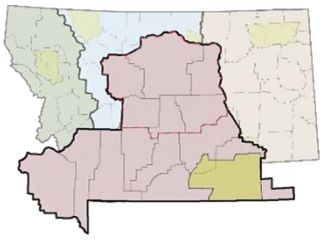
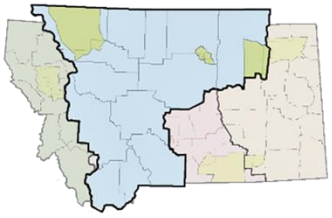
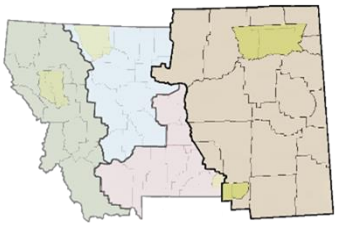
SOUTHERN REGIONAL HEALTHCARE COALITION



PEDIATRIC SURGE ANNEX TO THE SRHCC PREPAREDNESS & RESPONSE PLAN

August 2022
Version 3

PROMULGATION

The Southern RHCC Executive Committee declares this Southern RHCC Pediatric Surge Annex to the Response Plan to be in force and effective until superseded or rescinded and provides full authority to healthcare agencies and organizations within the Coalition to effectively plan for coordinated response to pediatric mass casualty occurrences within the Southern Region of Montana.

Greg Coleman - Chair

Jason Mahoney

Lauren Brown

Robert Farnum

Birgen Knoff

Paula Small-Plenty

Jude Waerig

RECORD OF CHANGE

Date	Description of Change	Initials
8/21/19	First Draft Development Version	DM
1/13/20	Second Draft Development Version	DM
1/24/20	Third Draft Development Version	DM
6/15/20	Fourth Draft Finalization	DM
9/8/20	Addition of Resources in Appendix 5	JM
8/16/22	Annual Review and Revision (version 3)	CD

RECORD OF DISTRIBUTION

Upon approval of this plan annex, the Southern Regional Healthcare Coalition will make an electronic copy available. To provide comments and suggestions for future revisions, email hppcoordinators@mtha.org.

Date	Receiving Partner Agency/Organization
9/2020	Posted on RHCC website and eICS
11/2022	Posted on RHCC website and eICS

This annex provides the structure, format and criteria for reacting and providing emergency response support to a location experiencing a surge in pediatric patients.

TABLE OF CONTENTS

Contributive Reviewers

Don McGiboney, Healthcare Preparedness Program Supervisor

Cindee McKee, Montana Hospital Association HPP Coordinator

Robin Suzor, Montana EMS for Children

Jason Mahoney, Montana EMS for Children

Kitty Songer, Central Region Healthcare Coalition Coordinator

Kyrsten Brinkley, Western Region Healthcare Coalition Coordinator

Robbie Kavon, Eastern Region Healthcare Coalition Coordinator

Casey Driscoll, Southern Region Healthcare Coalition Coordinator

Heather O'Hara, RHCC Clinical Advisor, Montana Hospital Association

SECTION I: PURPOSE, SCOPE, SITUATION, AND ASSUMPTIONS

1.1 Purpose

This annex applies to a mass casualty event with many pediatric patients. It supports the SRHCC Response Plan by addressing specific needs of children and supporting appropriate pediatric medical care during a disaster. This plan is intended to support, not replace, any existing facility or agency policy or plan by providing uniform regional response actions in the case of an emergency that involves (or could involve) significant numbers of children.

1.2 Scope

This Plan Annex is applicable to all healthcare entities within the Southern Regional Healthcare Coalition. For the purposes of this plan, "children" will be all-inclusive if under the age of 18. This plan recognizes that medical protocols at facilities might define "children" differently.

1.3 Situation

Emergency planning and response must include the whole community and address the access and functional needs of different populations. Civil rights protections and decisions, such as the Americans with Disabilities Act, Title VI and other case law (including several recent court decisions), must also be preserved in emergency planning and practices.

Healthcare Facilities
Any healthcare facility in Montana could encounter a pediatric surge situation. However, not all facilities might have adequate capabilities to provide optimal and safe care for that patient. Facilities should be aware of trauma referral patters. The primary medical provider will determine the need and options for patient transfer in the event that they are presented with significantly impacted pediatric patients.

