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
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**
VALUE

ACCOUNTABLE

EFFICIENT

FAST

COST EFFECTIVE

RELIABLE

MEANINGFUL
Not the Old EMSysstem

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
<table>
<thead>
<tr>
<th>Region</th>
<th>Facility Name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED - Clare County</td>
<td>Mid-Michigan Med Ctr.-Clare</td>
<td>Open</td>
</tr>
<tr>
<td>ED - Ionia County</td>
<td>Sparrow Ionia Hospital</td>
<td>Open</td>
</tr>
<tr>
<td>ED - Isabella County</td>
<td>McLaren Central Michigan Hospital</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>Mid-Michigan Medical Center Mt Pleasant</td>
<td>Open</td>
</tr>
<tr>
<td>ED - Kent County</td>
<td>Mercy Health Southwest Campus</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>Mercy Health St. Mary's Main Campus</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>Metro Health Hospital</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>Spectrum Health - Blodgett Hospital</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>Spectrum Health - Butterworth Hospital</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>Spectrum Helen DeVos Children's Hospital</td>
<td>Open</td>
</tr>
<tr>
<td>ED - Mason County</td>
<td>Spectrum Health - Ludington Hospital</td>
<td>Open</td>
</tr>
<tr>
<td>ED - Mecosta County</td>
<td>Spectrum Health - Big Rapids Hospital</td>
<td>Open</td>
</tr>
<tr>
<td>Action</td>
<td>Icon</td>
<td>Event Template</td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Create</td>
<td></td>
<td>Hepatitis A Outbreak: Hospital Response</td>
</tr>
<tr>
<td>Create</td>
<td></td>
<td>HHS Situational Assessment</td>
</tr>
<tr>
<td>Create</td>
<td></td>
<td>Hourly Update</td>
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<tr>
<td>Create</td>
<td></td>
<td>Influenza Like Illness Data Collection</td>
</tr>
<tr>
<td>Create</td>
<td></td>
<td>KENT COUNTY - AIRPORT ALERT</td>
</tr>
<tr>
<td>Create</td>
<td></td>
<td>LTC Bed Availability</td>
</tr>
<tr>
<td>Create</td>
<td></td>
<td>LTC Equipment Availability</td>
</tr>
<tr>
<td>Create</td>
<td></td>
<td>Michigan HA\vBED 4.0</td>
</tr>
<tr>
<td>Create</td>
<td></td>
<td>Pediatric Census</td>
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<tr>
<td>Create</td>
<td></td>
<td>PPE Inventory</td>
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<tr>
<td>Create</td>
<td></td>
<td>R6 MCC Activation</td>
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<tr>
<td>Create</td>
<td></td>
<td>Region 6 - HAZMAT ALERT</td>
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<tr>
<td>Create</td>
<td></td>
<td>Region 6 - Hospital and EMS Announcement</td>
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<tr>
<td>Create</td>
<td></td>
<td>Region 6 - LTC Announcement</td>
</tr>
<tr>
<td>Create</td>
<td></td>
<td>Region 6 - MCI Incident</td>
</tr>
<tr>
<td>Create</td>
<td></td>
<td>Test Template</td>
</tr>
</tbody>
</table>
**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 in Muskegon with sudden onset respiratory symptoms. Unknown on status for the rest of the crew. 

**Location:** 560 Mart St Muskegon MI 49440 Muskegon County

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**Acknowledged All Notifications**
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
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

- General Patient
- Sepsis Assessment
- STEMI Assessment
- Stroke Assessment - CPSS
- Stroke Assessment - LAMS
- Trauma Assessment
Vital Signs Evaluation

- Unspecified
- Stable
- Unstable

Blood Pressure

Pulse

Respiratory Rate

Temperature

SpO2

End Tidal CO2

Blood Glucose

Pain

Select or search...

Glasgow Coma Scale (GCS)

Eye Opening

Verbal Response

Motor Response

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

Lab Results

Alert Type

Select or search...

