

# Wake EMS System Peer Review Clinical Data 4<sup>th</sup> Quarter 2019



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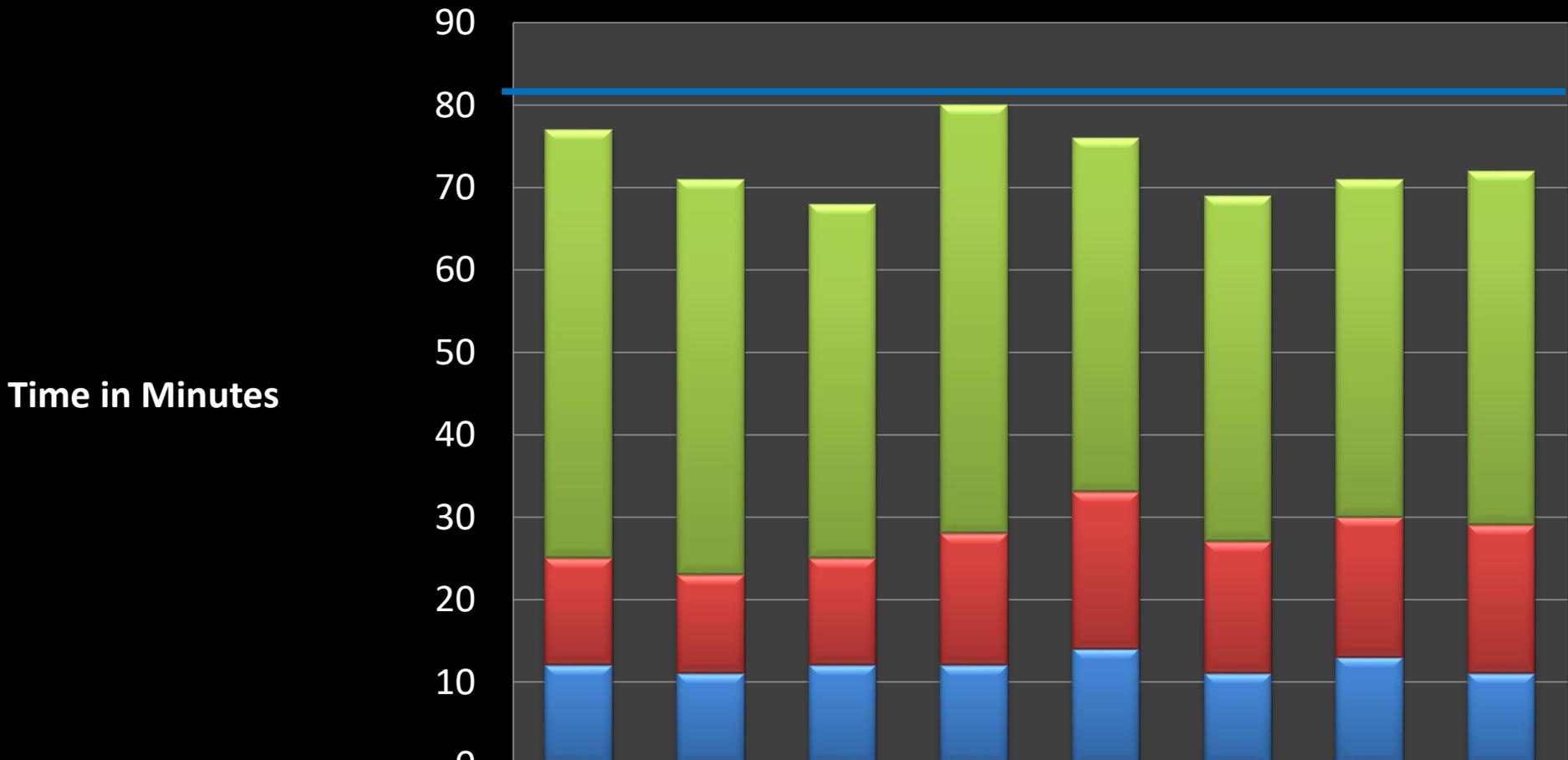
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# STEMI



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Clinically Excellent Care

# Mean Time for Patients with Confirmed STEMI; Combined for All Hospitals

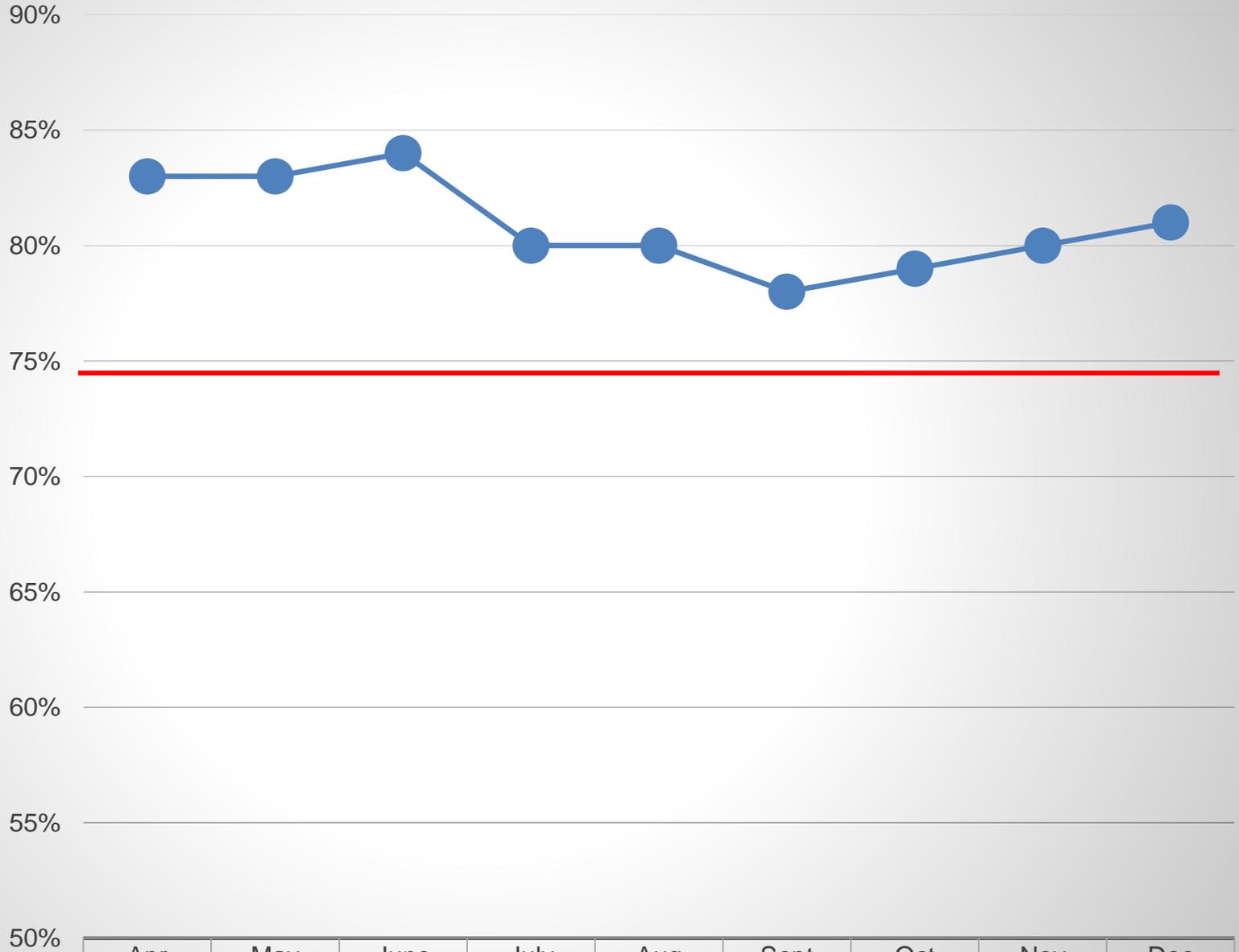


	May 19	June 19	July 19	Aug 19	Sept 19	Oct 19	Nov 19	Dec 19
■ Hospital Arrival to Intervention	52	48	43	52	43	42	41	43
■ Scene Departure to Hospital Arrival	13	12	13	16	19	16	17	18
■ 1st Patient Contact to Scene Departure	12	11	12	12	14	11	13	11



