TEXAS
Health and Human Services

Texas Department of State Health Services

Emergency Medical Services and Trauma Registries (EMSTR) Emergency Medical Services (EMS) Cardiac Data

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About EMSTR

- EMSTR collects reportable event data from EMS providers, hospitals, justices of the peace (JPs), medical examiners (MEs), and rehabilitation facilities.
- All submitters must report all runs and reportable trauma events to EMSTR under Texas Administrative Code, Title 25, Chapter 103.

NOTE: An EMS run is a resulting action from a call for assistance where an EMS provider is dispatched to, responds to, provides care to, or transports a person.

Per epidemiology best practice, EMSTR suppressed data with less than five records to protect identifiable information, noted with an asterisk (*).

Presentation includes data from 2022 dispatches. Staff prepared data analyses based on “closed” EMS datasets.

Cardiac Data Request 2022

Response and Request Times for Patients Transferred Between Facilities

Inclusion Criteria and Definitions

- Patients within Texas EMS dataset:
  - Incident location type of hospital.
  - Destination type – hospital emergency department (ED) or hospital non-ED bed.
- Request time – Time between Public Safety Answering Point (PSAP) and Unit Arrival on Scene.
- Response time – Time between Unit Notified of Dispatch and Unit Arrival on Scene time(s).

Cardiac Inclusion Criteria and Definitions

- All Cardiac patients – Protocols used for any cardiac arrest or cardiac-related event.
- Limited Cardiac dataset – Protocols used:
  - Medical-Cardiac Chest Pain
  - Medical-Hypotension/Shock (Non-Trauma)
  - Medical-Pulmonary Edema/CHF
  - Medical-ST-Elevation Myocardial Infarction (STEMI)
- ST-elevation myocardial infarction (STEMI) cardiac dataset – Protocols used were 'Medical-ST-Elevation Myocardial Infarction’.

Cardiac Transfer Request and Response Times

All Cardiac Patients	Total Number	Mean	Median
Request Time	6,262	41.32 minutes	19 minutes
Response Time	6,262	22.78 minutes	16 minutes

Limited Cardiac Dataset	Total Number	Mean	Median
Request Time	5,618	40.40 minutes	18 minutes
Response Time	5,618	22.30 minutes	16 minutes

Data prepared by Injury Prevention Unit Epidemiologists. Data from EMSTR, January 2025.

STEMI* Transfer Request and Response Times

STEMI Cardiac Dataset	Total Number	Mean	Median
Request Time	115	19.99 minutes	8 minutes
Response Time	115	17.25 minutes	7 minutes

*ST-Elevation Myocardial Infarction (STEMI) – a subset of all cardiac patients

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Request Time Over Mean – Time

997 total patients with a request time **over** 40.4 minutes (mean) of the 5,618 total cardiac patients.

Request time	Number	Percent
Less than one hour (40.4 minutes - 1 hour)	342	34.30%
One to two hours	384	38.52%
Two to three hours	146	14.64%
Three to four hours	53	05.32%
Greater than four hours	72	07.22%
TOTAL	**997**	**100%**

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Request Time Over Mean – Rural / Urban

- Of all rural cardiac transfers, 14.01% of request times **are greater than** 40.4 minutes.
- Of all urban cardiac transfers, 18.66% of request times **are greater than** 40.4 minutes.

Rural / Urban	Number	Percent
Rural	176	14.01%
Urban	804	18.66%
Missing	17	N/A

N = 997

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Request Time Over Mean (40.4 minutes) – Regional Advisory Council (RACs) A-K

RAC	Percent of patients greater than the mean
A	04.42%*
B	15.38%*
C	00.00%
D	13.99%*
E	29.38%*
F	25.00%
G	06.45%*
H	36.00%
I	00.00%
J	21.58%*
K	03.33%

* = RACs with 100 or more patients in the data subset.