- Abdomen pain and/or diarrhea
- Acute AMS change
- Blood stream or catheter related
- Pneumonia
- Skin or soft tissue infection
- Urinary tract infection
- Wound infection
<table>
<thead>
<tr>
<th>Sepsis Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>History Suggestive of Infection</strong></td>
</tr>
<tr>
<td><strong>Lab Results</strong></td>
</tr>
<tr>
<td>10/14/2019</td>
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<tr>
<td><strong>Alert Type</strong></td>
</tr>
<tr>
<td><strong>Type</strong></td>
</tr>
</tbody>
</table>
Stroke - CPSS

<table>
<thead>
<tr>
<th>Stroke Assessment</th>
<th>Assessment - Cincinnati Prehospital Stroke Scale (CPSS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facial Droop</td>
<td>• Not Recorded</td>
</tr>
<tr>
<td></td>
<td>• Normal</td>
</tr>
<tr>
<td></td>
<td>• Abnormal</td>
</tr>
<tr>
<td>Arm Drift</td>
<td>• Not Recorded</td>
</tr>
<tr>
<td></td>
<td>• Normal</td>
</tr>
<tr>
<td></td>
<td>• Abnormal</td>
</tr>
<tr>
<td>Speech</td>
<td>• Not Recorded</td>
</tr>
<tr>
<td></td>
<td>• Normal</td>
</tr>
<tr>
<td></td>
<td>• Abnormal</td>
</tr>
<tr>
<td>Last Known Well</td>
<td>• Unknown</td>
</tr>
<tr>
<td></td>
<td>• Provide Date and Time</td>
</tr>
<tr>
<td></td>
<td>10/14/2019 13:36</td>
</tr>
</tbody>
</table>
# Stroke - LAMS

<table>
<thead>
<tr>
<th>Stroke Assessment - LAMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facial Droop</strong></td>
</tr>
<tr>
<td>- Not Recorded</td>
</tr>
<tr>
<td>- Absent (0)</td>
</tr>
<tr>
<td>- Present (+1)</td>
</tr>
<tr>
<td><strong>Arm Drift</strong></td>
</tr>
<tr>
<td>- Not Recorded</td>
</tr>
<tr>
<td>- Absent (0)</td>
</tr>
<tr>
<td>- Drifts down (+1)</td>
</tr>
<tr>
<td>- Falls rapidly (+2)</td>
</tr>
<tr>
<td><strong>Grip</strong></td>
</tr>
<tr>
<td>- Not Recorded</td>
</tr>
<tr>
<td>- Normal (0)</td>
</tr>
<tr>
<td>- Weak grip (+1)</td>
</tr>
<tr>
<td>- No grip (+2)</td>
</tr>
<tr>
<td><strong>LAMS Score</strong></td>
</tr>
<tr>
<td>- 0 points</td>
</tr>
<tr>
<td><strong>Last Known Well</strong></td>
</tr>
<tr>
<td>- Unknown</td>
</tr>
<tr>
<td>- Provide Date and Time</td>
</tr>
<tr>
<td><strong>Alert Type</strong></td>
</tr>
<tr>
<td>- Auto-Select</td>
</tr>
</tbody>
</table>
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®.

1 Incoming Patient Update View List »
## Hospital List

### Regional - All Hosp [Patient Total: 6]

<table>
<thead>
<tr>
<th>Provider Evaluation</th>
<th>Age</th>
<th>Gender</th>
<th>Destination Location</th>
<th>ETA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charlie (Yellow) - P2 - Altered Mental Status, conf...</td>
<td></td>
<td></td>
<td>Spectrum - Butter...</td>
<td>Overdue</td>
</tr>
<tr>
<td>Alpha (Green) - P3 Triage OK - Traumatic injury,...</td>
<td></td>
<td></td>
<td>Spectrum - Butter...</td>
<td>Overdue</td>
</tr>
<tr>
<td>Charlie (Yellow) - P2 - Hypertension</td>
<td></td>
<td></td>
<td>Spectrum - Butter...</td>
<td>Overdue</td>
</tr>
<tr>
<td>Delta (Yellow) - P2 - Call Rprt - Chest Pain (non-tr...</td>
<td>60+</td>
<td>Male</td>
<td></td>
<td>8m</td>
</tr>
<tr>
<td>Charlie (Yellow) - P2 - GI - Illness (Diarrhea), amr...</td>
<td></td>
<td></td>
<td>Spectrum - Butter...</td>
<td>Overdue</td>
</tr>
<tr>
<td>Bravo (Green) - P3 - Chest Injury</td>
<td></td>
<td></td>
<td>Metro Health Hosp...</td>
<td>3m</td>
</tr>
</tbody>
</table>

List shows new patient
Clicking on Patient Details will show the name and age.

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

- / Charlie (Yellow) - P2

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

  Acknowledge  Receive  Divert

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

1. Commitment from services, hospitals and dispatch
2. Deployment at hospitals: EMResource and EMTrack
3. Deployment on ambulances and mobile devices
4. Test and implement
5. Proficiency and accuracy
The Challenges

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

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