# Wake EMS

## Chest Pain Patient Age>35 Who Had ASA Administered



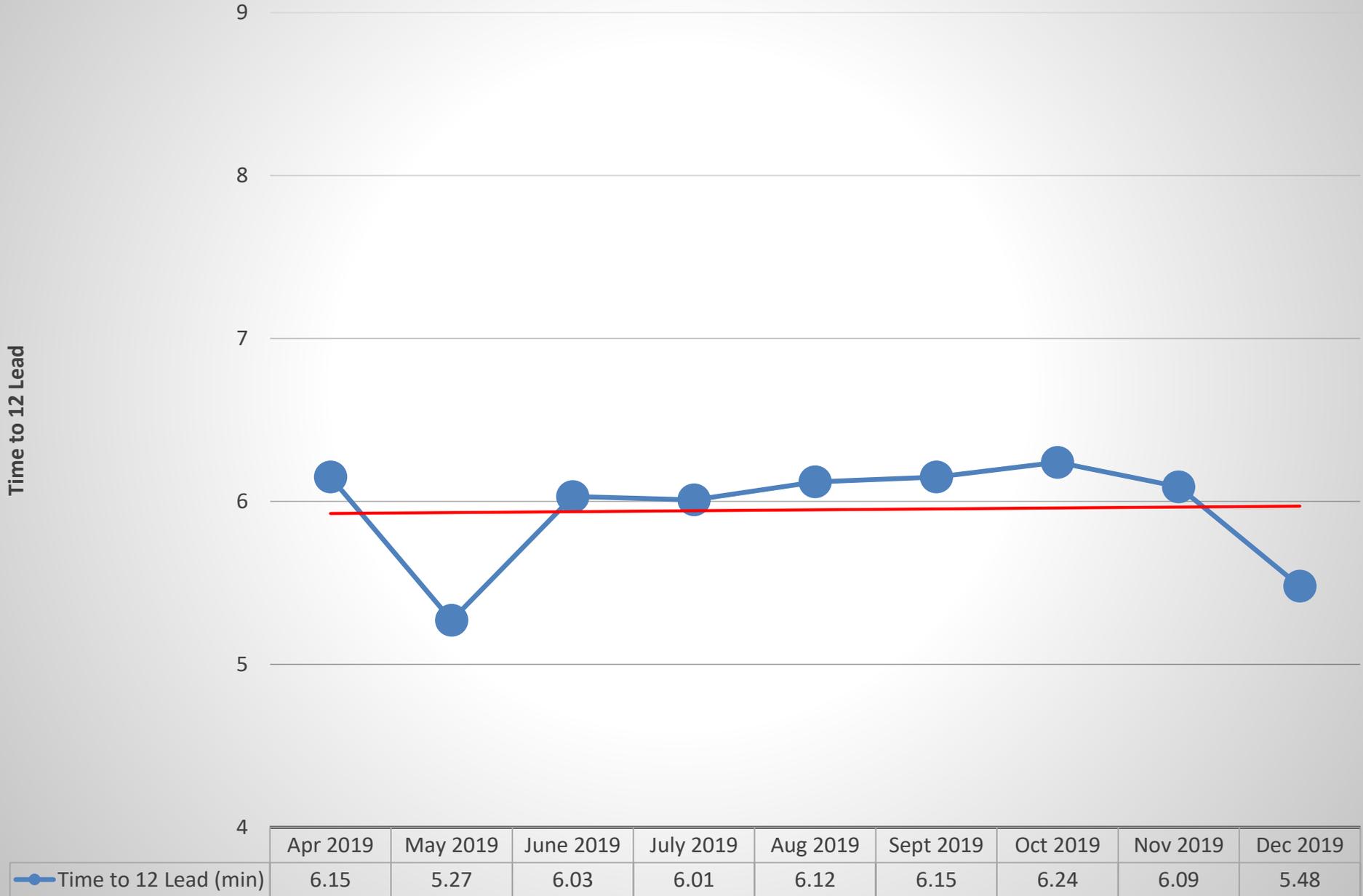
Percent Administered

ASA Administered

	Apr 2019	May 2019	June 2019	July 2019	Aug 2019	Sept 2019	Oct 2019	Nov 2019	Dec 2019
ASA Administered	83%	83%	84%	80%	80%	78%	79%	80%	81%

# Wake EMS

## Chest Pain Patient Contact to 12lead Time in Minutes



# Stroke



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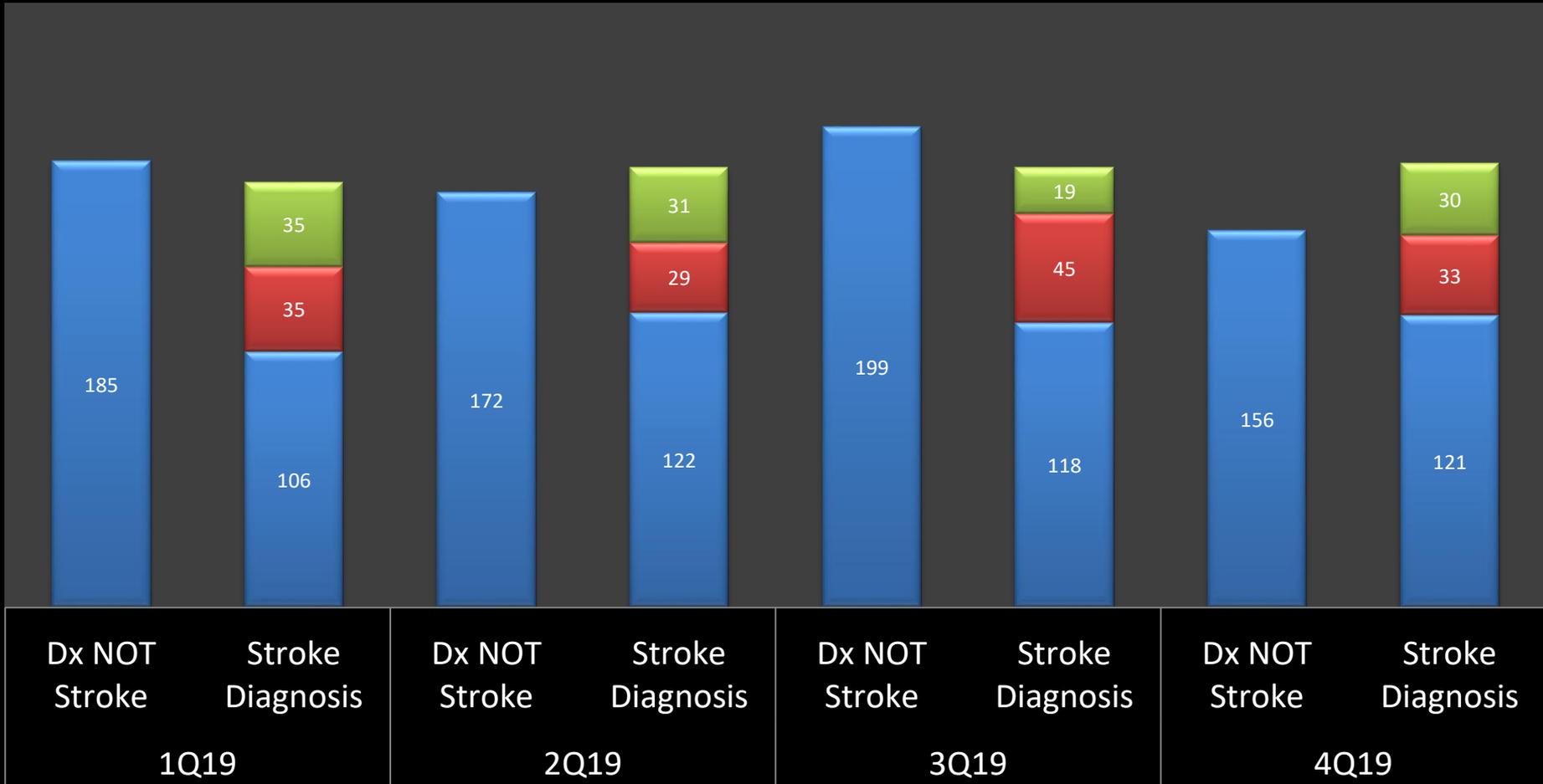
# EMS Stroke Evidence Based Medicine Measures

