



Pan-Asian Resuscitation Outcomes Study (PAROS)
At
GVK Emergency Management and Research Institute (EMRI)

City: Secunderabad, State: Telangana, Country: India.





Abstract-Overview



Background: Out of hospital cardiac arrest (OHCA) is a global health concern. Survival rates in Asia are low compared to USA or Europe.

Design: This is an international, multi-centre cohort study of out-of-hospital cardiac arrest across the Asia-Pacific.

Objectives: We aim to identify the relative importance/effect of major systemic, modifiable factors for OHCA survival in the Asia Pacific. The large sample size and international nature of the study provides a unique opportunity for analysis of preventable risk factors for OHCA and systemic predictors of survival. Identifying the relative incremental cost effectiveness of modifiable factors for OHCA survival will allow prioritization and selection of 5 pre-identified competing (although not exclusive) interventional strategies (namely: increasing bystander cardio-pulmonary resuscitation, public access defibrillation, decreasing emergency medical services [EMS] response times, developing advanced EMS life support, specialized Cardiac Arrest Centre's).

Methods: Data will be collected from emergency dispatch records, ambulance patient case notes, emergency department and in-hospital records. All completed data will then be collected and sent to the Study Co-ordination Centre (Singapore) for data management using electronic data capture (EDC). Our required sample size for the study is 13,447 OHCA patients over 2 years. The relative effectiveness of the interventions associated with each of the 5 strategies will be determined. A cost analysis for the various strategies will be conducted to determine the incremental cost-effectiveness for each strategy.

Eligibility: All OHCA patients presenting to EMS or Emergency Departments during the study period as confirmed by the absence of pulse, unresponsiveness and apnea will be eligible.



➡ INCLUSION CRITERIA

All OHCA conveyed by EMS (or presented at Emergency Departments) during the study period as confirmed by the absence of pulse, unresponsiveness and apnea.

➡ EXCLUSION CRITERIA

Patients who are immediately pronounced dead, and for whom resuscitation is not attempted, including decapitation, rigor mortis and dependent lividity.

➡ OUTCOMES

Primary outcome: Survival to hospital discharge (or survival to 30 days post) cardiac arrest.

Secondary outcomes: Return of spontaneous circulation, Survival to hospital admission. (Neurological status on hospital discharge or on 30th day post cardiac arrest, if not discharged and Quality of life assessment for survivors).

➡ VARIABLES MEASURED

Definitions will follow Utstein recommendations⁶¹ as well as conform to a unified taxonomy established by the PAROS network. Data will be collected from EMS dispatch, ambulance records (and hospital records).

➡ DATA COLLECTION

EMS data will be collected from both from EMS dispatch records, as well as ambulance patient case notes. EMS timings will be automatically recorded by the central dispatch system (computerized system timings where available).



GVK EMRI-Login Updates



Updates made in ePAROS Online Application of GVK EMRI Login:

1. Login IDs created- 1. GVK EMRI and 2. aruna_g@emri.in.
2. City-Hyderabad (HYD) changed to State-Telangana (TLG).
3. Destination Hospital Type- Government ,Private and Trust Hospitals.
4. Hospital Outcomes: Patient status update from 48 Hrs Follow Up Process.
5. Site Number-001-Government. and 02 –Private Hospital Admissions.
6. Total records entered = 499 (as on dated 20th July 2016)
7. Demo/Trail records = 6
8. Inclusion records = 493
9. Months and Year of Inclusion data entry:
December, 2015 and January, February, March, April, 2016
10. 5 Months -December 2015 to April 2016 sample (493) presented in PPT.

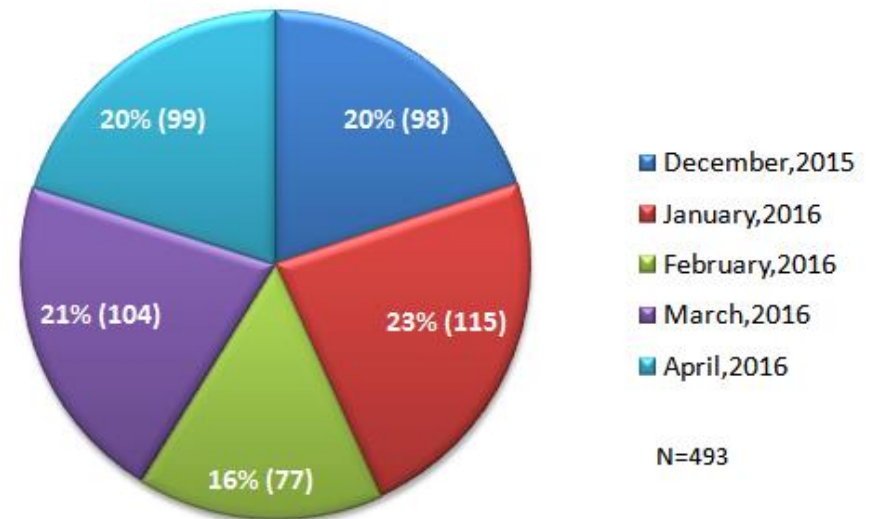
GVK EMRI-EMS- Inclusion Sample

Over view and Month wise distribution



Description of ePAROS Variables	GVK EMRI-EMS Data	Count
Intial Information		
Case Number	Incident ID	493
Country	India (IN)	493
City/State	Hyderabad (HYD)	269
	Telangana (TLG)	224
Site No.	01-Government Hospital	20
	02-Privatet Hospital	6
	Not Applicable (Left blank)	467
Mode of Transportation		
Patient brought by	EMS	493
Incident Information		
Location of Incident / (Zip/Postal code)	Unknown	493

