# **Supplementary Online Content**

Slomine BS, Silverstein FS, Christensen JR, et al. Neuropsychological outcomes of children 1 year after pediatric cardiac arrest: secondary analysis of 2 randomized clinical trials. *JAMA Neurol.* Published September 17, 2018. doi:10.1001/jamaneurol.2018.2628

eAppendix. Personnel, Sites, Funding and Acknowledgements

**eTable 1.** Demographic Variables Between Eligible Cases With VABS-II Interview and Onsite Testing Data and Those Whose Families Declined Either or Both Evaluations -<6 Years

**eTable 2.** Demographic Variables Between Eligible Cases With VABS-II Interview and Onsite Testing Data and Those Whose Families Declined Either or Both Evaluations ->6 Years

**eTable 3.** Spearman Correlations Among Vineland Adaptive Behavior Scales – Second Edition (VABS-II) and Overall Cognitive Outcome Measures

eFigure. Description of Eligible Survivors Who Were Included and Excluded

This supplementary material has been provided by the authors to give readers additional information about their work.

# eAppendix. Personnel, Sites, Funding and Acknowledgements

Lead Site - University of Michigan, Ann Arbor, Michigan Principal Investigator (PI) (Scientific) - Frank W. Moler, MD, MS

Data Coordinating Center (DCC), University of Utah, Salt Lake City, Utah. Principal Investigator DCC - J. Michael Dean, MD, MBA Lead Biostatistician - Richard Holubkov, PhD

Outcome Center, Kennedy Krieger Institute, Baltimore, Maryland. Academic affiliation with Johns Hopkins University, School of Medicine James R. Christensen, MD, Beth S. Slomine, PhD

#### **Executive Committee**

F. Moler, MD, MS,	P.
J. M. Dean, MD, MBA	Р
R. Holubkov, PhD	В
K. Meert, MD	С
J. Hutchison, MD	С
V. Nadkarni, MD	С
S. Shankaran, MD	Ν
F. Silverstein, MD	Ν
J. Christensen, MD	R
V. Pemberton, RNC, MS	Ν
C. Nicholson, MD, MS	Ν

PI (Scientific) PI (DCC) Biostatistician Critical Care Critical Care Critical Care Neonatology Neurology Rehabilitation Medicine NHLBI VICHD, CPCCRN University of Michigan University of Utah University of Utah Wayne State University University of Toronto University of Pennsylvania Wayne State University University of Michigan Kennedy-Krieger Institute NIH NIH

#### Sites and research teams - contributors

# We acknowledge the contributions of the following sites and individuals who made the THAPCA-OH and THAPCA-IH Trials possible.

Site principal investigators (PI), Sub-investigators (Sub-I), Clinical research coordinators (CRC), Neurologists (Neurologist), Psychologists (Psychologist).

#### The Children's Hospital of Alabama, Birmingham, AL

J. Alten (PI), S. Borasino (Sub-I), K. Hock (CRC), K. Sewell (CRC), L. Dure (Neurologist),

#### Phoenix Children's Hospital, Phoenix, AZ

H. J. Dalton (PI), S. Buttram (PI), K. Wai (Sub-I), A. La Bell (CRC), C. Bliss (CRC), M. Lavoie (Psychologist), V. Bordes-Edgar (Psychologist)

# Diamond Children's Medical Center, Tucson, AZ

A. Theodorou (PI), K. Typpo (Sub-I), C. Wells (CRC), J. Deschenes (CRC)

#### Children's Hospital Los Angeles, Los Angeles, CA

C. Newth (PI), S. Rubin (Sub-I), R. Bart (Sub-I), T. Deakers (Sub-I), A. Bhalla (Sub-I), B. Markovitz (Sub-I), J. DiCarlo (Sub-I), P. Ross (Sub-I), C. Herrington (Sub-I), W. Wells (Sub-I), R. Kim (Sub-I), V. Wang (Sub-I), M. Villa (RN), F. Fajardo (CRC), J. Kwok (CRC), J. Serrano (CRC), J. Valentine (CRC), A. Yamakawa (CRC), S. Briones (CRC), S. Cauley (RN), A. Briseno (RN), C. Young (RN), M. Nyc (CRC), T. Rosser (Neurologist), J.I. Gold (Psychologist), R. Engilman (Psychometrician)

