

Disclosures

CoSTR Part 10: Writing Group Disclosures

Writing Group Member	Employment	Research Grant	Other Research Support	Speakers' Bureau/Honoraria	Ownership Interest	Consultant/Advisory Board	Other
Monica E. Kleinman	Children's Hospital Anesthesia Foundation: Non-profit organization—Senior Associate in Critical Care Medicine	None	None	None	None	None	None
Allan R. de Caen	Self-employed, Clinical Associate Professor Pediatric Critical Care Medicine, Stollery Children's Hospital/University of Alberta	None	None	None	None	None	*Medical Expert for the Canadian Medical Protective Association
Leon Chameides	Emeritus Director, Pediatric Cardiology, Connecticut Children's Medical Center; Clinical Professor, University of Connecticut	None	None	None	None	None	None
Dianne L. Atkins	University of Iowa: Medical School—Professor †Serving as a Worksheet editor for 2010 Guidelines Process. Compensation is paid partially to my institution (66%) and partially to me (34%). The salary from my institution is not altered by this	None	None	None	None	None	*Serving as a defense expert witness in a case of ventricular fibrillation in a 2 year old child. Compensation is paid directly to me
Robert A. Berg	U of Pennsylvania—Professor	None	None	None	None	None	None
Marc D. Berg	University of Arizona—Assoc. Prof. Clinical Pediatrics; Attending Physician's Healthcare (UPH); Also serve on the UPH Board of Directors—Intensivist, Pediatric Critical Care Medicine	None	None	None	None	None	None
Farhan Bhanji	Montreal Children's Hospital, McGill University—Assistant Professor of Pediatrics	None	None	None	None	None	None
Dominique Biarent	Hôpital Universitaire des Enfants reine Fabiola: PICU Director	None	None	None	None	None	*Medical expert consultant in one trial for an insurance co. (Fortis) Medical expert for legal proceedings †grant of 25000 euro from "Fondation Roi Baudouin" to the non profit organization "sauvez mon enfant" for a psychological research in the PICU (I am administrator of the non profit organization and promotor of research). The grant is not given to me but to the NPO Grant of 67500 euro from the Belgian "Loterie Nationale" to build a teaching lab to teach paediatric resuscitation to health care provider Grant given to the non profit organization "sauvez mon enfant" for psychological research in the PICU (I am administrator of the non profit organization and promotor of the research) the grant is not given to me but to the NPO Grant from Baxter Foundation to pay a psychologist in my PICU (44.540 \$) the grant is paid to the NPO
Robert Bingham	National Health Service of England—Consultant paediatric anaesthetist	None	None	None	None	None	*Occasional expert witness reports on pediatric resuscitation related topics

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CoSTR Part 10: Writing Group Disclosures, *Continued*

Writing Group Member	Employment	Research Grant	Other Research Support	Speakers' Bureau/Honoraria	Ownership Interest	Consultant/Advisory Board	Other
Ashraf Coovadia	Rahima Moosa Mother and Child Hospital: Paediatric Consultant (Attending) in Department of Paediatrics and Child Health—Adjunct Professor in Paediatrics	None	None	None	None	None	None
Mary Fran Hazinski	Vanderbilt University School of Nursing—Prof; AHA ECC Product Dev.—Senior Science Editor. I receive significant compensation† from the AHA as consultant/ SSE to provide protected time to serve as the co-editor of the 2010 ILCOR CoSTR and the 2010 AHA Guidelines for CPR and ECC	None	None	None	None	None	None
Robert W. Hickey	University of Pittsburgh—Associate Professor	†Salary support from NIH for examining cyclopentenone prostaglandin effects in ischemic brain injury	None	None	None	None	*1–2 X/year medical malpractice expert
Vinay M. Nadkarni	University of Pennsylvania School of Medicine, Children's Hospital of Philadelphia: Non-profit, Academic, University Hospital—Attending Physician, Anesthesia, Critical Care and Pediatrics	†NIH R01: Therapeutic Hypothermia after Cardiac Arrest, Co-Investigator. †Center of Excellence Grant, Laerdal Foundation for Acute Care Medicine, Pt: Understanding the mechanics and quality of CPR *NHTSA: Mechanics of Chest Compression in children, Co-Investigator	None	None	None	None	None
Amelia Reis	Hospital das Clinico Universidade de Sao Paulo, Pediatric Emergency Physician	None	None	None	None	None	None
Antonio Rodriguez-Nunez	Hospital Clinico Universitario de Santiago de Compostela—Pediatric Emergency and Critical Care Division; University of Santiago de Compostela—Associate Professor of Pediatrics	None	None	None	None	None	None
James Tibballs	Royal Children's Hospital, Melbourne Healthcare, Physician ICU	None	None	None	None	None	None
Arno L. Zaritsky	Children's Hospital of The King's Daughters—Sr. VP for Clinical Services	None	None	None	None	*Data Safety Monitoring Board for NIH-sponsored trial of therapeutic hypothermia after pediatric cardiac arrest	None
David Zideman	Imperial College NHS Trust: United Kingdom Healthcare provider—Consultant Anaesthetist; London Organizing Committee of the Olympic Games—Lead Clinician for EMS	None	None	None	None	None	*Expert testimony on Cardiac Arrest under General Anaesthesia to Her Majesty's Coroner for Surrey (Expert witness fee for case review and court appearance) less than 1500 US dollars

This table represents the relationships of writing group members that may be perceived as actual or reasonably perceived conflicts of interest as reported on the Disclosure Questionnaire, which all members of the writing group are required to complete and submit. A relationship is considered to be "significant" if (a) the person receives \$10 000 or more during any 12-month period, or 5% or more of the person's gross income; or (b) the person owns 5% or more of the voting stock or share of the entity, or owns \$10 000 or more of the fair market value of the entity. A relationship is considered to be "modest" if it is less than "significant" under the preceding definition.

*Modest.

†Significant.