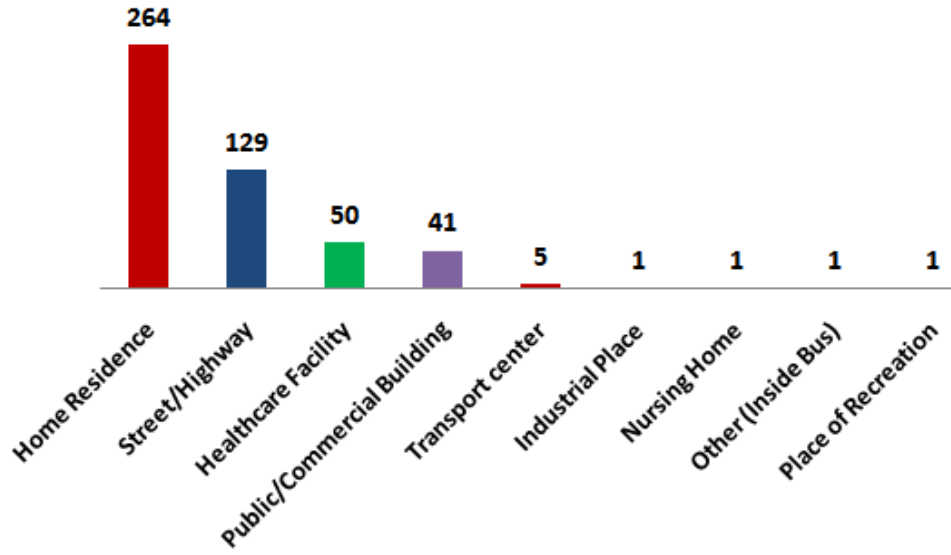
Month wise distribution



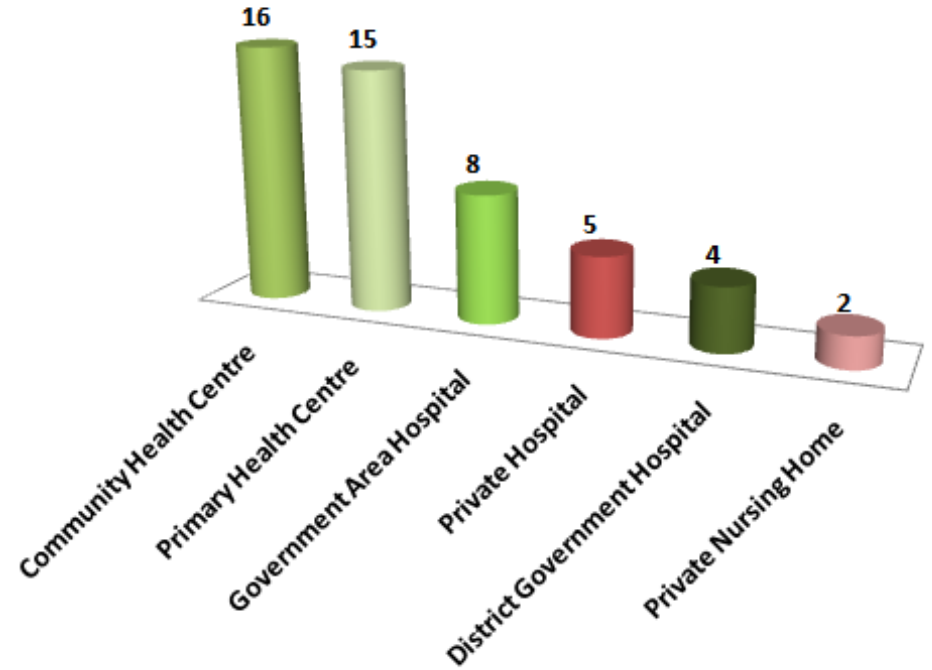
Incident Information-Location Type



Location Type (N=493)



Location Type-Health Care Facility (n=50)

