



# San Joaquin County Emergency Medical Services Agency



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<http://www.sjgov.org/department/ems>

DATE: June 27, 2022

TO: Ambulance Service Providers  
Receiving Hospitals  
STEMI Receiving Centers  
Interested Parties

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SUBJECT: Cardiac Arrest Registry to Enhance Survival (CARES) Report for 2021

CARES is a collaborative data collection and analysis initiative of the Centers for Disease Control and Prevention (CDC) and Emory University, Woodruff Health Sciences. The goal of CARES Initiative is to improve patient survival from sudden cardiac death, assisting local EMS systems to identify who is affected by sudden cardiac arrest, when and where cardiac events occur, which elements of the system are functioning and which elements may be improved, and to identify potential changes to improve cardiac arrest outcomes.

In 2021, the San Joaquin County EMS System experienced on average eighty-one (81) medical cardiac arrests each month. According to the CARES data, San Joaquin County's cardiac arrest patient survival rate to hospital discharged is 29.3%. San Joaquin County outperforms both the State of California survival rate of 28.1% and the national survival rate of 29.0%. San Joaquin County's survival rate is a significant achievement considering that more patients in San Joaquin County are found with an initial cardiac rhythm of asystole (67.9%) as compared to the state (59.0%) or national (52.8%). Even though patients presenting with an initial rhythm of asystole have a significantly decreased chance of survival, San Joaquin County's asystole survival rate to hospital discharge of 2.4% exceeds both state (1.9%) and national (2.3%) survival rates.

In summary, the larger incidence of medical cardiac patients with an initial rhythm of asystole combined with an Utstein score of 29.3% demonstrates that the San Joaquin County EMS system (prehospital, hospital, and specialty care) provide high performance and superior cardiac outcomes.

<b>2021 CARES Data</b>	<b>San Joaquin County Survivability</b>	<b>California Survivability</b>	<b>National Survivability</b>
Bystander witnessed and found in shockable rhythm	29.3%	28.1%	29.0%
Intervention (CPR/AED) along with bystander witnessed and found in shockable rhythm	33.3%	31.8%	32.5%

<b>2021 Total Percentages of Non-Traumatic Etiology Cases</b>			
<b>Initial Rhythm</b>	<b>San Joaquin County</b>	<b>California</b>	<b>National</b>
Ventricular Fibrillation / Ventricular Tachycardia	11.7%	14.9%	16.40%
Percentage of VF/VT Patients Discharged alive	24.6%	25.8%	25.9%
Asystole	67.9%	59.0%	52.8%
Percentage of Asystole Patients Discharged alive	2.4%	1.9%	2.3%
Other "ECG" Rhythm	20.4%	26.0%	30.8%
Percentage of "Other" Patients Discharged alive	13.0%	10.6%	11.8%