## Patients Transported by EMS with Suspected or Confirmed Stroke

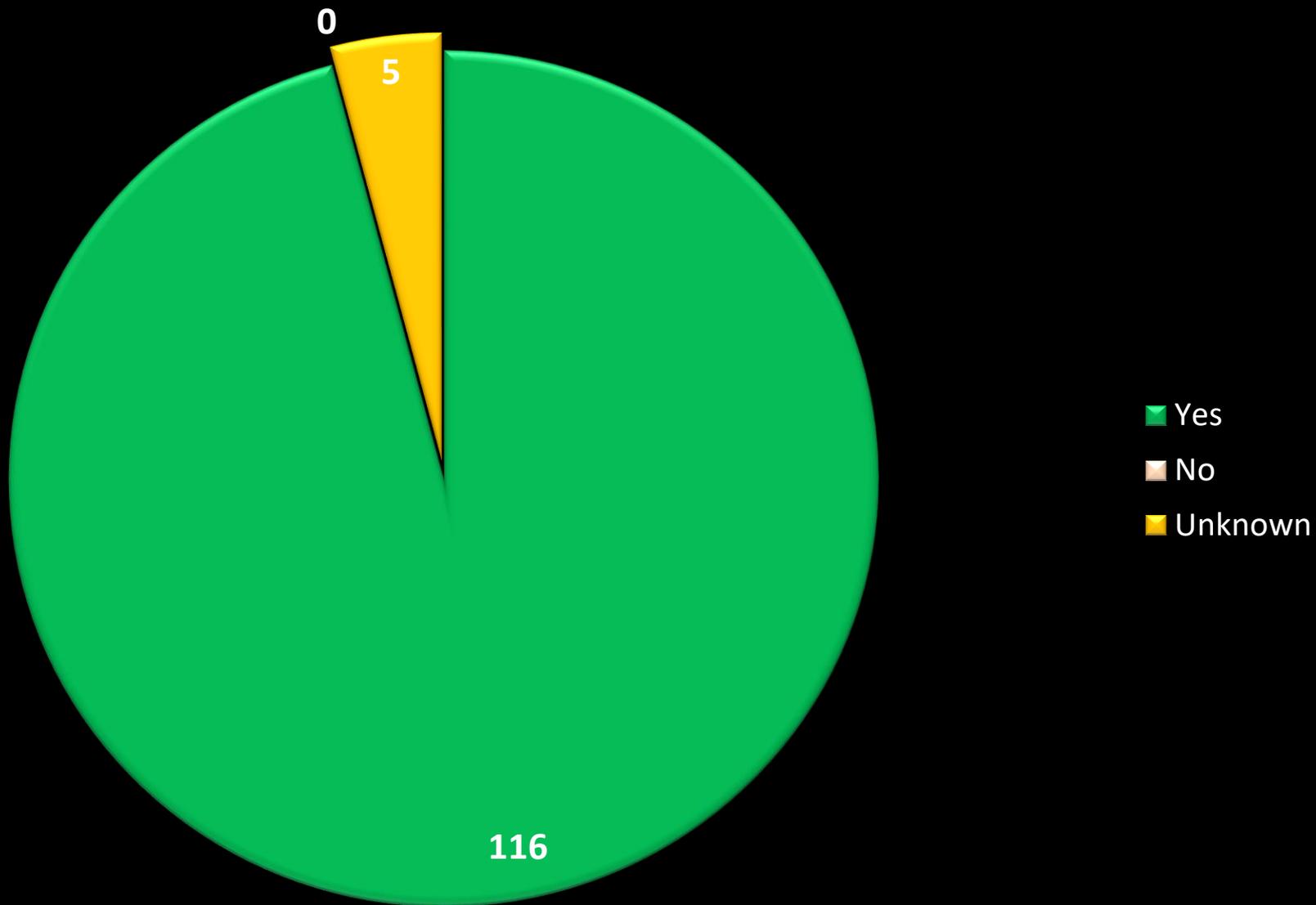


# Code Strokes by EMS taken to Wake County Hospitals

■ No TPA Given ■ TPA Given ■ ICH

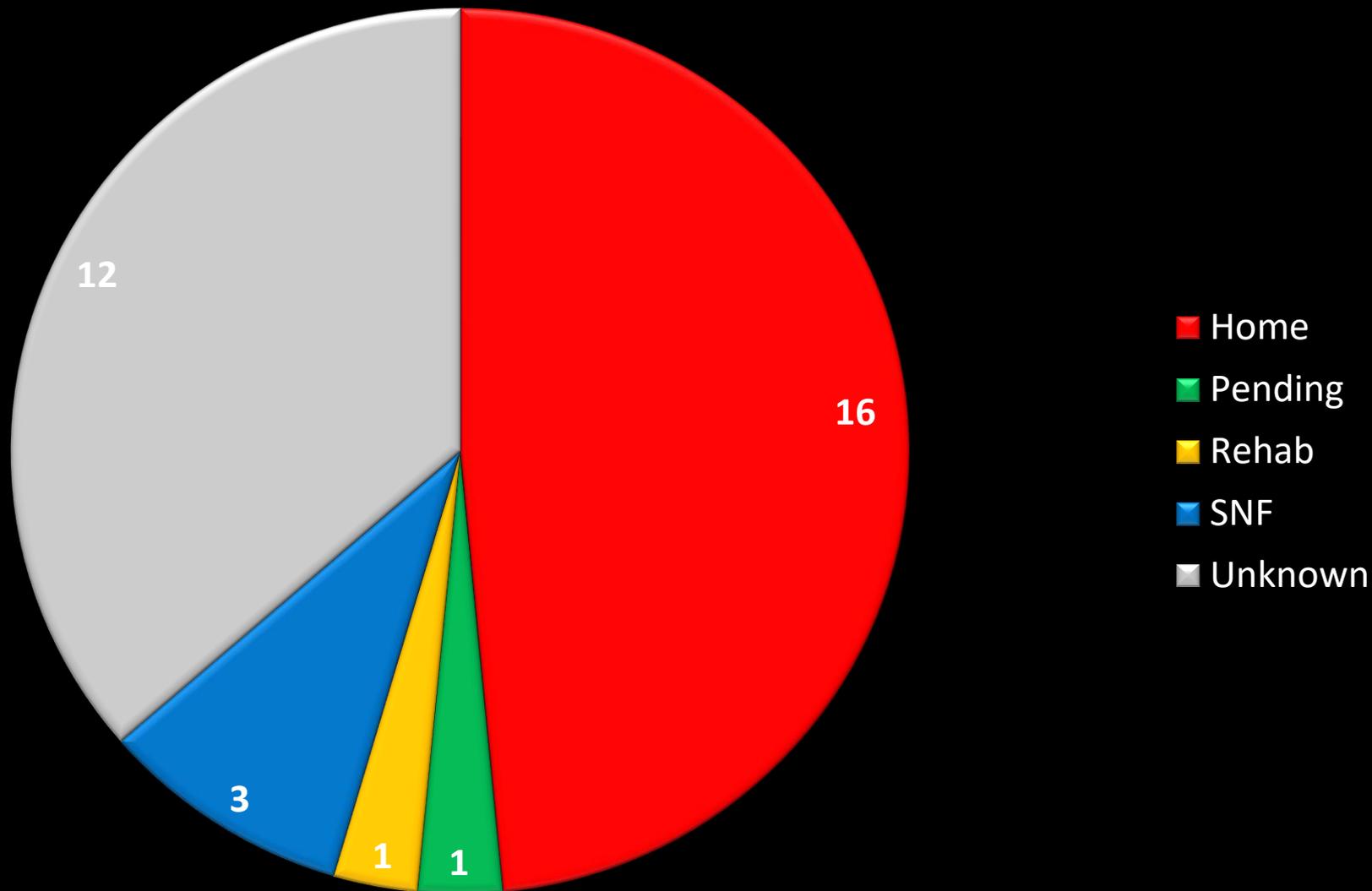


All Hospitals 4<sup>th</sup> Qtr 2019  
Hospital DCDx Stroke that did not Receive tPA or Intervention

