

Advancing to the Basics:

Can BLS Providers Use SGAs, Give Epi – and do so Successfully?

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Why would you put ALS interventions into the hands of BLS providers?

BLS Techniques Ineffective

Time Sensitive

Rural Care

BMV is Ineffective!

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Trial of Continuous or Interrupted Chest Compressions during CPR

Graham Nichol, M.D., M.P.H., Brian Leroux, Ph.D., Henry Wang, M.D., Clifton W. Callaway, M.D., Ph.D., George Sopko, M.D., Myron Weisfeldt, M.D., Ian Stiell, M.D., Laurie J. Morrison, M.D., Tom P. Aufderheide, M.D., Sheldon Cheskes, M.D., Jim Christenson, M.D., Peter Kudenchuk, M.D., Christian Vaillancourt, M.D., Thomas D. Rea, M.D., Ahamed H. Idris, M.D., Riccardo Colella, D.O., M.P.H., Marshal Isaacs, M.D., Ron Straight, Shannon Stephens, Joe Richardson, Joe Condle, Robert H. Schmicker, M.S., Debra Egan, M.P.H., B.S.N., Susanne May, Ph.D., and Joseph P. Ornato, M.D., for the ROC Investigators*

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Susan M. Cook, M.D., and Joseph P. Ornato, M.D., for the ROC Investigators*

~13 min of Resuscitation
occurs prior to advanced
airway placement

Overall outcomes similar in
intention-to-treat analysis

When analyzed on per protocol
basis, 30:2 demonstrated
improved survival

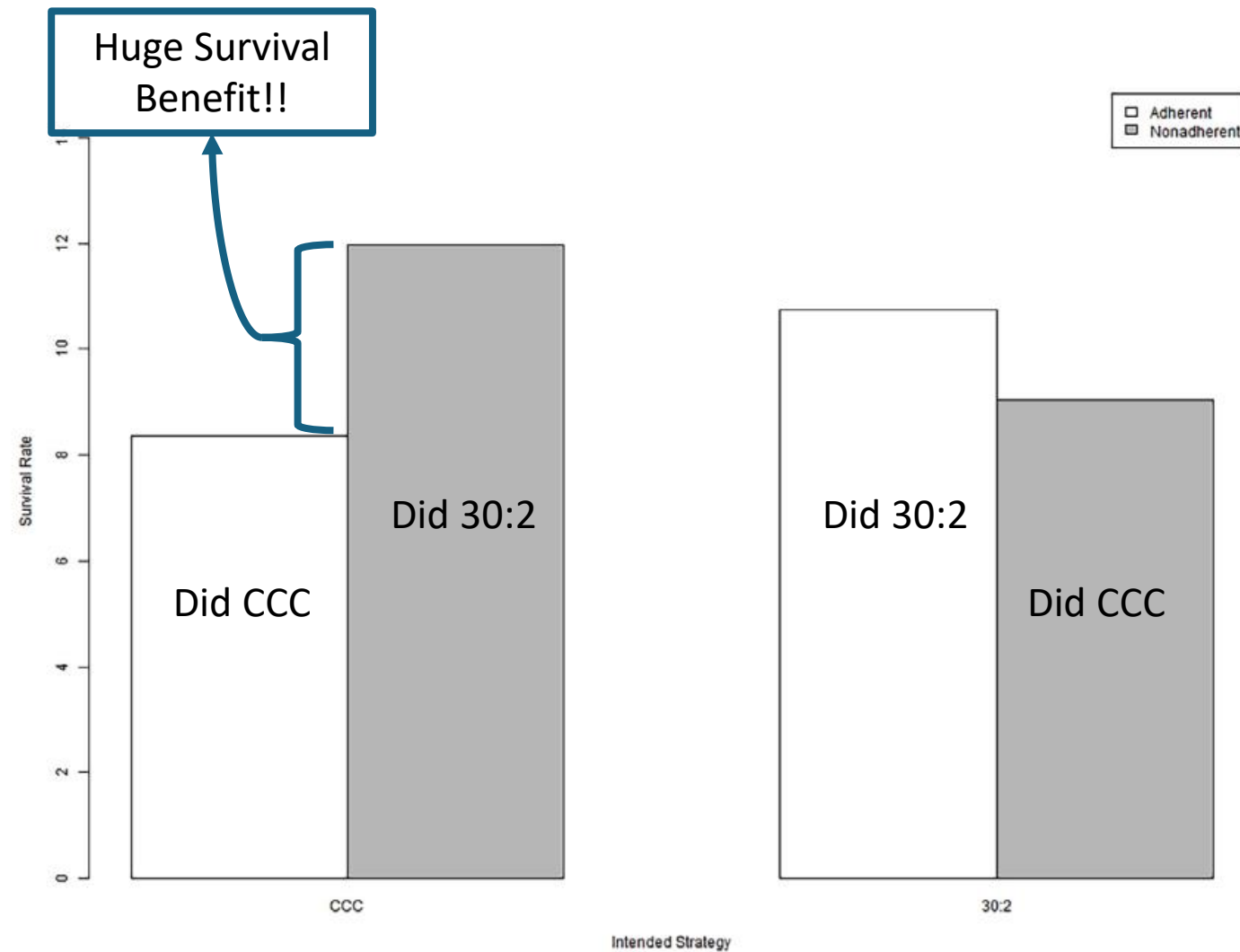


Fig. 2 – Survival estimates by strategy and adherence.

