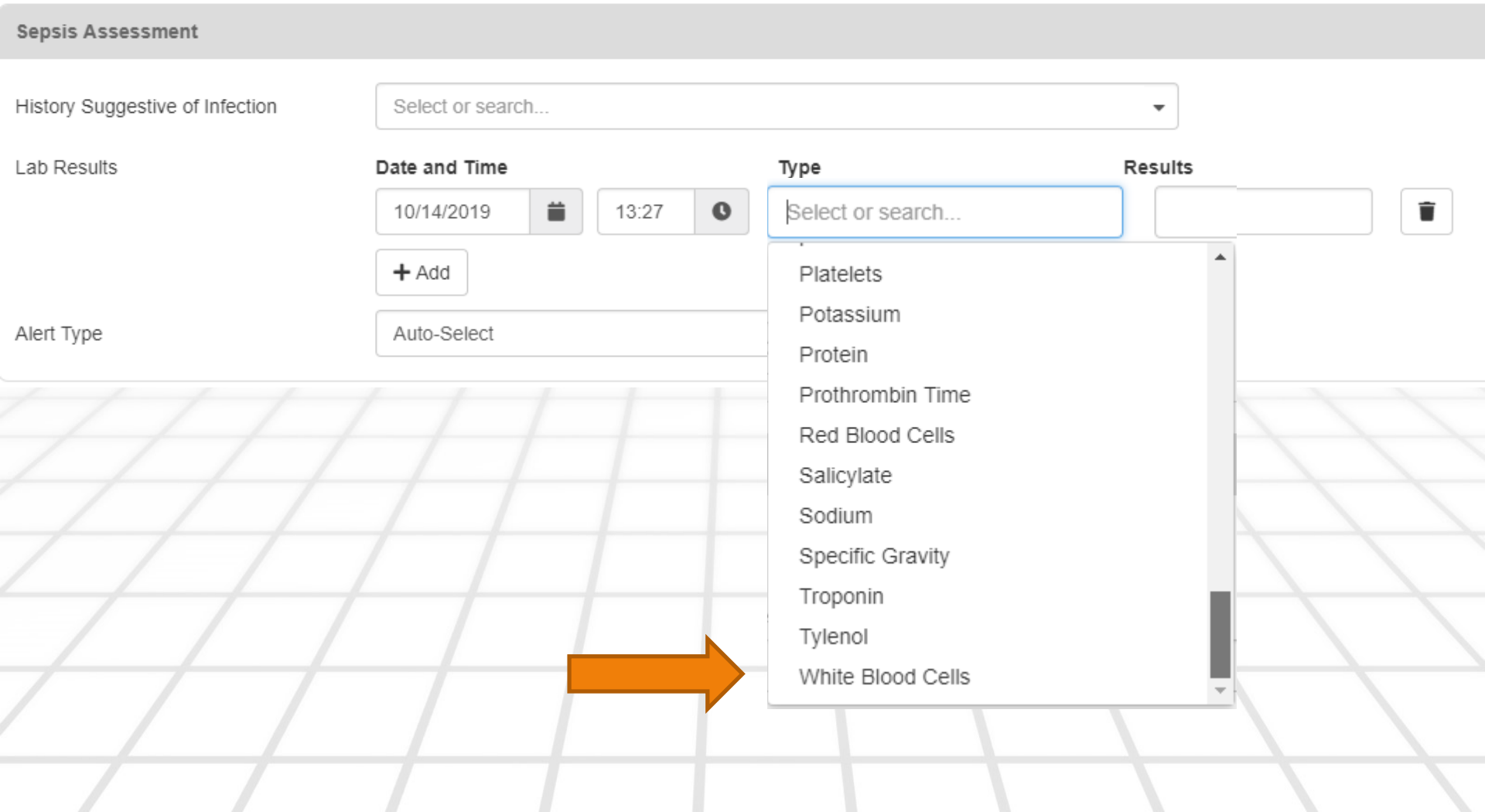
Reset

Save

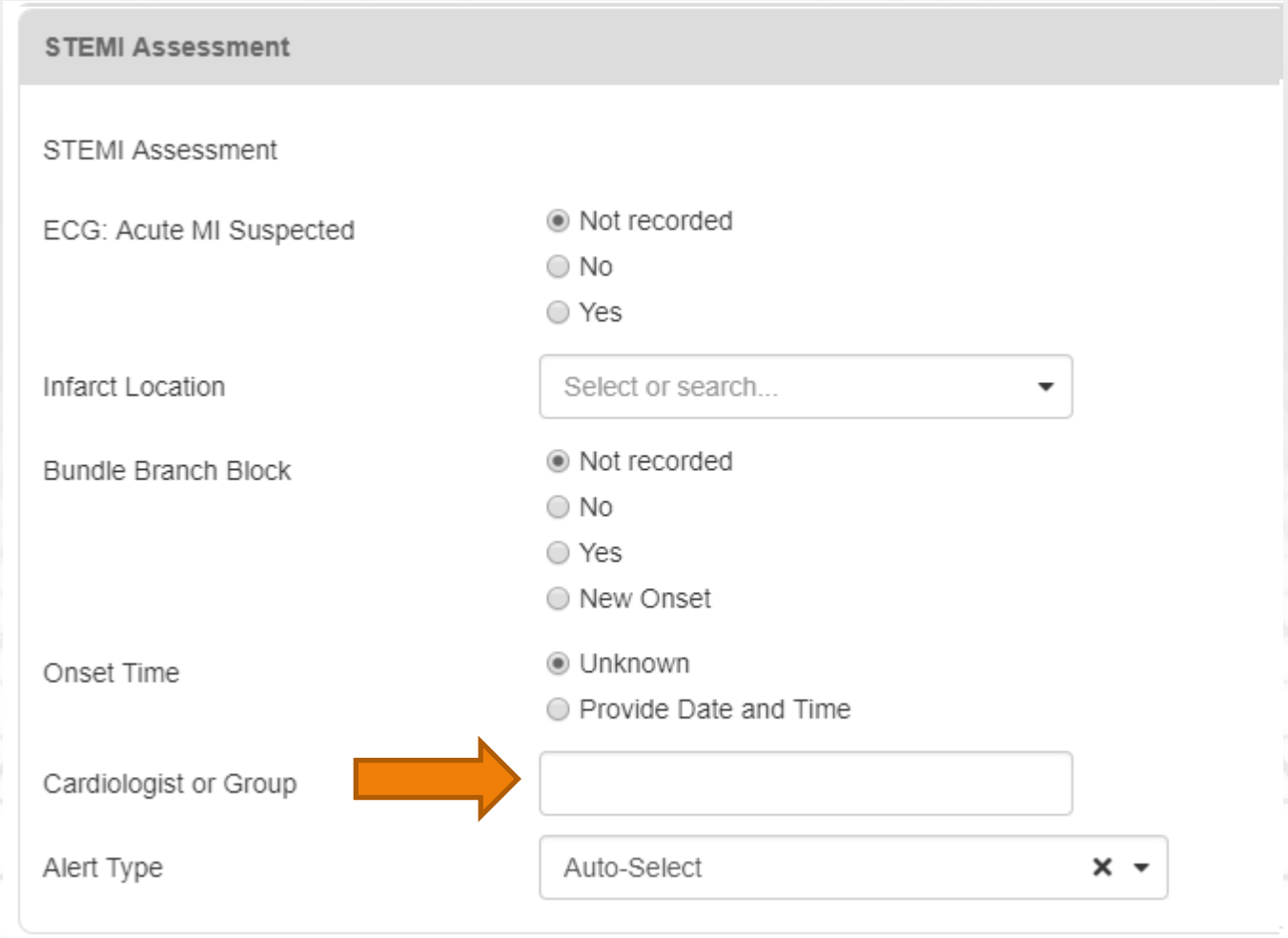
Sepsis


Sepsis Assessment
History Suggestive of Infection
Select or search...
Lab Results
Alert Type
Abdomen pain and/or diarrhea
Acute AMS change
Blood stream or catheter related
Pneumonia
Skin or soft tissue infection
Urinary tract infection
Wound infection