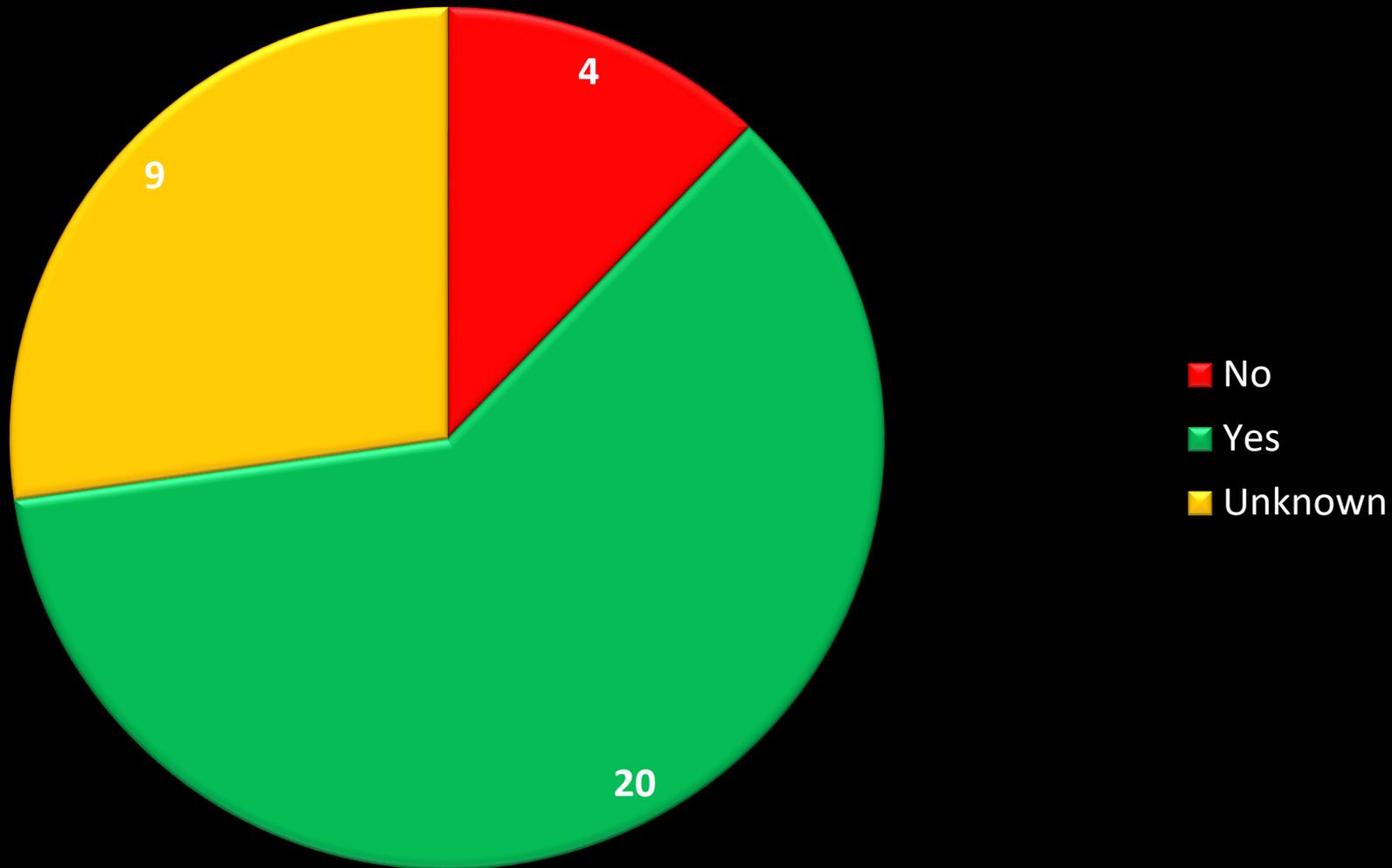


# All Hospitals 4<sup>th</sup> Qtr 2019

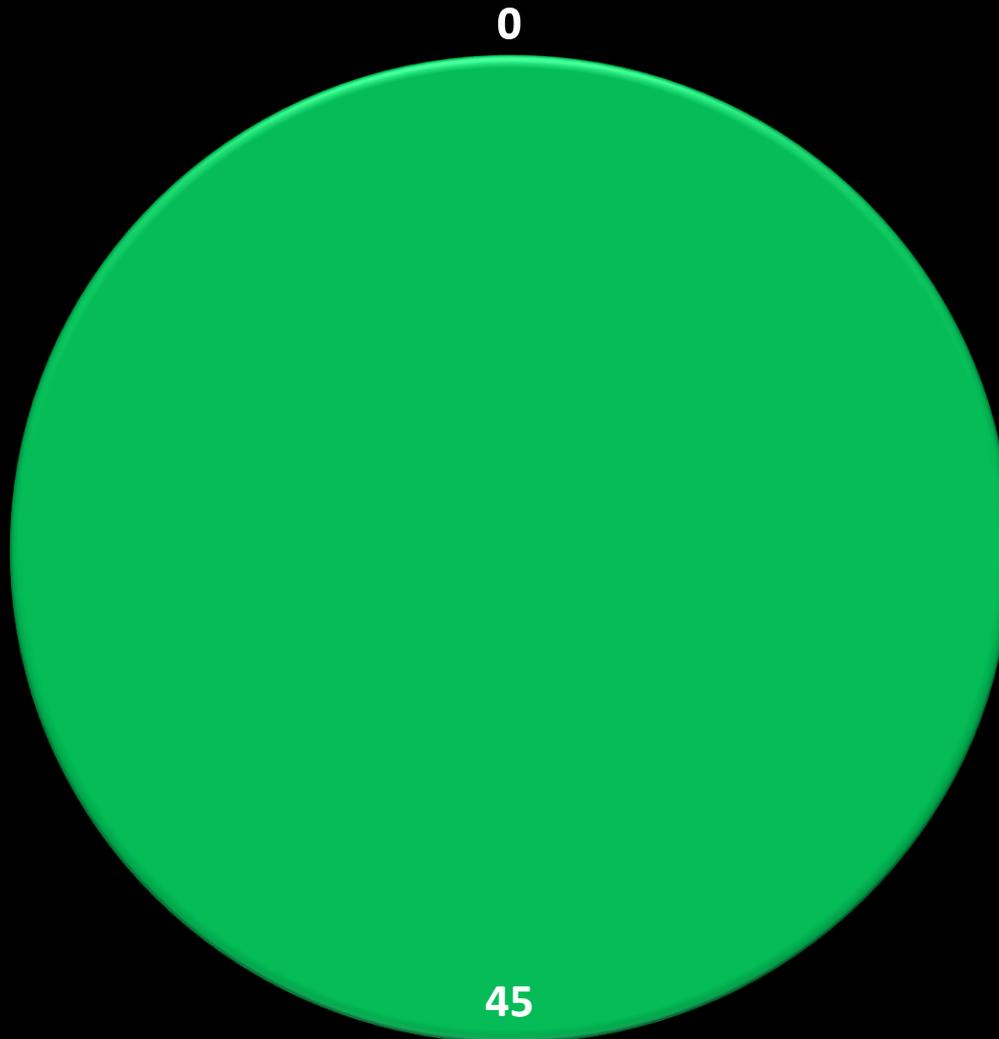
## Outcomes for Wake EMS Stroke Patients who Received tPA



**All Hospitals 4<sup>th</sup> Qtr 2019**  
**Wake EMS Stroke Patients who Received tPA**  
**Symptom Improvement**



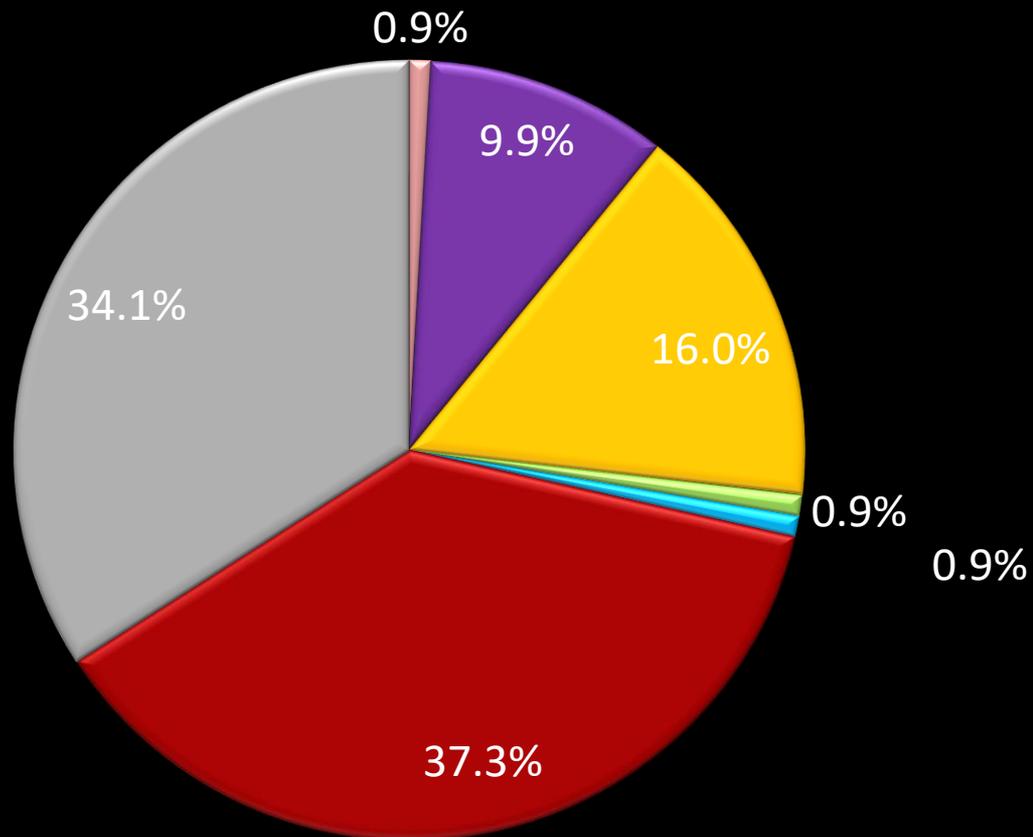
**All Hospitals 4<sup>th</sup> Qtr 2019**  
**Wake EMS Stroke Patients who Received tPA**  
**ICH Post Administration**



- No
- Yes
- Unknown

# Destination for Wake EMS Patients with Suspected or Confirmed Stroke 4<sup>th</sup> Qtr 2019

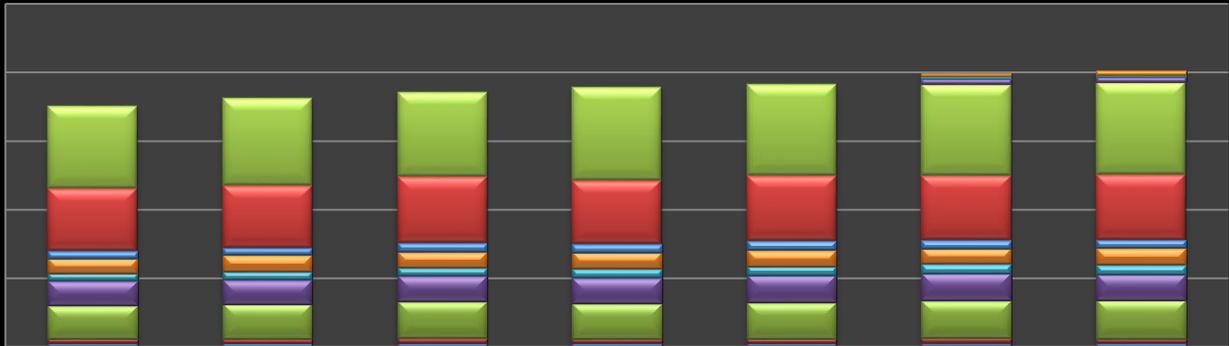
- Brier Creek Healthplex-WakeMed
- Cary-WakeMed
- Duke Raleigh Hospital
- Garner Healthplex-WakeMed
- North-WakeMed
- Rex Healthcare
- WakeMed Main