<https://doi.org/10.1016/j.resuscitation.2021.05.027>



Available online at www.sciencedirect.com

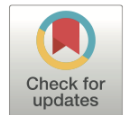
Resuscitation

journal homepage: www.elsevier.com/locate/resuscitation



Clinical paper

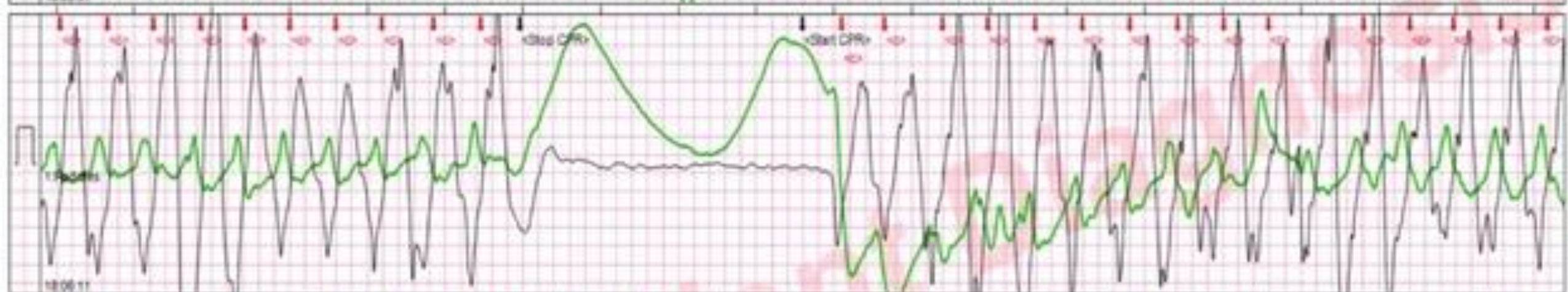
Association of ventilation with outcomes from out-of-hospital cardiac arrest



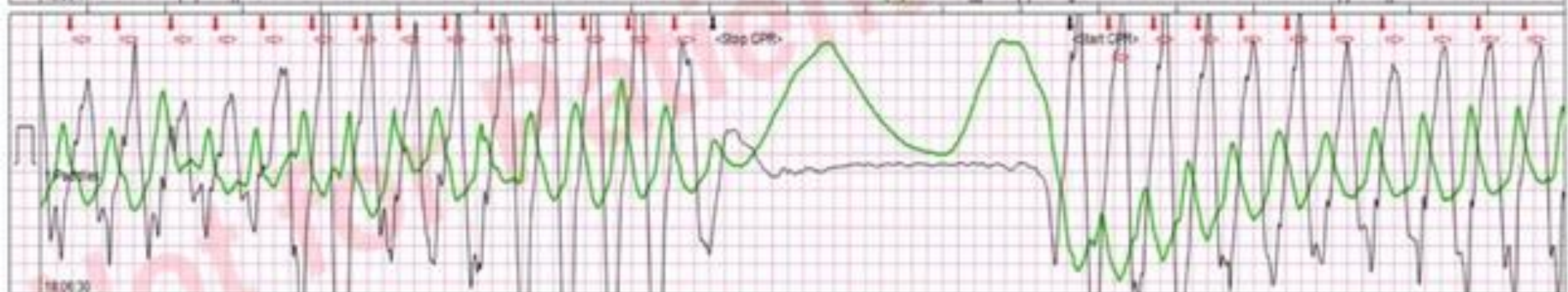
Mary P. Chang^a, Yuanzheng Lu^b, Brian Leroux^c, Elisabete Aramendi Ecenarro^d, Pamela Owens^a, Henry E. Wang^e, Ahamed H. Idris^{a,*}