#### Children's Hospital of Orange County, Orange, CA

A. Schwarz (PI), J. Haykawa (Sub-I), O. Vargas-Shiraishi (CRC), A. Galion (Neurologist)

# Loma Linda University Children's Hospital, Loma Linda, CA

M. Mathur (PI), J. Newcombe (CRC), A. Pinto (CRC), S. Ashwal (Neurologist), J. Pivonka-Jones (Neuropsychologist)

## Mattel Children's Hospital UCLA, Los Angeles, CA

R. Harrison (PI), R. Kelly (Sub-I), A. Madikians (Sub-I), M. Federman (Sub-I), M. Morgan (Sub-I), A. Yamakawa (CRC), M. Nyc (CRC), S. Briones (CRC), M. Villa (RN), J. Kwok (CRC), J. Serrano (CRC), J. Valentine (CRC) T. Rosser (Neurologist), R. Engilman (Psychometrician), J.I. Gold (Psychologist)

# University of California, San Francisco Benioff Children's Hospital, San Francisco, CA

P. McQuillen (PI), L. Haeusslein (CRC), H. Glass (Neurologist)

### Hospital for Sick Children, Toronto, ON, Canada

J. Hutchison (PI), S. Schwartz (Sub-I), A. Guerguerian (Sub-I), K. Boutis (Sub-I), D. Clark (CRC), J. Van Huyse (CRC), K. Fusco (CRC), K. McBain (CRC), A. Krancevic (CRC), L. Toller (CRC), R. Gaiteiro (CRC), C. Hahn (Neurologist), R. Sananes (Psychologist)

# Children's Hospital Colorado, Aurora, CO

E. Dobyns (PI), J. Albietz (Sub-I), T. Wilson (CRC), B. Wathen (CRC), T. Bernard (Neurologist), J. Dise-Lewis (Psychologist)

#### Children's Healthcare of Atlanta, Atlanta, GA

N. Pham (PI), N. Chanani (Sub-I), K. Walson (Sub-I), J. Sturm (Sub-I), W. Mahle (Sub-I), M. Wolf (Sub-I), C. Stone (CRC), A. Wellons (CRC), S. Meisner (CRC), E. Hoar (CRC), S. Gentry (CRC), L. Smitley (CRC), L. McMaster (CRC), P. Holt (Neurologist), B. Weissman (Neurologist), A. Alexander (Psychologist)

# Riley Hospital for Children, Indianapolis, IN

R. Lutfi (PI), D. Sokol (neurologist), B. McDonald (psychologist)

# Anne and Robert Lurie Children's Hospital of Chicago, Chicago, IL

D. Goodman (PI), E. Powell (Sub-I), S. Shah (CRC),

# Kosair Charities Pediatric Clinical Research Unit, Department of Pediatrics, University of Louisville and the Kosair Children's Hospital, Louisville, KY

M. Porter (PI), J. Sullivan (Sub-I), M. Ruppe (Sub-I), J. Berkenbosch (Sub-I), M. Thomas (CRC), L. Sears (Psychologist)

#### Johns Hopkins Children's Center, Baltimore, MD

U. Bhalala (PI), J.K. Lee (PI), S. Kudchadkar (PI), D. Shaffner (Sub-I), M. Shackelford (CRC), P. Melvin (CRC), R. Felling (Neurologist), B. Slomine (Psychologist)

