

Disclosures

THE OHIO STATE UNIVERSITY

2

- PI Pedi-PART Trial (UG3-HL165019)
 MPI TROOP Trial (UG3-HL157401)
- MPI REGARDS-AKI (R01-DK128803)
- Co-I PACT, PediDOSE, HART trials
 Site PI SIREN and PETAL networks
- EMS Co-I GLACIER node of PECARN
- Site PI Trials by Vasomune, Inc, Quidel, Inc.
- Editor in Chief, JACEP Open

LAS

Department of Eme















_				
-				
_				
_				
-				





























	No. of Patient	s/Total No. ^a			Favors	Favors		
	Tracheal Intubation	Supraglottic Airway Device	Adjusted Odds Ratio (95% CI)		Tracheal Intubation	Supraglottic Airway Device		P Value
rimary analysis for modified Rankin Scale scoreb	300/4407	311/4882	0.92 (0.77-1.09)			_		.33
Subgroup analysis								
Utstein comparator ^c	154/697	177/764	1.04 (0.80-1.35)			•		DAG
Utstein noncomparator ^c	130/3658	123/4067	0.84 (0.65-1.09)			-		.24-
Out-of-hospital cardiac arrest witnessed by paramedice	87/556	76/607	0.78 (0.55-1.09)	_		-		240
Out-of-hospital cardiac arrest not witnessed by paramedice	212/3848	235/4271	0.98 (0.80-1.20)			—		.24-
Sensitivity analysis for primary outcome ^f	300/10741	311/11462	0.96 (0.81-1.14)			-		.63
				0.5	1	.0	2.0	
					Odds Rati	o (95% CI)		
a 4								
"No di	ifference	e between	i-gel and l	ETI"				
			-					











Table 3. Airway Management Adverse Events Analysis						
Safety Population	BMV Group	ETI Group	Absolute Difference, BMV(%) – ETI(%) (95% CI)	P Value		
BMV or ETI Difficulty						
BMV VAS, median (IQR), mm ^b	20 (5-55)	NA	NA	NA		
Intubation Difficulty Scale score, median (IQR)	NA	1 (0-4)	NA	NA		
Rate of airway management difficulty, No./total No. (%) ^c	186/1027 (18.1)	134/996 (13.4)	4.7 (1.5-7.9)	.004		
BMV or ETI failure, No./total No. (%)	69/1028 (6.7)	21/996 (2.1)	4.6 (2.8-6.4)	<.001		
BMV or ETI Complications, No. (%)	n = 1027	n = 999				
Regurgitation of gastric content	156 (15.2)	75 (7.5)	7.7 (4.9-10.4)	<.001		
Mainstem intubation ^d	NA	20 (2.0)	NA	NA		
Recognized esophageal intubation ^e	NA	102 (10.2)	NA	NA		
Dental injury	NA	7 (0.7)	NA	NA		
Extubation	NA	5 (0.5)	NA	NA		



<text><text><image>

26







Chest Comp	pressions i	n PART		
Measure	ιτ	ETI	Difference	P-value
CC Rate (bpm)	113.7 (9.1)	114.0 (10.5)	0.2 (-0.6, 1.1)	0.59
CC Fraction	87.9 (8.4)	87.1 (8.7)	-0.8 (-1.5, 0.02)	0.05
CC Interruptions (sec)	160.0 (157.9)	180.8 (141.1)	20.8 (7.7 - 34.0)	0.002
Wang, Resuscitation 2	021			
THE OHIO STATE UNIVERSITY			Department of En	nergency Medi
0				in genney in































Defining the problem of the problem

Ventilatio	n often do	es not go	in during	g 30:2 CPF	R+BVM	
Outcome	s beller w	nen venui	ations go	ווו		
Outcomes	<50% of CPR pauses with ventilation (n=1177), n/N (%)	≥50% of CPR pauses with ventilation (n=799), n/N (%)	Difference (95% CI), %	Unadjusted risk ratio (95% Cl)*	Adjusted risk ratio (95% CI)†	P value
Survival to hospital discharge	48/1175 (4.1)	107/793 (13.5)	9.4	3.3 (2.4–4.6)	2.2 (1.6–3.0)	<0.0001
Survival with mRS score ≤3‡	28/1175 (2.4)	84/793 (10.6)	8.2	4.4 (2.9–6.7)	2.8 (1.8–4.3)	<0.0001





What's in the Pipeline?

- ETCO2 differences between ETT and SGA
- Trends in ETCO2 and OHCA outcomes
- Artificial Intelligence for Dynamic, Individualized CPR Guidance: AID CPR (K08-HL168330)
 PI: Michelle Nassal, OSU



41

THE OHIO STATE UNIVERSITY

































- Henry E. Wang, MD, MS
 OSU CCC PI; EMS airway expert, PART
- Marianne Gausche-Hill, MD
 Harbor-UCLA; WPEMR, LA Peds Airway Trial
- Roger Lewis, MD, PhD
 Berry Consultants; Innovative trial design, LA
 Peds Airway Trial
- Matthew Hansen, MD, MCR
 OHSU; CHaMP, EMS expertise, ROC, TRECS
- Manish I. Shah, MD, MS
 TCH/Baylor; CHaMP, PediDOSE PI, EMS expert
 Nichole Bosson, MD, MPH
- Harbor-UCLA; EMS operations expert
 Barbara Wendelberger, PhD
- Berry Consultants; Innovative trial design
 John VanBuren, PhD
 Utah DCC PI; PECARN, PediDOSE DCC
- Charles Casper, PhD
 Utah DCC Co-1











_

55



56

AHRQ Systematic Review	"Synthesis of evidence using critical methods to identify, define, and assess research on the topic"
NHTSA Evidence-Based Guideline	"Systematically developed statement that assists practitioners in making decisions about appropriate health care for specific clinical circumstances"
NAEMSP Compendium of Airway Management Position Statements and Resource Documents	Recommended best practices Evidence-based or influenced consensus recommendations

The Evidence-Based Guideline Conundrum

- 22 defined question Only 17 resulted in
- recommendations
- All recommendations rated
 "conditional"
- All evidence rated "<u>very low</u> <u>certainty</u>" or "<u>lack of</u> <u>evidence</u>"



Department of En

58

THE OHIO STATE UNIVERSITY

Important Lessons

- · We must keep building body of airway science
- Clinical trials are essential
- We must apply innovative research strategies
- The most valuable pearls of evidence may be hidden from systematic view
- To better understand the airway, we need to look beyond the airway

Wang, Prehosp Emerg Care 2023

Department of Em

59

THE OHIO STATE UNIVERSITY











Exception From Informed Consent

- FDA and DHHS Rules
- Virtually all randomized interventions with drugs or devices will require EFIC
 Community Consultation and Public
- Disclosure
 Recent use of social media
- Family Notification
- Must occur "as soon as feasible" after enrollment



Department of Emerge

65

THE OHIO STATE UNIVERSITY





