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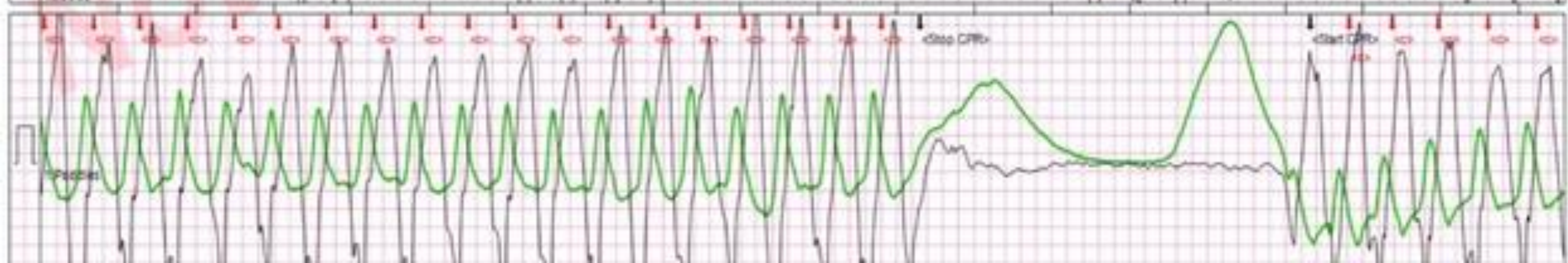
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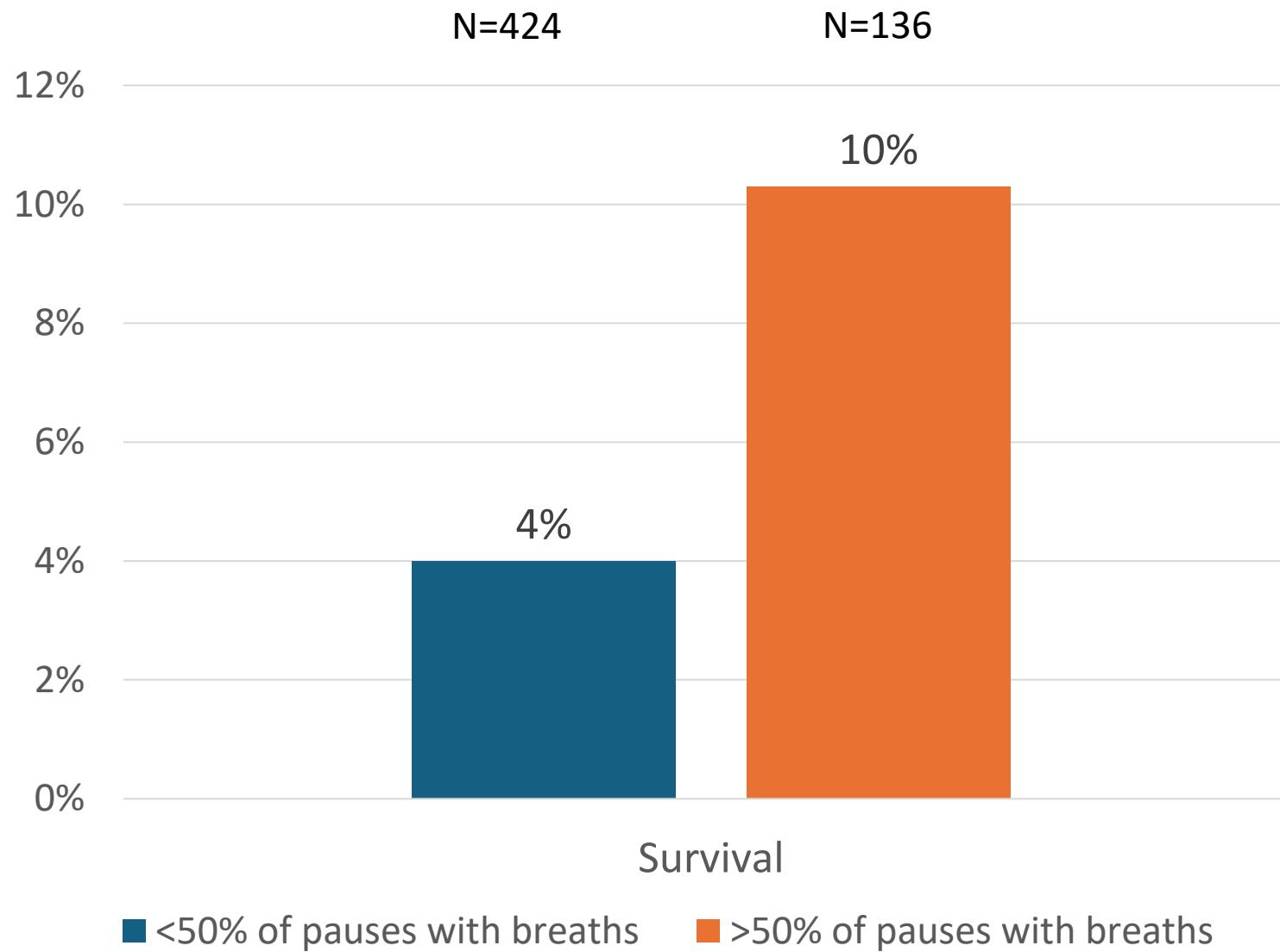


