



Stroke Care Committee Meeting Thursday,  
August 19<sup>th</sup>, 11:30 AM –12:30 PM

Facilitator: Gregory Kann, M.D.; EMS Agency Medical Director

<b>ITEM</b>	<b>Details</b> (Key facts, Questions, Concerns)	<b>Action Items/Decision</b>
Welcome and Introductions	Meeting start time 11:30 am	None
Approval of Minutes – May 14, 2025	Motion: Dr. Kevin Keenan Second: Jeremy Veldstra	Minutes Approved
<b>Old Business</b>	<b>Discussion</b>	<b>Action Items/Decision</b>
Hospital Data Upload Issues	<ul style="list-style-type: none"> <li>• Ongoing challenges with hospitals uploading complete stroke data into ImageTrend.</li> <li>• SCEMSA developing a quick reference guide outlining required data elements.</li> <li>• Reference guide will be attached to policy for easier access and standardization.</li> </ul>	Katey Cloonan to finalize and distribute Data Reference Sheet to hospitals and attach to PD#8060 as a cross reference.
<b>New Business</b>	<b>Discussion</b>	<b>Action Items/Decisions</b>
Regional Stroke System Updates – YOLO County and LAMS	<ul style="list-style-type: none"> <li>• Yolo County implemented triage using LA Motor Score (LAMS) for suspected large vessel occlusion (LVO) strokes, directing patients to Comprehensive Stroke Centers (CSC) within 45 minutes.</li> <li>• Sacramento County discussed potential alignment with regional triage efforts.</li> </ul>	<ul style="list-style-type: none"> <li>• SCEMSA to open a public comment period prior to September 11 MAC meeting for input on stroke triage modifications.</li> </ul>



	<ul style="list-style-type: none"> <li>• Dr. Keenan introduced the Stroke Compass Study to collect comparative data before altering triage protocols.</li> <li>• Proposed consideration for patients:                         <ul style="list-style-type: none"> <li>◦ Outside the 4.5-hour window for thrombolytics.</li> <li>◦ With contraindications (recent stroke, anticoagulant use, etc.) to be triaged directly to CSCs.</li> </ul> </li> </ul> <p><b>Comments &amp; Discussion Highlights:</b></p> <ul style="list-style-type: none"> <li>• Dr. Hartman: Noted JAMA’s 2025 <i>HOPE Trial</i> showing expanded thrombolytic window (up to 24 hours with imaging).</li> <li>• Stakeholders emphasized staying current with emerging science while maintaining protocol consistency.</li> <li>• Regional collaboration encouraged among Sacramento, Yolo, and San Joaquin counties.</li> <li>• Concerns raised about balancing health-system preference vs. patient outcome when determining destination.</li> <li>• Discussion on feasibility of real-time regional visibility of CSC capacity via EMResource.</li> </ul>	<ul style="list-style-type: none"> <li>• Katey Cloonan to email details and instructions to all Stroke Care Committee members.</li> </ul>
<p><b>Data Review and Analysis</b></p>	<p><b>Discussion</b></p>	<p><b>Action Items/Decisions</b></p>
<p>Quarter 1 Stroke Data Review</p>	<ul style="list-style-type: none"> <li>• 43% of PCRs resulted in patient transports.</li> <li>• 1,000+ stroke/TIA primary impressions reported; 305 confirmed stroke alerts.</li> <li>• 100% compliance with documented glucose and stroke screening.</li> </ul>	<p>Continue reinforcing stroke alert documentation and data alignment between EMS and hospital records.</p>



	<ul style="list-style-type: none"> <li>• Identified gaps: 33 cases where stroke alert not formally documented but noted in narrative.</li> <li>• Improvement Area: Encourage consistent alert documentation within designated ePCR fields.</li> <li>• Rolling 4-quarter data trends remain stable across facilities.</li> </ul>	
Case Presentations	Discussion	Action Items/Decisions
<p>Mercy General Medical Center</p> <p>Mercy Folsom</p>	<p><b>Mercy General Medical Center</b></p> <ul style="list-style-type: none"> <li>• 68-year-old male, last known normal 6:30 AM, arrived within 3 hours.</li> <li>• NIHSS 22; M1 occlusion; TNK administered with complete reperfusion—no mechanical thrombectomy needed.</li> <li>• Discharged on Day 4 with mild residual expressive aphasia.</li> <li>• Takeaway: Excellent field notification and rapid response.</li> </ul> <p><b>Mercy Folsom / Mercy San Juan</b></p> <ul style="list-style-type: none"> <li>• 30-year-old male with ICA dissection</li> <li>• NIHSS 11; transferred to Mercy San Juan for mechanical thrombectomy.</li> <li>• Successful revascularization; full recovery at 1-month follow-up.</li> <li>• Highlight: Case supports need for direct triage to CSC for patients beyond lytic window.</li> </ul>	



