SC DHEC Bureau of EMS

- 18 Personnel
- Three Divisions (EMS, Trauma, Data)
- 4 Dedicated to data, process improvement, and registries (Trauma and Stroke)
SC EMS SYSTEM

256 Agencies

- Ambulances- 1868
- Rotor Craft- 38
- Fixed Wing- 9
- MCI Buses 7

- Total: 1922 Transport Capable

- More than 210 licensed First Responder Fire Dept vehicles
Why do we think we have good data? Regulation 61-7, that’s why!

- Requires submission of all ePCRs
- 24 – 72 Hours
- Each licensed agency MUST have a data manager
- Each agency must meet data quality score requirements of 1 1/2 x the state average score or less.
Section 1301. Patient Care Reports.
A. Each licensed provider must create and submit an electronic patient care report (ePCR) for each patient contact regardless of patient transport decision.
B. The primary care attendant is responsible for documenting all patient contact, care, and transport decision within the ePCR. All required documentation must be completed within twenty-four (24) hours of the conclusion of call.
C. Each licensed provider must submit its ePCRs into PreMIS within seventy-two (72) hours of the conclusion of call.
D. When transporting to an emergency room (ER), patient ePCR shall be submitted to the ER within thirty (30) minutes of the completion of the call. In lieu of that, a paper pre-run information sheet may be substituted until the ePCR is sent. ePCR information shall be sent no later than twenty-four (24) hours from completion of the call.
If you want to know...

How many female patients over 55 with a chief complaint of chest pain received oxygen, aspirin, NTG, and a 12 lead EKG within 10 mins of Paramedic contact... we can tell you. By state, county, agency, zip code, or even by specific paramedic if its your agency....

If you want to know if male paramedics or female paramedics performed the actions more quickly, we can tell you that as well....
Requesting Data ---

• Is easy!
• Contact the Data Division Director
• Will provide a form for formal request
• Will provide guidance on what can and can't be released
• Will provide you an approximate turn around time for your data in the format you request
EMS Data System

Health Data Symposium 2016

South Carolina Department of Environmental Services

Bureau of Emergency Medical Services
EMSPIC Applications

- PREmis
  - Patient care reports

- SMARTT
  - Resource + disaster management

- CiS
  - Agency + professional credentialing

- EMS STATS
  - Self Tracking and Assessment of Targeted Statistics
Customizable Annual State Report

- Total Calls: 1,354,159 (100%)
- 911 Calls: 737,792 (54.5%)
- Medical Transport: 516,438 (38.1%)
- Interfacility Transfer: 92,360 (6.8%)
- Standby: 4,480 (0.3%)
- Mutual Aid: 2,039 (0.2%)
- Intercoast: 1,050 (0.1%)

- Fire Department: 21%
- Governmental, Non-Fire: 15%
- Hospital: 9%
- Private, Non-Hospital: 34%

- Certified EMT-Basic: 4,773
- On a Roster EMT-Basic: 3,810
- On a PCR in Last Year EMT-Basic: 3,740
- Certified AEMT: 939
- On a Roster AEMT: 666
- On a PCR in Last Year AEMT: 646
- Certified Paramedic: 4,389
- On a Roster Paramedic: 2,994
- On a PCR in Last Year Paramedic: 2,894
On-Demand Reports

EMS Educational Institution Exam Summary

Fractile Times

Infectious Disease Report

Agency and Technician Procedure Success Rates

Patient Fatality Report

Call Volume Breakdown

Technician Activity
Performance Measure Assessments and Comparisons

Pain Scale (eVitals.27 / e14.23) Reporting Percentage

<table>
<thead>
<tr>
<th>Category</th>
<th>Pain Scale Reading Taken</th>
<th>Multiple Pain Scale Readings Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALL VOLUME (18,149)</td>
<td>36% (6039)</td>
<td>61% (11663)</td>
</tr>
<tr>
<td>NON-VOLUNTEER (22,162)</td>
<td>36% (8731)</td>
<td>65% (14727)</td>
</tr>
<tr>
<td>GOVERNMENTAL, NON-FIRE (18,789)</td>
<td>37% (6993)</td>
<td>65% (12154)</td>
</tr>
<tr>
<td>STATE (26,116)</td>
<td>38% (1004)</td>
<td>65% (16943)</td>
</tr>
<tr>
<td>SUBURBAN (6,574)</td>
<td>34% (1920)</td>
<td>58% (3278)</td>
</tr>
<tr>
<td>EMS Agency 799 (341)</td>
<td>59% (207)</td>
<td>70% (238)</td>
</tr>
</tbody>
</table>