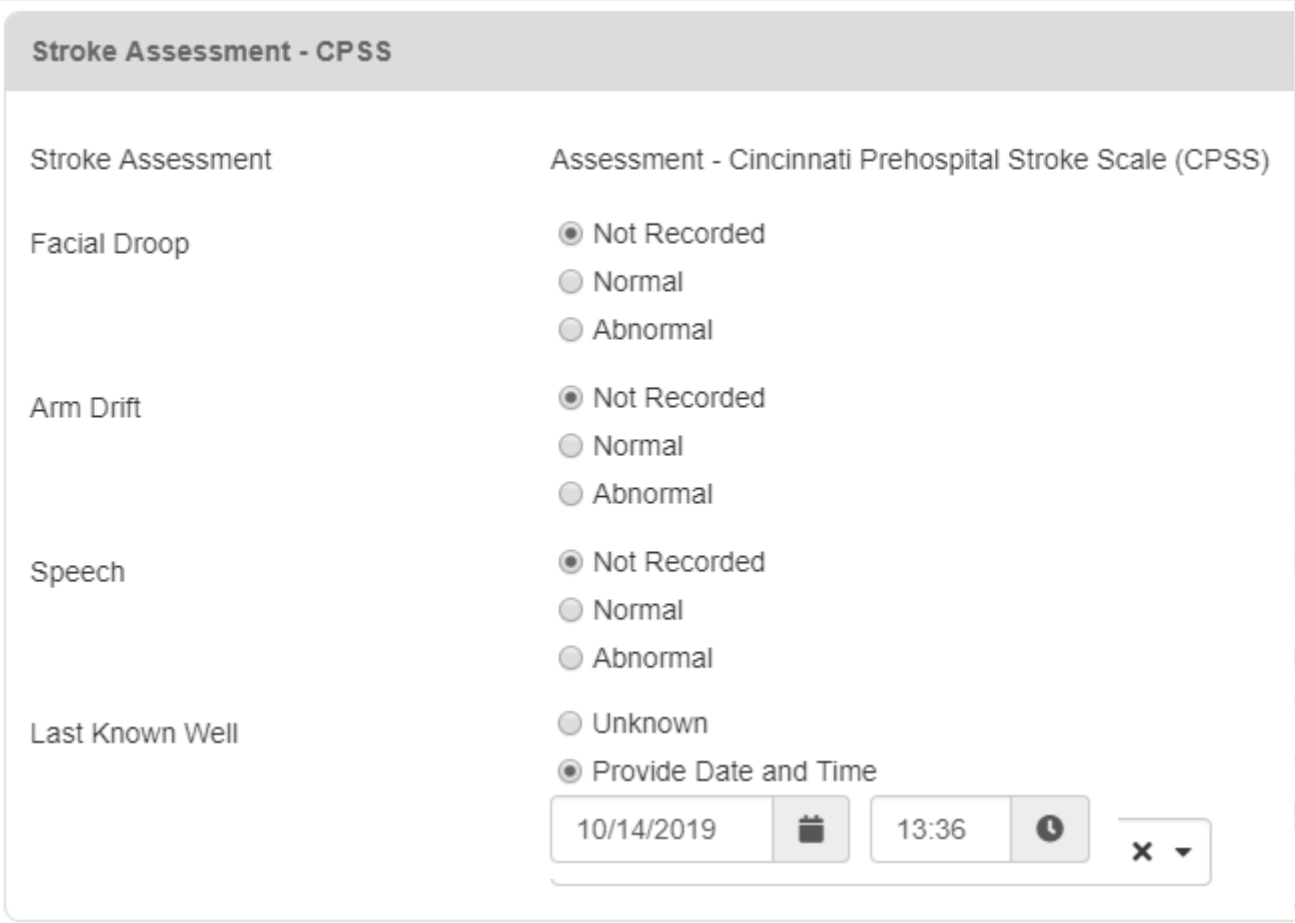
Sepsis


Sepsis Assessment
History Suggestive of Infection
Select or search...
Lab Results
Date and Time
Type
Results
10/14/2019
13:27
Select or search...
+ Add
Alert Type
Auto-Select
Platelets
Potassium
Protein
Prothrombin Time
Red Blood Cells
Salicylate
Sodium
Specific Gravity
Troponin
Tylenol
White Blood Cells