CoSTR Part 10: Worksheet Collaborator Disclosures

Worksheet Collaborator	Employment	Research Grant	Other Research Support	Speakers' Bureau/Honoraria	Ownership		
					Interest	Consultant/Advisory Board	Other
Ian Adata	University of Alberta and Alberta Health Services; Professor Pediatrics, Director Pediatric Cardiac Critical Care Program and Pulmonary Hypertension Clinic	None	None	None	None	None	None
Richard P. Aickin	Auckland District Health Board Government Funded Healthcare Provider (primary care through to tertiary hospital services) for Auckland population and for national tertiary services. Director of Child Health	None	None	None	None	*New Zealand Health and Disability Commission: occasional expert reports provided with respect to alleged breaches of healthcare standards. 1–2 reports per year. Small personal payment received	*Expert Witness: Occasional expert testimony for Coroner's Court and criminal (Child protection) cases. Approx 1 × year. No personal payment—small payment to Auckland District Health Board for my time
John Berger	Children's National Medical Center Non-profit children's hospital Medical Director, Cardiac Intensive Care and Pulmonary Hypertension	<p>15 U 10 HD 049981—DL Wessel (PI) 12/1/09–11/30/14 Sponsor: NIH/NICHD/NCMRR</p> <p>Pediatric Critical Care Research Network The major aims of the network are to reduce morbidity and mortality in pediatric critical illness and injury, and to provide a framework for the development of the scientific basis of pediatric critical care practice. I am responsible for conduct of network approved studies at CNMC. As a member of the network steering committee, I am responsible for contributing to design of studies, analyzing results and disseminating research findings.</p> <p>Grant money comes to institution. Role: Co-Investigator</p> <p>*Therapeutic Hypothermia after Pediatric Cardiac Arrest (THAPCA) Trials. PI: JT Berger 2009 Sponsor: of Michigan</p> <p>I am the site PI for the conduct of a randomized trial of therapeutic hypothermia in children who have had a cardiac arrest funded by NHLBI. Money comes to the institution. Role: Consortium Site PI</p> <p>*Tracking Outcomes and Practice in Pediatric Pulmonary Hypertension. PI: JT Berger. 2008 Sponsor: Association in Pediatric Pulmonary Hypertension</p> <p>I am the site PI responsible for contributing subject data to a registry of pediatric pulmonary hypertension patients and their therapy Role: Site PI</p>	None	None	None	None	None
Jeffrey M. Berman	University of North Carolina: Faculty member UNC School of Medicine—Professor of Anesthesiology	None	None	None	None	None	None
Desmond Bohn	The Hospital for Sick Children, Toronto—Chief, Department of Critical Care Medicine	None	None	None	None	None	None
Kate L. Brown	Great Ormond Street Hospital for Children NHS Trust Hospital consultant in paediatric intensive care Consultant paediatric cardiac intensive care	None	None	None	None	None	None
Mark G. Coulthard	Queensland Health: State Health Employer Organisation—Paediatric Intensive Care Specialist	None	None	None	None	None	None
Douglas S. Diekema	Children's University Medical Group: Delivery of medical care in Children's Hospital of Seattle and the University of Washington—Professor of Pediatrics, Attending Physician, Emergency Department	None	None	None	None	None	None

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CoSTR Part 10: Worksheet Collaborator Disclosures, *Continued*

Worksheet Collaborator	Employment	Research Grant	Other Research Support	Speakers' Bureau/Honoraria	Ownership		
					Interest	Consultant/Advisory Board	Other
Aaron Donoghue	University of Pennsylvania—Assistant Professor	None	None	None	None	None	None
Jonathan Duff	Alberta Health Services: Pediatric Intensivist	None	None	None	None	None	None
Jonathan R. Egan	The Children's hospital at Westmead, Sydney—Pediatric Intensivist	None	None	None	None	None	None
Christoph B. Eich	University Medical Centre of Göttingen, Germany: Attending Anesthesiologist, Intensivist and Emergency Physician	None	None	None	None	None	None
Diana G. Fendya	Children's National Medical Center, EMSC National Resource Center; Trauma/Acute Care Nursing Specialist	None	None	None	None	None	None
Ericka L. Fink	Children's Hospital of Pittsburgh of UPMC—Assistant Professor	†P.I., K23 from NINDS Duration of Hypothermia for Neuroprotection after Pediatric Cardiac Arrest Institution P.I., Laerdal Foundation grant \$21,365 Same topic Institution *Children's Hospital of Pittsburgh of UPMC Clinical and Translational Science Institute \$6500 Same topic Institution	None	None	None	None	None
Loh Tsee Foong	KK Women's and Children's Hospital	None	None	None	None	None	None
Eugene B. Freid	Nemours Children's Clinics Health Care Organization Staff Anesthesiologist and Intensivist University of Florida Jacksonville Health Care Organization Pediatric Intensivist	None	None	*University of North Carolina—Speaker at Anesthesiology Refresher Course. 1000–1500/year honorarium sent to institution	None	None	None
Susan Fuchs	Children's Memorial Hospital-Assoc Director, Div Pediatric Emergency Medicine	None	None	None	None	None	*Currently on the American Academy of Pediatrics Advanced Pediatric Life Support Steering Committee and Currently Co-chairperson of the AAP Pediatric Education for Prehospital Professional (PEPP) steering committee
Anne-Marie Guerguerian	The Hospital for Sick Children; Staff Physician	None	None	None	None	None	None
Bradford D. Harris	UNC at Chapel Hill; Assist Prof	†5 P01 AT002620–02 (Peden) 09/30/04–06/30/09 5% NIH/NCCAM \$1,660,813 Annual Direct Translational Research Center for CAM Therapy of Asthma The objective of this research is to identify antioxidant complementary and alternative medicine therapies for application in asthma. 5 R01 ES012706–02 (Peden) 09/01/04–07/31/09 5% NIH/NIEHS \$ 209,314 03 and LPS-Induced Airway Inflammation in Humans in vivo The objective is to test three hypotheses to define the ways that O3 and LPS interact to exacerbate airway disease. 5 R01 HL080337–02 (Peden) 05/06/05–04/30/09 5% NIH NHLBI/NIAID \$350,000 Airway Biology of Acute Asthma: Translational Studies The major goal is to determine if asthma exacerbation and allergen challenge models allow for examination of innate/acquired immune interactions. R82952201 Cooperative Agreement (Bromberg) 11/01/01–10/31/06 5% U.S. Environmental Protection Agency \$1,583,867 Health Effects of Exposure to Air Pollutants in Humans The major goal of this cooperative agreement is to examine the health effects of inhalation of environmental ambient air pollutants on human subjects	None	*Assoc Clinical Research Professor on peds pharm	None	None	None

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CoSTR Part 10: Worksheet Collaborator Disclosures, *Continued*