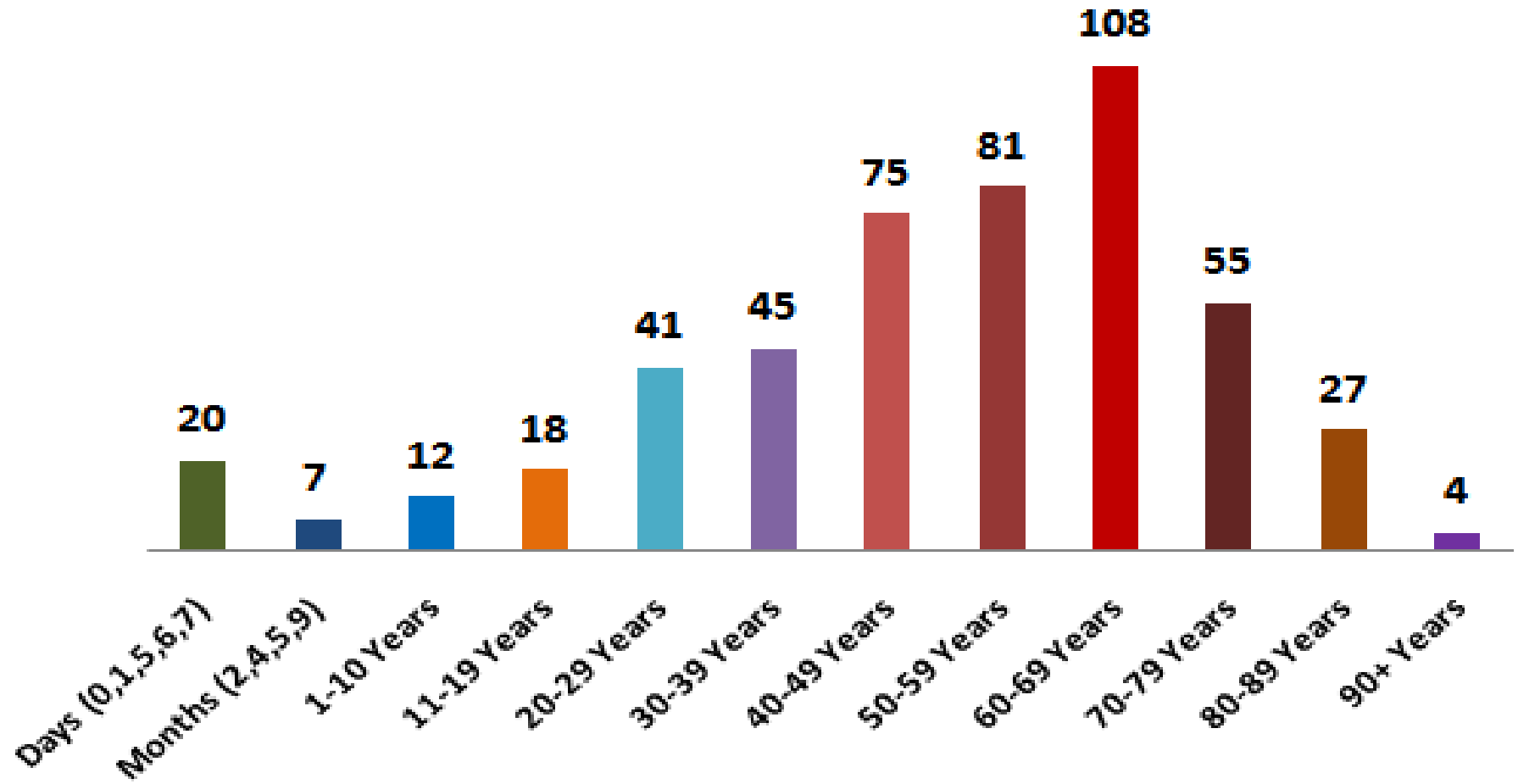


Patient Information-Age Group and Gender



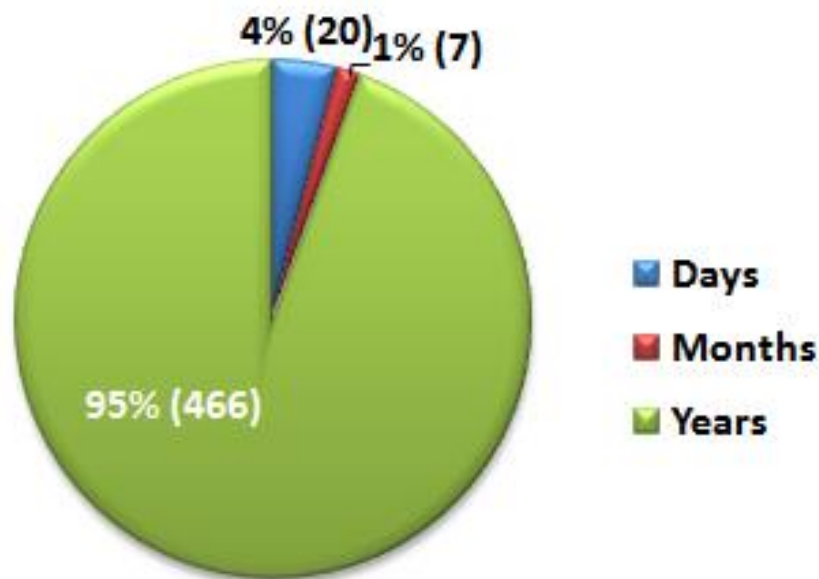
Description of ePAROS Variables	GVK EMRI-EMS Data	Count
Patient Information		
Date of Birth	Unknown	493
Race	Indian	493

Age Group distribution (N=493)