<b>Roundtable Discussion</b>		
	<ul style="list-style-type: none"> <li>• Yolo County &amp; Regional Coordination: Consensus that triage strategy must prioritize patient outcome.</li> <li>• Data Requests: Suggestion for geographic/time-distance modeling to predict patient routing impact.</li> <li>• Considerations:                             <ul style="list-style-type: none"> <li>○ Establish real-time EMResource dashboard for CSC availability.</li> <li>○ Explore long-term regional triage model for Northern California.</li> </ul> </li> </ul>	
<b>Adjournment</b>	<b>Adjourned at 12:30 PM</b>	<b>Next meeting: TBD</b>





**Department of Health Services Emergency Medical Services Agency  
STEMI Care Committee  
2025 Case Presentation Rotation**

<b>Date :</b>	<b>2/18/2025</b>	<b>5/14/2025</b>	<b>8/19/2025</b>	<b>11/18/2025</b>
<b>KHR</b>		<b>X</b>		
<b>KHS</b>	<b>X</b>			
<b>MGH</b>				<b>X</b>
<b>MSJ</b>	<b>X</b>			
<b>SMCS</b>			<b>X</b>	
<b>SRMC</b>		<b>X</b>		
<b>UCDMC</b>				<b>X</b>

**STEMI Liaisons**

<b>Contacts</b>	<b>KHR</b>	<b>KHS</b>	<b>MGH</b>	<b>MSJ</b>	<b>SMCS</b>	<b>SRMC</b>	<b>UCD</b>
<b>Primary</b>	<a href="#">Heather Beere, MSN, MBA</a>	<a href="#">Jennifer Bowers</a>	<a href="#">Maryam Gol</a>	<a href="#">Scott Brunton, RN</a>	<a href="#">April Yeargin, RN STEMI</a>	<a href="#">Debbie Madding, RN, BS, MICN</a>	<a href="#">Taufa Lee</a>
<b>Secondary</b>		<a href="#">Wendin Gulbransen</a>		<a href="#">Amelia Hart</a>	<a href="#">Serina Felcher</a>	<a href="#">George Fehrenbacher, Dr</a>	<a href="#">Jeremy Veldstra RN-MICN</a>

# Hospital / EMS Stroke Data

1Q 2025

<b>SCENE Calls (911-Response) -1-Quarter 2025</b>	<b>Incident Count</b>	<b>Percentages</b>	<b>Notes</b>
Total ePCRs received	83,162	100%	All records
Responses (Emergency Primary Response Area)	60,334	72.54%	of total responses
<b>Treated and Transported</b>	<b>36,211</b>	<b>43.54%</b>	<b>of 911 responses transported to the ED</b>
<b>Primary Impressions of Treated and Transported -911-Response (Scene)</b>	<b>Incident Count</b>	<b>Percentages</b>	EMS Data
ALOC - (Not Hypoglycemia or Seizure) (R41.82)	1143	3.15%	
Stroke / CVA / TIA (I63.9)	1004	2.76%	
Sepsis (A41.9)	1136	3.13%	
<b>Patient Arrival for Stroke/ CVA/ TIA (I63.9)</b>	<b>Incident Count</b>	<b>Percentages</b>	Hospital Data (From GWTG)
Total Patient Count	1182	100%	
EMS from home/scene	502	42.80%	
Transfer From Another Hospital	345	28.84%	
Private Vehicle	320	27.07%	
Other /Unknown /Not Documented	15	0.01%	
<b>Stroke alerted in field w/final clinical dx of Stroke</b>			Hospital Data (Patient Registry)
Total Patient Count	305	34.15%	% = of In County Stroke Primary Impressions

# Stroke Dashboard - EMS Data

<b>Stroke</b>	<b>System Total</b> <b>2024</b> <b>2Q</b>	<b>System Total</b> <b>2024</b> <b>3Q</b>	<b>System Total</b> <b>2024</b> <b>4Q</b>	<b>System Total</b> <b>2025</b> <b>1Q</b>
Total transported patients with Primary impression of Stroke	948	1018	1019	1004
Number of patients with documented Stroke Screen	937	996	1003	1004
% of patients with documented Stroke Screen	99.26%	97.83%	98.43%	100%
Documented Glucose	926	1001	1019	1003
% of documented glucose	98.09%	98.33%	100.00%	99.90%
Patients with a Stroke pre-arrival notification / or no due to over 24hrs	839	895	922	947
% of Stroke pre-arrival notification	88.88%	87.91%	90.48%	94.32%
Stroke Primary impression arriving at out of County Hospitals	90	90	105	111
% Stroke Primary impression taken to out of county hospitals	9.49%	8.84%	10.30%	11.05%

Positive stroke Scale  
Less than 24hour  
onset without a  
documented Stroke  
Alert (eDisp.24)

<b>Audit Findings</b>	<b>Count of Findings</b>
Alert documented in narrative	33
Alert likely done patient taken straight to CT no alert in narrative	3
Slurred speech, Arm drift	1
Facial droop no alert	1
<b>Grand Total</b>	<b>38</b>