# Outcome Center, Kennedy Krieger Institute, Baltimore, MD

J.R. Christensen (Site PI), B.S. Slomine (Site Co-Investigator), E. DeMatt (Telephone Interviewer), M. Talley (Telephone Interviewer), C. Rodweller (Telephone Interviewer)

# Children's Hospital of Michigan, Detroit, MI

K. Meert (PI), S. Heidemann (Sub-I), J. Clark (Sub-I), A. Pawluszka (CRC), M. Lulic (RA), L. Sivaswamy (Neurologist)

# C.S. Mott Children's Hospital, University of Michigan, Ann Arbor, MI

F. Moler (PI), M. Gaies (Sub-I), T. Cornell (Sub-I), M. Weber (CRC), J. Reske (CRC), L. Conlin (CRC), F. Silverstein (Neurologist), M. Carlson (Neurologist), S. Warschausky (Psychologist), T. Behnke (Program Administrator), D. Poszywak (Procurement Subcontract Administrator)

"Research reported in this publication was supported by the National Center for Advancing Translational Sciences of the National Institutes of Health under Award Numbers UL1 TR 000433 and UL1 TR 000433. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health."

# Children's Hospitals and Clinics of Minnesota, Minneapolis, MN

J. Nowak (PI), H. Ortega (EM Sub-I), D. Milner (EM Sub-I), E. Zielinski (CRC)

# Washington University, St, Louis, MO

J. Pineda (PI), M. Shoykhet (Sub-I), S. Friess (Sub-I), K. Guilliams (Sub-I), A. Gazit (Sub-I), D. Jaffe (Sub-I), T. Day (CRC), T. Hicks (CRC), L. Barganier (CRC), E. Fish (CRC), L. Toennies (CRC), P. Thurst (CRC), S. Blankenship (CRC), M. Noetzel (Neurologist), K. Guilliams (Neurologist), D. White (Psychologist).

"Research reported in this publication was supported by the Eunice Kennedy Shriver National Institute Of Child Health & Human Development of the National Institutes of Health under Award Number U54 HD087011 to the Intellectual and Developmental Disabilities Research Center at Washington University. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health."

# Morgan Stanley Children's Hospital/Columbia University Medical Center New York, NY

C. Schleien (PI), N. Talathoti (CRC), C, Aguilar (CRC), V. Hinton (Psychologist)

#### University of Rochester Medical Center/Golisano Children's Hospital, Rochester, NY

E. W. van der Jagt, (PI), E. R. Taillie (CRC), E. B. Nazarian (Sub-I), L. E. Daugherty (Sub-I), C.O. Davis (Sub-I), H. R. Adams (Psychologist)

# Duke Children's Hospital, Durham, NC

G. Ofori-Amanfo (PI), K. Rehder (PI), S. Wrenn (CRC), T. Uhl (CRC), C. Milleson (CRC), E. Smith (Neurologist), K. Gustafson (Psychologist), S. Asbeck (Psychologist), W. Gallentine (Neurologist)

# Nationwide Children's Hospital, Columbus, OH

E. Lloyd (PI), M. Hall (Sub-I), N. Khan (Sub-I), J. Frazier (Sub-I), Daniel Cohen (Sub-I), J. Haines (CRC), K. Carter (CRC), L. Bird (CRC), W. Lo (Neurologist)

# Cincinnati Children's Hospital, Cincinnati, OH

D. Wheeler (PI), G. Geis (Sub-I), E. Beckman (CRC), S. Banschbach (CRC), K. Krallman (CRC)

#### Rainbow Babies and Children's Hospital, Cleveland, OH

K. Lidsky (PI), S. Bergant (CRC), A. Browning (CRC), N. Bass (Neurologist), R. Tangen (Psychologist)

# Penn State Children's Hospital, Hershey, PA

NJ. Thomas (PI), A. Shelly (CRC), J. Vallati (CRC), P. Carper (CRC), D. Spear (CRC), A. McMonagle (CRC), J. Stokes (CRC), H. Watts (CRC), W. Trescher (Neurologist), C. Flaherty-Craig (Psychologist)