Worksheet Collaborator	Employment	Research Grant	Other Research Support	Speakers' Bureau/Honoraria	Ownership		
					Interest	Consultant/Advisory Board	Other
George M. Hoffman	Medical College of Wisconsin medical school Professor, Anesthesiology and Pediatrics [View] Children's Hospital of Wisconsin hospital Medical Director, Pediatric Anesthesiology	None	None	*Somanetics, Inc biomedical device manufacturer 1653 East Maple Road Troy, MI 48083-4208 i have informally served in consultant/advisory capacity and have received honoraria for speaking	None	*Edwards Life Sciences, Inc biomedical device manufacturer One Edwards Way Irvine, CA 92614 i have served informally in consultant/advisory capacity *Masimo, Inc biomedical device manufacturer 2852 Kelvin Ave. Irvine, CA, 92614 i have served informally in consultant/advisory capacity	None
James S. Hutchison	SickKids Hospital Director Neurocritical Care	None	None	None	None	None	None
Sharon B. Kinney	University of Melbourne and Royal Children's Hospital Melbourne—Lecturer and MET Coordinator	None	None	None	None	None	None
Sasa Kurosawa	Shizuoka Children's Hospital Department of Pediatric Emergency & General Pediatrics Doctor National Center for Child Health & Development Department of Health Policy, Research Institution researcher	None	None	None	None	None	None
Jesús López-Herce	Hospital General Universitario Gregorio Marañón—Pediatric Assistant	None	None	None	None	None	None
Sharon E. Mace	Cleveland Clinic—Physician employed fulltime by the hospital; Attending staff physician	None	None	*Baxter Healthcare Pharmaceutical Speaker Bureau	None	*Baxter Healthcare Pharmaceutical Consultant, Advisory Board	None
Ian Maconochie	Imperial Academic Health Sciences Centre, London: I run the pediatric emergency medicine department at St Mary's Hospital in Paddington, London—Lead Consultant in Pediatric Emergency medicine	None	*Postal for survey of UK departments about use of pain relief from Therakind, a company looking to obtain license for use of commonly used drugs from the medical regulatory authority in UK. Estimated payment was about 150 pounds sterling	None	None	"I am a deputy editor for <i>The Emergency Medicine Journal</i> , a commissioning editor for the <i>Archives of Diseases of Childhood</i> and sit on the editorial advisory panel for the <i>British Medical Journal</i> . I am editorial board member for <i>Current Pediatric Reviews</i> and <i>Pediatric Emergency Medical Journal</i> . The latter 2 I do not receive payment. I act as a consultant advisory to TSG associates in relation to major disaster management systems. I have advised Therakind on the licensing of drugs in the pediatric population., ie approaching the medical regulatory authority to obtain a license on the use of a commonly used drug in the treatment of fitting children in UK	"I have acted as an expert witness in cases relating to the management of children who may have had non accidental injury.
Duncan Macrae	The Royal Brompton and Harefield NHS Foundation Trust—Director of Children's Services	None	None	None	None	None	None
Mioara D. Manole	Univ of Pittsburgh: Ped Emerg. Medicine attending physician; assist Prof Ped	NIH K08HD58798-funds go to Univ Children's Hosp of Pitts RAC grant-funds to Univer.	None	None	None	None	None
Bradley S. Marino	Cincinnati Children's Hospital Medical Center Associate Professor of Pediatrics	None	None	None	None	None	None

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CoSTR Part 10: Worksheet Collaborator Disclosures, *Continued*

Worksheet Collaborator	Employment	Research Grant	Other Research Support	Speakers' Bureau/Honoraria	Ownership		
					Interest	Consultant/Advisory Board	Other
Felipe Martínez	Universidad de Valparaíso—Professor	None	None	None	None	None	None
Reylon A. Meeks	Blank Children's Hospital, Pleasant Hill Fire Dept., N Clinical Specialist	None	None	None	None	None	None
Alfredo Misraji	Unidad Coronaria Movil	None	None	None	None	None	None
Marilyn Morris	Columbia Univ; assist Prof Ped	None	None	None	None	None	*Expert witness \$900 for 3 hour case for defense of child that received E CPR
Akira Nishisaki	Children's Hosp of Philadelphia, non profit tertiary children's hospital; attending MD CCMedicine	None	None	None	None	None	None
Masahiko Nitta	Osaka Medical College—Assistant Professor	None	None	None	None	None	None
Gabrielle Nuthall	Auckland District Health Board: Pediatric Intensive Care Specialist	None	None	None	None	None	None
Sergio Pesutic Pérez	Centro de Formación en Apoyo Vital Director	None	None	None	None	None	None
Lester T. Proctor	University of Wisconsin-Madison College of Medicine and Public Health—Professor	None	None	None	None	None	None
Faiqa A. Qureshi	Children's Specialty Group—Physician	None	None	None	None	None	None
Sergio Rendich	Hospital Naval Almirante Nef—Pediatrician; Hospital Gustavo Fricke; Pediatrician—Intensive Care Unit; Universidad de Valparaíso Professor, Pediatrics Clinica Las Condes Critical Patient Unit Centro de Formación en Apoyo Vital; Instructor, NRP	None	None	None	None	None	None
Ricardo A. Samson	The University of Arizona: Faculty member within the Department of Pediatrics Chief of the Cardiology Section Provide clinical care, teaching and research related to the field of Pediatric Cardiology—Professor of Pediatrics	None	None	None	None	None	None
Kenneth Sartorelli	University of Vermont Associate Professor of Surgery	None	None	None	None	None	None
Stephen M. Schexnayder	University of Arkansas for Medical Sciences—College of Medicine: Physician - Clinician Educator—Professor and Division Chief: AHA Consultant	*Pharmacokinetics of pantoperazole in pediatrics patients (Pediatric Pharmacology Research Unit) Pharmacokinetics of esomeprazole in pediatric patients (Astra Zeneca)	None	*Contemporary Forums (Nursing conference) Pediatric Clinics of North America (guest editor)	None	None	*Expert witness in various medicolegal cases involving pediatric critical care and emergency medicine
William Scott	UT Southwestern Medical Center—Professor	None	None	None	None	None	None
Vijay Srinivasan	Children's Hospital of Philadelphia—Attending Physician, Pediatric Intensive Care Unit	*A Reproducible Method for Blood Glucose Control in Critically Ill Children (RC1 sub contract with Inter Mountain Medical Center, Pt: Alan Morris), site Pt: Vijay Srinivasan—submitted for NIH Challenge Grants July 2009, approval pending	*PI: A Novel Application of Impedance Threshold Device technologies to optimize Fluid Removal during Hemodialysis in Children (unfunded research at CHOP—IRB Research Protocol No: 2007-12-5712)—have received impedance threshold devices for this study from Advanced Circulatory Systems, Inc, EdenPrairieMN	None	None	None	None
Robert M. Sutton	The Children's Hospital of Philadelphia Critical Care Attending	*Unrestricted research grant support from the Laerdal Foundation for Acute Care Medicine	None	None	None	None	None
Mark Terry	Johnson County Med-Act: County government ambulance service—Deputy Chief Operations	None	None	None	None	None	None

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CoSTR Part 10: Worksheet Collaborator Disclosures, *Continued*

Worksheet Collaborator	Employment	Research Grant	Other Research Support	Speakers' Bureau/Honoraria	Ownership		
					Interest	Consultant/Advisory Board	Other
Shane Tibby	Guy's and St Thomas' NHS Foundation Trust, London National Health Service Hospital trust in United Kingdom Consultant in Pediatric Intensive Care	None	None	None	None	None	None
Alexis Topjian	The Children's Hospital of Philadelphia—attending physician	*site PI for the Therapeutic hypothermia after cardiac arrest study. NIH funded study. Money goes to the institution	None	None	None	None	None
Elise W. van der Jagt	University of Rochester: Academic Institution including Medical School/Center—Professor of Pediatrics and Critical Care	†Project Title: Therapeutic Hypothermia After Pediatric Cardiac Arrest (THAPCA) Trials PI: Frank W. Moler, M.D. (University of Michigan) Proposed project period: 7/1/2009–6/30/2014 We are part of this multi-institutional grant but after the grant was funded, the initial institutions that would be involved were the higher volume/larger children's hospitals. At this time we are not receiving any funding from this grant.*PI andCo-Investigator/Site	None	None	None	None	None
David Wessel	Children's National Medical Center Senior Vice President	None	None	None	None	†KARIA Holdings Inc. Pharmaceutical Consultant	None