## Positive CPSS no Stroke alert

- “DAUGHTER STATING PT STARTED HAVING R SIDE UPPER BODY WEAKNESS SINCE 14430 TODAY. +R ARM WEAKNESS, SLURRED SPEECH, PT STILL FOLLOWING COMMANDS. DENIED CP/SOB/ABD PAIN/LOC/FALL/TRAUMA/DIZZINESS/HA. SECONDARY DONE T3 TO Kaiser Hospital South”

Primary Impression Stroke/CVA/TIA

- “ATF A 71 Y/O FEMALE LYING .  
C/C OF DIZZYNESS.  
PT HAS Hx OF DIABETES II/ HTN.  
PER STAFF PT WAS CHECKED ON AT 6:30 AM AND WAS NOTICED TO BE AND ACT NORMAL (TO HER BASELINE). STAFF REPORTS THAT @ 9:30 AM PT WAS CHECKED ON AGAIN AND WAS NOTICED TO BE LETHARGIC AND REPORTED TO FEEL DIZZY. EMS CREW PERFORMED A STROKE SCALE ASSESSMENT AND RIGHT SIDED FACIAL DROOP WAS NOTED. PT WAS TRANSPORTED C2 TO SUTTER MED CENTER OF SAC. UPON ARRIVAL AT HOSPITAL DR PERFORMED AN ASSESSMENT AND CONFIRMED STROKE ALERT.”

Primary Impression Dizziness/Vertigo

## Stroke Primary Impression for Treated and Transported Patients - EMS Data

<b>Hospital Name</b>	<b>2Q-2024</b>	<b>3Q-2024</b>	<b>4Q-2024</b>	<b>1Q-2025</b>
KHR	49	54	57	63
KHN	138	160	162	171
KHS	167	189	167	156
MGH	59	65	71	53
MHF	54	59	68	64
MSJ	201	192	193	174
MHS	60	73	82	73
VAMC	3	0	0	0
SMCS	88	110	90	116
SRMC	41	32	42	45
UCD	88	80	81	86
OOA	0	4	6	3
<b>Total</b>	<b>948</b>	<b>1018</b>	<b>1019</b>	<b>1004</b>

<b>Hospital Stroke Calls</b>	<b>Count</b>	<b>Percentages</b>
Total Hospital Stroke Patients	<b>1182</b>	<b>100%</b>
Brought in by EMS	<b>502</b>	<b>42.47%</b>
<b>Of Patients Brought in by EMS</b>	<b>Count</b>	<b>Percentages</b>
Stroke Alerted (or identified but care transferred)	<b>305</b>	<b>60.75%</b>
Blank / PCR Not Found/ Out of County provider	<b>55</b>	<b>10.90%</b>
Symptoms Greater than 24 Hours	<b>16</b>	<b>3.18%</b>
No Stroke Alert Documented (Not including Symptoms >24 hours)	<b>126</b>	<b>25.09%</b>
<b>Of No Stroke Alert Documented</b>	<b>Count</b>	<b>Percentages</b>
<b>No Stroke Scale documented</b>	<b>24</b>	<b>19.04%</b>
Negative CPSS (including TIA = resolved)	<b>84</b>	<b>66.66%</b>
Inconclusive/Unable to complete	<b>16</b>	<b>12.69%</b>
Positive CPSS but not alerted (1-stroke identified but no alert)	<b>2</b>	<b>1.58%</b>
<b>Top 5 Primary Impressions of Missed in Field</b>		
ALOC	<b>22</b>	<b>17.46%</b>
General Weakness	<b>20</b>	<b>15.87%</b>
Headache/HTN	<b>20</b>	<b>15.87%</b>
TIA resolved PTA	<b>16</b>	<b>12.69%</b>
Trauma	<b>6</b>	<b>4.76%</b>
Other (N/V, Trauma, Sepsis, Behavioral etc.)	<b>42</b>	<b>33.33%</b>

## No CPSS Performed

- “46 YOM , GCS15 , AO 4 W/ CC of headache secondary to nausea/vomiting. Paramedic states Pt meets 5011 downgrade protocol, care transferred to 816B. Physical assessment showed Pt is diaphoretic from severe headache pain. Pt reports pain as sudden onset, sharp unprovoked x2 hours, non radiating, 10/10 numeric.”  
\*PI Headache- Non Traumatic BP 140/87
- “patient stated complaint was weakness and dizziness x3 months. patient also she believed she had a brief period of less than 5 seconds that she was unable to move her left hand this morning.”  
\*PI General Weakness BP 194/72
- “arrived to find patient laying down on right side next to bed in garage, patient was A&Ox1 GCS 14 at her baseline, family member checked on patient and found her on the ground. Patient was unable to state how long ago she fell out of bed, if she loss any consciousness, or if had any midline head, neck, or back pain.”  
\*PI Traumatic Injury BP 215/135

# Trend Count of EMS Patients (EMS Data) with Primary Impression of Stroke vs Hospital Stroke Patients (GWTG)

EMS Count

Hospital Counts

Linear (EMS Count)

Linear (Hospital Counts)