# Children's Hospital of Philadelphia, Philadelphia, PA

A. Topjian (PI), R. Berg (Sub-I), V. Nadkarni (Sub-I), A. Zuppa (Sub-I), J. Fitzgerald (Sub-I), P. Meaney (Sub-I), M. DiLiberto (CRC), C. Twelves (CRC), S. McGowan (CRC), M. Sisko (CRC), B. Park (CRC), K. Friedman (Psychologist),

The project described was supported by the National Center for Research Resources and the National Center for Advancing Translational Sciences, National Institutes of Health, through Grant UL1TR000003. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH.

# University of Pittsburgh Medical Center, Pittsburgh, PA

E. Fink (PI), R. Hickey (Sub-I), A. Abraham (CRC)

# University of Tennessee Health Science Center, Memphis, TN

S. Shah (PI), K. Anand (Sub-I), B. Moore (CRC), A. Nico West (CRC), M. Grandberry (CRC), N. Shah (Neurologist), A. DeCrow (Psychologist), O. King DeBerry (Psychometrician), A. Huling (Psychometrician)

# Children's Medical Center Dallas, University of Texas Southwestern Medical School, Dallas, TX

J. Koch (PI), P. Okada (Sub-I), D. Miles (Sub-I), L. Raman (Sub-I), M. Green (Sub-I), E. Golson (CRC), A. Jones (CRC), D. Kelly (CRC), T. Plumb (CRC), K. Van de Bruinhorst (CRC), M. Dowling (Neurologist), P. Stavinoha (Psychologist), A. Hernandez (Psychometrician)

# University of Texas Health Sciences Center at San Antonio, San Antonio, TX

T. Wu (PI), C. Bauerfeld (Sub-I), M. Rodkey (Sub-I), H. Dibrell (CRC), S. Atkinson (Neurologist), L. O'Donnell (Psychologist), J. Eubanks (Psychologist)

# Data Coordinating Center (DCC), University of Utah, Salt Lake City, UT

J. M. Dean (PI), R. Holubkov (Biostatistician), B. Browning (Program Director), M. Gildea (Program Director), R. Kuhn (Project Manager), A. Webster (Biostatistician), K. Page (Biostatistician), R. Telford (Biostatistician), L. Herrera (Data Manager), J. Yearley (Director Data Management), J. Burr (CPCCRN Program Director, B. Marron (Administrative Assistant)

# Primary Children's Hospital, Salt Lake City, UT

K.S. Bennett (PI), J. Sweney (PI), R. Lane (Sub-I), J. Lilley (CRC), S. Bjerregaard (CRC), K. Jacobsen (CRC), A. Watson, (CRC), D. Stephens (CRC), M. DelaCruz (CRC), K. Cooley (CRC), N. Kwendakwema (CRC), G. Jensen (CRC), R. Moore (CRC), M. Sweney (Neurologist), D. Morita (Neurologist), R. Burr (Psychologist), T. Bennett (Sub-I), J. Henricksen (Sub-I), E. Hirshberg (Sub-I), G. Larsen (Sub-I), M. Schober (Sub-I), R. Dixon (Sub-I), J. Workman (Sub-I)

# Seattle Children's Hospital, Seattle, WA

J. Zimmerman (PI), J. McGuire (Sub-I), R. Farris (Sub-I), O. Yanay (Sub-I), J. Reid (Sub-I), L. Smith (Sub-I), S. Hamilton (CRC), C. Greeley (CRC), C. Cheng (CRC), S. Gospe (Neurologist), C. Amlie-Lefond (Neurologist), D. Breiger (Psychologist), A. Paolozzi (Psychometrist)