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Request Time Over Mean – RACs L-V

RAC	Percent of patients greater than the mean
L	11.35%*
M	16.67%
N	18.31%
O	26.02%*
P	10.83%*
Q	15.35%*
R	20.04%*
S	01.85%*
T	10.00%
U	23.21%*
V	20.72%

* = RACs with 100 or more patients in the data subset.

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Response Time Over Mean – Time

2,116 total patients (37.66%) with a response time **over 22.3 minutes** (mean) of the 5,618 total cardiac patients.

Request time	Number	Percent
Less than one hour (22.3 minutes - 1 hour)	1,780	84.12%
One to two hours	292	13.80%
Two to three hours	34	01.61%
Greater than three hours	10	00.47%
TOTAL	**2,116**	**100%**

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Response Time Over Mean – Rural / Urban

- Of all rural cardiac transfers, 25.56% of response times **were greater** than 22.3 minutes.
- Of all urban cardiac transfers, 41.17% of response times **were greater** than 22.3 minutes.

Rural / Urban	Number	Percent
Rural	321	25.56%
Urban	1,774	41.17%
Missing	21	N/A

N = 2,116

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Response Time Over Mean – RACs A-K

RAC	Percent of patients greater than the mean
A	09.94%*
B	23.08%*
C	05.88%
D	20.28%*
E	41.98%*
F	31.25%
G	18.06%*
H	30.00%
I	00.00%
J	31.65%*
K	15.56%

* = RACs with 100 or more patients in the data subset.

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Response Time Over Mean – RACs L-V

RAC	Percent of patients greater than the mean
L	11.89%*
M	13.33%
N	39.44%
O	44.10%*
P	37.74%*
Q	58.23%*
R	43.25%*
S	10.19%*
T	10.00%
U	64.88%*
V	14.09%

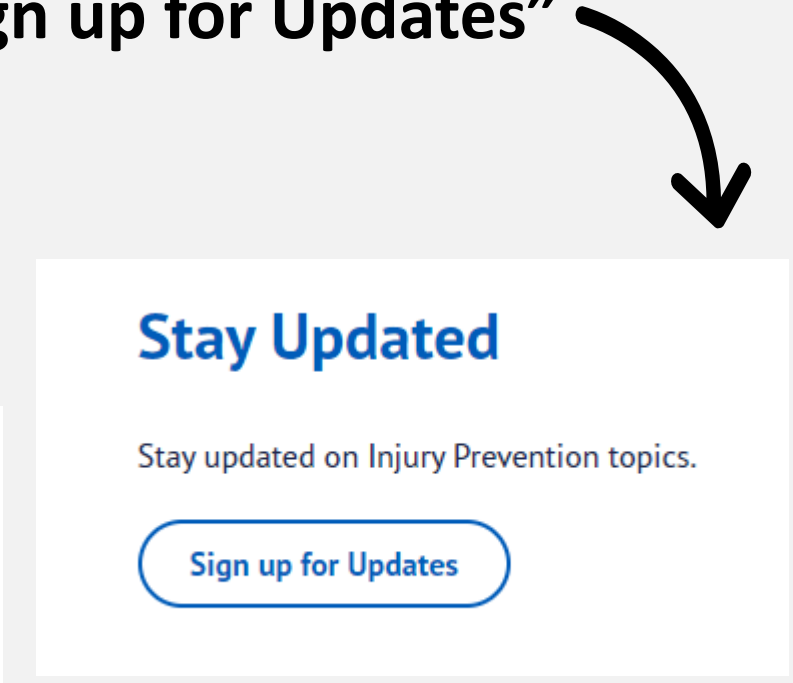
* = RACs with 100 or more patients in the data subset.

Data prepared by Injury Prevention Unit Epidemiologists.
Data from EMSTR, January 2025.

Receive Injury Prevention Updates

Sign up to receive periodic injury prevention-related updates:

- Go to dshs.texas.gov/injury-prevention and **click "Sign up for Updates" button** on the left navigation OR
- **Scan the QR code** to go directly to the sign-up page.
- Enter your email address when prompted.
- You'll begin receiving updates.



Thank you!

EMSTR EMS Cardiac Data

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