In the Southern Region there are:

- 5 Hospitals (2 ACS Level 2, 1 ACS Level 3)
- 11 Critical Access Hospitals
- 1 Tribal/IHS Hospital
- Approximately 26 Inpatient Pediatric Beds and 5 Pediatric ICU Beds

1.3.1 ACCESS AND FUNCTIONAL NEEDS

Adequately addressing Access and Functional Needs, especially those of a specific group like children, in a response plan is challenging. Planning is more than giving the number of people in a jurisdiction with certain characteristics. Planning involves identifying how those community characteristics will affect response operations to ensure that people with diverse and functional needs access and benefit from the response and health care services that this coalition collectively provides.

1.4 Assumptions

The following are the planning assumptions for the purposes of this framework:

- All facilities within the region have developed their own Pediatric Surge plans.
- All hospitals providing emergency care may receive pediatric patients and should be able to provide initial assessment and stabilization before transferring to a higher level of care.
- Although there are adequately certified healthcare professionals, there are few pediatric and NICU beds within the state of Montana.
- An incident triggering the activation of the SRHCC Pediatric Surge Annex will happen with little or no warning.
- Initially, all local hospitals will follow the facility's organizational protocols when faced with pediatric patients.

SECTION 2: CONCEPT OF OPERATIONS

2.1 Activation Indicators (Triggers)

Activation of this plan will occur upon the request for assistance from any healthcare entity within the region.

The initial response to a pediatric patient surge will be the responsibility of the local EMS and healthcare organizations. The entities will partner with emergency management agencies, public health, law enforcement, and other response agencies as needed, utilizing all available local resources. Existing protocols for incident command, coordination of resources, and distribution of patients will be adhered to. However, local efforts may quickly become exhausted and require external resource, care, and coordination assistance.

The SRHCC would fulfill a support role during any pediatric surge event. The following steps outline the potential flow of activations and response:

1. Mass casualty incident involving pediatric patients occurs;
2. Local EMS begins notifications, patient triage, and distribution from the incident scene per existing protocols and procedures. Local facilities may notify the SRHCC to assist with coordination and resource sharing as needed;
3. If local response agencies are overwhelmed, the SRHCC may assist in contacting regional and state resources as well as other partners;
4. The SRHCC will work with the facility for situational awareness, existing telemedicine programs, and available patient transfer agencies to help facilitate transfer to appropriate definitive care.

Alternately, if facility resources are overwhelmed, requests are made to the State Emergency Coordination Center (SECC), operated by DES, and to PHEP/HPP through the DPHHS Duty Officer (DO). The SRHCC may be notified through PHEP/HPP of the need for assistance.

2.2 Notification

Notification will be the responsibility of the responding agencies and participating healthcare facilities. The SRHCC will assist with communication and resource needs as requested.

2.3 Roles and Responsibilities

Local organizations and agencies within the impacted jurisdiction will have primary responsibility for response, including initial triage and casualty distribution.

The roles and responsibilities of the responding agencies and participating healthcare facilities will be determined by each individual entity. It is the responsibility of the entities to acquire and provide appropriate education and training. The SRHCC does not have the authority to dictate or recommend roles and responsibilities but will provide education and training related to best practices.

2.4 Logistics

Logistics for space, staff, and supplies are the responsibility of the responding agencies and participating healthcare facilities. The SRHCC will assist with resource needs as requested.

2.4.1 SPACE

Each hospital should follow its own protocols for treating, holding, transporting, and transferring care regarding pediatric patients.

2.4.2 STAFF

Facilities are encouraged to utilize Montana Healthcare Mutual Aid System (MHMAS) to request trained staff as needed. Facilities are also encouraged to utilize the DPHHS EMS for Children (EMS-C) program as subject matter experts in pediatric care.

2.4.3 SUPPLIES

The SRHCC may assist with facilitating mutual aid to find supplies and resources, including transportation. This may include utilizing EMResource, existing MOUs, volunteer registry, existing cache, and access to supply vendors to address resource shortages.

2.4.4 TELEMEDICINE

Telemedicine or other telecommunication technology may be utilized when a facility is not able to transfer the pediatric patient to a higher level of care; i.e. bad weather.