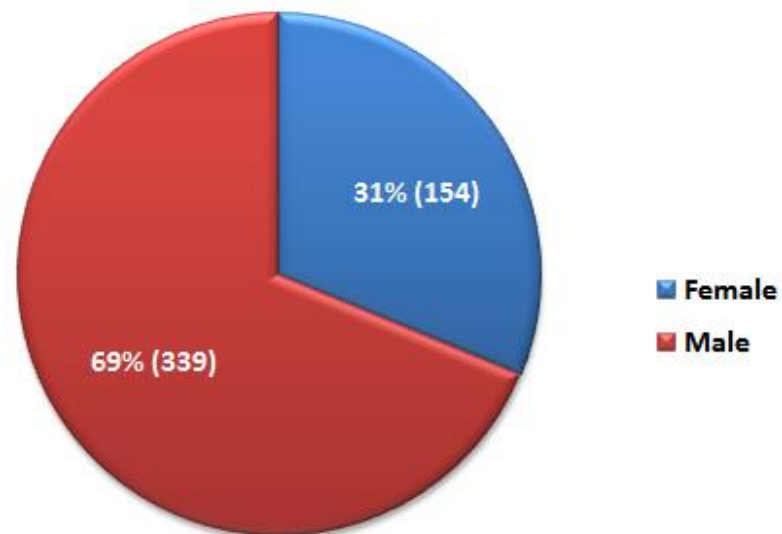


Patient Information-Age Group and Gender

Age Modifier (N=493)

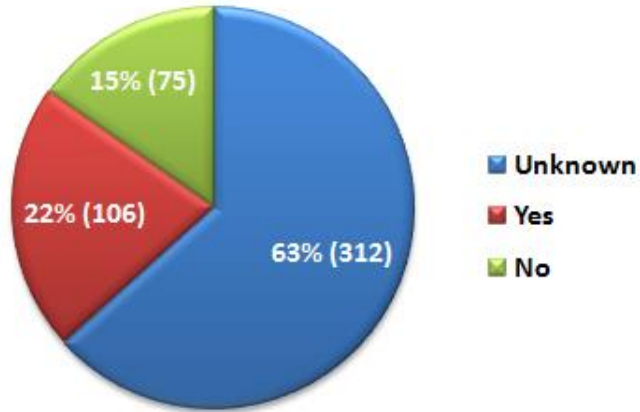


Gender (N=493)

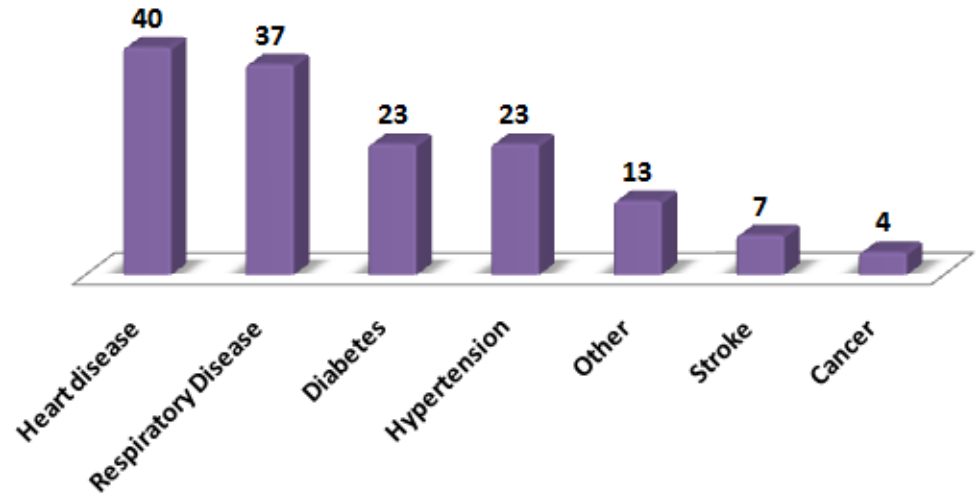


Patient Information-Medical History

Medical History (N=493)