STEMI


STEMI Assessment
STEMI Assessment
ECG: Acute MI Suspected
Not recorded
No
Yes
Infarct Location
Select or search...
Bundle Branch Block
Not recorded
No
Yes
New Onset
Onset Time
Unknown
Provide Date and Time
Cardiologist or Group
Alert Type
Auto-Select

Stroke - CPSS


Stroke Assessment - CPSS
Stroke Assessment
Assessment - Cincinnati Prehospital Stroke Scale (CPSS)
Facial Droop
Not Recorded
Normal
Abnormal
Arm Drift
Not Recorded
Normal
Abnormal
Speech
Not Recorded
Normal
Abnormal
Last Known Well
Unknown
Provide Date and Time
10/14/2019
13:36

Stroke - LAMS

Stroke Assessment - LAMS

Stroke Assessment	Assessment - Los Angeles Motor Scale (LAMS)
Facial Droop	(•) Not Recorded ( ) Absent (0) ( ) Present (+1)
Arm Drift	(•) Not Recorded ( ) Absent (0) ( ) Drifts down (+1) ( ) Falls rapidly (+2)
Grip	(•) Not Recorded ( ) Normal (0) ( ) Weak grip (+1) ( ) No grip (+2)
LAMS Score	0 points
Last Known Well	(•) Unknown ( ) Provide Date and Time
Alert Type	Auto-Select × ▾

Trauma

Mechanism of Injury

- ○ Not Recorded
- ◉ Select from List

Fall

- ☐ Adult: >20 feet (on average, one floor of a building equals 10 feet)
- ☐ Child: >10 feet or two - three times the child's height

High-Risk Auto Crash

- ☐ Intrusion, including roof: >12 inches at occupant site or >18 inches anywhere
- ☐ Ejection (partial or complete) from auto
- ☐ Death in same passenger compartment
- ☐ Vehicle telemetry data consistent with high risk of injury
- ☐ Auto vs pedestrian or bicyclist: thrown or run over with significant impact (>20 mph)
- ☐ Motorcycle or recreational vehicle crash (>20 mph)

- ☐ None Apply

Trauma

Special Considerations

- ○ Not Recorded
- ◉ Select from List

Age

- ☐ Older adult (risk of injury or death increases after age 55)
- ☐ Child (triage preferentially to pediatric-capable trauma center)

Burns

- ☐ Without trauma mechanism (triage preferentially to burn facility)
- ☐ With trauma mechanism (triage preferentially to trauma center)

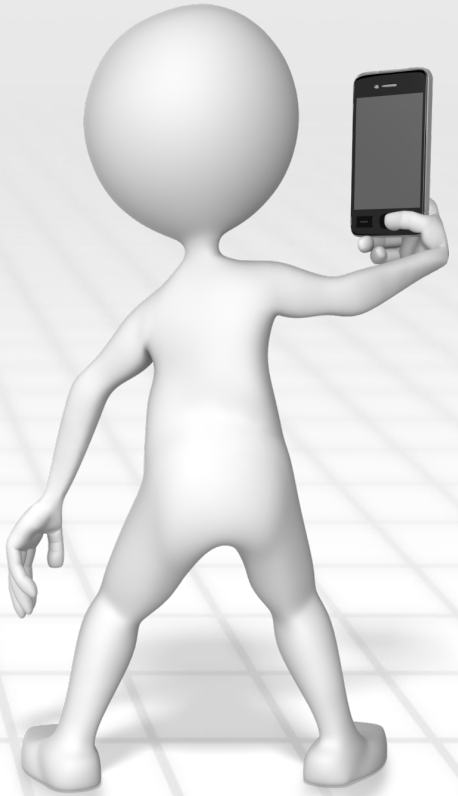
Other

- ☐ Anticoagulation or bleeding disorder
- ☐ Time-sensitive extremity injury
- ☐ End-stage renal disease (requiring dialysis)
- ☐ Pregnancy >20 weeks
- ☐ EMS provider judgment

- ☐ None Apply

EMTrack – Mobile

- Scan a driver's license
- Take pictures
  - HIPAA Safe
  - 12 leads
  - Stroke assessment
  - Vehicles
  - Labs
  - X-Rays

