Contra Costa EMS Agency
Core Quality Measures

Semi-Annual Report
Quarters 1 & 2, 2015
EMS System Utilization

Semi-Annual Report
Quarters 1 & 2, 2015

Data Source: First Watch
Contra Costa County
911 Ambulance Response and Transport Frequency
Semi-Annual 2015
Reporting for Q1 & Q2

N= 46,758 Responses
N=36,377 Transports

Month and Year
Contra Costa County 911 Ambulance
% Transport per Response
Semi-Annual Q1 Q2 2015

N= 46,758 Responses
N= 36,377 Transports
Mean = 76%
Cumulative Hours on EMS Diversion by Hospital
Semi-Annual Q1 Q2 2015

N=227 Diversion Hours All Hospitals

Cum Hours

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Cumulative Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCRMC</td>
<td>30</td>
</tr>
<tr>
<td>JMMC-C</td>
<td>0</td>
</tr>
<tr>
<td>JMMWC</td>
<td>48</td>
</tr>
<tr>
<td>KA</td>
<td>0</td>
</tr>
<tr>
<td>KR</td>
<td>24</td>
</tr>
<tr>
<td>KWC</td>
<td>52</td>
</tr>
<tr>
<td>SDMC</td>
<td>46</td>
</tr>
<tr>
<td>SRVMC</td>
<td>108</td>
</tr>
</tbody>
</table>
Hospital Diversion Hours % by Cause
Semi-Annual Q1 Q2 2015

N=227 Total Hours on Diversion Q1 & Q2 2015

- STEMI: 56%
- CT: 38%
- Trauma: 6%
Base Hospital

Semi-Annual Report
Quarters 1 & 2, 2015

Data Source: Base Hosp Log
Base Hospital Daily Call Average
Historical Trend through 2014

Semi-Annual Report 2015

* Note: Q4 2014 Numbers may not be complete due to implementation of New Data System
**Base Hospital Calls by Frequency and Type**

**Semi-Annual Report**

**Quarters 1 & 2, 2015**

Q1 2015 = 778 calls

*Note: Q1 2014 numbers not available due to implementation of New Data System*
Base Hospital % Calls by Type
Semi-Annual Report
Quarters 1 & 2, 2015

Q1 2015 = 778 calls

- Destination: 52%
- Medical: 26%
- Activation: 22%
% Bystander CPR by Quarter
Semi-Annual Report
Quarters 1 & 2, 2015

Source: CARES Registry
Cardiac Arrest Survival Utstein
% Survival by Quarter
Semi-Annual Report
Quarters 1 & 2, 2015

Source: CARES Registry

* Q2 2015 data incomplete
STEMI System

Semi-Annual Report
Quarters 1 & 2, 2015

Data Source: AMR, CCC STEMI Centers
Median Prehospital Scene Time Interval - STEMI
Semi-Annual Report through Quarter 1, 2015

Q1 N=83 STEMI Activations

Mins

Begin Q1 2013

Q2 2015 Data
Not available

Special Cause Detected

Chart Type: Chart for Individuals

Chart for Individuals

Centerline: 13.70  
Process Limits: Lower: 10.15  Upper: 17.25  
Database Column: 1

Avg of Data Shown: 13.7  
Median Data Shown: 14.5  
Sigma for Limits: 1.182  
Base for Limits: Average MR

A 1 Beyond Control Limit
B 9 On One Side of Average
C 6 Trending Up or Down
D 14 Alternating Up & Down
E 2 of 3 Beyond 2 Sigma
F 4 of 5 Beyond 1 Sigma
G 15 Within 1 Sigma
H 8 Outside 1 Sigma
X Excluded or Missing Data
### STEMI Alerts and Disposition

**Semi-Annual Report through Quarter 1, 2015**

**Q1 2015 N=83 Total Activations**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>STEMI Activations</th>
<th>To Cath Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 2015</td>
<td>53 (58%)</td>
<td>31</td>
</tr>
<tr>
<td>Q2 2014</td>
<td>66 (57%)</td>
<td>38</td>
</tr>
<tr>
<td>Q3 2014</td>
<td>57 (58%)</td>
<td>33</td>
</tr>
<tr>
<td>Q4 2014</td>
<td>52 (50%)</td>
<td>26</td>
</tr>
<tr>
<td>Q1 2015</td>
<td>83 (46%)</td>
<td>38</td>
</tr>
</tbody>
</table>

**Note:** The percentages in parentheses indicate the distribution of activations to the cath lab per quarter.
STEMI System Time Intervals 90% Min or Less

First Medical Contact (FMC) to Intervention (PCI)

Q1 2015 N=38 to Cath Lab
Benchmark: 90 Mins or less

Note: ITF’s not included
Stroke System

Semi-Annual Report
Quarters 1 & 2, 2015

Data Sources: AMR, California Stroke Registry
Final Diagnosis of Stroke Alert Patients
Q1 2015

N=207

- CVA: 44%
- ICH: 12.5%
- TIA: 11.5%
- EPILEPSY/SEIZURE: 7%
- OTHER: 25%

Source: PSC
STROKE ALERT
Mean Prehospital Scene Time Interval
Semi-Annual through Q1 2015

Q1 N=209 Stroke Alerts
Benchmark 15 mins

No Special Cause Detected

Chart Type: Chart for Individuals
Chart for Individuals
Centerline: 11.60
Process Limits: Lower: 10.27 Upper: 12.93

