Sacramento County Emergency Medical Services Agency   (SCEMSA)

Stroke Care Committee Meeting
Tuesday, February 21, 2023, 1:00 PM –2:30 PM
9616 Micron Ave. Suite 900, Sacramento, CA. 95827
Conference Room 1

Facilitators: Kevin Mackey, M.D. EMS Agency Medical Director
Minutes: Sydney Freer, EMS Specialist

ITEM	Details (Key facts, Questions, Concerns)	Action Items/Decision
Welcome and Introductions	Meeting start time 1:00 pm Dave Magnino – Introductions: Kevin Mackey MD – Interim Medical Director Sydney Freer – Critical Care Specialist	None
Approval of Minutes – November 15, 2022	Not needed: Meeting was cancelled	None
Old Business	**Discussion**	**Action Items/Decision**
None	None	None

New Business	Discussion	Action Items/Decision
-2023 Stroke Care Committee Calendar and Case Presentation Rotation (see attachments on last page) -TJC Certification Updates -Core Measures -Policies to Review: **PD# 2027-**Stroke Care Committee	-General consensus was to keep the STEMI and Stroke meetings on the same day -Dr. Mackey did not want to spend time in the meeting reading the policies then reviewing them, he would rather the committee review and submit comments outside of the meeting	-Keep the meetings on the same days and keep them at 90 minutes -Hospitals to send up-to-date TJC Certifications to Sydney -Sydney will email the policies and the link to make comments -Committee members to review and make suggested edits to policies by Tuesday February 28, 2023 and then Sydney will send out further emails to facilitate discussion about policy changes. -For future meetings, policies will be posted on the Stroke Committee webpage at least 3 weeks prior to the meeting date. Review and comments should be submitted to Sydney at least two days prior to the meeting.

Data Review and Analysis	Discussion	Action Items/Decision
Stoke Data	**Discussion:** Slide 1: -Dr. Mackey: There are some valuable numbers in here. I propose that in the top numbers we keep reporting the total ePCRs, responses, and treated/transported. Those are the only three we kept in the STEMI meeting. And then looking down, we will report out to you (as a reflection of the percentage of total calls) the number of stroke, CVA, and TIA. We could also keep ALOC if you want. The goal is to get these numbers to something more usable. -A lot of sepsis are captured as strokes and ruled out at the facility. I'd like to see that because that's something we can improve on. -Can we look at the reports of patients who present to the hospital of their own transport so we can see how many are being transported by EMS compared to showing up on their own? -Dr. Mackey: Can our hospitals easily send that to us? **General Consensus:** Limit the data shown on slide one and hospitals will share arrival data. **Discussion:** Slide 2 **General Consensus:** This data is not useful generally because IFTs are skewing the information. This data will be a part of the comprehensive conversation.	-Leave in the first data slide: • Total ePCRs • Responses • Treated/Transported • Under Primary impressions keep: Raw numbers and percentages of treated/transported for "Stroke / CVA / TIA" , "ALOC" , and "Sepsis" -Hospitals to send Sydney data on how many Stroke patients arrive POV (%) vs EMS (%) -Stop showing the data on Slide 2

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	Discussion: Slide 3	
	-Dr. Mackey: This is the only core measure currently for Stroke. The core measures are horribly flawed. We will continue to report it to the state because we have to.	-Stop showing Stroke Core Measure data
	General Consensus: We will stop showing the core measure in this committee because our data is more accurate.	
	Discussion: Slide 4	
	-Dr. Mackey: Most everything on here I like. Is there anything else you would want to see?	
	-Thoughts about collecting some data on EMS collection of 'person at scene contact information'. A lot of neurologists will not make a treatment decision just from the EMS report, they always try to contact whoever was at scene with the patient which often delays care. Is it possible to look at something related to that on one of these dashboards to see how often EMS is actually collecting that information?	
	-It is in policy that they should do that, but with the caveat "if possible."	
	-Driving the providers to actually do it is the difficulty.	
	-Dr.Ng: Last known well is instrumental in the treatment decision and whatever EMS says we take at face value. But, we are always going to go back and confirm what that last known well is and, for some patients, the decisions won't be made as quickly because we cannot confirm the information.	-Providers to work toward more often gathering person at scene information for stroke patients
	-Is it possible for dispatch to put the contact information in for these calls so then medics have it on the CAD?	