# Children's National Medical Center, Washington, DC

J. Berger (PI), D. Wessel (Sub-I), M. Sharron (Sub-I), S. Basu (Sub-I), A. Wratney (Sub-I), N. Dean (Sub-I), J. Reardon (CRC), E. Tomanio (CRC), J. Carpenter (Neurologist), S. Swanson (Psychologist), T. Brennan (Psychologist), P. Glass (Psychologist), B. Malek (Psychologist), M. Mintz (Psychologist) *Our follow ups were conducted in the Clinical Research Center which is supported by NIH P30HD040677* Medical College of Wisconsin, Milwaukee, WI

M. T. Meyer (PI), M. Wakeham (Sub-I), S. Hanson (Sub-I), K. Murkowski (CRC)

#### National Heart, Lung, and Blood Institute, Bethesda, MD

V. Pemberton

# Funding

Primary support for the conduct of the THAPCA-IH and OH Trial was funding from the National Institutes of Health (NIH), National Heart, Lung, and Blood Institute, Bethesda, MD. HL094345 (FWM) and HL094339 (JMD).

Additional support from the following federal planning grants contributed to the planning of the THAPCA Trials: NIH, *Eunice Kennedy Shriver* National Institute of Child Health and Development (NICHD), Bethesda, MD. HD044955 (FWM) and HD050531 (FWM).

In part support was from the participation of the following research networks: Pediatric Emergency Care Applied Research Network (PECARN) from cooperative agreements U03MC00001, U03MC00003, U03MC00006, U03MC00007, and U03MC00008; and the Collaborative Pediatric Critical Care Research Network (CPCCRN) from cooperative agreements (U10HD500009, U10HD050096, U10HD049981, U10HD049945, U10HD049983, U10HD050012 and U01HD049934.

At several centers (indicated above), clinical research support was supplemented by the following grants or Cooperative Agreements: UL1TR000003, P30HD040677, UL1 TR 000433 and U54 HD087011.

eTable 1: Demographic variables between eligible cases with 12-month VABS-II interview and onsite testing data and those whose families declined either or both evaluations - < 6 years

