

# Evaluation of Early On-Scene Management of Pediatric Out-of-Hospital Cardiac Arrest



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## Background

- Banjeree et al. (2018) demonstrated a significant, sustained increase in survival to hospital discharge from 0% to 23% with a shift to on scene resuscitation in pediatric out of hospital cardiac arrest (POCHA)

## Objective

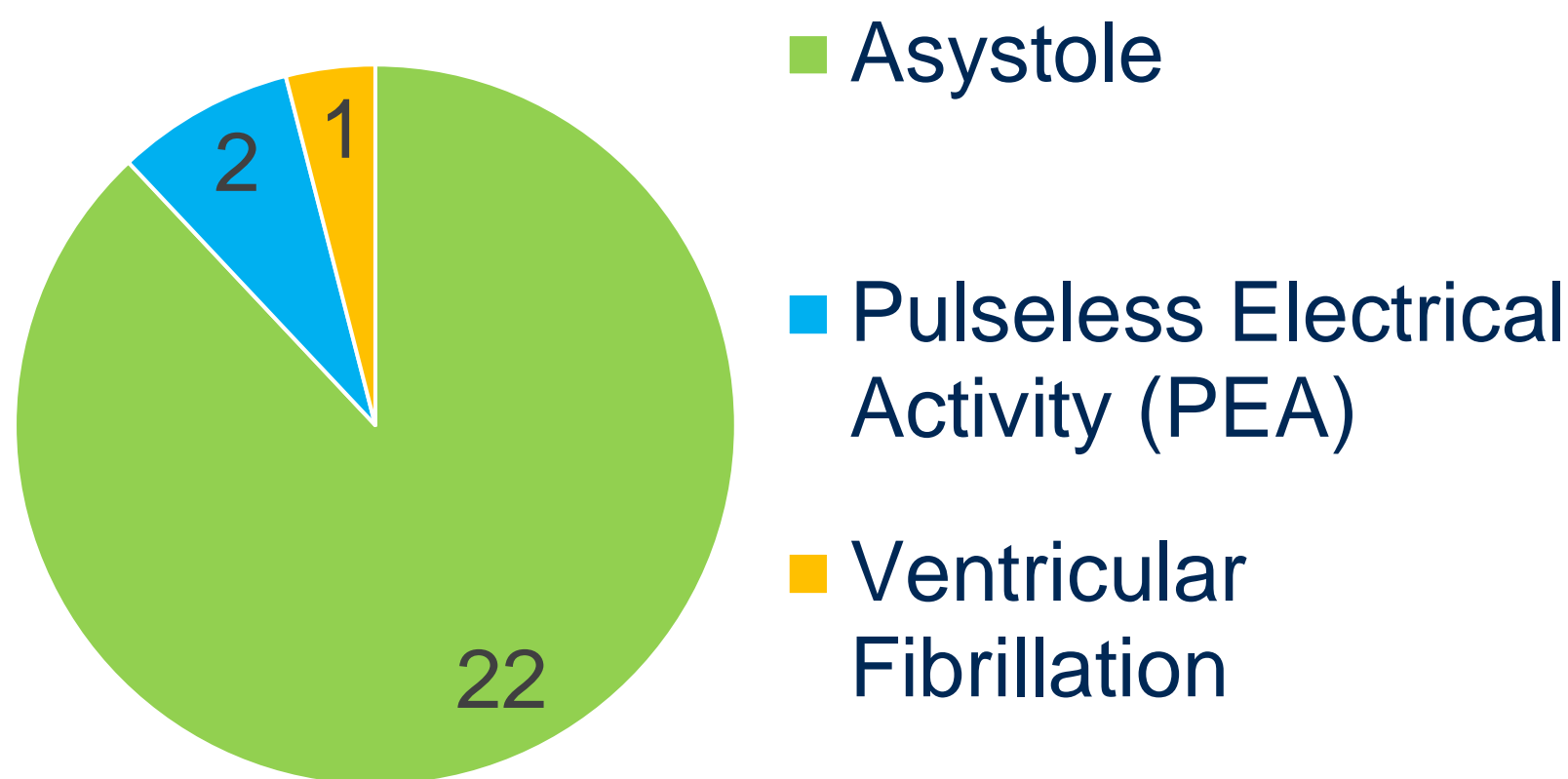
- We evaluated and compared the frequency of ROSC and neurologically intact survival in POCOA patients in which resuscitation efforts were performed on scene to that of Polk County.