2.5 Special Considerations

2.5.1 BEHAVIORAL HEALTH

In coordination with direct medical care, behavioral health care may be necessary to support patients and families impacted by a pediatric surge event. Plans should be enacted early in a pediatric response to address and plan for behavioral health care needs as appropriate. Additionally, due to the impact of treating pediatric patients, plans may be required to support a surge in behavioral health needs of patients, family members, community members, healthcare staff, and employees. Healthcare organizations should work together to facilitate information coordination and standardization of resources provided to address behavioral health concerns based on the incident. Behavioral health response may need to continue long after a response is demobilized.

2.5.2 DECONTAMINATION, EVACUATION, SPECIAL PATHOGENS AND SECURITY

Regarding decontamination, evacuation, special pathogens and security; each agency should follow its own protocols and be apprised of industry best practices.

2.6 Operations – Medical Care

Operations for all responders providing medical care are the responsibility of the health care entity. The SRHCC cannot assume the responsibility of providing guidance and/or protocol for medical care.

2.6.1 TRIAGE

The impacted healthcare organizations will immediately begin triage and treatment according to local protocols. During triage, EMS and primary receiving facilities should consider patient allocation by number of patients, age, and severity priority for pediatric patients. As stated, all hospitals providing emergency care may receive pediatric patients and should be able to provide initial assessment and stabilization before transferring to a higher level of care. Secondary triage of patients to an appropriate center for continued care will be critical. Hospitals may rely on telehealth to assess these patients based on available resources within the facility.

2.6.2 TREATMENT

Treatment of pediatric patients, including how information will be shared and how pediatric care specialty consultation will be obtained by the impacted facilities and responding agencies and their approach to patient care should align with best practice protocols.

2.7 Transportation

Considerations for safe inter-facility transport, including prioritization, of stable, unstable, and potentially unstable pediatric patients will be at the discretion of the sending and receiving facilities in concert with the transporting agency.

The decision to transfer a patient to another facility for definitive care is complex and relies on consideration of a number of factors to determine which patient is transported to which facility, and when.

2.8 Tracking

Healthcare facilities will follow routine and/or disaster protocols for tracking patient movement within their hospital system. More uncommon patient movement, including transfers from a facility to a destination facility outside of the hospital system or state, may occur.

2.9 Reunification

Facilities should utilize existing plans and protocols for providing appropriate patient supervision in a pediatric safe area and hospital family information center/support center.

2.10 Deactivation and Recovery

Triggers for incident conclusion include decreased patient volumes and near-normal levels of hospital staffing and supplies. When these triggers occur, demobilization efforts will be activated at the discretion of participating agencies with all appropriate stand-down measures initiated as needed. The Healthcare Coalitions will provide guidance and support as able.

SECTION 3: MAINTENANCE & REVIEW

The SRHCC formally reviews all components of this preparedness plan on a five-year cycle. A preparedness planning review group, convened by the executive committee, offers advice and suggestions on appropriate emergency planning and construction of the document. This process allows the coalition to determine if it meets all essential factors, remains, applicable, and affords the opportunity to update and change the plan as the coalition changes and grows.

Minor corrections, edits, updates, or adjustments in this document might occur on occasion without a formal review. Changes may also take place as part of improvement plans from exercise after action reports. All changes are tracked in a versioning method and in the Record of Change log.

3.1 Training

Just in Time training for personnel involved with supporting the incident. Potential training venues will be provided on the HCC website.

3.2 Exercises

This plan or any of its components could be exercised separately or in conjunction with other exercises. Exercises will be run under simulated, but realistic, conditions to validate plans for responding to specific emergency situations and to identify deficiencies that need to be corrected. Personnel participating in these exercises should be those who will make policy decisions or perform the operational procedures during an actual event (i.e. critical personnel). Exercises are conducted under no-fault pretenses.

APPENDICES

Appendix 1: Job Action Sheet

Sample HICS Job Action Sheet–Medical/Technical Specialist-Pediatric Care

Mission: Advise the Incident Commander or Operations Section Chief, as assigned, on issues related to pediatric emergency response.