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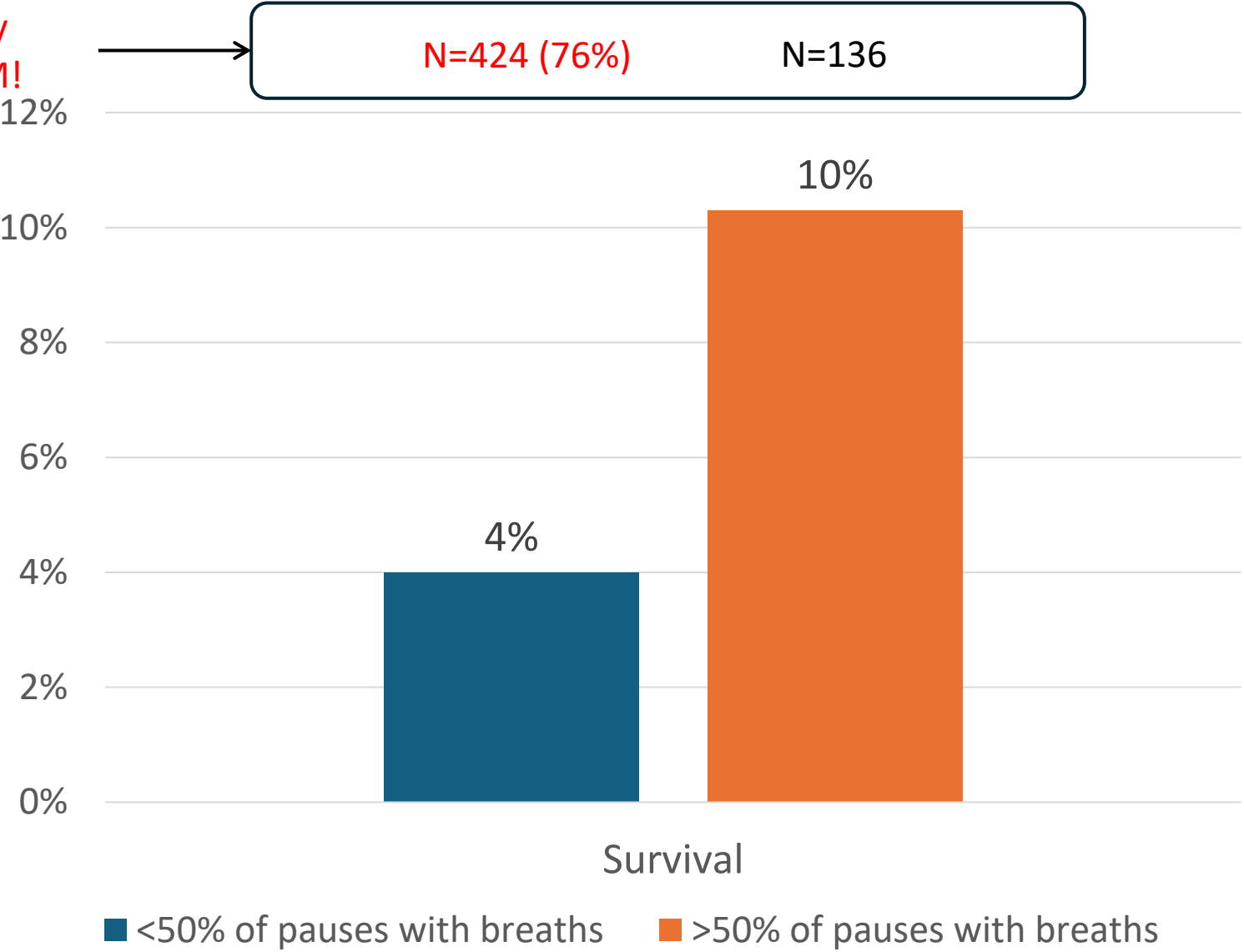
18:06:30





DOI: [10.1016/j.resuscitation.2019.05.006](https://doi.org/10.1016/j.resuscitation.2019.05.006)

Hard to Effectively
Ventilate with BVM!



