

Georgia Trauma Registry

System Evaluation

2019 - 2020

Georgia Trauma Commission Data Committee / Marie Probst, State Trauma Registrar / April 4, 2023

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Registry Record Counts by EMS Region and Year

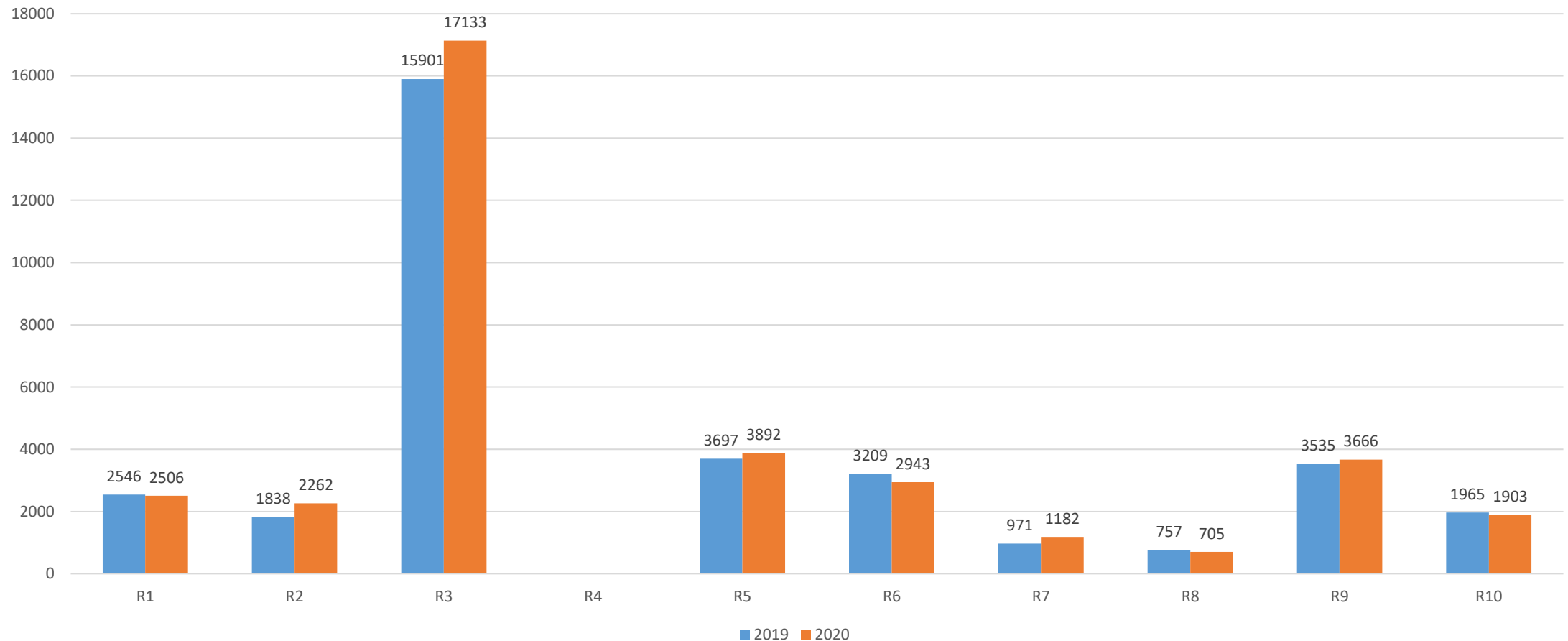


Table 3

Injury Mechanism by Age

2019

Age	Fall	Motor Vehicle Traffic	Firearm	Struck by against	Cut/pierce	Transport, other
<1	246	34	2	17	1	2
1-4	523	135	19	49	19	31
5-9	764	275	22	90	24	61
10-14	424	287	64	153	31	143
15-19	270	833	324	197	84	101
20-24	211	1,057	441	146	160	71
25-34	536	1,994	709	312	401	135
35-44	689	1,436	331	312	279	97
45-54	1,029	1,398	211	288	190	95
55-64	1,895	1,351	106	223	127	71
65-74	2,710	892	40	119	69	47
75-84	3,188	466	16	56	11	15
>=85	2,662	175	8	30	2	4
NK/NR	0	0	1	0	0	0
Total	15,147	10,333	2,294	1,992	1,398	873