Date: _____ Start: _____ End: _____ Position Assigned to: _____ Initial: _____
Position Reports to: _____ Signature: _____
Hospital Command Center (HCC) Location: _____ Telephone: _____
Fax: _____ **Time:** _____ **Initial:** _____
Other Contact Info:
_____ Radio
Title: _____

Immediate (Operational Period 0-2 Hours)

Receive appointment and briefing from the Incident Commander or Operations Section Chief, as assigned.

Read this entire Job Action Sheet and review incident management team chart (HICS Form 207). Put on position identification.

Notify your usual supervisor of your HICS assignment.

Document all key activities, actions, and decisions in an Operational Log (HICS Form 214) on a continual basis.

Meet with the Command staff, Operations and Logistics Section Chiefs and the Medical Care Branch Director to plan for and project pediatric patient care needs.

Communicate with the Operations Section Chief to obtain:

- Type and Location of Incident
- Number and condition of expected pediatric patients
- Estimated arrival time to facility
- Unusual or hazardous environmental exposure

Request staffing assistance from the Labor Pool and Credentialing Unit Leader, as needed, to assist with rapid research as needed to determine hazard and safety information critical to treatment and decontamination concerns for the pediatric victims.

Provide pediatric care guidance to Operation Section Chief and Medical Care Branch Director based on incident scenario and response needs.

Ensure pediatric patient identification and tracking practices are being followed.

Communicate and coordinate with Logistics Section Chief to determine pediatric:

- Medical care equipment and supply needs
- Medications with pediatric dosing
- Transportation availability and needs (carts, cribs, wheelchairs, etc.)

Communicate with Planning Section Chief to determine pediatric:

- Bed availability
- Ventilators
- Trained medical staff (MD, RN, PA, NP, etc.)
- Additional short- and long-range pediatric response needs

Ensure that appropriate pediatric standards of care are being followed in all clinical areas.

Appendix 2: Transfer Agreements

Inpatient facilities should follow established transfer protocols to higher levels of care. The closest pediatric specialty care facilities are listed below, and healthcare agencies are encouraged to have transfer agreements in place with at least one organization.

Shodair Children's Hospital, Helena

Logan Health Children's, Kalispell

Denver Children's Hospital

University of Utah Primary Children's Hospital

Seattle Children's Hospital

Sacred Heart Children's Hospital, Spokane

Appendix 3: Deleted

Appendix 4: References

Provided by ASPR TRACIE

American Academy of Pediatrics (AAP) Resources:

American Academy of Pediatrics. (2013). Pediatric Preparedness Resource Kit.

This kit allows pediatricians, public health leaders and other pediatric care providers to assess what is happening in their community or state, and help determine what needs to be done before an emergency or disaster (e.g., a pandemic). The kit also promotes collaborative discussions and decision making about pediatric preparedness planning.

American Academy of Pediatrics. (2013). Preparedness Checklist for Pediatric Practices.

This document offers checklists and steps that pediatricians or their practice staff can take to improve office preparedness. It allows for advanced preparedness planning that can mitigate risk, ensure financial stability, strengthen the medical home, and help promote the health of children in the community.

American Academy of Pediatrics. (2018). Pediatric and Public Health Preparedness Exercise Resource Kit.

This resource kit was developed through a collaboration between the American Academy of Pediatrics and the Centers for Disease Control and Prevention. Its purpose is to "provide the tools and templates to make it easier for states, communities, hospitals, or healthcare coalitions to conduct a pediatric tabletop exercise, which provides participants with the opportunity to discuss and assess preparedness plans and capabilities for a disaster that affects children."

American Academy of Pediatrics. (2019). Children's Hospitals and Preparedness Webinar Series.

The AAP created this webinar series in collaboration with the Centers for Disease Control and Prevention to promote a dialogue among clinicians and disaster planners at children's hospitals and to improve each hospital's response plans and ability to care for children in an emergency.

American Academy of Pediatrics, in collaboration with Massachusetts General Hospital, Center for Disaster Medicine. (2018). Family Reunification Following Disasters: A Planning Tool for Health Care Facilities.

This planning tool was created to assist hospitals with their plans to provide information, support services, and safe reunification assistance to family members of patients who have experienced disasters. It provides potential solutions to reunification-related challenges, including: planning for the secure reception, tracking, and care of large numbers of children who may present to a hospital following a mass-casualty event; identifying injured and unaccompanied children in a disaster; tracking unaccompanied children during their hospital stay; and what legal authority a hospital has to administer care to minors when the parent/guardian is unavailable to participate in the informed consent process.