# Total Transports for the System

Number of Transports

25000  
20000  
15000  
10000  
5000  
0



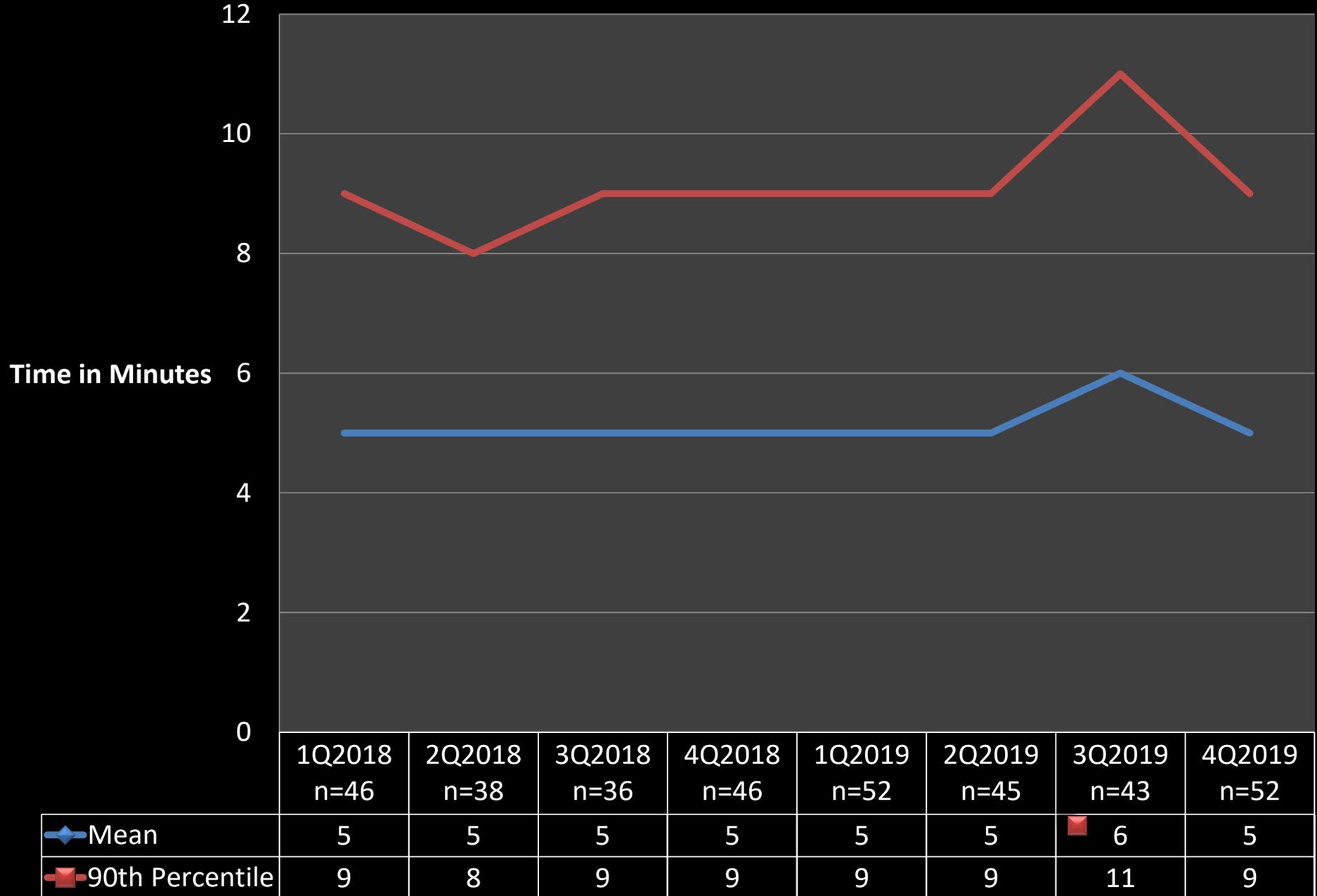
	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19
Out of County						246	319
UNC						171	140
Duke Durham						387	413
WakeMed Main	6008	6279	6157	6765	6653	6633	6731
Rex Healthcare	4553	4567	4855	4649	4724	4745	4735
Pediatric ED WakeMed	529	507	621	597	674	574	596
North- WakeMed	1091	1221	1184	1208	1191	1109	1214
Garner Healthplex WakeMed	560	590	580	640	636	712	707
Duke Raleigh Hospital	1771	1763	1838	1859	1994	1968	1867
Cary- WakeMed	2439	2558	2679	2578	2610	2749	2806
Brier Creek Healthplex- WakeMed	291	285	360	325	311	335	309
Apex Healthplex- WakeMed	330	302	298	287	324	324	305

# Trauma



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# Wake EMS System Penetrating Trauma Scene Times



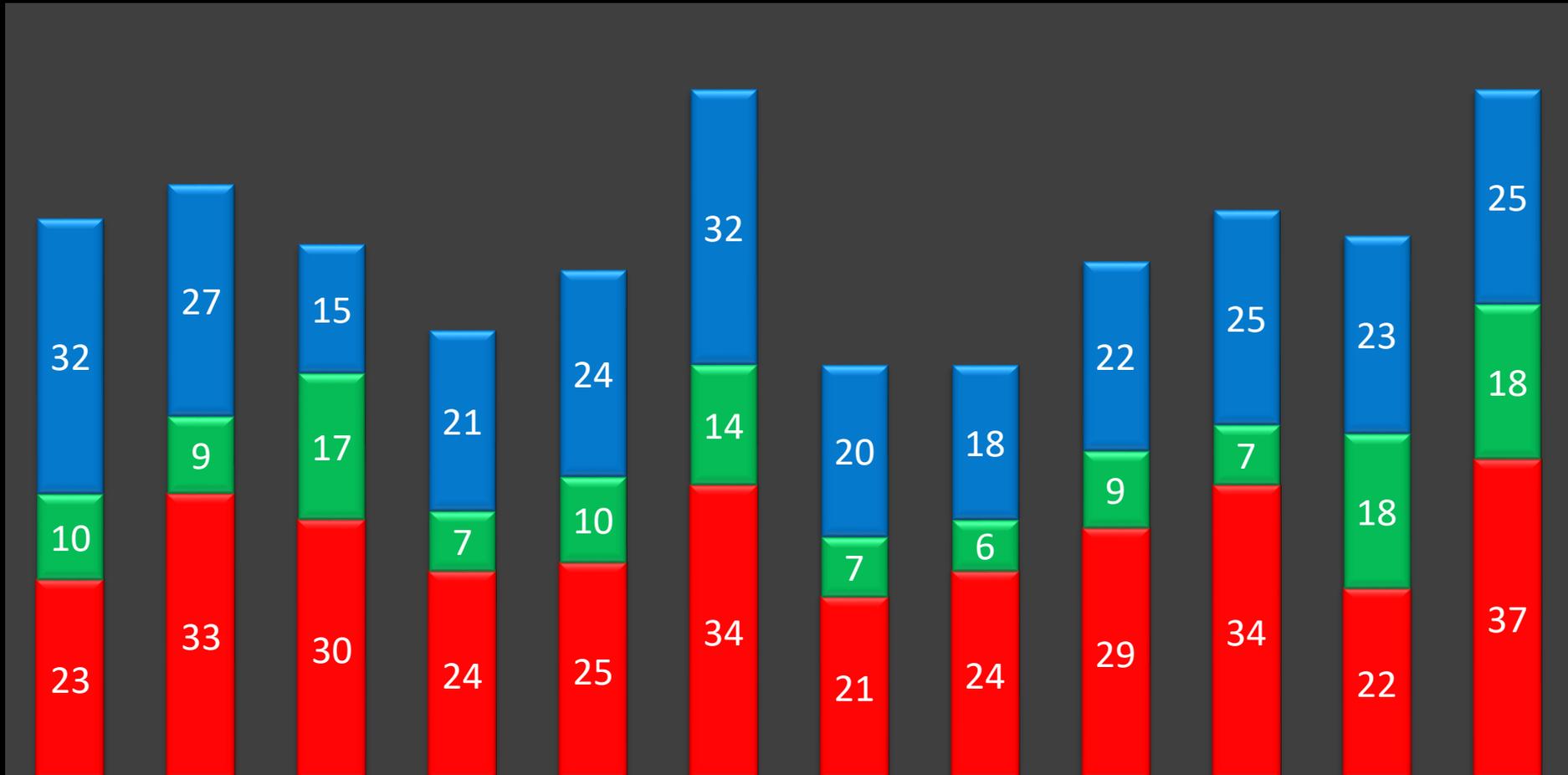
# Cardiac Arrest



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# Wake EMS Worked Cardiac Arrest