## Methodology

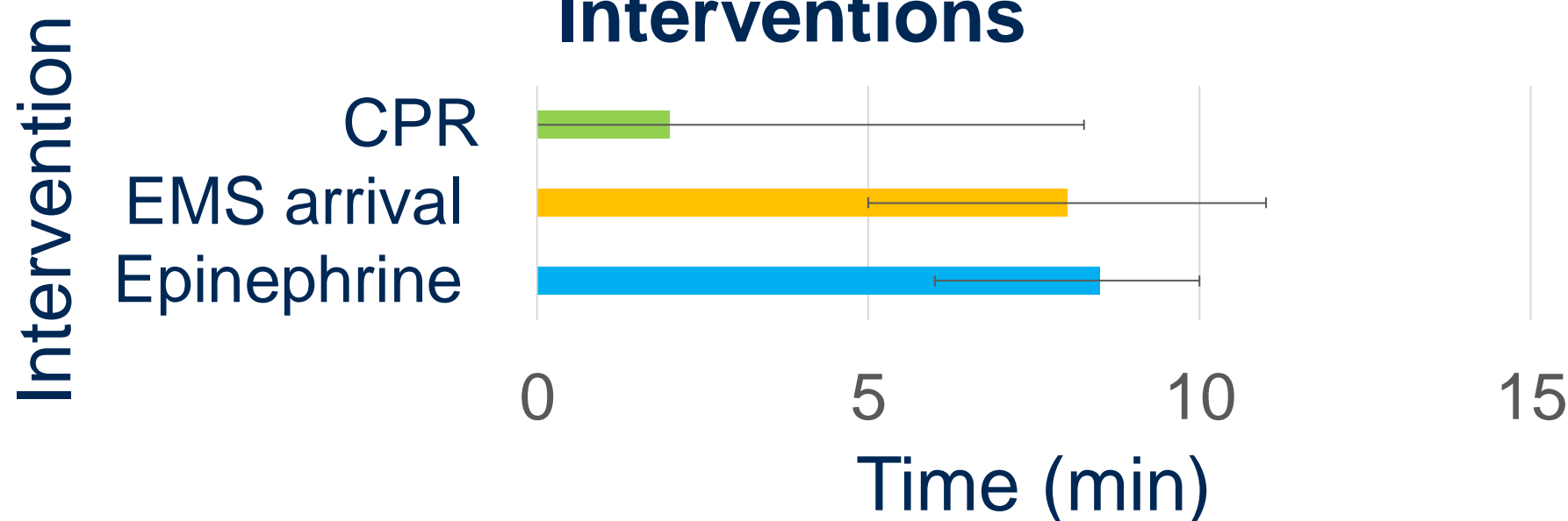
- We conducted a retrospective cohort study of our three local Advanced Life Support transporting agencies that served Kent county in 2019 providing POCOA care after implementation of early resuscitation.
- We evaluated basic demographic information including age, sex, gender.
- We evaluated EMS parameters including time on scene, time to CPR, bystander CPR, and time to first dose of epinephrine with associated interquartile ranges (IQR).
- Our main outcome metrics were return of spontaneous circulation (ROSC), survival to admission, and survival to discharge.

## Results

Cardiopulmonary Arrest Cases in Kent County 2019

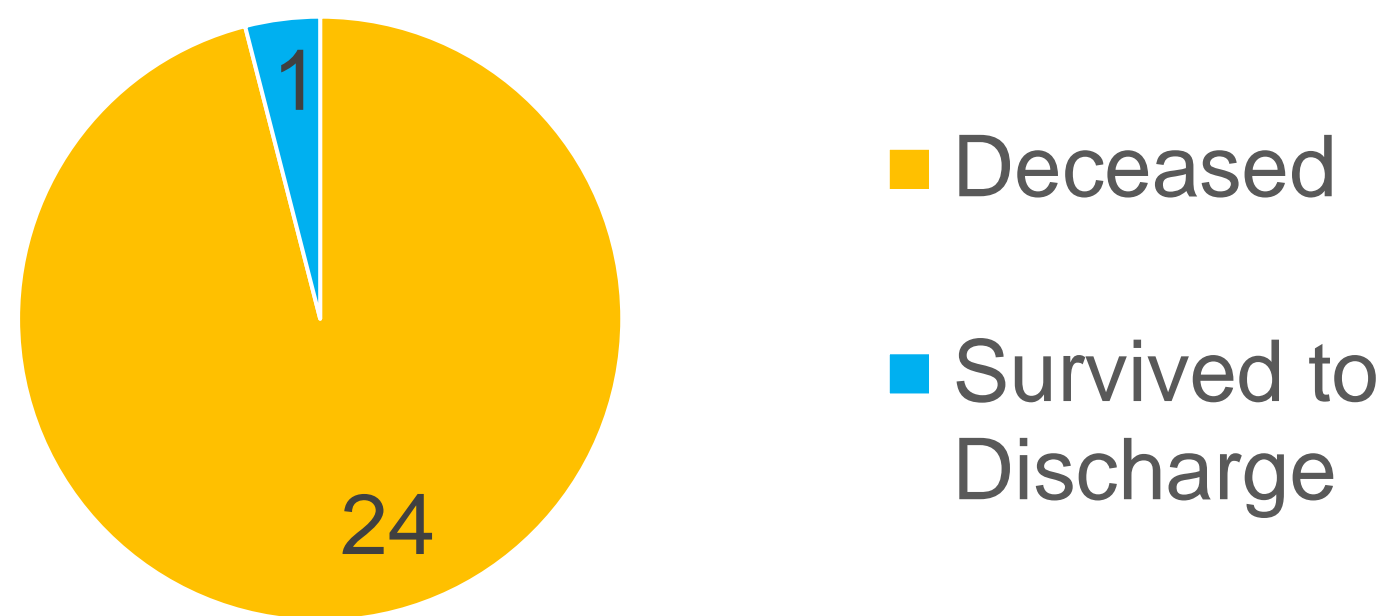


Median Time to Resuscitative Interventions



## Results

Disposition of POCOA in Kent County 2019



## Conclusion

- Implementation of immediate on-scene resuscitative efforts did not result in any measurable improvements in ROSC or neurologically intact survival in contrast to prior work showing a significant increase in neurologically intact survival.
- Future work should be directed towards a multi-county approach to decipher both regional trends and differences in survival with immediate on-scene resuscitative efforts.