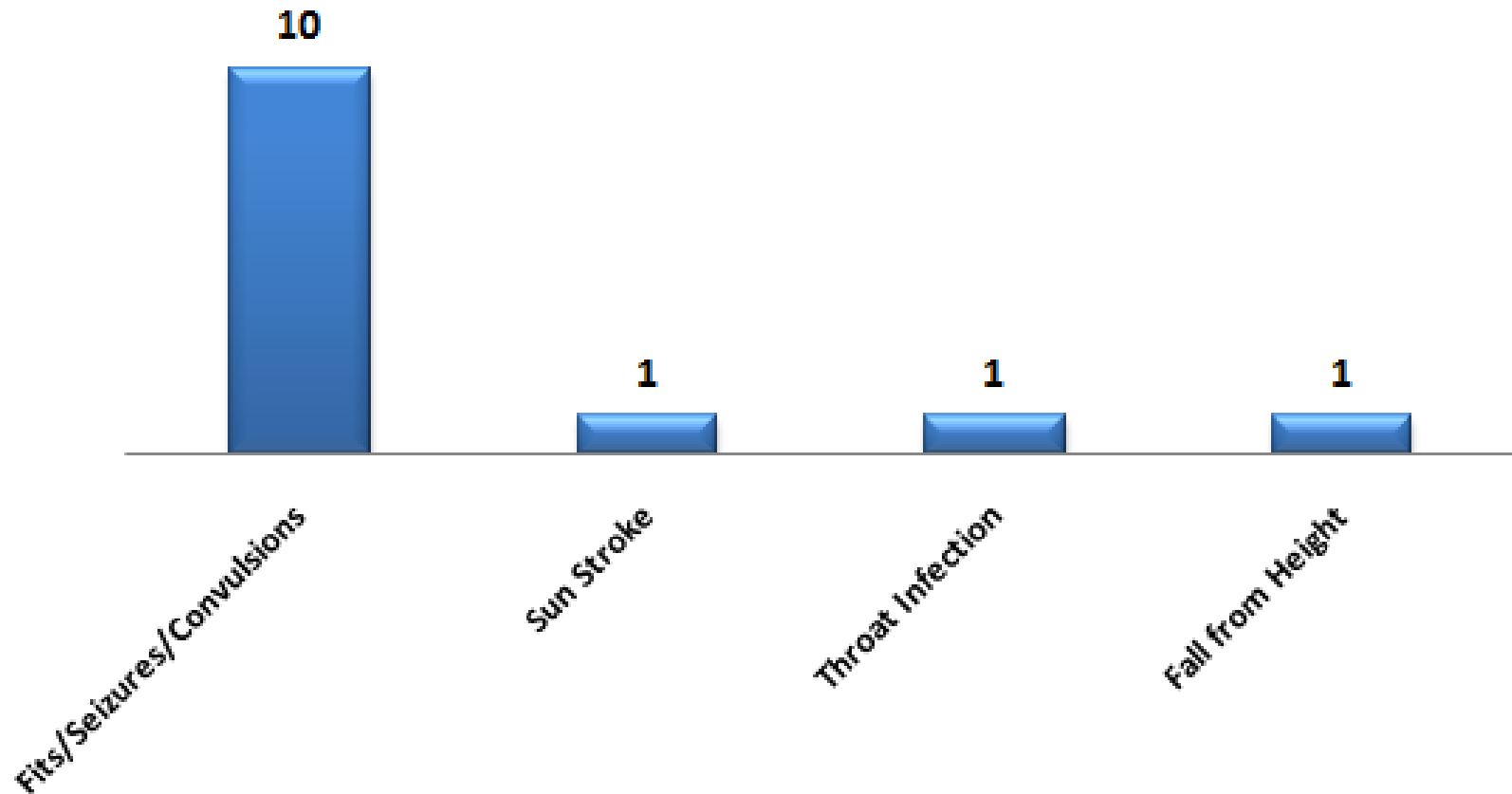
Medical History-Yes (n=106)



Note: Multiple options applied for medical history (sum count n=147).

Other Medical History

Medical History-Other (n=13)



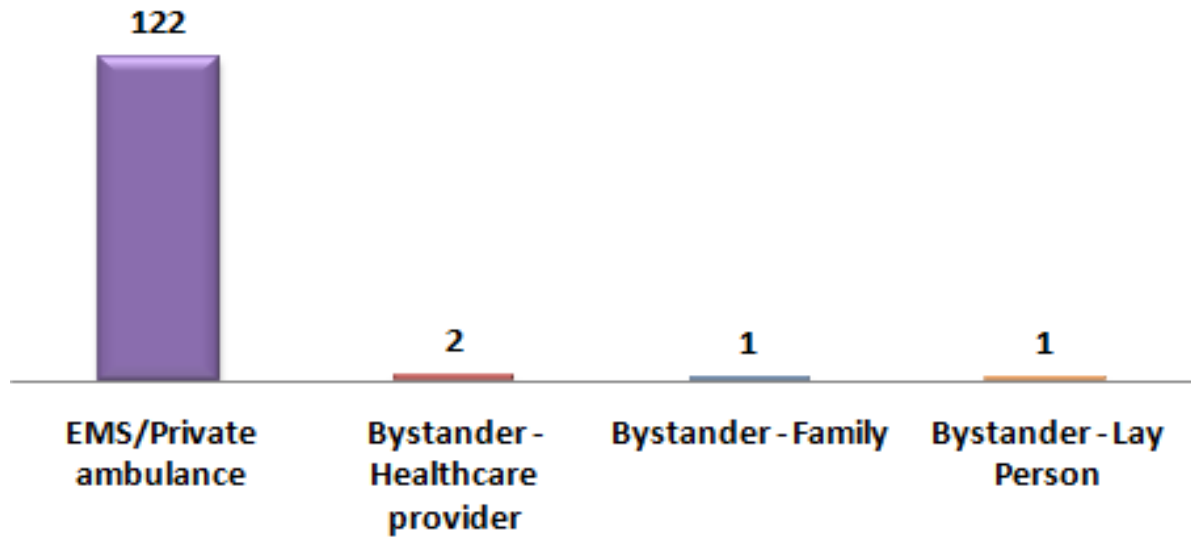
Prehospital Event and Resuscitation Information Arrest Witness & Other Details



Arrest Witnessed (N=493)



Arrest witnessed-Yes (n=126)