American Academy of Pediatrics, Needle, S. and Wright, J. (2015). Ensuring the Health of Children in Disasters. American Academy of Pediatrics. 136(5): e1407-e1417.

This policy statement addresses how pediatricians and others involved in the care and well-being of children can prepare for and mitigate the effects of disasters, encourage preparedness and resiliency among children and families and within communities, and ensure that children's needs, including those of children and youth with special healthcare needs, are not neglected in planning, response, and recovery efforts.

American Academy of Pediatrics, Remick, K., Gausche-Hill, M., Joseph, M.M., at al. (2018). Pediatric Readiness in the Emergency Department. Pediatrics. 142(5).

This Policy Statement defines the recommended resources Emergency Departments need to be prepared to treat pediatric patients.

Chung, S., Foltin, G., and Schonfeld, D.J. (2019). Pediatric Disaster Preparedness and Response Topical Collection: Emerging Infectious Diseases. American Academy of Pediatrics.

This chapter is included in the AAP Pediatric Disaster Preparedness and Response Topical Collection.The chapter describes the importance of being prepared to safely care for pediatric patients with highly hazardous communicable, as emerging and reemerging infectious diseases are a constant threat to pediatric health care worldwide.

Chung, S., Foltin, G., and Schonfeld, D.J. (2019). Pediatric Disaster Preparedness and Response Topical Collection: How Children are Different. American Academy of Pediatrics.

This chapter is included in the AAP Pediatric Disaster Preparedness and Response Topical Collection. The chapter describes the unique anatomic, physiologic, immunologic, developmental, and psychologic considerations that potentially affect children's vulnerability to injury and response in a disaster.

Chung, S., Foltin, G., and Schonfeld, D.J. (2019). Pediatric Disaster Preparedness and Response Topical Collection: Mental Health Issues. American Academy of Pediatrics.

This chapter is included in the AAP Pediatric Disaster Preparedness and Response Topical Collection. This chapter describes the roles that pediatricians and other health professionals that care for children will play in identifying and addressing the mental health needs of children and families in a disaster or terrorist event.

Chung, S., Foltin, G., and Schonfeld, D.J. (2019). Pediatric Disaster Preparedness and Response Topical Collection: Pediatric Preparedness Exercises. American Academy of Pediatrics.

This chapter is included in the AAP Pediatric Disaster Preparedness and Response Topical Collection. This chapter describes the many types of exercises that can be completed to help an organization test a hypothetical situation, such as a natural or man-made disaster, and evaluate the group's ability to cooperate and work together and to test their readiness to respond.

Davies, H. and Byington, C. (2016). Parental Presence During Treatment of Ebola or Other Highly Consequential Infection. Pediatrics. 138(3).

This clinical report from the American Academy of Pediatrics Committee on Infectious Diseases presents options for meeting the needs of patients and their families while posing the least risk to healthcare providers and facilities.

Disaster Preparedness Advisory Council. (2016). Medical Countermeasures for Children in Public Health Emergencies, Disasters, or Terrorism. Pediatrics. 137(2).

The Council shares that many medical countermeasures (MCM) are more likely to be approved for adult use and may not take the unique needs of children into account. They drafted this policy statement to suggest recommendations that address the gaps for the development and use of MCMs in children during public health emergencies or disasters.

Hinton, C.F., Davies, H.D., Hocevar, S.N., et al. (2016). Parental Presence at the Bedside of a Child with Suspected Ebola: An Expert Discussion. Clinical Pediatric Emergency Medicine. 17(1):81-86.

This article demonstrates the challenges and weighing of risks and benefits involved in the consideration of parental presence at the bedside of a child suspected of having Ebola.

Schonfeld, D.J., Demaria, T., and the Disaster Preparedness Advisory Council and Committee on Psychosocial Aspects of Child and Family Health. (2015). Providing Psychosocial Support to Children and Families in the Aftermath of Disasters and Crises. Pediatrics. 136(4):E1120-E1130.

The American Academy of Pediatrics released this clinical report urging pediatricians to look for common adjustment problems in children following a disaster or crisis, and to promote effective coping strategies to ease the impact of the event. The report stresses the importance of ensuring basic support services, psychological first aid, and professional self-care while working with patients and families in the wake of disaster.