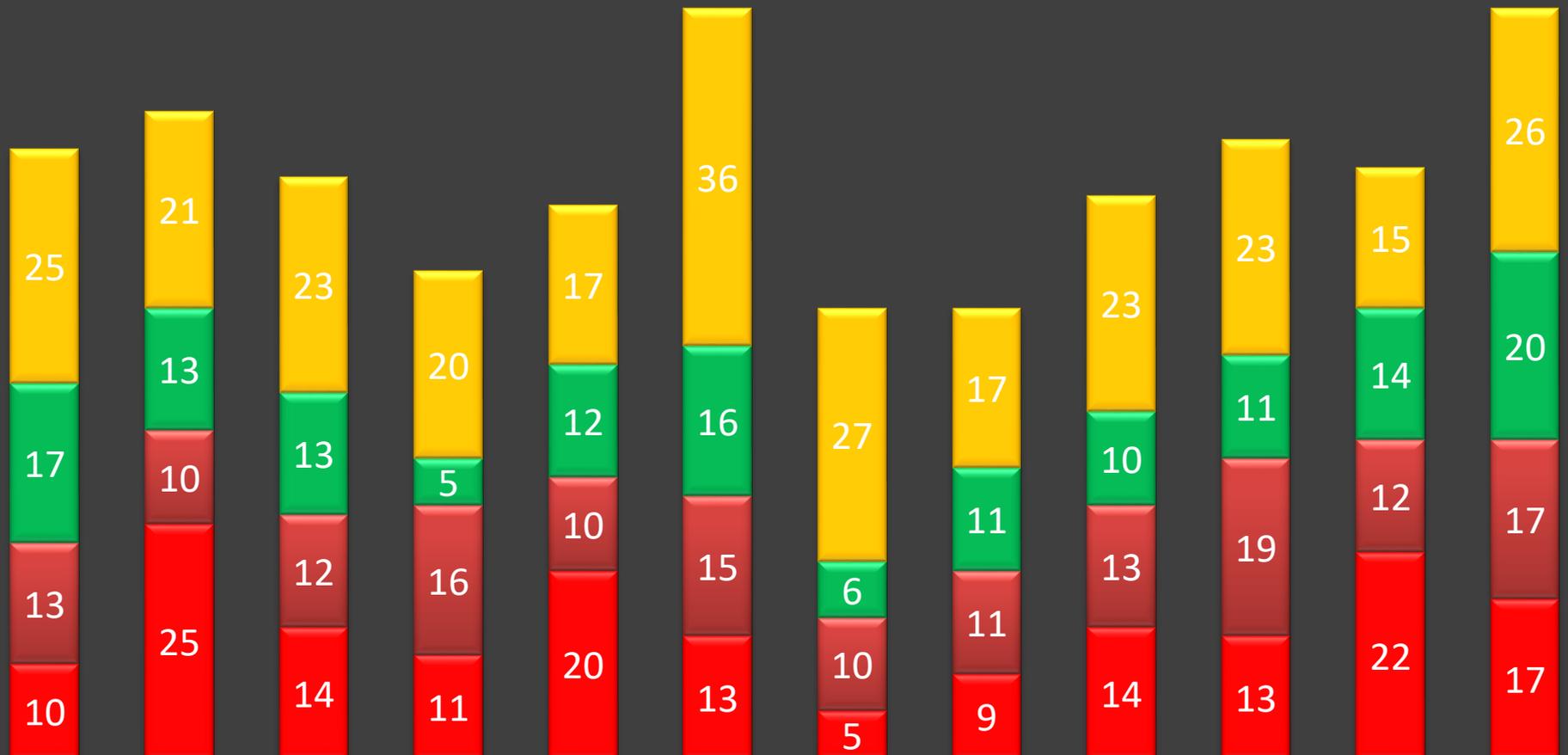
- Resuscitation Ceased in the Field
- Transport to Hospital with no ROSC
- Transport to Hospital with ROSC



Jan 2019 n=65    Feb 2019 n=69    Mar 2019 n=62    Apr 2019 n=52    May 2019 n=59    June 2019 n=80    July 2019 n=48    Aug 2019 n=48    Sept 2019 n=60    Oct 2019 n=66    Nov 2019 n=63    Dec 2019 n=80

# Cardiac Arrest Initial Rhythm

■ Aystole ■ PEA ■ VF/VT ■ Unknown Unshockable

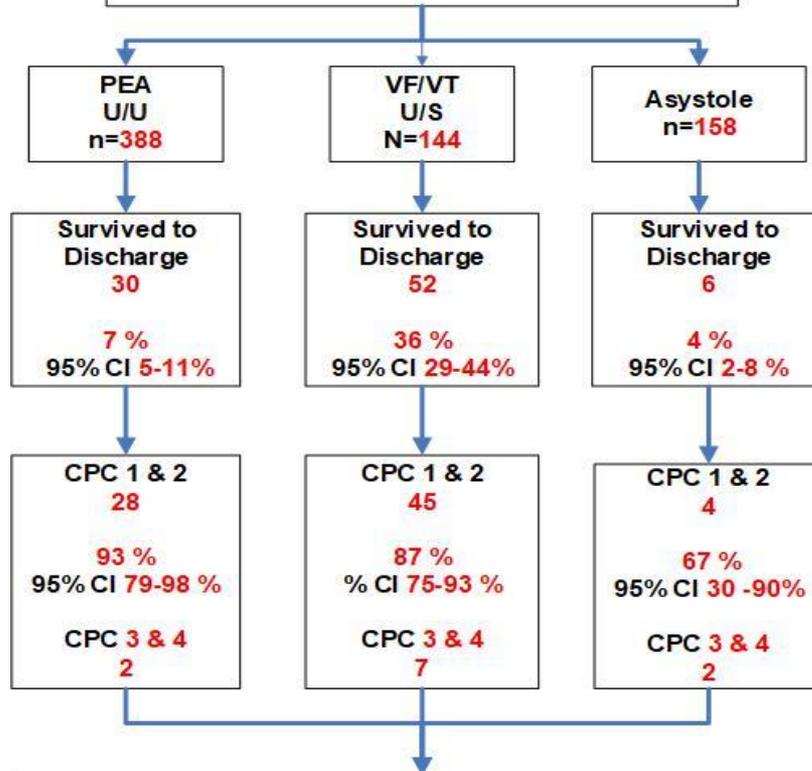


Jan 2019 n=65    Feb 2019 n=69    Mar 2019 n=62    Apr 2019 n=52    May 2019 n=59    June 2019 n=80    July 2019 n=48    Aug 2019 n=48    Sept 2019 n=60    Oct 2019 n=66    Nov 2019 n=63    Dec 2019 n=80

**Wake EMS Out of Hospital Cardiac Arrest  
2019**

**Total Cardiac Arrest Worked n=750  
Total Survivors n=92**

**Adult Non Trauma age ≥16  
N=690**



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Year	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Total Resuscitation Attempted</b>	484	560	608	612	643	696	737	751	750
<b>Total Adult Non-Trauma</b>	436	544	550	563	591	647	705	690	690
<b>VF/VT Survived</b>	38 (42%)	38 (39%)	44 (38%)	40 (29%)	38 (29%)	50 (37%)	56 (38%)	56 (39%)	52 (36%)
<b>VF/VT Survived Confidence Interval</b>	32%-52%	29%-48%	29%-47% <sup>3</sup>	22%-37%	22%-37%	29%-45%	30%-46%	31%-47%	29%-44%
<b>VF/VT CPC 1-2</b>	35 (92%)	37 (97%)	43 (98%)	38 (95%)	35 (92%)	49 (98%)	54 (96%)	55 (98%)	45 (87%)
<b>Total Survival</b>	72 (17%)	89 (16%)	79 (14%)	67 (12%)	65 (11%)	87 (13%)	120 (16%)	95 (14%)	92 (12%)
<b>Total Survival Confidence Interval</b>	13%-20%	13%-20%	11%-17%	9%-15%	9%-14%	11%-16%	109 (91%)	11%-17%	10%-15%



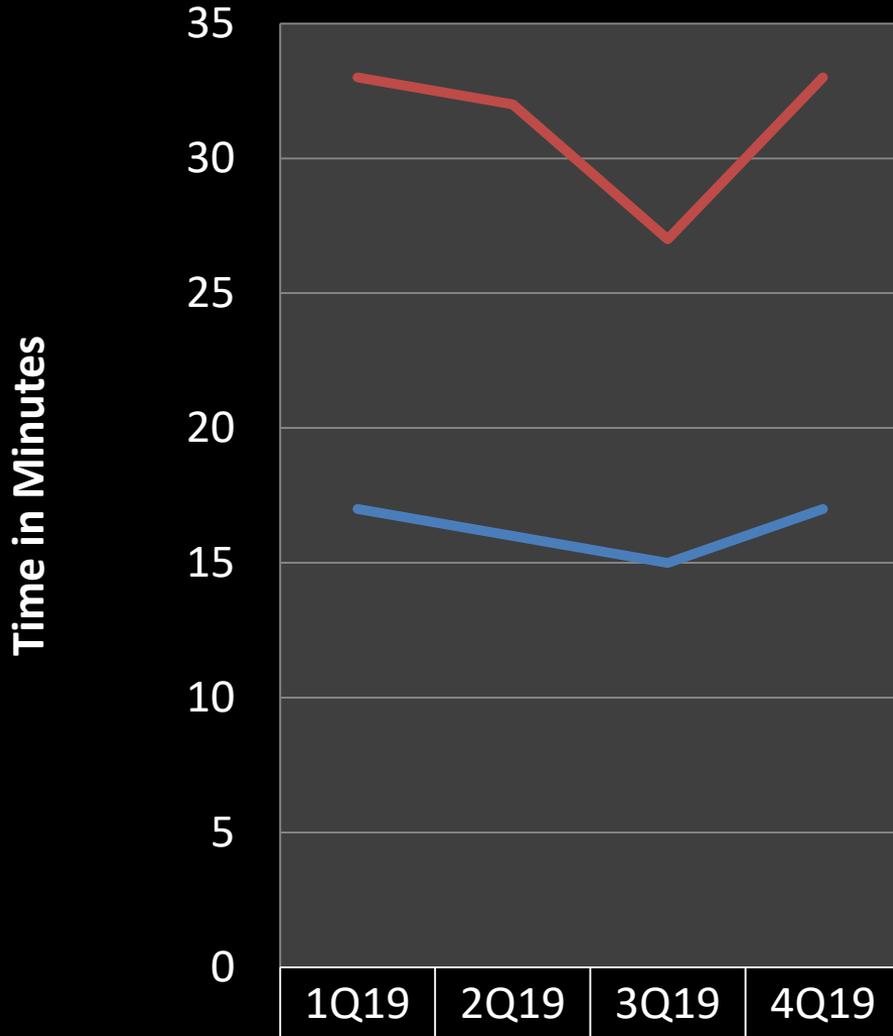
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# Respiratory Distress