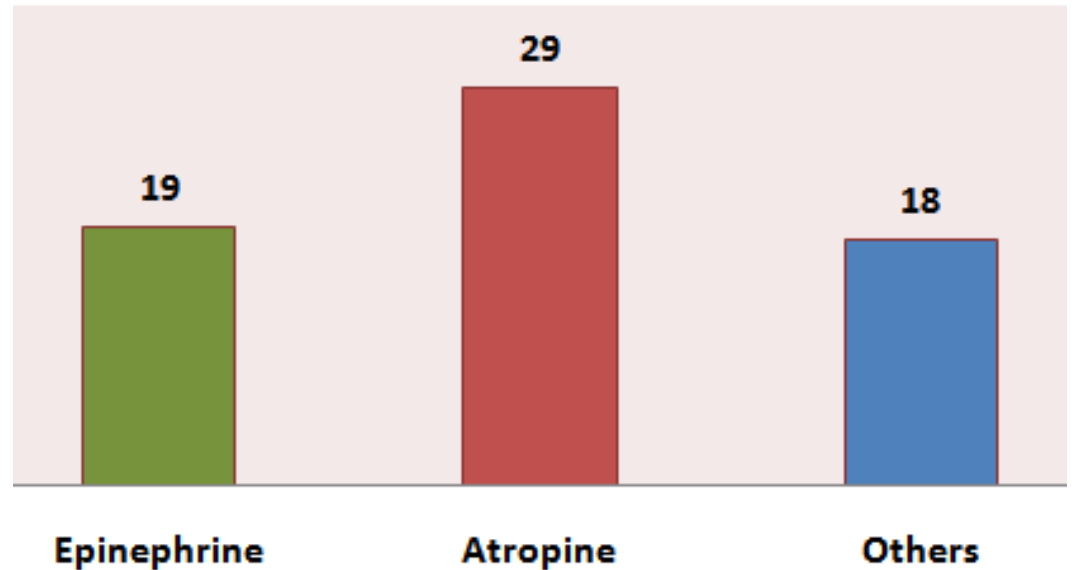
Pre-hospital -Drug administration and CPR and ROSC at scene/en-route

Pre-hospital drug administration (N=493)



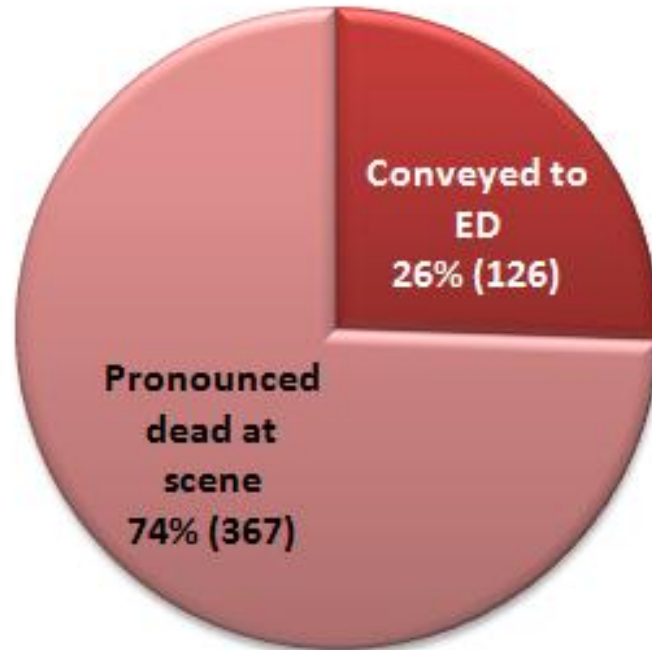
Note: Multiple options applied for prehospital drug administration (sum count n=66).

Prehospital drug administration-Yes (n=41)

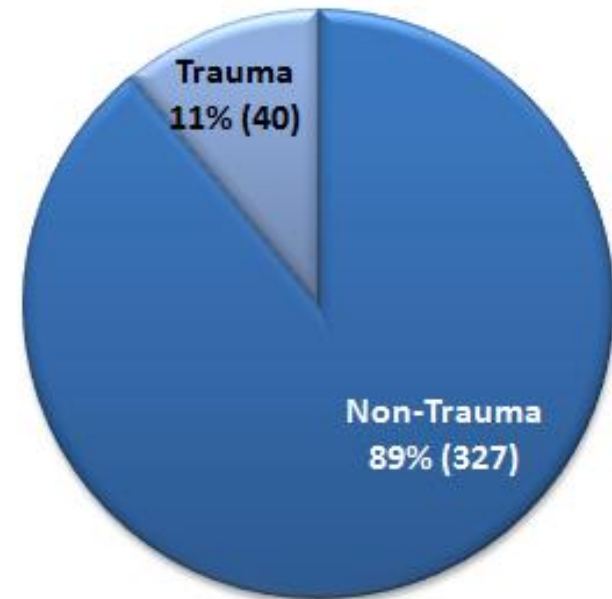


Disposition-Final status and Cause of Arrest at scene (or en-route)

Final status at scene/en-route (N=493)