	Testing Completed			
	Overall	No	Yes	
	(N = 146)	(N = 27)	(N = 119)	P-value
Study		· · ·	· · · · ·	$0.374^{2}$
IH	96 (66%)	20 (74%)	76 (64%)	
ОН	50 (34%)	7 (26%)	43 (36%)	
Age at Randomization (years):	0.5 [0.2, 1.7]	0.6 [0.2, 1.7]	0.5 [0.2, 1.8]	$0.623^{1}$
Median [O1, O3]				
Male	88 (60%)	18 (67%)	70 (59%)	$0.518^2$
Race				$0.660^2$
White	87 (60%)	15 (56%)	72 (61%)	
Black or African American	35 (24%)	6 (22%)	29 (24%)	
Other/Unknown	24 (16%)	6 (22%)	18 (15%)	
Ethnicity	_ ( ( + + + + + + + + + + + + + + + + +	• (,•)		$0.922^2$
Hispanic or Latino	33 (23%)	7 (26%)	26 (22%)	0.52
Not Hispanic or Latino	106 (73%)	19 (70%)	87 (73%)	
Stated as Unknown	7 (5%)	1 (4%)	6 (5%)	
Caregivers highest education	7 (370)	1 (1/0)	0 (570)	$0.308^2$
received				0.500
Some high school or less	21 (14%)	5 (19%)	16 (13%)	
High school graduate or GFD	48 (33%)	8 (30%)	40(34%)	
Vocational school or some	40 (27%)	10 (37%)	30 (25%)	
college	40 (2770)	10 (5770)	50 (2570)	
College degree	24(16%)	1 (15%)	20 (17%)	
Graduate or doctoral degree	13(9%)	-4(1370)	13(11%)	
Average FAD score: Mean (SD)	15(970) 15(040)	15(0.35)	15(1170) 1 5 (0 41)	$0.968^{3}$
Pre-cardiac arrest PCPC	1.5 (0.40)	1.5 (0.55)	1.5 (0.41)	0.908 0.804 <sup>1</sup>
Normal = 1	106 (73%)	20 (74%)	86 (72%)	0.804
Mild disability = 2	26(18%)	5(10%)	21(18%)	
Mind disability $= 2$ Moderate disability $= 3$	20(10/0) 12(00/)	3(1970) 2(707)	21(10/0) 11(00/)	
Source disability $= 4$	13(970) 1(104)	2(770)	11(970) 1(19/)	
Pro condice encost POPC	1 (170)	0 (070)	1 (170)	0.2411
Cood = 1	70(540/)	12 (440/)	67 (560/)	0.241
0000 - 1 Mild dissolution - 2	79 (34%) 44 (200/)	12(44%)	0/(30%)	
Mild disability $-2$ Moderate disability $-2$	44(50%)	9 (33%)	55(29%)	
Noderate disability $= 3$	20(14%)	0(2270)	14(1270)	
Severe disability = 4 $\mathbf{P}_{i}$	3 (2%)	0 (0%)	3 (3%)	$0.464^{2}$
Primary etiology of cardiac				0.404
Condian	F((290/))	11 (410/)	45 (200/)	
Cardiac Descriptions	50 (58%) 67 (469/)	11(41%) 10(270/)	45 (58%)	
Respiratory	07 (40%)	10(37%)	57 (48%) 17 (140/)	
Other/Unknown	23 (10%)	6 (22%)	1/(14%)	0.0001
1 otal number of doses of	3.0 [2.0, 5.0]	3.0 [1.0, 5.0]	3.0 [2.0, 5.0]	0.990*
epinephrine administered by				
EMIS and at nospital: Median				
				0.1552
Estimated duration of chest				0.155
compressions	0 (10/)	1 (40/)	1 (10/)	
Unable to determine	2 (1%)	l (4%)	1 (1%)	
Less than or equal to 15 minutes	59 (40%)	14 (52%)	45 (38%)	
More than 15 to less than or	36 (25%)	3 (11%)	33 (28%)	
equal to 30 minutes	10 (2.10/)	0 (2201)	40 (2.40/)	
More than 30 minutes	49 (34%)	9 (33%)	40 (34%)	0.10.12
Treatment Assigned				0.1342

eTable 1: Demographic variables between eligible cases with 12-month VABS-II interview and onsite testing data and those whose families declined either or both evaluations - < 6 years

	Testing Completed			
	Overall	No	Yes	
	(N = 146)	(N = 27)	(N = 119)	P-value
Hypothermia	80 (55%)	11 (41%)	69 (58%)	
Normothermia	66 (45%)	16 (59%)	50 (42%)	
Post-cardiac arrest length of	33.0 [20.0, 58.0]	33.0 [23.0, 49.0]	32.0 [19.0, 64.0]	$0.849^{1}$
stay (days): Median [Q1, Q3]				
PCPC at hospital discharge				$0.091^2$
Normal = 1	41 (28%)	3 (11%)	38 (32%)	
Mild disability $= 2$	42 (29%)	13 (48%)	29 (24%)	
Moderate disability $= 3$	26 (18%)	5 (19%)	21 (18%)	
Severe disability $= 4$	24 (16%)	4 (15%)	20 (17%)	
Coma or vegetative state $= 5$	12 (8%)	2 (7%)	10 (8%)	
Missing	1 (1%)	0 (0%)	1 (1%)	
Pre-cardiac arrest VABS-II	95.0 (13.72)	94.1 (11.54)	95.2 (14.21)	$0.671^{3}$
Adaptive Behavior Composite				
Score: Mean (SD)				
Month 12 VABS-II Adaptive	79.5 (20.86)	82.1 (20.54)	79.0 (20.97)	$0.560^{3}$
Behavior Composite Score:				
Mean (SD)				