Directors Report	Discussion	Action Items/Decisions
	-Dr. Mackey: Getting this information automatically is going to be tough. Maybe registration could gather it? **General Consensus:** We can figure out how to do it. Pulling next of kin is not currently a field on our reports but we can try to add it and also work on training providers.	
Where are we, and where we want to go (group discussion)	**Discussion:** -Dr. Mackey: Want to spend time today talking about comprehensive stroke centers. From the EMS perspective, I have no problem at all getting to a diversion policy, I just don't know how we want to get there. Not a fan of teaching our EMS providers a new stroke scale. So, policy to take a patient past a stroke receiving center to a comprehensive center probably needs to use a CPSS of 3. Neurologists to give a thumbs up or down on this. -Dr.Ng: The CPSS is a good score to use. Compared to LAMS there is very little range, so some people might prefer a more nuanced scale. But a 3 is still severe enough to warrant that in my opinion. Diversion makes sense because of our size. -Dr. Mackey: Every paramedic in county will require mandatory retraining of CPSS. Put together a diversion policy that every patient with a CPSS of three go to a comprehensive center primarily. Follow that data after three months to see number of patients that really did have an LVO and how many got intervention to see the effects.	

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-Let's look at the data first to see who is transferring and how fast we are transferring before we make a change.

-Dr.Mackey: Assumed the hospitals are already looking at that data. Can you as a committee get this data to Sydney and I will communicate it back to all of you?

-Cannot jump to diversion without knowing what that looks like because there is potential harm both ways. If they get there and they are not an LVO, you've now delayed their IV thrombolytic. Important for us to look at times. Kaiser knows what our times are but if we send them to another hospital that's taking an hour to get IV thrombolytics in them, that's a problem.

-There is certain data points that I think we should look at for each facility: door to groin for LVO, door to TNK or TPA, and door in door out times. What if our door in door out time is less than door to TNK or door to groin, it could be shorter.

-Dr. Ng: We all have the same goals for door to needle times, door to IR times, door to groin times, etc. There is going to be a winner or loser regardless if you look at the data. In general, we are all going to be within the goals of a comprehensive stroke center in TJC Commission goals. Opportunity to trial what we are doing here, not an opportunity to pick apart and say why we can't do it. Your proposal about training CPSS, I think it's a great idea. Moving forward with the potential trial and then looking at the data may give answers quicker than everybody collecting data and making a judgment based on what individual hospitals do when in likelihood they are all going to be relatively similar.

-Dr. Mackey: Do we agree in this room that a CPSS of 3/3 in today's literature is highly indicative of an LVO? That is absolutely yes. So if we know that and I can retrain a paramedic, then if your door to needle time or door to groin time or door to TPA time is slower, then that's on you. That is not on the prehospital system, that's on the hospital system to fix.

-Dr. Mackey: Want to avoid patients sitting at Kaiser South for five hours waiting for an IFT. If I have to take a patient 20 minutes further down the road that didn't need it, to save the six I took down the road that needed it; yes.

- This group is a prehospital group, it is not about what we at UCDavis do or don't do. Yes our numbers might be two minutes slower than yours but it doesn't really matter. What we are trying to figure out is what the best thing is for the patient who is in the back of an ambulance. When you have a patient in the back of an ambulance what matters most is getting them to the place that they need to be. Which hospital that is doesn't matter.

-If we do go this route, will there be some kind of timeframe saying "nearest CSC as long as it is not longer than 20 minutes"?

-That is what we discussed before.

-And how is this going to impact the hospitals that are doing IV thrombolytics out of the 4.5 hour window?

-Dr. Mackey: I am not sure what your question is relevant to a patient coming from in the field? We are having an LVO discussion. So those patients that fall in the LVO window that have CPSS 3 out of 3 will go

	primarily to a comprehensive stroke center. Why would I put these patients through another IFT, why wouldn't I just take them to the right hospital? -Because at the first Stroke Hospital, they could get at least IV thrombolytics. -Dr. Mackey: This is where I really need the neurologists to tell me what the right thing is for that patient. -Dr. Ng: If you are within that 20 minute window to transfer somebody to a CSC you should probably just take them to that hospital. **General Consensus**: UC Davis has data completed with Dr. Keenan to share, SCEMSA will contact more neurologists, and further conversation will be needed. **Discussion:** Dr. Mackey: I also just want to bring up a point about maps. We understand that the heat maps have errors. **General Consensus:** We are going to try to get the IFTs out of there.	-SCEMSA will contact neurologists for input and gather further hospital and EMS data. The conversation will resume next meeting. -SCEMSA will work on cleaning up the data for the maps.
Case Presentations	**Discussion**	**Action Items/Decisions**
• Kaiser Hospital North • Mercy Hospital Folsom • UC Davis	-Dr. Ng presented for UC Davis -Irina Rebello presented for Mercy General (switched with Mercy Folsom) -Kaiser North did not present	-Dr. Mackey would like to provide feedback to the field. Taking some of these really sick patients whose lives your work made better and communicating that back to the field.