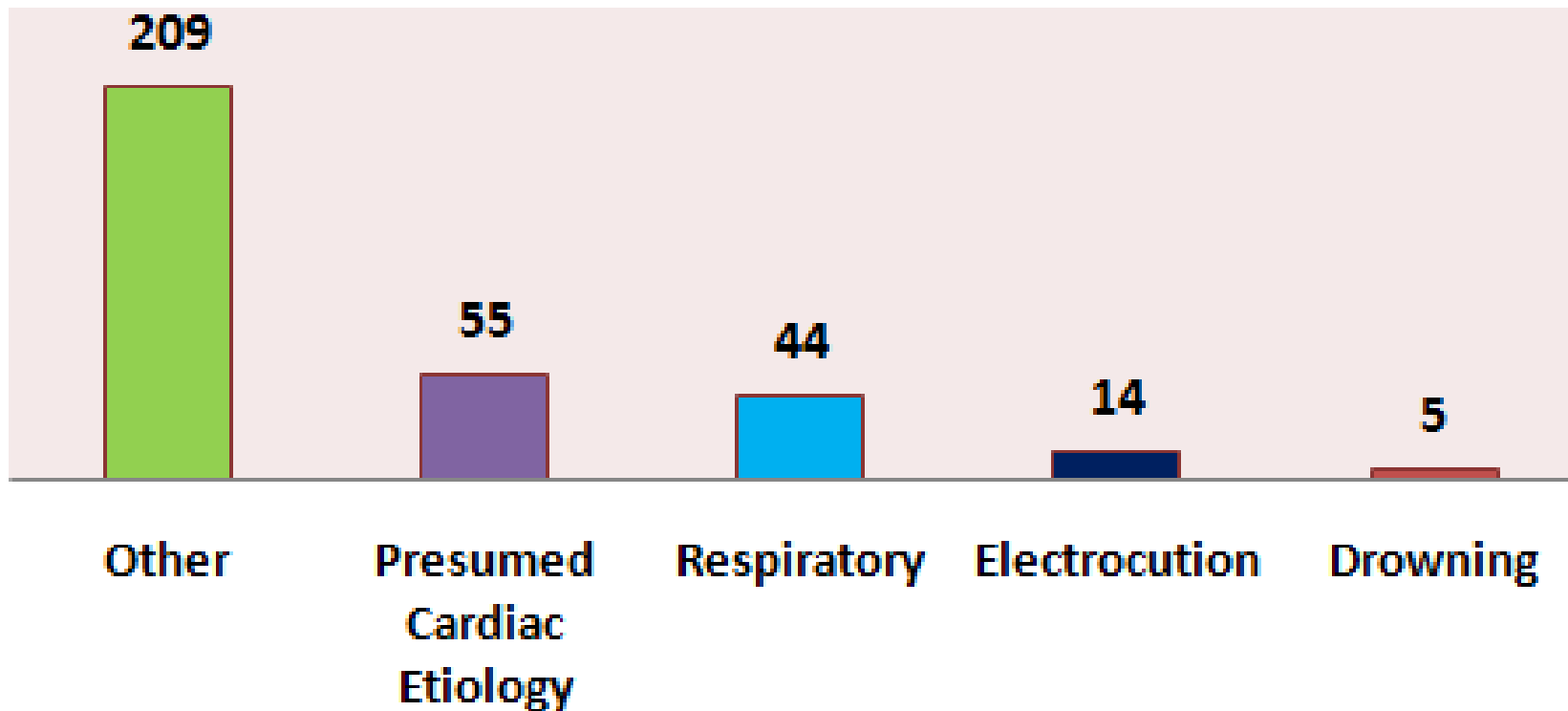


Cause of arrest at scene/en-route (n=367)



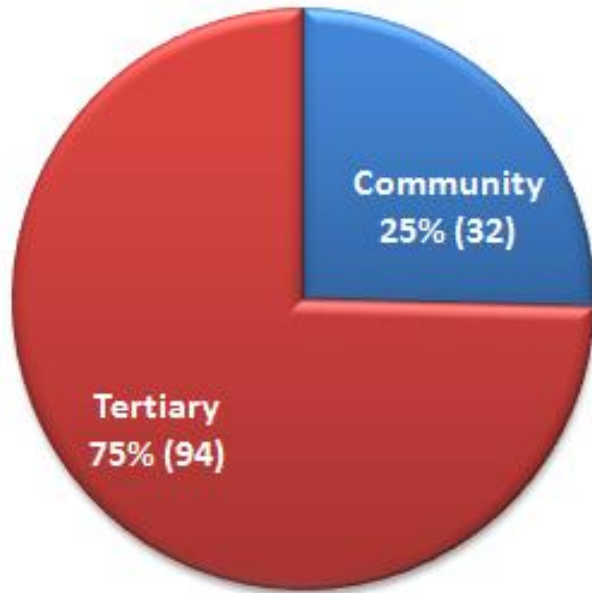
Causes contd...

Cause of arrest at scene/en-route Non-Trauma(n=327)