2020

Age	Fall	Motor Vehicle Crash	Firearm	Struck by against	Cut/Pierce	Transport, other
<1	219	46	3	16	4	1
1-4	581	129	27	55	24	32
5-9	602	167	23	95	24	78
10-14	402	242	83	119	38	180
15-19	209	888	395	158	98	148
20-24	202	1,221	590	131	186	99
25-34	559	2,208	942	369	446	165
35-44	677	1,585	470	285	326	107
45-54	1,003	1,363	235	255	210	110
55-64	1,976	1,244	123	239	149	87
65-74	2,861	812	42	92	82	37
75-84	3,461	503	17	44	13	13
>=85	2,772	175	15	25	6	3
NK/NR	0	0	2	0	0	0
Total	15,524	10,583	2,967	1,883	1,606	1,060

Table 13

- 673 more Firearm injuries in 2020 (T13)

Time to Definitive Care Scene to Hospital

2019

S Group, ISS <=15, Median Time from EMS Dispatch Time to Hospital ED Arrival Time		
Hospital Level	Frequency	Median Total Time
1	5,906	0:55:00
2	5,576	0:52:00
3	1,075	0:52:00
4	106	0:48:00
Total	12,663	0:53:00

S Group, ISS >15, Median Time from EMS Dispatch Time to Hospital ED Arrival Time		
Hospital Level	Frequency	Median Total Time
1	1,926	0:50:00
2	1,280	0:44:30
3	102	0:44:00
4	26	0:40:00
Total	3,334	0:47:00

Tables 5D2, 5D3

2020

S Group, ISS <=15, Median Time from EMS Dispatch Time to Hospital ED Arrival Time		
Hospital Designation Level	Frequency	Median Total Time
I	7,000	0:56:00
II	5,517	0:53:00
III	1,435	0:55:00
IV	113	0:49:00
Total	14,065	0:55:00

+1,402 cases

S Group, ISS >15, Median Time from EMS Dispatch Time to Hospital ED Arrival Time		
Hospital Designation Level	Frequency	Median Total Time
I	2,284	0:50:00
II	1,418	0:44:00
III	230	0:52:00
IV	14	0:53:30
Total	3,946	0:48:00

+612 cases

Tables 5D2, 5D3

Time to Definitive Care Scene to Final Hospital

2019

R Group, ISS <=15, Median Time from EMS Dispatch Time to the Final Destination Hospital ED Arrival Time		
Hospital Level	Frequency	Median Total Time
1	265	5:35:00
2	177	5:45:00
3	2	11:06:30
Total	444	5:40:30

R Group, ISS >15, Median Time from EMS Dispatch Time to the Final Destination Hospital ED Arrival Time		
Hospital Level	Frequency	Median Total Time
1	96	4:17:00
2	42	4:40:30
3	1	36:31:00
Total	139	4:24:00

Tables 6E2, 6E3

2020

R Group, ISS <=15, Median Time from EMS Dispatch Time to the Final Destination Hospital ED Arrival Time		
Hospital Designation Level	Frequency	Median Total Time
I	379	5:51:00
II	176	6:22:00 +37 min
III	20	2:45:00
Total	575	5:57:00