Percent of TRAUMA PCR’s Having Pain Scale Element Completed

Comparison of First and Last Pain Level (0-10) Reported by Patient

<table>
<thead>
<tr>
<th>Category</th>
<th>First Higher</th>
<th>Last Higher</th>
<th>Same Pain Level Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS Agency 799</td>
<td>13%</td>
<td>6.4%</td>
<td>80%</td>
</tr>
<tr>
<td>SUBURBAN</td>
<td>20%</td>
<td>4.9%</td>
<td>75%</td>
</tr>
<tr>
<td>STATE</td>
<td>23%</td>
<td>4.7%</td>
<td>72%</td>
</tr>
<tr>
<td>GOVERNMENTAL, NON-FIRE</td>
<td>24%</td>
<td>4.3%</td>
<td>72%</td>
</tr>
<tr>
<td>NON-VOLUNTEER</td>
<td>23%</td>
<td>4.7%</td>
<td>72%</td>
</tr>
<tr>
<td>CALL VOLUME</td>
<td>24%</td>
<td>4.2%</td>
<td>72%</td>
</tr>
</tbody>
</table>
Research Presentations

2015 SAEM Abstracts

317 An Assessment of Benzodiazepine Medications and Administration Routes for Seizures in the Prehospital Setting in South Carolina
Remie P. Crowe1, Melissa A. Bentley1, Robert A. Wroski2, and Antonio R. Fernandez3
1National Registry of EMTs, Columbus, OH; 2SC Department of Health and Environmental Control, Columbia, SC; 3Emergency Medical Services Performance Improvement Center, University of North Carolina, Chapel Hill, NC
Federal Agency Data Requests

• DOJ
• DEA
• FBI
“A trauma registry is a disease-specific data collection composed of a file of uniform data elements that describe the injury event, demographics, prehospital information, diagnosis, care, outcomes, and costs of treatment of injured patients.”

(Resources for optimal care of the injured patient, 2014)
Definition of Trauma Patient

A trauma patient is defined as a patient who sustains a traumatic injury and meets the inclusion/exclusion criteria approved by the Trauma Advisory Council and included in this data dictionary.
SC Trauma Registry Inclusion Criteria

At least one of the following injury diagnostic codes defined in the International Classification of Diseases, Tenth Revision (ICD-10-CM):

- S00-S99 with 7th character modifiers of A, B, or C ONLY. (Injuries to specific body parts – initial encounter)
- T07 (unspecified multiple injuries)
- T14 (injury of unspecified body region)
- T20-T28 with 7th character modifier of A ONLY (burns by specific body parts - initial encounter)
- T30-T32 (burn by TBSA percentages)


- Hospital admission OR
- Patient transfer via EMS transport (including air ambulance) from one hospital to another hospital OR
- Death resulting from the traumatic injury (independent of hospital admission or hospital transfer status)
Level I Trauma Center (Trauma Registrar)

Level II Trauma Center (Trauma Registrar)

Level III Trauma Center (Trauma Registrar)

Level IV Trauma Center (Trauma Program Manager)

National Trauma Data Bank (NTDB) (ACS)

Trauma Quality Improvement Program (TQIP) (ACS)

SC Trauma Registry NTDS + SC (DHEC)
Data source: SC Trauma Registry, 2016

<table>
<thead>
<tr>
<th>Year</th>
<th>Submitted Records</th>
</tr>
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<tbody>
<tr>
<td>2015</td>
<td>16904</td>
</tr>
<tr>
<td>2016 (01/01-6/30)</td>
<td>7106</td>
</tr>
</tbody>
</table>
Trauma Data Utilization

- Population-based perspective of injury
- Determine leading mechanisms of injury
- Underserved areas of the state
- Outcomes of injured patients
- Trauma system improvement efforts
Challenges for the SC Trauma Registry

- Data homogeneity
- Challenges with registry vendor
- Timely and complete data submissions
- Trauma registrar education
- Formal state data request process

- State employee turnover
- Multiple registries for trauma system (EMS registry, trauma registry, post-acute care data)
- Lack of resources and references on DHEC website for TCs, trauma program managers, and trauma registrars
How is 2017 looking so far?

- RFP for trauma registry vendor
- SC Trauma Registry Data Dictionary
- Areas to benefit from having Level IV TC
- Focus on registrar education
- Registry data for regional PI initiatives
- Formalizing state trauma data request process
- SC Trauma Registry User’s Group
Painting a better picture with the trauma data...

- Rehabilitation and outcome data
- Integrating multiple registries
- Recruiting and submission of non-trauma center data
- TQIP regional collaborative
- Best practices for the South Carolina Trauma System
Who to contact at DHEC?

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Mobile: (803) 542-1139
References

*Resources for optimal care of the injured patient.* (2014). Chicago, IL: American College of Surgeons, Committee on Trauma.

*South Carolina Trauma Registry Data Dictionary* (2016). Columbia, SC: Bureau of Emergency Medical Services, Trauma Division.