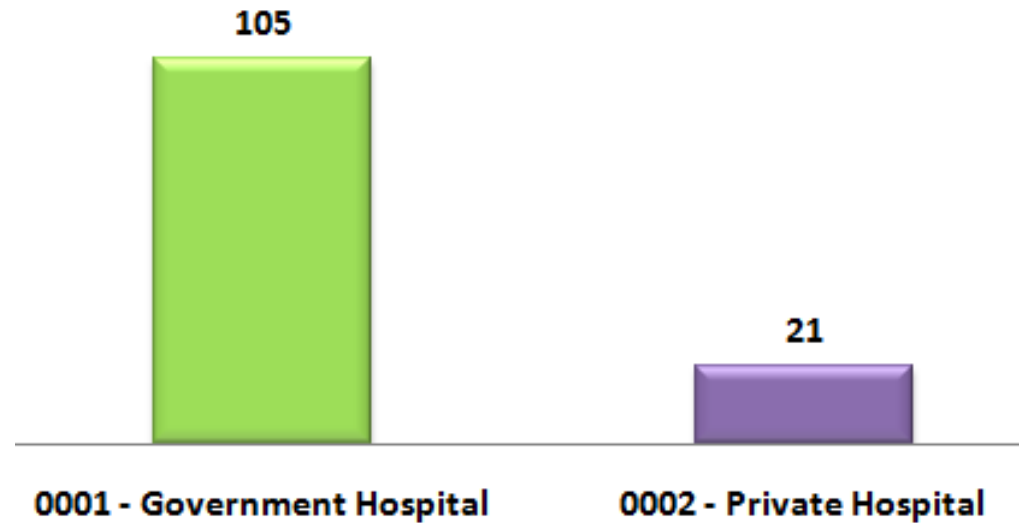


Disposition-Level and Destination Hospital Type

Level of destination hospital (n=126)



Destination Hospital-Type (n=126)

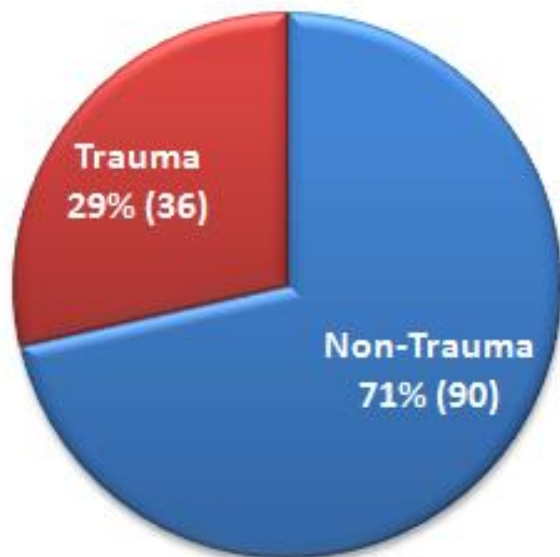


Disposition-At ED arrival and Cause of arrest at ED

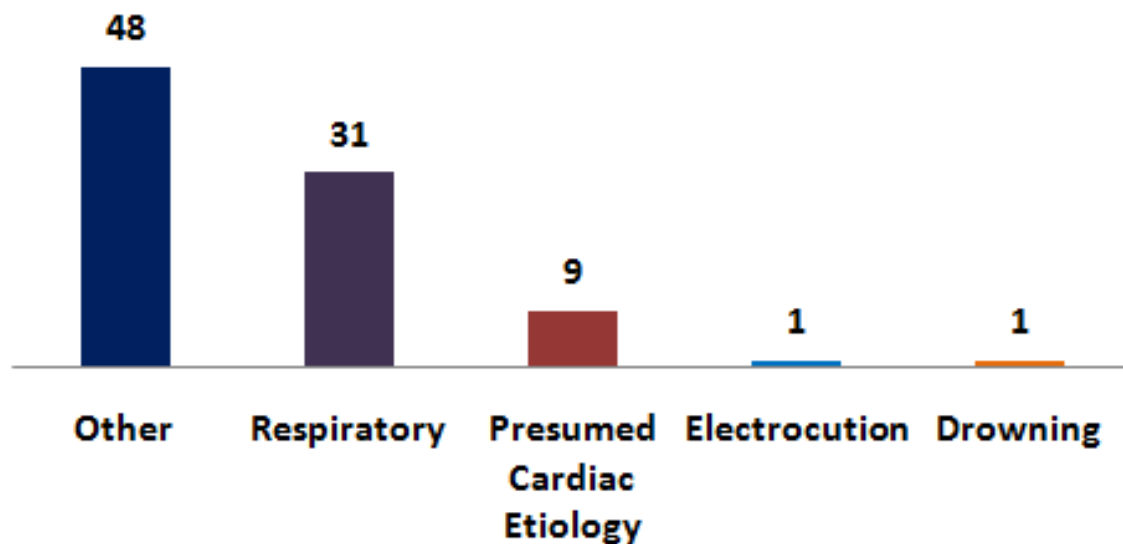


Description of ePAROS Variable	Count
Patient's status at ED arrival (n=126)	
Ongoing resuscitation	119
ROSC	7

Cause of arrest at ED (n=126)



Cause of arrest at ED-Non-Trauma-Yes (n=90)



Disposition-Final status at ED

Description of the Variable	Count
Reason for discontinuing CPR at ED (n=126)	
Death	119
ROSC at Scene	7
Return of spontaneous circulation at ED (n=126)	
No	119
Not Applicable	7
Cardiac rhythm on arrival at ED(n=126)	
Asystole	119
Sinus or other perfusing rhythm	7
Patient status on arrival at ED (n=7)	
Pulse	7
Breathing	7
Outcome of patient (n=126)	
Admitted	7
Died in ED	119
Patient status (Admitted-n=7)	
Discharged Alive	3
Died in the hospital (7days)	3
Status Unknown (No answer)	1



Thank You