Bag mask ventilation is ineffective

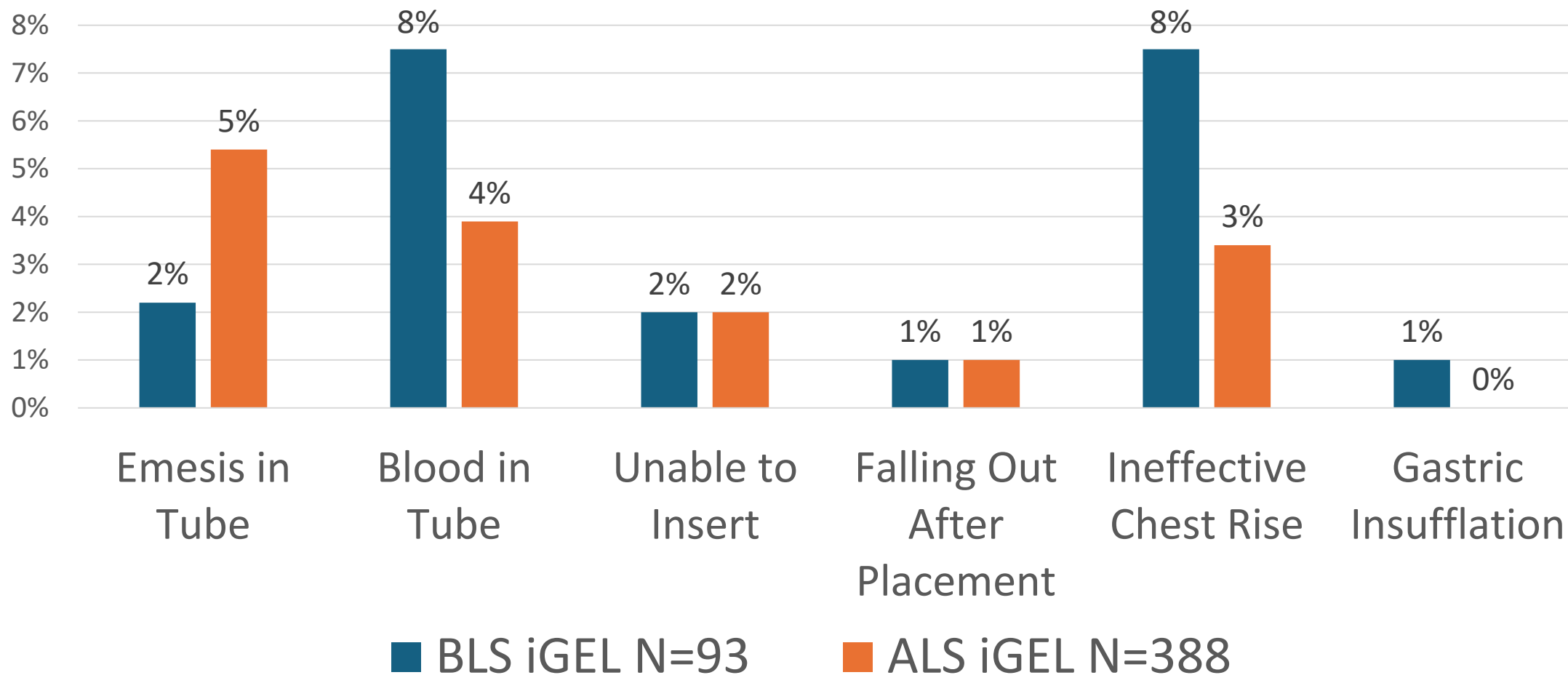


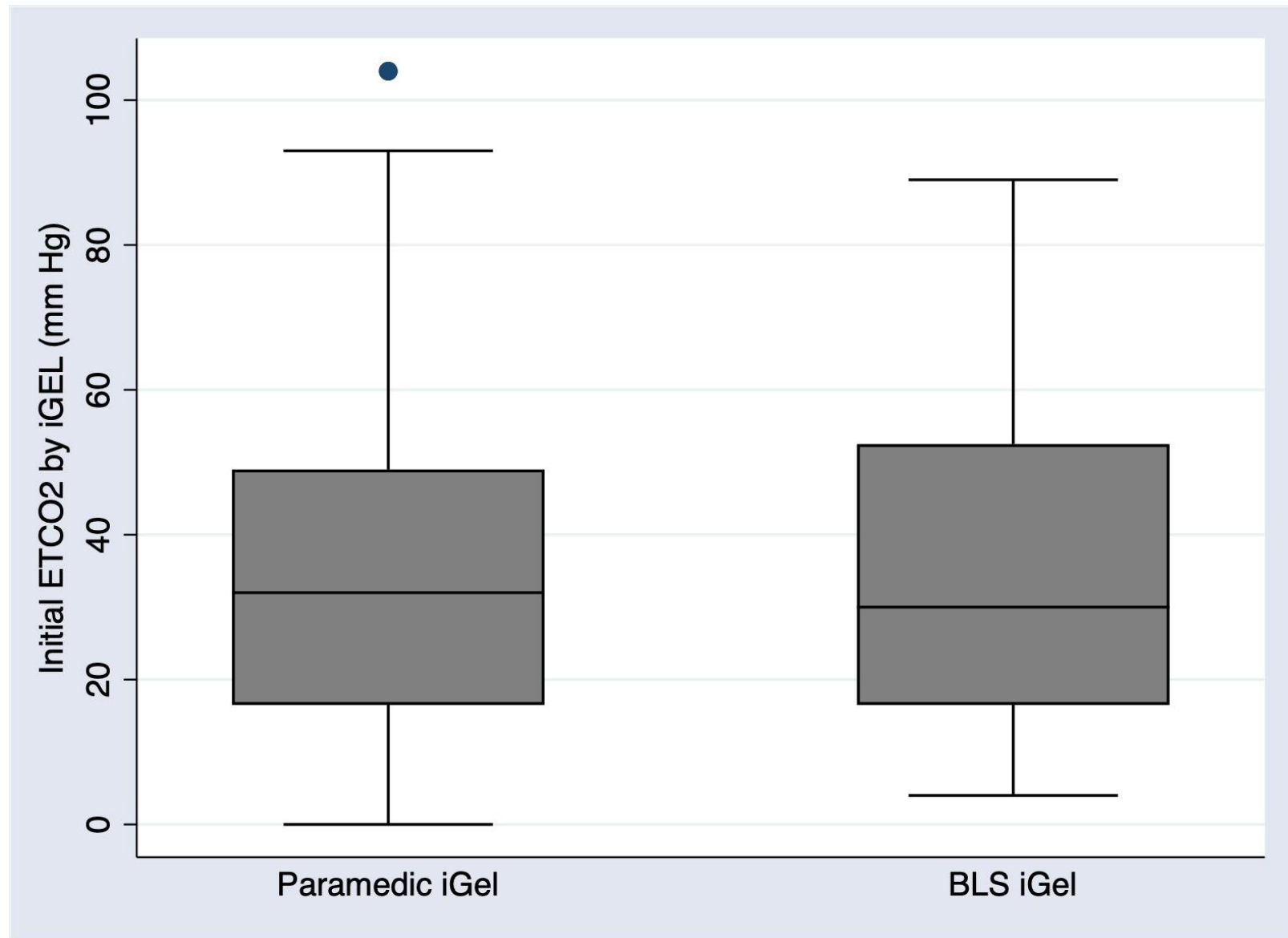
Source: <https://www.jems.com/patient-care/dos-and-don-ts-bag-valve-mask-ventilatio/>