This table represents the relationships of worksheet collaborators that may be perceived as actual or reasonably perceived conflicts of interest as reported on the Disclosure Questionnaire, which all worksheet collaborators are required to complete and submit. A relationship is considered to be "significant" if (a) the person receives \$10 000 or more during any 12-month period, or 5% or more of the person's gross income; or (b) the person owns 5% or more of the voting stock or share of the entity, or owns \$10 000 or more of the fair market value of the entity. A relationship is considered to be "modest" if it is less than "significant" under the preceding definition.

*Modest.

†Significant.

Appendix

CoSTR Part 10: Worksheet Appendix

Task Force	WS ID	PICO Title	Short Title	Authors	URL
Peds	Peds-001A	In infants (<1 year, not including newly born) in cardiac arrest (prehospital [OHCA], in-hospital [IHCA]) (P), does the use of AEDs (I) compared with standard management (which does not include use of AEDs) (C), improve outcomes (eg, termination of rhythm, ROSC, survival) (O)?	AEDs in children less than 1 yr	Reylon A. Meeks	http://circ.ahajournals.org/site/C2010/Peds-001A.pdf
Peds	Peds-001B	In infants (<1 year, not including newly born) in cardiac arrest (prehospital [OHCA], in-hospital [IHCA]) (P), does the use of AEDs (I) compared with standard management (which does not include use of AEDs) (C), improve outcomes (eg, termination of rhythm, ROSC, survival) (O)?	AEDs in children less than 1 yr	Antonio Rodriguez-Nunez	http://circ.ahajournals.org/site/C2010/Peds-001B.pdf
Peds	Peds-002A	For infants and children in cardiac arrest, does the use of a pulse check (I) vs. assessment for signs of life (C) improve the accuracy of diagnosis of pediatric CPA (O)?	Pulse check accuracy	Aaron Donoghue, James Tibballs	http://circ.ahajournals.org/site/C2010/Peds-002A.pdf
Peds	Peds-003	During cardiac arrest in infants or children (P), does the presence of family members during the resuscitation (I) compared to their absence (C) improve patient or family outcome measures (O)?	Family presence	Douglas S. Diekema	http://circ.ahajournals.org/site/C2010/Peds-003.pdf
Peds	Peds-004	In infants and children with respiratory failure who undergo endotracheal intubation (prehospital [OHCA], in-hospital [IHCA]) (P), does the use of devices (eg, CO ₂ detection device, CO ₂ analyzer or esophageal detector device) (I) compared with usual management (C), improve the accuracy of diagnosis of airway placement (O)?	Verification of airway placement	Diana G. Fendya, Monica Kleinman	http://circ.ahajournals.org/site/C2010/Peds-004.pdf
Peds	Peds-005A	In pediatric patients with cardiac arrest (prehospital [OHCA] or in-hospital [IHCA]) (P), does the use of end-tidal CO ₂ (I), compared with clinical assessment (C), improve accuracy of diagnosis of a perfusing rhythm (O)?	End-tidal CO ₂ to diagnose perfusing rhythm	Arno Zaritsky	http://circ.ahajournals.org/site/C2010/Peds-005A.pdf
Peds	Peds-005B	In pediatric patients with cardiac arrest (prehospital [OHCA] or in-hospital [IHCA]) (P), does the use of end-tidal CO ₂ (I), compared with clinical assessment (C), improve accuracy of diagnosis of a perfusing rhythm (O)?	End-tidal CO ₂ to diagnose perfusing rhythm	Anne-Marie Guerguerian	http://circ.ahajournals.org/site/C2010/Peds-005B.pdf
Peds	Peds-006B	In pediatric patients in clinical cardiac arrest (prehospital [OHCA] or in-hospital [IHCA]) (P), does the use of a focused echocardiogram (I) compared with standard assessment, assist in the diagnosis of reversible causes of cardiac arrest?	Methods to diagnose perfusing rhythm	Christoph B. Eich, Faiga A. Qureshi	http://circ.ahajournals.org/site/C2010/Peds-006B.pdf
Peds	Peds-007	In children requiring emergent intubation (prehospital, in-hospital) (P), does the use of cuffed ETs (I) compared with uncuffed ETs (C) improve therapeutic endpoints (eg, oxygenation and ventilation) or reduce morbidity or risk of complications (eg, need for tube change, airway injury, aspiration) (O)?	Cuffed vs uncuffed ETs	Ashraf Coovadia	http://circ.ahajournals.org/site/C2010/Peds-007.pdf

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CoSTR Part 10: Worksheet Appendix, *Continued*