HCC-Level Pediatric Plans

National Capital Region. (2019). NCR Plan for Management of Pediatric Patients in an Emergency.

Stanislaus County. (2019). Healthcare Emergency Preparedness Coalition, Pediatric Disaster Surge Plan.

HCC Pediatric Planning Templates and Resources

DC Emergency Healthcare Coalition. (n.d.). Initial Management Guidelines for Pediatric Burn Patients.

These templates--part of the National Capital Region Burn Mass Casualty Incident Response Plan--can help healthcare providers care for pediatric burn patients.

Dodgen, D., Anderson, M., Edgerton, E., et al. (2013). Pediatric Preparedness for Healthcare Coalitions. U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response.

This 90-minute webinar provides an introduction to healthcare system preparedness for children, and a national perspective on preparedness for children in disasters. Presenters also cover improving the emergency care system for children, perspectives on creating a multi-state coalition for pediatric surge, and New York City Pediatric Disaster Coalition operational pediatric disaster planning.

Frogel, M., Flamm, A., Sagy, M., et al. (2017). Utilizing a Pediatric Disaster Coalition Model to Increase Pediatric Critical Care Surge Capacity in New York City. Disaster Medicine and Public Health Preparedness. 11(4): 473-478.

The authors describe the stepwise development of the NYC Pediatric Disaster Coalition as a model for other cities to replicate in planning for pediatric disaster patients. They also discuss how the coalition supported hospitals in planning for pediatric surge.

Hansen, C., Dodgen, D., Levine, C., et al. (2014). Pediatric Preparedness for Healthcare Coalitions: Part II. U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response.

This 90-minute webinar reviews resources, strategies, and partnerships used by medical planners and healthcare coalitions to strengthen pediatric components of their jurisdiction's healthcare preparedness capabilities. Included are lessons learned from the response to Superstorm Sandy and the Alaska Shield/Hale Borealis exercise.

Minnesota Department of Health. (2014). Patient Care Strategies for Scarce Resource Situations Card Set.

This card set can be used as a decision support tool and was developed to facilitate a structured approach to resource shortfalls at a healthcare facility. Pediatrics Resource Cards and Pediatrics Triage Cards are provided in Section 10.

Schreiber, M., Pfefferbaum, B, and Sayegh L. (2012). Toward the Way Forward: The National Children's Disaster Mental Health Concept of Operations. (Abstract only.) Disaster Medicine and Public Health Preparedness. 6(2):174-81.

The authors identify critical gaps in pediatric triage and treatment strategies during disaster response. This report provides an outline for a triage-driven children’s disaster mental health incident response strategy.

Schreiber, M., Shields, S., Formanski, S., et al. (2012). Code Triage: Integrating the National Children's Disaster Mental Health Concept of Operations Across Health Care Systems. Academic Emergency Medicine. 18:s59.

The authors identify three key concept of operations strategies that provide an integrated “disaster systems of care”: (1) the PsySTART Disaster Mental Health Triage System, (2) a childfocused Incident Action Plan, and (3) a continuum of risk stepped-care model that matches the level of evidence-based treatment interventions with the level of identified risk using a stepped-care framework.

Regional and State-Level Pediatric Plans and Resources

Central Valley, CA. (2012). Regional Pediatric Disaster Surge Framework. California Hospital Association.

This document provides a framework for community collaboration to develop regional, comprehensive, integrated pediatric preparedness response plans.

Contra Costa Health Services Emergency Medical Services Agency. (2011). Contra Costa Pediatric/Neonatal Disaster and Medical Surge Plan and Preparedness Toolkit.

This toolkit was developed to facilitate disaster preparedness that involves the practice of including neonates and pediatrics in all county, provider agency, and hospital-based disaster exercises. It provides an example of implementing emergency medical services for children guidelines at the local level.

This plan provides a detailed framework for various stakeholders involved in an emergency response within the State of Illinois and surrounding states in order to protect children and provide appropriate pediatric medical care during a disaster. The plan can be used to guide a state-level response and provides local medical services guidance on the care of children, including patient movement, system decompression, recommendations for care, and resource allocation during a surge of pediatric patients. It includes several tools such as transfer forms and algorithms.