Database Column
1

Avg of Data Shown 11.6
Median Data Shown 12
Sigma for Limits 0.4433
Base for Limits Average MR

A 1 Beyond Control Limit
B 9 On One Side of Average
C 6 Trending Up or Down
D 14 Alternating Up & Down
E 2 of 3 Beyond 2 Sigma
F 4 of 5 Beyond 1 Sigma
G 15 Within 1 Sigma
H 8 Outside 1 Sigma
X Excluded or Missing Data
Stroke System
Mean Time Interval; Call Received to Drug
Semi-Annual through Q1 2015

Q1 2015 N = 209 Stroke Alerts

Mean Time Interval in Mins

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Mean Time Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 2014</td>
<td>81</td>
</tr>
<tr>
<td>Q2 2014</td>
<td>89</td>
</tr>
<tr>
<td>Q3 2014</td>
<td>85</td>
</tr>
<tr>
<td>Q4 2014</td>
<td>81</td>
</tr>
<tr>
<td>Q1 2015</td>
<td>90</td>
</tr>
</tbody>
</table>
Trauma System

Semi-Annual Report
Quarters 1 & 2, 2015

Data Source: Trauma & Base Hospital Registry
% Trauma Activations by ISS
Semi-Annual to Q1 2015

N= 43    ISS>15 Q1 2015
N= 219    ISS<15 Q1 2015

<table>
<thead>
<tr>
<th>Quarter</th>
<th>ISS&gt;15</th>
<th>ISS&lt;15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 2014</td>
<td>22%</td>
<td>78%</td>
</tr>
<tr>
<td>Q2 2014</td>
<td>21%</td>
<td>79%</td>
</tr>
<tr>
<td>Q3 2014</td>
<td>26%</td>
<td>74%</td>
</tr>
<tr>
<td>Q4 2014</td>
<td>23%</td>
<td>77%</td>
</tr>
<tr>
<td>Q1 2015</td>
<td>17%*</td>
<td>83%*</td>
</tr>
</tbody>
</table>

* Note: Q1 2015 Numbers reflect incomplete data due to implementation of New Data System
Trauma Activations
% Discharged from ED
Semi-annual 2015

By Quarter to Q1 2015; Q1 N=93

- Q1 2014: 24%
- Q2 2014: 21%
- Q3 2014: 26%
- Q4 2014: 24%
- Q1 2015: 35%
Median Prehospital On Scene Time Interval
Blunt vs. Penetrating Trauma By Quarter
Semi-Annual to Q1 2015

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Blunt</td>
<td>13</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Pen</td>
<td>16</td>
<td>16</td>
<td>15</td>
<td>15</td>
<td>16</td>
<td>15</td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

Q1 2013: 16
Q2 2013: 14
Q3 2013: 15
Q4 2013: 15
Q1 2014: 16
Q2 2014: 14
Q3 2014: 13
Q1 2015: 13

Penetrating Trauma: Q1 2013 = 16, Q2 2013 = 14, Q3 2013 = 15, Q4 2013 = 15, Q1 2014 = 16, Q2 2014 = 14, Q3 2014 = 13, Q1 2015 = 13
Blunt Trauma: Q1 2013 = 13, Q2 2013 = 13, Q3 2013 = 14, Q4 2013 = 11, Q1 2014 = 13, Q2 2014 = 13, Q3 2014 = 13, Q1 2015 = 13
END
CORE MEASURES
SYSTEM REPORT

Semi-Annual Report
Quarters 1 & 2, 2015
Ambulance Patient Hand Off Delays

Semi-Annual Report
Quarters 1 & 2, 2015
Patient Handoff Times by Facility
90th PERCENTILE OF ALL FACILITIES
March 2014 - February 2015
56,067 Transports (4,672 per Month)
Source: AMR MEDS (ePCR Database)

KP-Richmond began to implement CCEMS West County Directed Destination Protocol on 8/18/2014.
EMS Events Reporting Trends

Semi-Annual Report
Quarters 1 & 2, 2015
<table>
<thead>
<tr>
<th>Month</th>
<th># Reports</th>
<th>Never</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>31</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>Feb</td>
<td>56</td>
<td>41</td>
<td>15</td>
</tr>
<tr>
<td>Mar</td>
<td>51</td>
<td>41</td>
<td>10</td>
</tr>
<tr>
<td>Apr</td>
<td>62</td>
<td>54</td>
<td>8</td>
</tr>
<tr>
<td>May</td>
<td>70</td>
<td>63</td>
<td>7</td>
</tr>
<tr>
<td>Jun</td>
<td>54</td>
<td>43</td>
<td>11</td>
</tr>
<tr>
<td>Jul</td>
<td>37</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>361</td>
<td>276</td>
<td>85</td>
</tr>
</tbody>
</table>
END REPORT

Semi-Annual Report
Quarters 1 & 2, 2015
Contra Costa EMS Agency Quality Initiatives

<table>
<thead>
<tr>
<th>PRIORITY 2015-16</th>
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<tbody>
<tr>
<td>Provider CQI Plans</td>
</tr>
<tr>
<td>Pt Care Documentation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2014-15 - Continue Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Performance Cardiac Arrest &amp; CPR</td>
</tr>
<tr>
<td>EMS Patient Off-Load Time Reduction</td>
</tr>
<tr>
<td>Never Events - EMS Events Reporting Process</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2013-14 – Monitor &amp; Sustain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spinal Motion Restriction</td>
</tr>
<tr>
<td>Pediatric Medication Safety</td>
</tr>
</tbody>
</table>