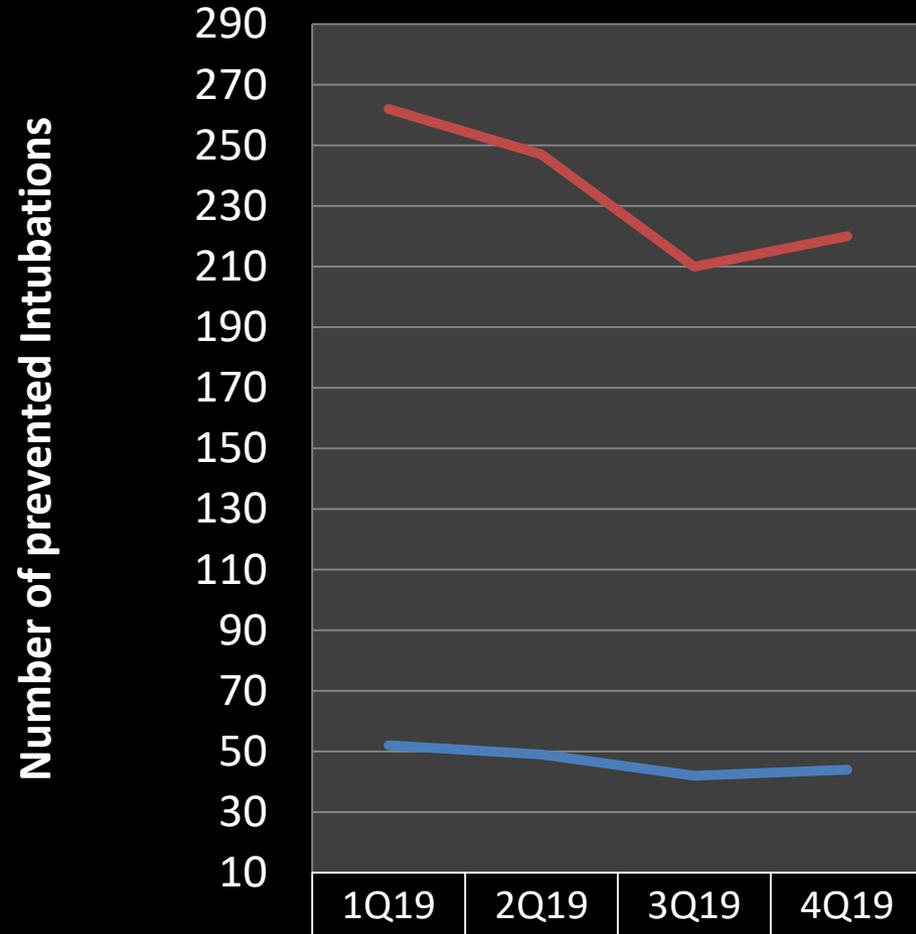
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## Wake EMS System CPAP Application Time



◆ Mean	17	16	15	17
◆ 90th Percentile	33	32	27	33

## Wake EMS System Intubation Prevented with CPAP



◆ Intubation Prevented	52	49	42	44
◆ Treated with CPAP	262	247	210	220

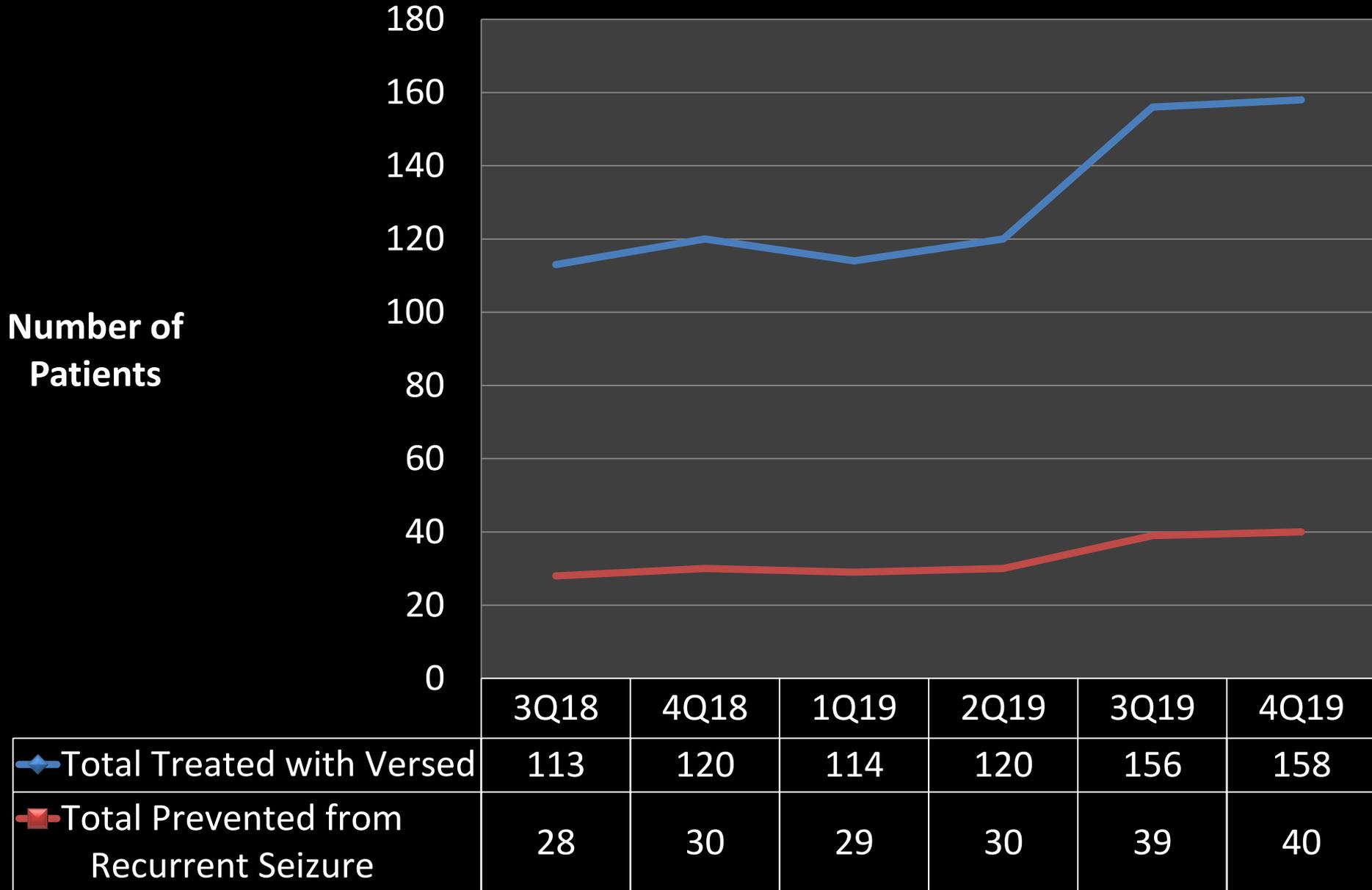
# Miscellaneous Reports



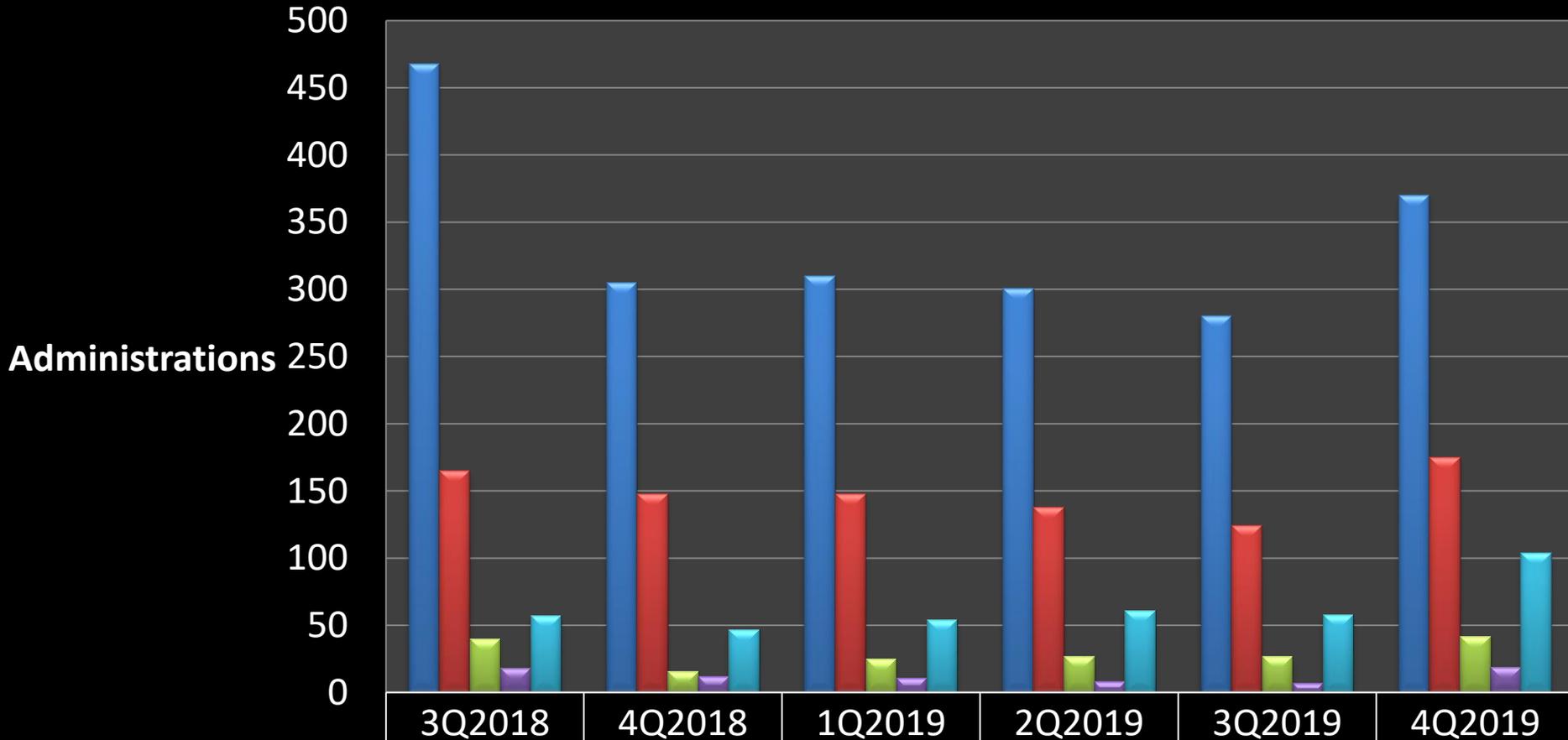
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# Wake EMS System