+131 cases, 17 minute median total time increase

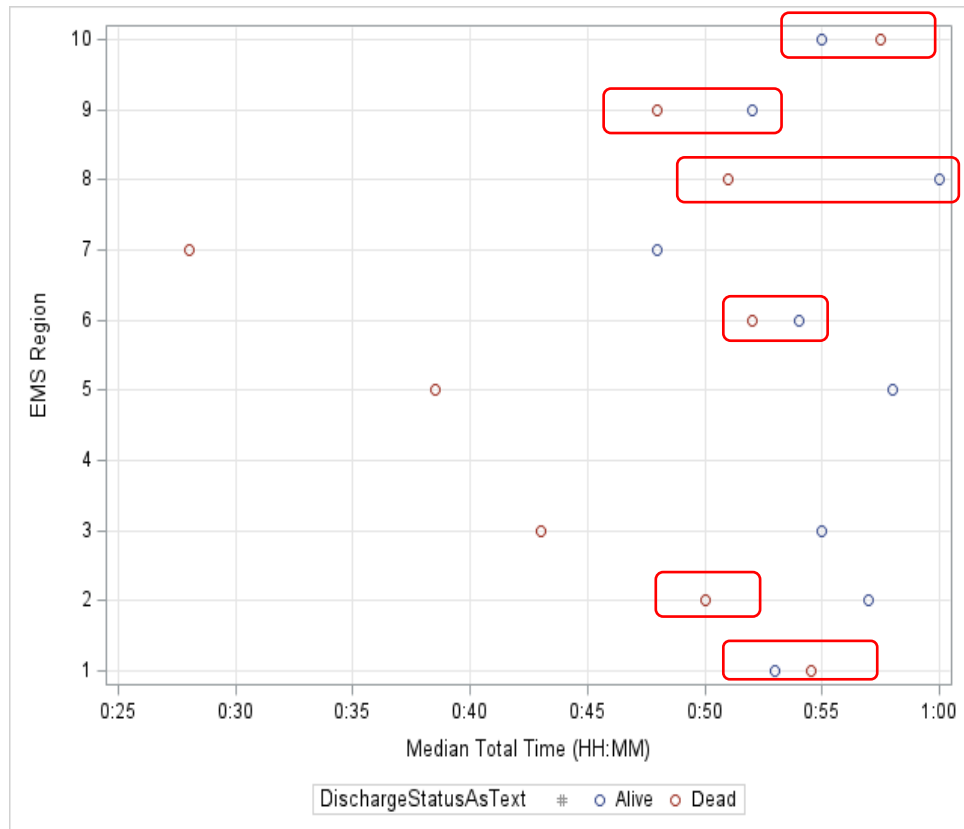
R Group, ISS >15, Median Time from EMS Dispatch Time to the Final Destination Hospital ED Arrival Time		
Hospital Designation Level	Frequency	Median Total Time
I	124	4:36:30
II	53	5:19:00
III	6	1:49:30
Total	183	4:51:00