SLC Approach to 30:2 Portion of the Arrest



Documented Complications of iGEL Reported by Paramedics





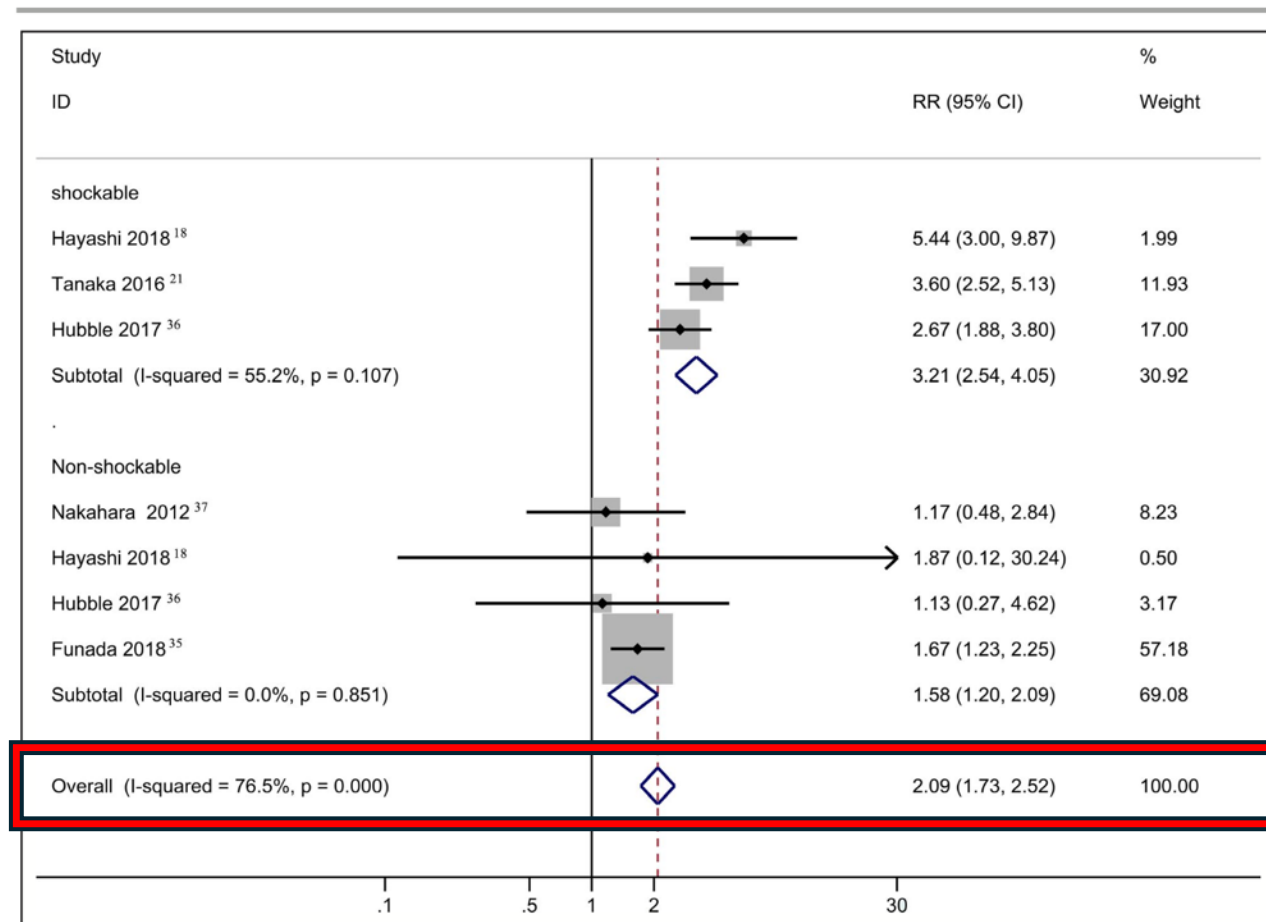
Epinephrine is Time Sensitive

Early Epinephrine is associated with improved neurologic status

Neurologic Outcome
RR 2.09 if given within
10 min of EMS arrival
(95% CI, 1.73-2.52)