<sup>1</sup> P-value is based on the Wilcoxon rank-sum test.
<sup>2</sup> Fisher's exact test.
<sup>3</sup> Two-sided t-test with unpooled variance.

eTable 2: Demographic variables between eligible cases with 12-month VABS-II interview and onsite testing data and those whose families declined either or both evaluations -  $\geq 6$  years

		Testing C	Completed	_
	Overall	No	Yes	_
	(N = 49)	(N = 8)	(N = 41)	P-value
Study				$0.128^2$
IH	30 (61%)	7 (88%)	23 (56%)	
OH	19 (39%)	1 (13%)	18 (44%)	
Age at Randomization (years) <sup>.</sup>	13 8 [9 2 16 2]	15 5 [9 5 17 3]	13 3 [9 2 15 3]	$0.298^{1}$
Median [O1_O3]	15.0 [5.2, 10.2]	10.0 [9.0, 17.0]	10.0 [7.2, 10.0]	0.290
Male	31 (63%)	5 (63%)	26 (63%)	$1.000^{2}$
Race	51 (0570)	5 (0570)	20 (0570)	$0.561^2$
White	27 (55%)	3 (38%)	24 (59%)	0.501
Black or African American	16(33%)	4 (50%)	12(29%)	
Other/Unknown	6(12%)	1 (13%)	5(12%)	
Fthnicity	0 (1270)	1 (1570)	5 (1270)	$1.000^{2}$
Hignonia or Latino	0 (199/)	1 (120/)	Q (200/)	1.000
Not Hispania or Latino	$\frac{9(10/0)}{20(900/)}$	1(1370) 7(990/)	3(2070)	
Stated as University	$\frac{39(3070)}{1(207)}$	/ (8870)	32(7870)	
Consciences his heat advection	1 (270)	0 (0%)	1 (270)	0 4752
Caregivers nignest education				0.475
received	14 (200/)	2 (200/)	11 (070/)	
Some high school or less	14 (29%)	3 (38%)	11 (27%)	
High school graduate or GED	6 (12%)	2 (25%)	4 (10%)	
Vocational school or some	9 (18%)	0 (0%)	9 (22%)	
college		- / //		
College degree	13 (27%)	2 (25%)	11 (27%)	
Graduate or doctoral degree	7 (14%)	1 (13%)	6 (15%)	2
Average FAD score: Mean (SD)	1.5 (0.52)	1.6 (0.31)	1.5 (0.56)	0.546
Pre-cardiac arrest PCPC				0.1851
Normal $= 1$	41 (84%)	8 (100%)	33 (80%)	
Mild disability $= 2$	5 (10%)	0 (0%)	5 (12%)	
Moderate disability $= 3$	3 (6%)	0 (0%)	3 (7%)	
Pre-cardiac arrest POPC				$0.847^{1}$
Good = 1	32 (65%)	5 (63%)	27 (66%)	
Mild disability $= 2$	12 (24%)	2 (25%)	10 (24%)	
Moderate disability $= 3$	5 (10%)	1 (13%)	4 (10%)	
Primary etiology of cardiac				$0.414^{2}$
arrest				
Cardiac	23 (47%)	2 (25%)	21 (51%)	
Respiratory	16 (33%)	4 (50%)	12 (29%)	
Other/Unknown	10 (20%)	2 (25%)	8 (20%)	
Total number of doses of	2.0 [1.0, 4.0]	1.5 [1.0, 4.5]	2.0 [1.0, 4.0]	$0.622^{1}$
epinephrine administered by				
EMS and at hospital: Median				
[01, 03]				
Estimated duration of chest				$0.257^{2}$
compressions				
Unable to determine	1 (2%)	0 (0%)	1 (2%)	
Less than or equal to 15 minutes	30 (61%)	7 (88%)	23 (56%)	
More than 15 to less than or	8 (16%)	1 (13%)	7 (17%)	
equal to 30 minutes	0 (10/0)	- (	, (1,70)	
More than 30 minutes	10 (20%)	0 (0%)	10 (24%)	
Treatment Assigned	10 (20/0)	0 (0/0)	10 (21/0)	$0.448^{2}$
Hypothermia	26 (53%)	3 (38%)	23 (56%)	0.110
Normothermia	23 (47%)	5 (63%)	18(44%)	
1 to monomoniu	23 (77/0)	5 (0570)	10 (7770)	