Task Force	WS ID	PICO Title	Short Title	Authors	URL
Peds	Peds-008	In children requiring assisted ventilation (prehospital, in-hospital) (P), does the use of bag-valve-mask (I) compared with endotracheal intubation (C) improve therapeutic endpoints (oxygenation and ventilation), reduce morbidity or risk of complications (eg, aspiration), or improve survival (O)?	BVM vs intubation	Dominique Biarent	http://circ.ahajournals.org/site/C2010/Peds-008.pdf
Peds	Peds-009	In pediatric patients in cardiac arrest (prehospital [OHCA] or in-hospital [IHCA]) (P), does the use of supraglottic airway devices (I) compared with bag-valve-mask alone (C), improve therapeutic endpoints (eg, ventilation and oxygenation), improve quality of resuscitation (eg, reduce hands-off time, allow for continuous compressions), reduce morbidity or risk of complications (eg, aspiration) or improve survival (O)?	Supraglottic airway devices	Robert Bingham	http://circ.ahajournals.org/site/C2010/Peds-009.pdf
Peds	Peds-010A	For infants and children who have ROSC after cardiac arrest (P), does the use of induced hypothermia (I) compared with normothermia (C) improve outcome (survival to discharge, survival with good neurologic outcome) (O)?	Induced hypothermia after ROSC	Robert Hickey	http://circ.ahajournals.org/site/C2010/Peds-010A.pdf
Peds	Peds-010B	For infants and children who have ROSC after cardiac arrest (P), does the use of induced hypothermia (I) compared with normothermia (C) improve outcome (survival to discharge, survival with good neurologic outcome) (O)?	Induced hypothermia after ROSC	James S. Hutchison	http://circ.ahajournals.org/site/C2010/Peds-010B.pdf
Peds	Peds-011B	In infants and children with cardiac arrest from a non-asphyxial or asphyxial cause (excluding newborns) (prehospital [OHCA] or in-hospital [IHCA]) (P), does the use of another specific C:V ratio by laypersons and HCPs (I) compared with standard care (15:2) (C), improve outcome (eg, ROSC, survival) (O)?	Compression ventilation ratio	Robert Bingham, Robert Hickey	http://circ.ahajournals.org/site/C2010/Peds-011B.pdf
Peds	Peds-012A	In infants and children (not including newborns) with cardiac arrest (out-of-hospital and in-hospital) (P), does the use of compression-only CPR (I) as opposed to standard CPR (ventilations and compressions) (C), improve outcome (O) (eg, ROSC, survival)?	Compression only CPR	Robert A. Berg, Dominique Biarent	http://circ.ahajournals.org/site/C2010/Peds-012A.pdf
Peds	Peds-013A	In pediatric patients with cardiac arrest (prehospital [OHCA] or in-hospital [IHCA]) and a secure airway (P), does the use of a specific minute ventilation (combination of respiratory rate and tidal volume) depending on the etiology of the arrest (I) as opposed to standard care (8–10 asynchronous breaths per minute) (C), improve outcome (O) (eg, ROSC, survival)?	Etiology specific minute ventilation	Monica Kleinman	http://circ.ahajournals.org/site/C2010/Peds-013A.pdf
Peds	Peds-013B	In pediatric patients with cardiac arrest (prehospital [OHCA] or in-hospital [IHCA]) and a secure airway (P), does the use of a specific minute ventilation (combination of respiratory rate and tidal volume) depending on the etiology of the arrest (I) as opposed to standard care (8–10 asynchronous breaths per minute) (C), improve outcome (O) (eg, ROSC, survival)?	Etiology specific minute ventilation	Naoki Shimizu	http://circ.ahajournals.org/site/C2010/Peds-013A.pdf
Peds	Peds-014	In pediatric patients in cardiac arrest (prehospital [OHCA] or in-hospital [IHCA]) (P) does the use of rapid deployment ECMO or emergency cardiopulmonary bypass (I), compared with standard treatment (C), improve outcome (ROSC, survival to hospital discharge, survival with favorable neurologic outcomes) (O)?	ECMO	Marilyn Morris	http://circ.ahajournals.org/site/C2010/Peds-014.pdf
Peds	Peds-014B	In pediatric patients in cardiac arrest (prehospital [OHCA] or in-hospital [IHCA]) (P) does the use of rapid deployment ECMO or emergency cardiopulmonary bypass (I), compared with standard treatment (C), improve outcome (ROSC, survival to hospital discharge, survival with favorable neurologic outcomes) (O)?	ECMO	Kate L. Brown	http://circ.ahajournals.org/site/C2010/Peds-014B.pdf
Peds	Peds-015	In pediatric patients in cardiac arrest, associated with or without asphyxia (prehospital [OHCA] or in-hospital [IHCA]) (P) does ventilation with a specific oxygen concentration (room air or a titrated concentration between 0.21 and 1.0) (I), compared with standard treatment (100% oxygen) (C), improve outcome (ROSC, survival to hospital discharge, survival with favorable neurologic outcome) (O)?	Titrated oxygen vs 100% oxygen	Robert Hickey	http://circ.ahajournals.org/site/C2010/Peds-015.pdf
Peds	Peds-016	In infants and children with ROSC after cardiac arrest (prehospital or in-hospital) (P), does the use of a specific strategy to manage blood glucose (eg, target range) (I) as opposed to standard care (C), improve outcome (O) (eg, survival)?	Glucose control following resuscitation	Duncan Macrae, Vijay Srinivasan	http://circ.ahajournals.org/site/C2010/Peds-016.pdf
Peds	Peds-017B	In pediatric patients with cardiac arrest (pre-hospital [OHCA] or in-hospital [IHCA]) (P), does the use of any specific alternative method for calculating drug dosages (I) compared with standard weight-based dosing (C), improve outcome (eg, achieving expected drug effect, ROSC, survival, avoidance of toxicity) (O)?	Methods for calculating drug dosages	Ian Macconochie, Vijay Srinivasan	http://circ.ahajournals.org/site/C2010/Peds-017B.pdf
Peds	Peds-018	In adult and pediatric patients with cardiac arrest (pre-hospital [OHCA] or in-hospital [IHCA]) (P), does the use of any specific alternative dosing regimen for epinephrine (I) compared with standard recommendations (C), improve outcome (eg, ROSC, survival to hospital discharge, survival with favorable neurologic outcome) (O)?	Epinephrine dose	Amelia Reis	http://circ.ahajournals.org/site/C2010/Peds-018.pdf
Peds	Peds-019	In pediatric patients with cardiac arrest (pre-hospital [OHCA] or in-hospital [IHCA]) due to VF/pulseless VT (P), does the use of amiodarone (I) compared with lidocaine (C), improve outcome (eg, ROSC, survival to hospital discharge, survival with favorable neurologic outcome) (O)?	Amiodarone vs lidocaine for VF/VT	Dianne L. Atkins	http://circ.ahajournals.org/site/C2010/Peds-019.pdf
Peds	Peds-020A	In adult and pediatric patients with cardiac arrest (pre-hospital [OHCA] or in-hospital [IHCA]) (P), does the use of vasopressin or vasopressin + epinephrine (I) compared with standard treatment recommendations (C), improve outcome (eg, ROSC, survival to hospital discharge, or survival with favorable neurologic outcome) (O)?	Vasopressin	Elise W. van der Jagt	http://circ.ahajournals.org/site/C2010/Peds-020A.pdf

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CoSTR Part 10: Worksheet Appendix, *Continued*