Ran et al

Adrenaline for Out-of-Hospital Cardiac Arrest





911 Call



Scene Arrival



Vascular
Access

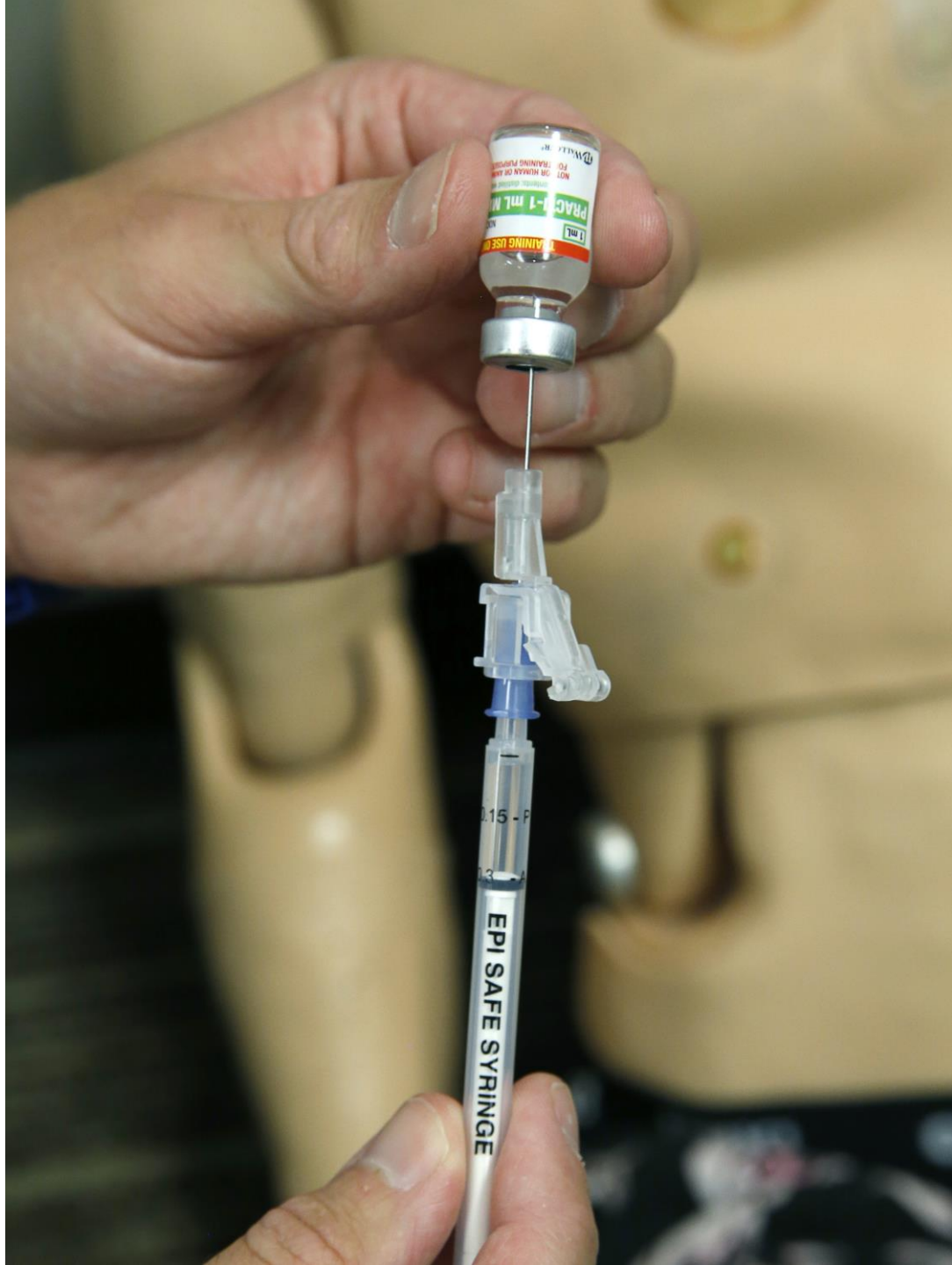


Give Epi

Median 21.5 min
PARAMEDIC-2 Trial









911 Call



Scene Arrival



Vascular
Access



Give Epi

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PARAMEDIC-2 Trial



911 Call



Scene Arrival



Vascular
Access



Give Epi

Median 21.5 min
PARAMEDIC-2 Trial

Clinical paper

Early intramuscular adrenaline administration is associated with improved survival from out-of-hospital cardiac arrest[☆]

Helen N. Palatinus^{}, M. Austin Johnson, Henry E. Wang, Guillaume L. Hoareau, Scott T. Youngquist*