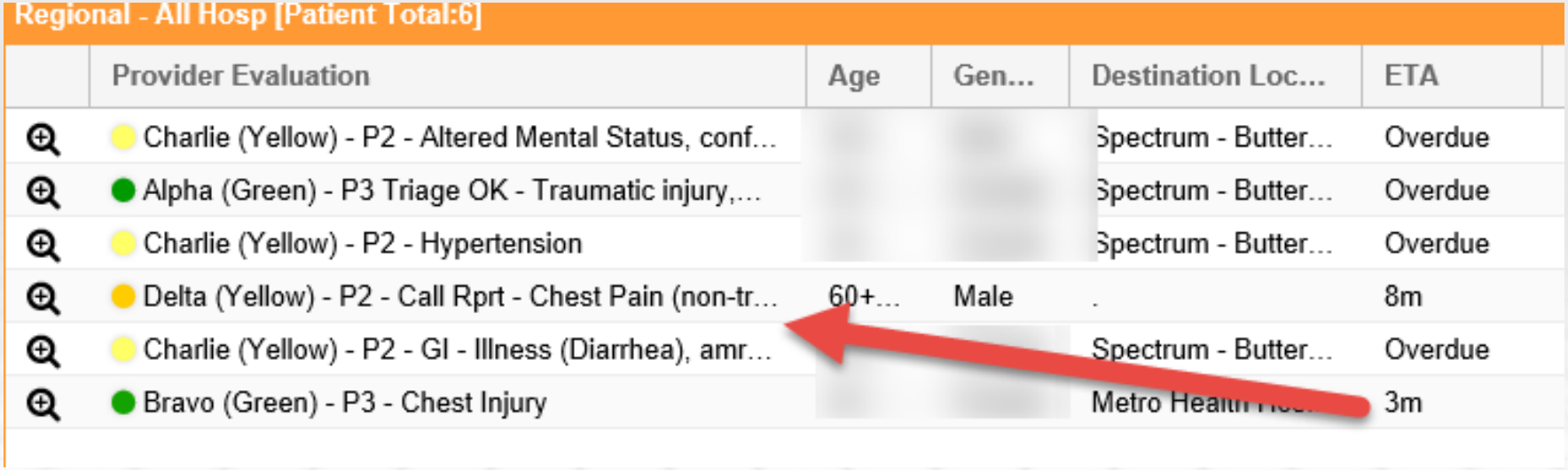


DOES NOT STAY ON PHONE

Hospital Alert

When an alert is received, you will hear an audible, repetative horn sound in EMResource®.
An orange bar will appear across the bottom of the screen in both EMResource® and EMTrack®.

Hospital List



List shows new patient

Incoming Patient Details: 452542dc-9209-4dc6-bceb-8cf7930ee2f2

- / Charlie (Yellow) - P2

Status	New
ETA	16:07 (overdue 7 min)
Notification Time	[redacted]
Destination	Helen Devos Children's Hospital
EMS Agency	Professional Med Team
EMS Unit	A37

Acknowledge | Receive | Divert | Print

Patient

Tracking … -8cf7
Age
Gender
Level of C…
Chief Complai… …atic), LOV… …NESDAY. GIVE…

Clicking on Patient Details will show the name and age.

› Patient Details - Contains PHI (click to view)

Message EMS Unit

Type your message...

Send

Vital Signs

Evaluation	Stable
Blood Pressure	106/65
Mean Arterial Pressure	79
Heart Rate (Pulse)	125 bpm
SpO2	99%
GCS Score	15
Temperature	102.3 °F

2018 – 2019 Performance

99+% Success

Issues:

- Compliance
- Wrong hospital selection

EMTrack Value – By Design

- Decreased radio use
- No need for triage tags
- No need to make new incidents
- Two-way messaging
- Ability to divert patients
- Faster refresh
- Transports tab
- Registration
- Pictures
- Reporting

We're on Target – Regional Expansion

- We're still not 100% but we're hitting the target
- Waiting on 2 hospitals and 1 EMS service
- Quick-use guides
- Transfers