Task Force	WS ID	PICO Title	Short Title	Authors	URL
Peds	Peds-020B	In adult and pediatric patients with cardiac arrest (pre-hospital [OHCA] or in-hospital [IHCA]) (P), does the use of vasopressin or vasopressin + epinephrine (I) compared with standard treatment recommendations (C), improve outcome (eg, ROSC, survival to hospital discharge, or survival with favorable neurologic outcome) (O)?	Vasopressin	Dominique Biarent	http://circ.ahajournals.org/site/C2010/Peds-020B.pdf
Peds	Peds-021A	In pediatric patients with cardiac arrest (pre-hospital [OHCA] or in-hospital [IHCA]) (P), does the use of calcium (I) compared with no calcium (C), improve outcome (O) (eg, ROSC, survival to hospital discharge, survival with favorable neurologic outcome)?	Calcium	Allan de Caen	http://circ.ahajournals.org/site/C2010/Peds-021A.pdf
Peds	Peds-021B	In pediatric patients with cardiac arrest (pre-hospital [OHCA] or in-hospital [IHCA]) (P), does the use of calcium (I) compared with no calcium (C), improve outcome (O) (eg, ROSC, survival to hospital discharge, survival with favorable neurologic outcome)?	Calcium	Felipe Martinez, Sergio Pesutic, Sergio Rendich	http://circ.ahajournals.org/site/C2010/Peds-021B.pdf
Peds	Peds-022A	In pediatric patients with cardiac arrest due to primary or secondary VF or pulseless VT (pre-hospital [OHCA] or in-hospital [IHCA]) (P), does the use of more than one shock for the initial or subsequent defibrillation attempt(s) (I), compared with standard management (C), improve outcome (eg, termination of rhythm, ROSC, survival to hospital discharge, survival with favorable neurologic outcome) (O)?	Single or stacked shocks	Marc Berg	http://circ.ahajournals.org/site/C2010/Peds-022A.pdf
Peds	Peds-023A	In pediatric patients with cardiac arrest due to primary or secondary VF or pulseless VT (pre-hospital [OHCA] or in-hospital [IHCA]) (P), does the use of a specific energy dose or regimen of energy doses for the initial or subsequent defibrillation attempt(s) (I), compared with standard management (C), improve outcome (eg, termination of rhythm, ROSC, survival to hospital discharge, survival with favorable neurologic outcome) (O)?	Energy doses	Jonathan R. Egan	http://circ.ahajournals.org/site/C2010/Peds-023A.pdf
Peds	Peds-023B	In pediatric patients with cardiac arrest due to primary or secondary VF or pulseless VT (pre-hospital [OHCA] or in-hospital [IHCA]) (P), does the use of a specific energy dose or regimen of energy doses for the initial or subsequent defibrillation attempt(s) (I), compared with standard management (C), improve outcome (eg, termination of rhythm, ROSC, survival to hospital discharge, survival with favorable neurologic outcome) (O)?	Energy doses	Dianne L. Atkins	http://circ.ahajournals.org/site/C2010/Peds-023B.pdf
Peds	Peds-024A	In pediatric patients with ROSC after cardiac arrest (pre-hospital [OHCA] or in-hospital [IHCA]) who have signs of cardiovascular dysfunction (P), does the use of any specific cardioactive drugs (I) as opposed to standard care (or different cardioactive drugs) (C), improve physiologic endpoints (oxygen delivery, hemodynamics) or patient outcome (eg, survival to discharge or survival with favorable neurologic outcome) (O)?	Cardioactive drugs post resuscitation	Allan de Caen	http://circ.ahajournals.org/site/C2010/Peds-024A.pdf
Peds	Peds-024B	In pediatric patients with ROSC after cardiac arrest (pre-hospital [OHCA] or in-hospital [IHCA]) who have signs of cardiovascular dysfunction (P), does the use of any specific cardioactive drugs (I) as opposed to standard care (or different cardioactive drugs) (C), improve physiologic endpoints (oxygen delivery, hemodynamics) or patient outcome (eg, survival to discharge or survival with favorable neurologic outcome) (O)?	Cardioactive drugs post resuscitation	Mark G. Coulthard	http://circ.ahajournals.org/site/C2010/Peds-024B.pdf
Peds	Peds-025A	In pediatric patients with in-hospital cardiac or respiratory arrest (P), does use of EWSS/response teams/MET systems (I) compared with no such responses (C), improve outcome (eg, reduce rate of cardiac and respiratory arrests and in-hospital mortality) (O)?	METs	Elise W. van der Jagt	http://circ.ahajournals.org/site/C2010/Peds-025A.pdf
Peds	Peds-025B	In pediatric patients with in-hospital cardiac or respiratory arrest (P), does use of EWSS/response teams/MET systems (I) compared with no such responses (C), improve outcome (eg, reduce rate of cardiac and respiratory arrests and in-hospital mortality) (O)?	METs	James Tibballs	http://circ.ahajournals.org/site/C2010/Peds-025B.pdf
Peds	Peds-026A	For intubated newborns within the first month of life (beyond the delivery room) who are receiving chest compressions (P), does the use of continuous chest compressions (without pause for ventilation) (I) vs. chest compressions with interruptions for ventilation (C) improve outcome (time to sustained heart rate >100, survival to ICU admission, survival to discharge, survival with favorable neurologic status) (O)?	Continuous chest compressions for intubated newborns outside of DR	Monica Kleinman	http://circ.ahajournals.org/site/C2010/Peds-026A.pdf
Peds	Peds-027A	For newborns within the first month of life (beyond the delivery room) who are not intubated and who are receiving CPR (P), does the use of a 3:1 compression to ventilation ratio (I), compared with a 15:2 compression to ventilation ratio (C) improve outcome (time to sustained heart rate >100, survival to ICU admission, survival to discharge, discharge with favorable neurologic status) (O)?	3:1 vs 15:2 ratio for neonates outside of DR	Leon Chameides	http://circ.ahajournals.org/site/C2010/Peds-027A.pdf
Peds	Peds-028	In pediatric patients with cardiac arrest (out-of-hospital and in-hospital) (including prolonged arrest states) (P), does the use of NaHCO ₃ (I) compared with no NaHCO ₃ (C), improve outcome (O) (eg, ROSC, survival)?	Sodium bicarbonate	Stephen M. Schexnayder	http://circ.ahajournals.org/site/C2010/Peds-028.pdf
Peds	Peds-029	In infants and children in cardiac arrest (prehospital [OHCA], in-hospital [IHCA]) (P), does the use of any specific paddle/pad size/orientation and position (I) compared with standard resuscitation or other specific paddle/pad size/orientation and position) (C), improve outcomes (eg, successful defibrillation, ROSC, survival) (O)?	Paddle size and placement for defibrillation	Dianne L. Atkins	http://circ.ahajournals.org/site/C2010/Peds-029.pdf

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CoSTR Part 10: Worksheet Appendix, *Continued*