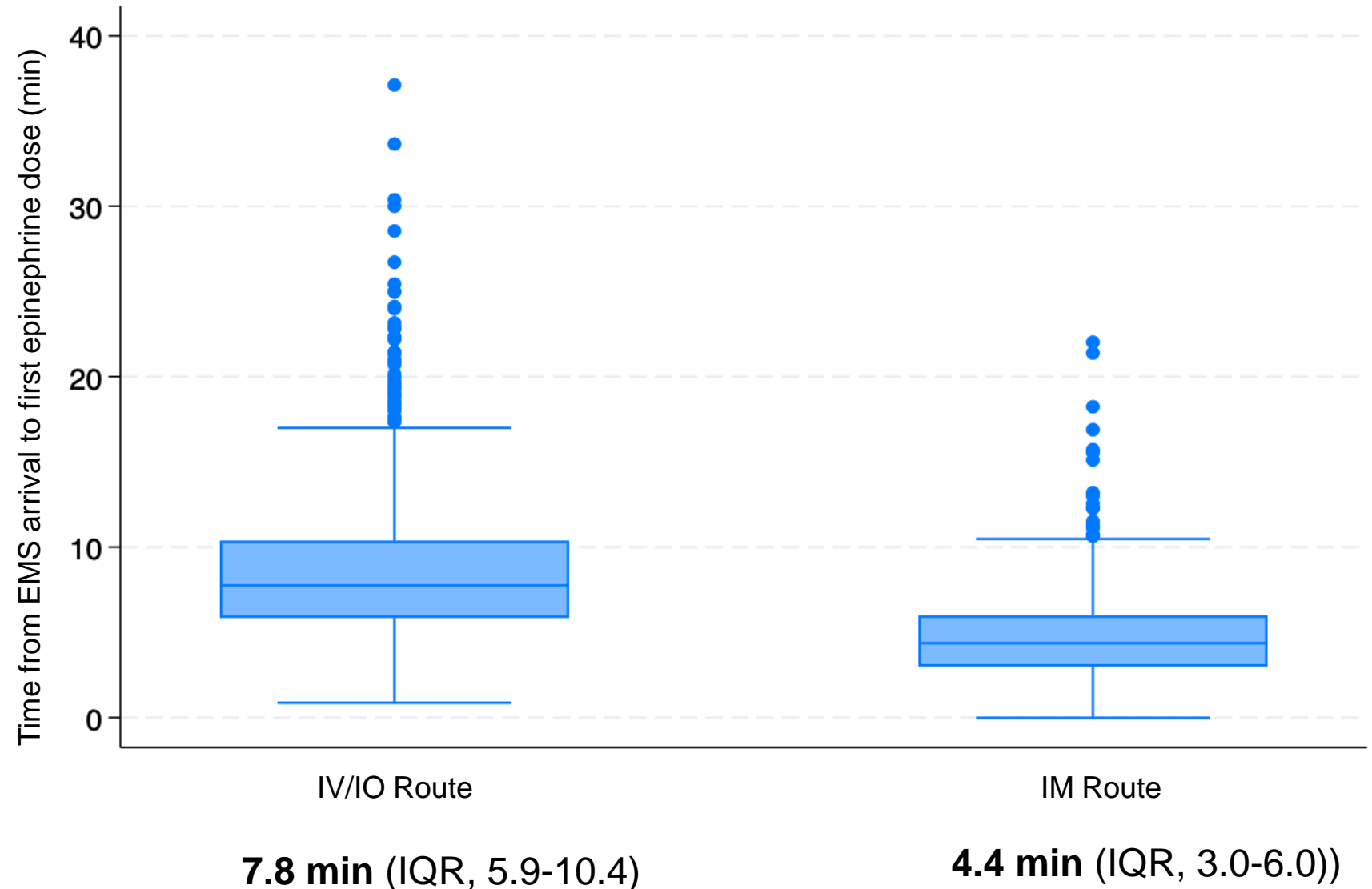
Abstract

Background: Early administration of adrenaline is associated with improved survival after out-of-hospital cardiac arrest (OHCA). Delays in vascular access may impact the timely delivery of adrenaline. Novel methods for administering adrenaline before vascular access may enhance survival. The objective of this study was to determine whether an initial intramuscular (IM) adrenaline dose followed by standard IV/IO adrenaline is associated

IM epinephrine reduces time to first dose

SLCFD Clinical Protocol Change

- **First-dose 5 mg IM epinephrine**
- Subsequent standard epinephrine once IV/IO access established



Outcomes of Patients Treated with an Initial Adrenaline Dose Administered through the IV/IO Route Compared to the IM Route.

Outcome	IV/IO Cohort No. (%)	IM Cohort No. (%)	Absolute Difference	Odds Ratio (95% CI) *	
	(n = 985)	(n = 420)	(%)	Unadjusted	Adjusted
Survival to Hospital Admission	311 (31.6)	156 (37.1)	5.6	1.28 (1.01–1.63)	1.37 (1.06–1.77)
Survival to Hospital Discharge	69 (7.0)	46 (11.0)	4.0	1.63 (1.10–2.42)	1.73 (1.10–2.71)
Favorable Neurologic Outcome	61 (6.2)	41 (9.8)	3.6	1.64 (1.08–2.48)	1.72 (1.07–2.76)

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Algorithm for BLS IM epinephrine