+44 cases, 27 minute median total time increase

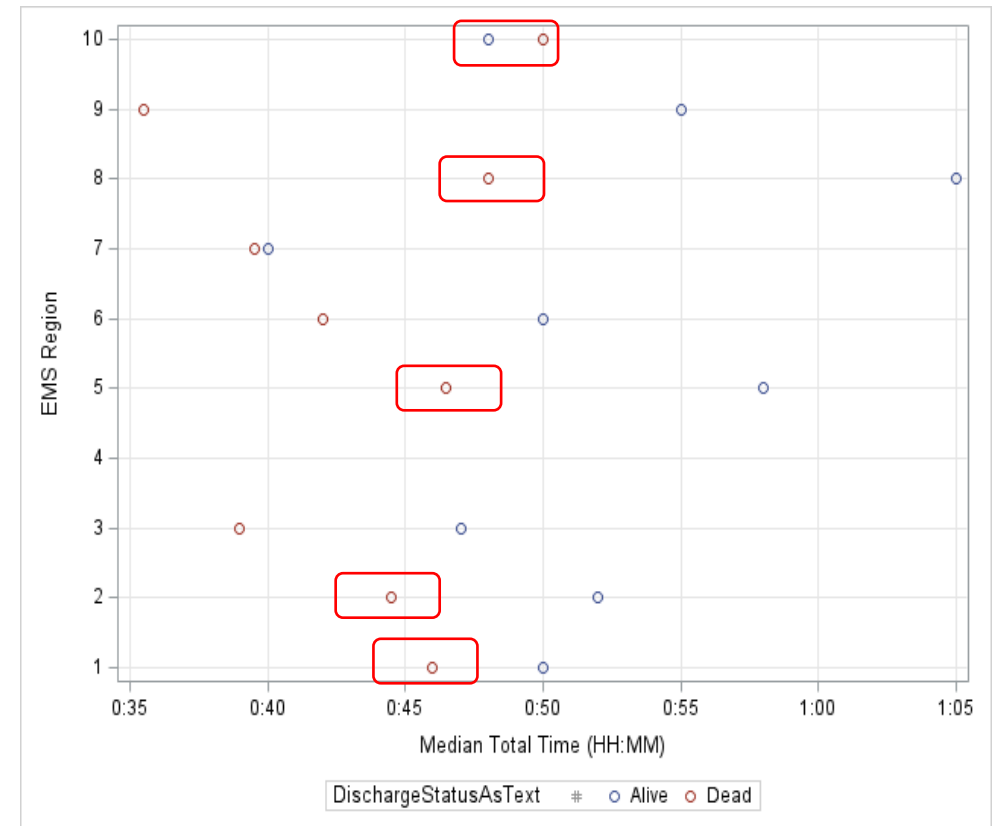
Tables 6E2, 6E3

Time to Definitive Care - Scene

2020 S Group <=15 Median Time
by EMS Region and Discharge Status (5D11)



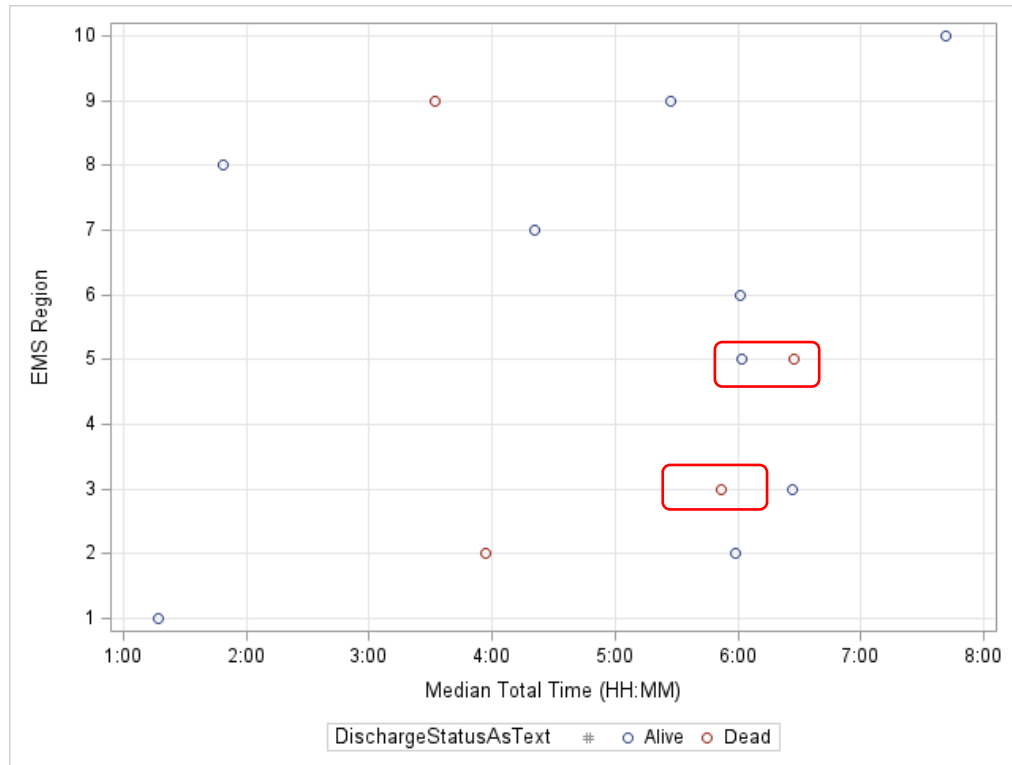
2020 S Group >15 Median Time
by EMS Region and Discharge Status (5D13)