Task Force	WS ID	PICO Title	Short Title	Authors	URL
Peds	Peds-030	In infants and children with unstable ventricular tachycardia (pre-hospital and in-hospital) (P), does the use of any drug/ combination of drugs/ intervention (eg. cardioversion) (I) compared with no drugs/intervention (C) improve outcome (eg, termination of rhythm, survival) (O)?	Unstable VT	Jeffrey M. Berman, Bradford D. Harris	http://circ.ahajournals.org/site/C2010/Peds-030.pdf
Peds	Peds-031	In infants and children with supraventricular tachycardia with a pulse (P), does the use of any drug or combination of drugs (I), compared with adenosine (C), result in improved outcomes (termination of rhythm, survival)?	Drugs for SVT	Ricardo A. Samson	http://circ.ahajournals.org/site/C2010/Peds-031.pdf
Peds	Peds-032	In infants and children with hemorrhagic shock following trauma (P), does the use of graded volume resuscitation (I) as opposed to standard care (C), improve outcome (hemodynamics, survival) (O)?	Graded volume resuscitation for traumatic shock	Jesús Lopez-Herce	http://circ.ahajournals.org/site/C2010/Peds-032.pdf
Peds	Peds-033	In pediatric patients in cardiac arrest (prehospital [OHCA], in-hospital [IHCA]) (P), does the use of one hand chest compressions (I) compared with two hand chest compressions (C) improve outcomes (eg. ROSC, rescuer performance) (O)?	One hand vs two hand compressions	Sharon B. Kinney	http://circ.ahajournals.org/site/C2010/Peds-033.pdf
Peds	Peds-034	In infants with cardiac arrest (prehospital [OHCA], in-hospital [IHCA]) (P), does the use of two-thumb chest compression without circumferential squeeze (I) compared to two-thumb chest compression with circumferential squeeze (C) improve outcome (eg. ROSC, rescuer performance) (O)?	Circumferential squeeze for infant CPR	James Tibballs	http://circ.ahajournals.org/site/C2010/Peds-034.pdf
Peds	Peds-035	In infants and children with cardiac arrest (P), does establishing intraosseous access (I) compared to establishing conventional (non-intraosseous) venous access (C) improve patient outcome (eg. ROSC, survival to hospital discharge) (O)?	IO vs IV	Jonathan Duff	http://circ.ahajournals.org/site/C2010/Peds-035.pdf
Peds	Peds-036	In infants and children with cardiac arrest (P), does the use of tracheal drug delivery (I) compared to intravenous drug delivery (C) worsen patient outcome (eg. ROSC, survival to hospital discharge) (O)?	ET vs IV drugs	Mioara D. Manole	http://circ.ahajournals.org/site/C2010/Peds-036.pdf
Peds	Peds-038B	In infants and children in shock, does early intubation and assisted ventilation compared to the use of these interventions only for associated respiratory failure lead to improved patient outcome (hemodynamics, survival)?	Intubation for shock (timing)	Amelia Reis	http://circ.ahajournals.org/site/C2010/Peds-038B.pdf
Peds	Peds-039A	In infants and children with respiratory failure who require emergent endotracheal intubation (P), does the use of cricoid pressure or laryngeal manipulation (I), when compared with standard practice (C), improve or worsen outcome (eg. success of intubation, aspiration risk, side effects, etc) (O)?	Cricoid pressure and laryngeal manipulation	Lester T. Proctor	http://circ.ahajournals.org/site/C2010/Peds-039A.pdf
Peds	Peds-039B	In infants and children with respiratory failure who require emergent endotracheal intubation (P), does the use of cricoid pressure or laryngeal manipulation (I), when compared with standard practice (C), improve or worsen outcome (eg. success of intubation, aspiration risk, side effects, etc) (O)?	Cricoid pressure and laryngeal manipulation	Ian Maconochie	http://circ.ahajournals.org/site/C2010/Peds-039B.pdf
Peds	Peds-040A	In infants and children in cardiac arrest (out-of-hospital and in-hospital) (P), does any specific compression depth (I) as opposed to standard care (ie. depth specified in treatment algorithm) (C), improve outcome (O) (eg. Blood pressure, ROSC, survival)?	Compression depth	Robert M. Sutton	http://circ.ahajournals.org/site/C2010/Peds-040A.pdf
Peds	Peds-040B	In infants and children in cardiac arrest (out-of-hospital and in-hospital) (P), does any specific compression depth (I) as opposed to standard care (ie. depth specified in treatment algorithm) (C), improve outcome (O) (eg. Blood pressure, ROSC, survival)?	Compression depth	David Zideman	http://circ.ahajournals.org/site/C2010/Peds-040B.pdf
Peds	Peds-041A	In children and infants with cardiac arrest due to major (blunt or penetrating) injury (out-of-hospital and in-hospital) (P), does the use of any specific modifications to standard resuscitation (I) compared with standard resuscitation (C), improve outcome (O) (eg. ROSC, survival)? eg. open vs closed chest CPR, other examples.	Traumatic arrest	Kennith Sartorelli	http://circ.ahajournals.org/site/C2010/Peds-041A.pdf
Peds	Peds-041B	In children and infants with cardiac arrest due to major (blunt or penetrating) injury (out-of-hospital and in-hospital) (P), does the use of any specific modifications to standard resuscitation (I) compared with standard resuscitation (C), improve outcome (O) (eg. ROSC, survival)? eg. open vs closed chest CPR, other examples.	Traumatic arrest	Jesús Lopez-Herce	http://circ.ahajournals.org/site/C2010/Peds-041B.pdf
Peds	Peds-043A	In infants and children in cardiac arrest (prehospital [OHCA], in-hospital [IHCA]) (P), does the use of self-adhesive defibrillation pads (I) compared with paddles (C), improve outcomes (eg. successful defibrillation, ROSC, survival) (O)?	Hands off defibrillation vs paddles	Mark Terry	http://circ.ahajournals.org/site/C2010/Peds-043A.pdf
Peds	Peds-043B	In infants and children in cardiac arrest (prehospital [OHCA], in-hospital [IHCA]) (P), does the use of self-adhesive defibrillation pads (I) compared with paddles (C), improve outcomes (eg. successful defibrillation, ROSC, survival) (O)?	Hands off defibrillation vs paddles	Farhan Bhanji	http://circ.ahajournals.org/site/C2010/Peds-043B.pdf
Peds	Peds-044A	In infants and children with any type of shock (P), does the use of any specific resuscitation fluid or combination of fluids [eg: isotonic crystalloid, colloid, hypertonic saline, blood products] (I) when compared with standard care (C) improve patient outcome (hemodynamics, survival) (O)?	Resuscitation fluids	Sharon E. Mace	http://circ.ahajournals.org/site/C2010/Peds-044A.pdf
Peds	Peds-044B	In infants and children with any type of shock (P), does the use of any specific resuscitation fluid or combination of fluids [eg: isotonic crystalloid, colloid, hypertonic saline, blood products] (I) when compared with standard care (C) improve patient outcome (hemodynamics, survival) (O)?	Resuscitation fluids	Richard P. Aickin	http://circ.ahajournals.org/site/C2010/Peds-044B.pdf

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CoSTR Part 10: Worksheet Appendix, *Continued*