 $\ensuremath{\mathbb{C}}$  2018 American Medical Association. All rights reserved.

eTable 2: Demographic variables between eligible cases with 12-month VABS-II interview and onsite testing data and those whose families declined either or both evaluations -  $\geq 6$  years

	Testing Completed			
	Overall	No	Yes	
	(N = 49)	(N = 8)	(N = 41)	P-value
Post-cardiac arrest length of	23.0 [12.0, 55.0]	47.5 [22.5, 103.0]	20.0 [11.0, 50.0]	$0.028^{1}$
stay (days): Median [Q1, Q3]				
PCPC at hospital discharge				$0.108^{2}$
Normal $= 1$	24 (49%)	4 (50%)	20 (49%)	
Mild disability $= 2$	9 (18%)	0 (0%)	9 (22%)	
Moderate disability $= 3$	9 (18%)	1 (13%)	8 (20%)	
Severe disability $= 4$	6 (12%)	2 (25%)	4 (10%)	
Coma or vegetative state $= 5$	1 (2%)	1 (13%)	0 (0%)	
Pre-cardiac arrest VABS-II	103.9 (18.26)	103.8 (13.56)	103.9 (19.18)	$0.979^{3}$
Adaptive Behavior Composite				
Score: Mean (SD)				
Month 12 VABS-II Adaptive	87.7 (15.42)	81.6 (15.71)	88.4 (15.41)	$0.399^{3}$
Behavior Composite Score:				
Mean (SD)				

<sup>1</sup> P-value is based on the Wilcoxon rank-sum test.
<sup>2</sup> Fisher's exact test.
<sup>3</sup> Two-sided t-test with unpooled variance.

eTable 3: Spearman Correlations among Vineland Adaptive Behavior Scales – Second Edition (VABS-II) and Overall Cognitive Outcome Measures

VABS-II	Mullen Early Learning Composite (N=117)	Visual Reception (N=118)	Fine Motor (N=118)	Receptive Language (N=118)	Expressive Language (N=118)
Adaptive behavior	0.87	0.80	0.78	0.79	0.80
composite					
Communication	0.85	0.76	0.74	0.81	0.80
Daily living	0.81	0.76	0.69	0.74	0.75
Socialization	0.82	0.76	0.73	0.73	0.75
Motor	0.82	0.76	0.78	0.72	0.74

eTable 3a: Spearman Correlations Among the VABS-II and Mullen Scales of Early Learning (Mullen)

<sup>1</sup> P-value < .001 for all correlations.

# eTable 3b: Spearman Correlations Among the VABS-II and Wechsler Abbreviated Scale of Intelligence (WASI)

VABS-II	Full Scale IQ (N=40)	Vocabulary (N=40)	Matrix Reasoning (N=41)
Adaptive behavior composite	$0.45^{1}$	$0.45^{1}$	$0.32^{2}$
Communication	$0.49^{1}$	$0.54^{1}$	$0.29^{3}$
Daily living	$0.44^{1}$	$0.38^{2}$	$0.43^{1}$
Socialization	$0.31^{3}$	$0.31^{3}$	$0.21^{3}$
Motor	$0.38^{2}$	$0.32^{2}$	$0.35^{2}$

<sup>1</sup> P-value < .01.

 $^{2}$  0.01  $\leq$  P-value <.05.

<sup>3</sup> P-value  $\geq$  .05.

# e Figure. Description of eligible survivors who were included and excluded