## Seizure Patients Treated with Versed



# Medications Administered by First Responders – Derived from EMS Documentation



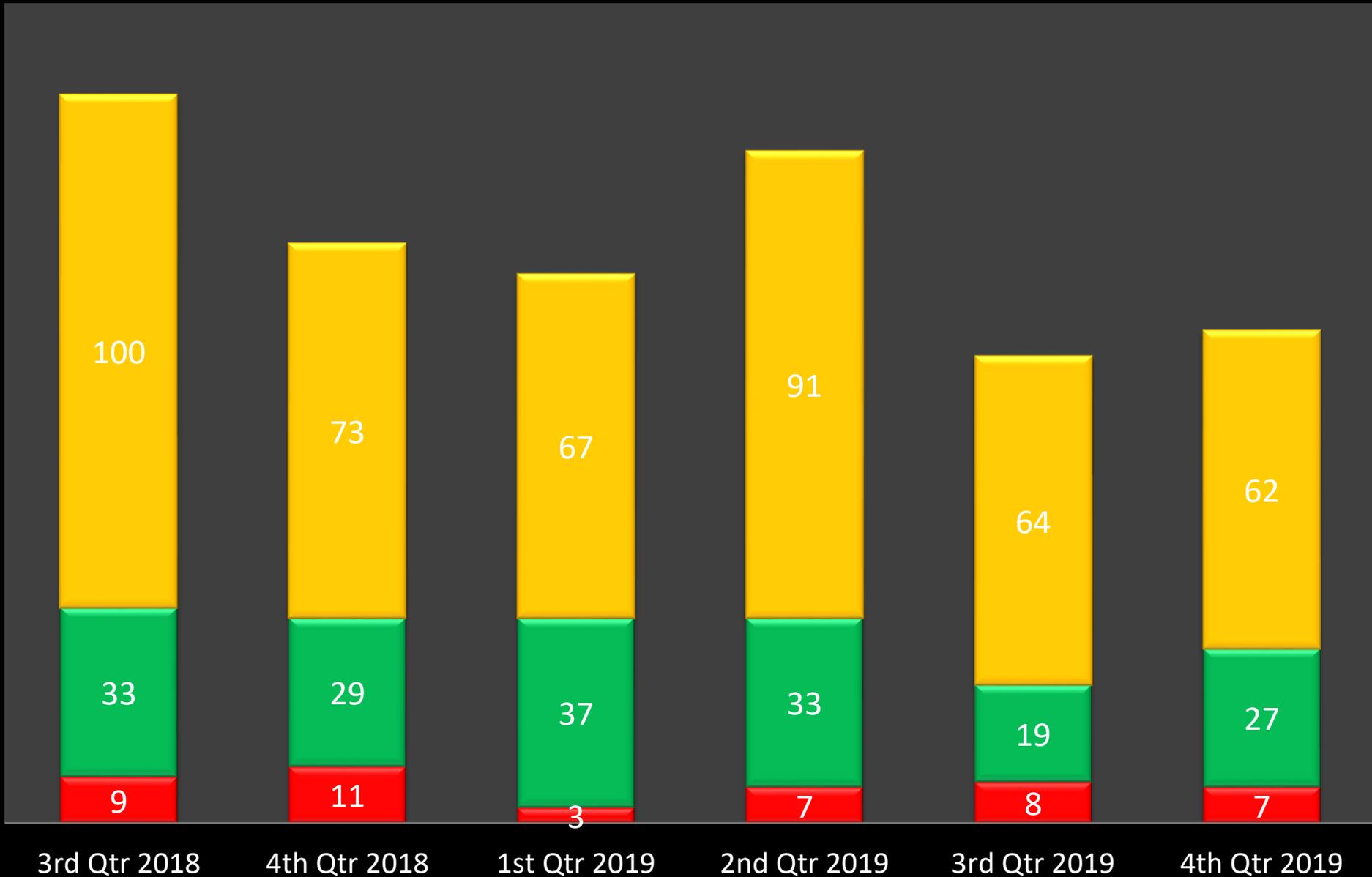
Aspirin	468	305	310	301	280	370
Albuterol	165	148	148	138	124	175
Oral Glucose	40	16	25	27	27	42
Epinephrine	18	12	11	8	7	19
Narcan	57	47	54	61	58	104

# Reason for OMD Contact

■ Automatic Notification

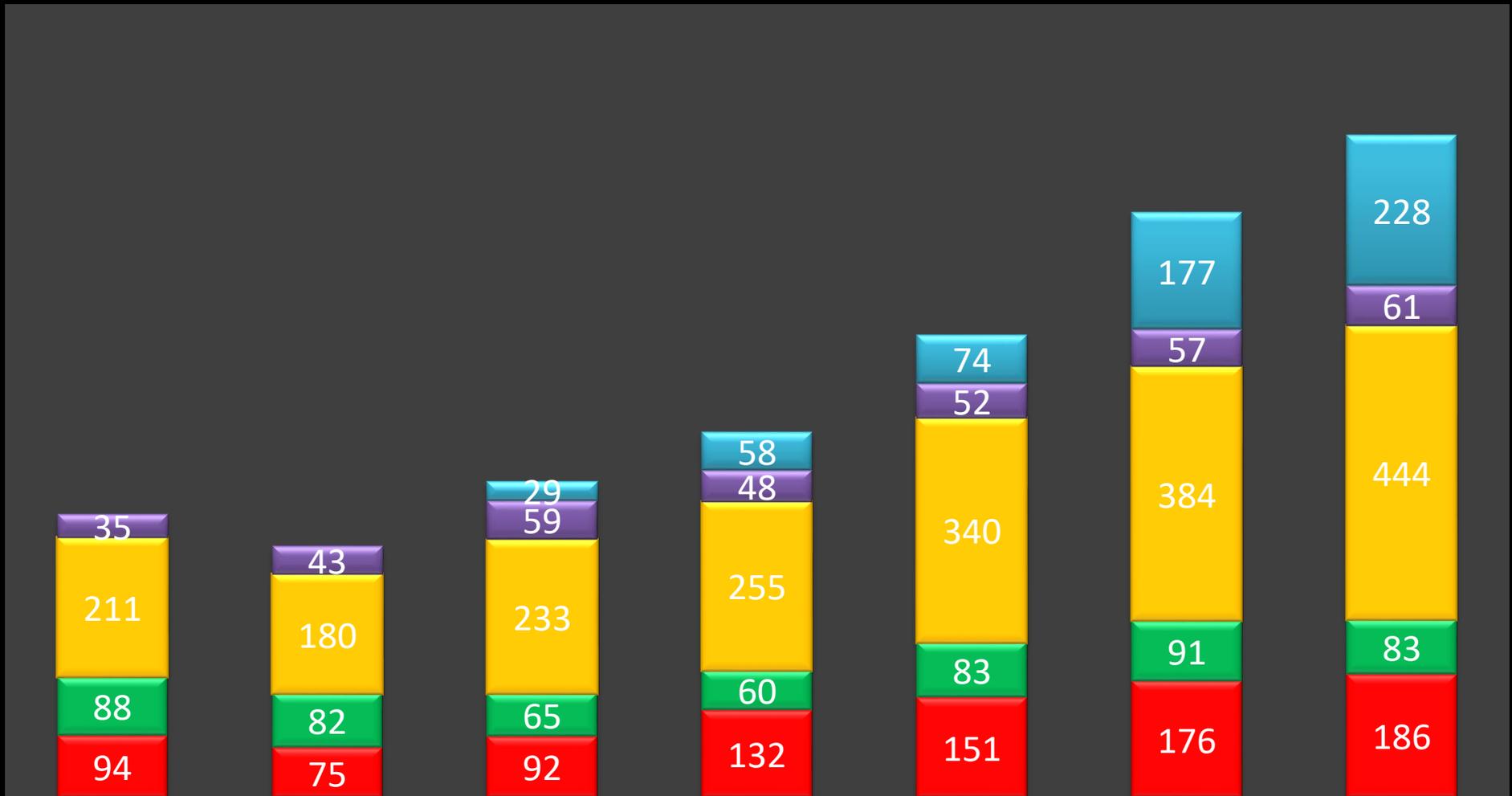
■ Medical Control Order

■ Unusual Event



# APP Alternate Destination

- No Transport
- Transport to ED
- Mobile Crisis
- Transport to Alternative Location
- Transported to Psychiatric Hospital



3Q2018 n=428 4Q2018n=380 1Q2019 n=449 2Q2019 n=495 3Q2019 n=626 4Q2019 n=7081Q2020 n=1002

# 4<sup>th</sup> Quarter 2019 Alternate Destination Reason for ED Transport