Task Force	WS ID	PICO Title	Short Title	Authors	URL
Peds	Peds-045A	In infants and children with distributive shock with and without myocardial dysfunction (P), does the use of any specific inotropic agent (I) when compared to standard care (C), improve patient outcome (hemodynamics, survival) (O)?	Distributive shock and inotropes	Ericka L. Fink, Alfredo Misraji	http://circ.ahajournals.org/site/C2010/Peds-045A.pdf
Peds	Peds-045B	In infants and children with distributive shock with and without myocardial dysfunction (P), does the use of any specific inotropic agent (I) when compared to standard care (C), improve patient outcome (hemodynamics, survival) (O)?	Distributive shock and inotropes	Loh Tsee Foong	http://circ.ahajournals.org/site/C2010/Peds-045B.pdf
Peds	Peds-046A	In infants and children with cardiogenic shock (P), does the use of any specific inotropic agent (I) when compared with standard care (C), improve patient outcome (hemodynamics, survival) (O)?	Cardiogenic shock and inotropes	Akira Nishisaki	http://circ.ahajournals.org/site/C2010/Peds-046A.pdf
Peds	Peds-047A	In infants and children with hypotensive septic shock (P), does the use of etomidate as an induction agent to facilitate intubation (I) compared with a standard technique without etomidate (C) improve patient outcome (hemodynamics, survival) (O)?	Etomidate and septic shock	Stephen M. Schexnayder	http://circ.ahajournals.org/site/C2010/Peds-047A.pdf
Peds	Peds-047B	In infants and children with hypotensive septic shock (P), does the use of etomidate as an induction agent to facilitate intubation (I) compared with a standard technique without etomidate (C) improve patient outcome (hemodynamics, survival) (O)?	Etomidate and septic shock	Jonathan Duff	http://circ.ahajournals.org/site/C2010/Peds-047B.pdf
Peds	Peds-048A	In infants and children who are undergoing resuscitation from cardiac arrest (P), does consideration of a channelopathy as the etiology of the arrest (I), as compared with standard management (C), improve outcome (ROSC, survival to discharge, survival with favorable neurologic outcome) (O)?	Channelopathies	Robert Hickey	http://circ.ahajournals.org/site/C2010/Peds-048A.pdf
Peds	Peds-048B	In infants and children who are undergoing resuscitation from cardiac arrest (P), does consideration of a channelopathy as the etiology of the arrest (I), as compared with standard management (C), improve outcome (ROSC, survival to discharge, survival with favorable neurologic outcome) (O)?	Channelopathies	William Scott	http://circ.ahajournals.org/site/C2010/Peds-048B.pdf
Peds	Peds-049A	In infants and children with hypotensive septic shock (P), does the use of corticosteroids in addition to standard care (I) when compare with standard care without the use of corticosteroids (C), improve patient outcome (eg. Hemodynamics or survival) (O)?	Corticosteroids and septic shock	Arno Zaritsky	http://circ.ahajournals.org/site/C2010/Peds-049A.pdf
Peds	Peds-049B	In infants and children with hypotensive septic shock (P), does the use of corticosteroids in addition to standard care (I) when compare with standard care without the use of corticosteroids (C), improve patient outcome (eg. Hemodynamics or survival) (O)?	Corticosteroids and septic shock	Mark G. Coulthard	http://circ.ahajournals.org/site/C2010/Peds-049B.pdf
Peds	Peds-050A	In infants and children with acute illness or injury (P), do specific diagnostic tests (laboratory data [mixed venous oxygen saturation, pH, lactate], (I) as opposed to clinical data (vital signs, capillary refill, mental status, end-organ function [urine output]) (C), increase the accuracy of diagnosis of shock (O)?	Diagnostic tests for shock	Alexis Topjian	http://circ.ahajournals.org/site/C2010/Peds-050A.pdf
Peds	Peds-050B	In infants and children with acute illness or injury (P), do specific diagnostic tests (laboratory data [mixed venous oxygen saturation, pH, lactate], (I) as opposed to clinical data (vital signs, capillary refill, mental status, end-organ function [urine output]) (C), increase the accuracy of diagnosis of shock (O)?	Diagnostic tests for shock	Sharon B. Kinney	http://circ.ahajournals.org/site/C2010/Peds-050B.pdf
Peds	Peds-052A	In infants and children with cardiac arrest or symptomatic bradycardia that is unresponsive to oxygenation and/or ventilation (P), does the use of atropine (I), as compared with epinephrine or no atropine (C), improve patient outcome (return to age-appropriate heart rate, subsequent pulseless arrest, ROSC, survival) (O)?	Atropine vs epinephrine for bradycardia	Susan Fuchs, Sasa Kurosawa, Masahiko Nitta	http://circ.ahajournals.org/site/C2010/Peds-052A.pdf
Peds	Peds-055B	For infants and children with Fontan or hemi-Fontan circulation who require resuscitation from cardiac arrest or pre-arrest states (prehospital [OHCA] or in-hospital [IHCA]) (P), does any specific modification to standard practice (I) compared with standard resuscitation practice (C) improve outcome (eg. ROSC, survival to discharge, survival with good neurologic outcome) (O)?	Resuscitation for hemi-Fontan/Fontan circulation	Desmond Bohn, Bradley S. Marino	http://circ.ahajournals.org/site/C2010/Peds-055B.pdf
Peds	Peds-056A	For infants and children in cardiac arrest with pulmonary hypertension (prehospital [OHCA] or in-hospital [IHCA]) (P), do any specific modifications to resuscitation techniques (I) compared with standard resuscitation techniques (C), improve outcome (ROSC, survival to discharge, favorable neurologic survival) (O)?	Resuscitation of the patient with pulmonary hypertension	Ian Adata, John Berger, David Wessel	http://circ.ahajournals.org/site/C2010/Peds-056A.pdf
Peds	Peds-057A	For infants and children who require endotracheal intubation (prehospital or in hospital) (P) does the use of a specific formula to guide cuffed endotracheal tube size (I), as opposed to the use of the existing formula of $3 + \text{age}/4$ (C), achieve better outcomes (eg. successful tube placement) (O)?	Formula for cuffed ET tube size	Robert Bingham	http://circ.ahajournals.org/site/C2010/Peds-057A.pdf
Peds	Peds-057B	For infants and children who require endotracheal intubation (prehospital or in hospital) (P) does the use of a specific formula to guide cuffed endotracheal tube size (I), as opposed to the use of the existing formula of $3 + \text{age}/4$ (C), achieve better outcomes (eg. successful tube placement) (O)?	Formulas for predicting ET tube size	Eugene B. Freid	http://circ.ahajournals.org/site/C2010/Peds-057B.pdf

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CoSTR Part 10: Worksheet Appendix, *Continued*

Task Force	WS ID	PICO Title	Short Title	Authors	URL
Peds	Peds-059	For infants and children with single ventricle, s/p stage I repair who require resuscitation from cardiac arrest or pre-arrest states (prehospital [OHCA] or in-hospital [IHCA]) (P), does any specific modification to standard practice (I) compared with standard resuscitation practice (C) improve outcome (eg. ROSC, survival to discharge, survival with good neurologic outcome) (O)?	Resuscitation of the patient with single ventricle	George M. Hoffman, Shane Tibby	http://circ.ahajournals.org/site/C2010/Peds-059.pdf
Peds	Peds-060	For pediatric patients (in any setting (P), is there a clinical decision rule (I) that enables reliable prediction of ROSC (or futile resuscitation efforts)? (PROGNOSIS)	Clinical decision rules to predict ROSC	Gabrielle Nuthall	http://circ.ahajournals.org/site/C2010/Peds-060.pdf