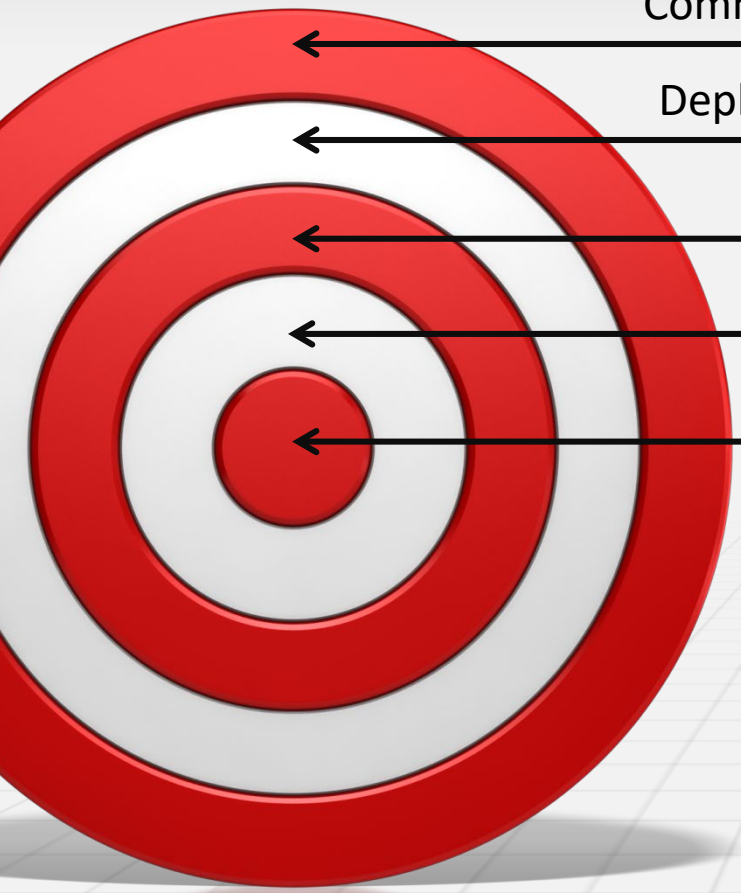
Optimal Project Goals

- Expand to interfacility transfers
- Add a print button to pictures
- Allow for documents and picture uploads from desktop
- Enhanced reports

Options that would be great…

- Ability to upscale events in EMResource
- Password policy change
- Integration with ePCR platforms
- GIS mapping of inbound units visible to receiving hospitals

Steps to the EMTrack Rollout



Commitment from services, hospitals and dispatch

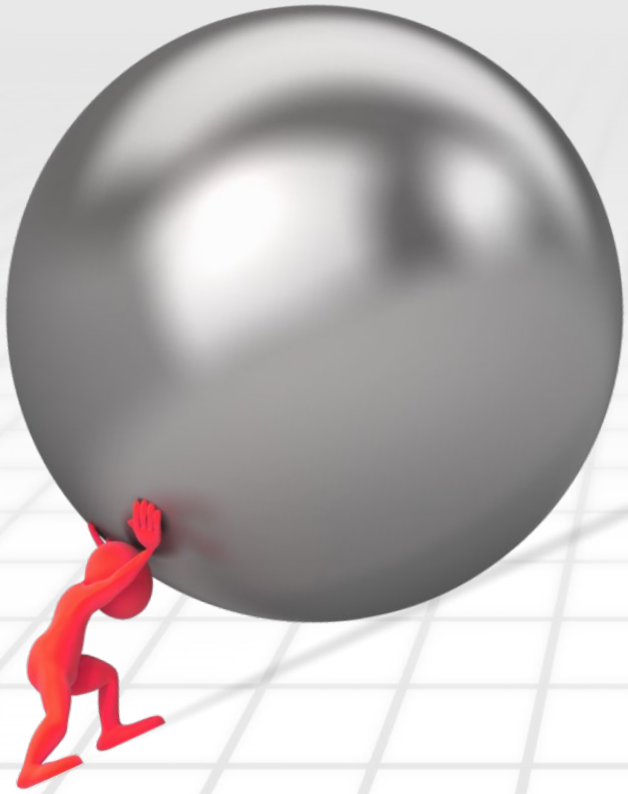
Deployment at hospitals: EMResource and EMTrack

Deployment on ambulances and mobile devices

Test and implement

Proficiency and accuracy

The Challenges



- Commitment
- Compliance
- Reports
- Closing the loop on receiving patients
- Increasing value
- Summary

Questions?

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