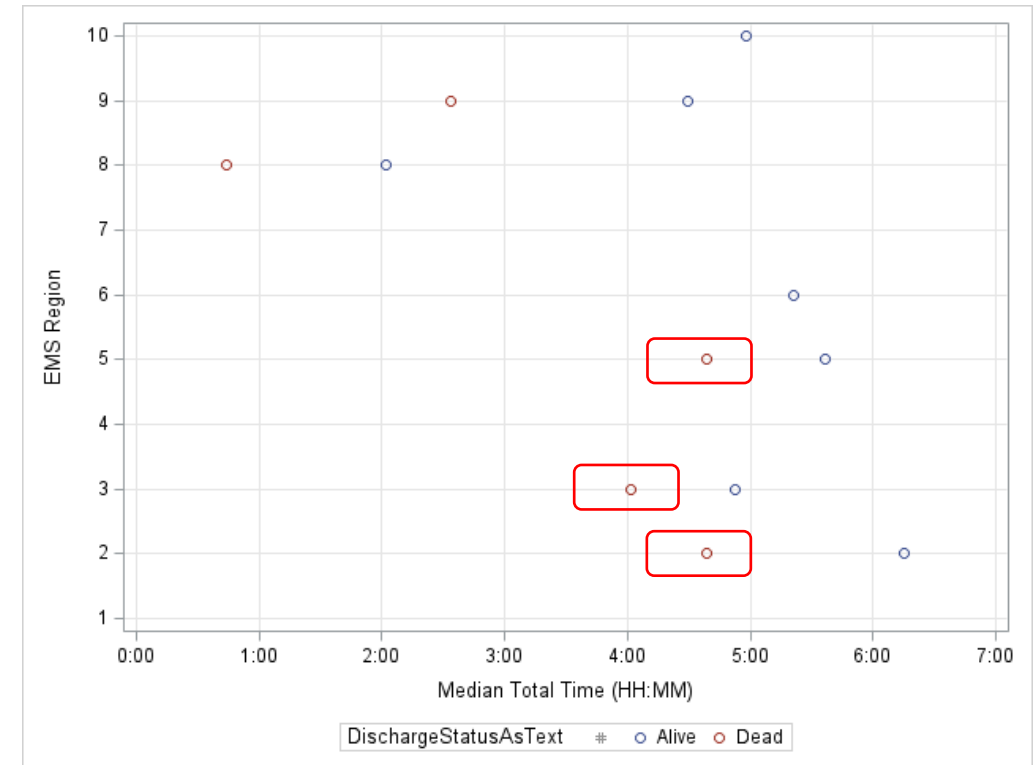
Scene

Time to Definitive Care - Transfers

2020 R Group ≤ 15 Median Time
by EMS Region and Discharge Status (6E8)



2020 R Group > 15 Median Time
by EMS Region and Discharge Status (6E10)



Outcomes

2019

- ED Mortality Rate: 1.6% (539/34,416) (T31)
- Hospital Mortality Rate: 3.0% (1,018/34,419) (T33)
- Overall Mortality Rate: 4.5% (1,557/34,419) (T33)
- Age Group **20-24** had the highest fatality rate 5.6% (T18)
- ED Transfer Rate: 5.1% (1,763/34,416)
- Data Completeness Rate for R Group 19% (583/3107, p 19)
- Source: 2019 Georgia Trauma Registry Data Annual Report

2020

- ED Mortality Rate: 1.7% (618/36,189) (T31)
- Hospital Mortality Rate: 3.3% (1,179/36,192) (T33)
- Overall Mortality Rate: 5.0% (1,797/36,192) (T33)
 - 240 more lives lost in 2020 than in 2019
- Age Group **25-34** had highest fatality rate 5.6% (T18)
- ED Transfer Rate: 4.9% (1,787/36,189)
- Data Completeness Rate for R Group 23% (758/3259, p24)
 - 2021 rate estimated at 25% (GQIP)
- Source: 2020 Georgia Trauma Registry Data Annual Report

Future Annual Report Additions

- Select Annual Comparisons to evaluate the Performance of the Statewide Trauma System
- Outcomes by
 - Region
 - Designation Level
 - Trauma Team Activation (TTA) Levels
- Trauma System Performance
 - Over/Under triage by Age, ISS, TTA, Designation Level
 - Transfer rates by EMS region, ISS, Designation Level
- EMS Data
 - Continue Time to Definitive Care Analysis by Designation Level and Region
 - Analysis on Adult, Pediatrics, Geriatrics groups by EMS Region
- Trauma Center Data
 - ED LOS for Transfers Out by Age, ISS, Designation Level, Transfer Rationale, Injury Type, MOI
 - Analysis on Adults, Pediatrics, Geriatrics groups by Age, ISS, Designation Level, Outcomes, Hospital LOS, Injury Type, MOI
 - Hypothesis - Can Level III and IV centers keep and treat lower ISS patients? Is repatriation possible?

Questions

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