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Round Table	Discussion	Action Items/ Decisions
Closing and recap of any action items	None	None
Adjournment	Adjourned at 2:30 pm	**Next meeting: May 16, 2023**

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SACRAMENTO
COUNTY

Department of Health Services Emergency Medical Services Agency
Stroke Care Committee
2023 Case Presentation Rotation

Date:	2/21/2023	5/16/2023	8/15/2023	11/21/2023
KHN	X			
KHR			X	
KHS				X
MGH		X		
MHF	X			
MHS			X	
MSJ				X
SMCS		X		
SRMC			X	
UCD	X			

Stroke Liaisons									
Contacts	**KHN**	**KHR**	**KHS**	**MGH**	**MHF**	**MHS**	**MSJ**	**SMCS**	**SRMC**	**UCD**
Primary	Cynthia Sinogui	Sonia Thompson, BSN, MSN, RN,CPHQ	Sherry Whitcomb, JD, MSN, RN CPHQ	Richard Otley, RN	Octavian Pintea, RN	Max Naximko, MSN, RN, SCRN	Irina Rebello	Kandis Dowd	Jennifer Bingham	Kimberly Brink
Secondary	Jonathan Hartman MD					Anu Locricchio	Raveca Pintea	Chase Childress	Patty McNamara	David Buettner

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SCENE Calls (911-Response) – 2022- 2Quarter	Incident Count	Percentages	Notes
Total ePCRs received	75,662	100%	All records
Responses (911-Response)	59,908	79%	of total responses
Treated and Transported (of 911-Response)	**32,272**	**54%**	of 911 responses transported to the ED
Average Response Time of First Unit on Scene (PSAP to arrived scene)	0:12:23	N/A	
Average Response Time of First Unit on Scene (unit notified to arrived scene)	0:08:12	N/A	
Treated and Transferred Care or Assist (of 911-Response)	5,330	9%	
Transported By Law Enforcement (of 911-Response)	2	0%	
Dead at Scene (of 911-Response)	647	1%	
Cancelled (of 911-Response)	11,422	19%	No Patient found / No Contact / Prior to Arrival
RST -4 (Percentage of Response with Lights and Sirens)	37,928	63%	911 requests that included a lights and sirens response
RST -5 (Percentage of Transports with Lights and Sirens)	3,322	10%	911 request that included lights and sirens transport
IFT's	2936	4%	Treated & transported
Primary Impressions of Scene calls treated and transported	**Incident Count**	**Percentages**	
Traumatic Injury (T14.90)	4534	8%	
General Weakness (R53.1)	2900	5%	
Abdominal Pain / Problems (GI/GU) (R10.84)	2398	4%	
Behavioral / Psychiatric Crisis (F99)	2067	3%	
Non-Traumatic Body Pain (G89.1)	1702	3%	
No Medical Complaint (Z00.00)	1601	3%	
ALOC - (Not Hypoglycemia or Seizure) (R41.82)	1470	2%	
Respiratory Distress / Other (J80)	1453	2%	
Chest Pain - Suspected Cardiac (I20.9)	1197	2%	
Pain / Swelling - Extremity - non-traumatic (M79.60)	1191	2%	
Nausea/Vomiting (R11.2)	1041	2%	
Seizure - Post (G40.909)	921	2%	
Syncope / Near Syncope (R55)	921	2%	
Stroke / CVA / TIA (I63.9)	867	1%	
Sepsis (A41.9)	652	1%	
AMA/ Released / Refused / No Treatment of Scene Calls	**Incident Count**	**Percentages**	
AMA's	4,748	8%	
Patient Refused Evaluation / Care (without transport)	4,470	7%	
Patient Treated, Released (per protocol)	887	1%	
Total : AMA/ Released / Refused / No Treatment of Scene Calls	**10,105**	**17%**	

2022-4Q - IFTs with Primary Impressions of Stroke - EMS Date
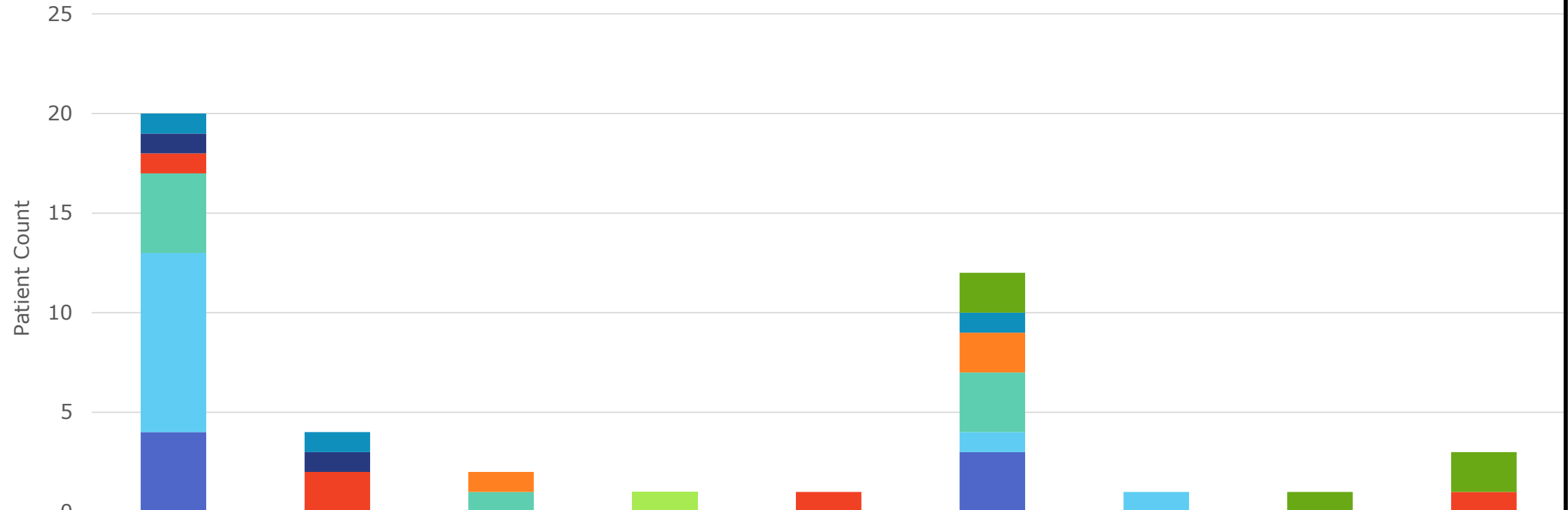
	KHN	KHR	MGH	MHF	MHS	MSJ	SMCS	SRMC	UCD
■ VAMC - Send						2		1	2
■ UCD - Send	1	1				1			
■ SMCS - Send	1	1							
■ MSJ - Send	1	2			1				1
■ MHS - Send			1			2			
■ MHF - Send	4		1			3			
■ MGH - Send			1						
■ KHS - Send	9					1	1		
■ KHR - Send	4					3			

Stroke Core Measure – EMS Data

Core Measure	Definition	2022- 1Q		2022-2Q		2022-3Q		2022- 4Q	
		Patient Count	**%**	**Patient Count**	**%**	**Patient Count**	**%**	**Patient Count**	**%**
STR-01	Prehospital Screening for Stroke Patients	1,011	95.84%	993	95.67%	984	95.63%	1145	95.46%

Stroke Dashboard - EMS Data

Stroke	System Total 2022- 1Q	System Total 2022-2Q	System Total 2022-3Q	System Total 2022- 4Q
Total transported patients with Primary impression of Stroke	887	866	857	978
Number of patients with documented Stroke Screen	851	847	854	939
% of patients with documented Stroke Screen	95.94%	97.81%	99.64%	96.01%
Documented Glucose	860	865	835	947
% of documented Glucose	96.96%	99.88%	97.43%	96.83%
Patients with a Stroke pre-arrival notification	795	771	756	864
% of Stroke pre-arrival notification	89.63%	89.03%	88.21%	88.75%

Stroke Primary Impression for Treated and Transported Patients - EMS Data

Hospital Name	2022-1Q	2022-2Q	2022-3Q	2022-4Q
Kaiser Antioch	1	0	0	1
KHR	38	41	34	52
KHN	147	162	152	173
KHS	176	150	149	172
Lodi	1	0	0	1
MGH	42	38	52	43
MHF	72	45	46	84
MSJ	171	184	178	190
MHS	76	84	61	70
VAMC	0	0	98	0
SMCS	81	74	28	89
SRMC	20	29	59	36
UCD	62	59	34	67
Total	**887**	**866**	**857**	**978**