Los Angeles County Emergency Medical Services Agency. (2016). Los Angeles County Pediatric Surge Plan. California Hospital Association.

This plan provides details on how each hospital within Los Angeles County would support a pediatric surge of patients including surge targets, supplies, and patient type. This plan also includes parameters for transporting children from prehospital field operations to healthcare facilities and transferring of patients among hospitals.

Minnesota Department of Health. (2019). Minnesota Pediatric Surge Primer and Template Plan.

This customizable template is geared for small community hospitals that do not usually provide pediatric trauma or inpatient services. It provides guidance and templates that facilities and regions can follow to plan for pediatric patients in a mass casualty event.

Texas Trauma Service Area (TSA) B. (2016). Trauma Service Area -B (BRAC): Regional Pediatric Plan.

This plan provides prehospital and hospital providers with regional standardized procedures for the treatment of pediatric patients. It addresses various issues to include: prehospital triage, helicopter activation, inter-hospital transfers, pediatric trauma triage/ transfer decision scheme, among others topics.

Western Region Homeland Security Advisory Council. 2017). Children in Disasters Emergency Preparedness: Family Reunification Plan Template.

This template can be used by any organization (e.g., hospitals, educational institutions, and day care centers) to develop a family reunification plan. It addresses information on topics including reunification protocols, legal authorities, terminology, methods of reunification, and coordination of efforts with key stakeholders.

Hospital/Healthcare Pediatric Plans and Resources

Bradin, S., Lozon, M., Butler, A., et al. (2015). Planning for Children in Disasters: A Hospital Toolkit. Michigan Department of Health and Human Services.

This toolkit includes information to assist hospitals with planning for the needs of children through all stages of a disaster. Guidance covers medical surge and triggers; staffing plans; triage protocols; decontamination; transport of pediatric patients; chemical agents and antidotes; infection protection; family reunification; and psychological support.

Illinois Emergency Medical Services for Children. (2009). Neonatal Intensive Care Unit (NICU) Evacuation Guidelines.

These neonatal intensive care unit (NICU) evacuation guidelines were developed by professionals throughout Illinois. A multi-disciplinary committee was also convened to collate personal experiences, recommendations, and current literature on NICU evacuations. This guide is intended to assist healthcare providers assess pre-event vulnerabilities and plan for the evacuation of medically fragile Level III NICU patients while addressing core components of incident management, in conjunction with the promotion of patient safety and evacuation procedures based on lessons learned from past disasters and experiences.

NYC Pediatric Disaster Coalition. (2018). NYC Pediatric Disaster Healthcare Preparedness Toolkit – Hospitals.

This webpage includes links to guidelines and templates designed for pediatric providers to create disaster plans at their individual healthcare sites. It also offers comprehensive information on how to conduct exercises that can be used for plan revision and improvement within the context of overall disaster preparedness.

Rady Children's Hospital, San Diego. (2011). Pediatric Surge Planning: Train the Trainer.

This online course provides an in-depth overview of the special considerations associated with pediatric surge planning. The authors describe hospital incident command system activation, specific tools and actions linked to pediatric surge, and provide tips for developing a surge plan.

Seattle and King County Public Health Department. (2010). Hospital Guidelines for Management of Pediatric Patients in Disasters.

This toolkit is based on an earlier version developed by the New York City Department of Health and Mental Hygiene and includes considerations for staffing and training, resources, security, transportation, decontamination, hospital-based triage, and inpatient bed planning.

Abraham, H. (2014). Planning for Pediatrics in Disasters. Journal of Emergency Medical Services.

The author encourages emergency medical planners to account for children's' unique physical, psychological, and communication needs when drafting pre-hospital emergency response plans. She also shares pediatric-specific care tips for decontamination, triage, airway procedures, drug dosage and delivery, and psychological care.

American Academy of Pediatrics. (2013). Pediatric Preparedness Resource Kit.

This kit allows pediatricians, public health leaders and other pediatric care providers to assess what is happening in their community or state, and help determine what needs to be done before an emergency or disaster (e.g., a pandemic). The kit also promotes collaborative discussions and decision making about pediatric preparedness planning.

California Hospital Association. (2010). EMSC Pediatric Disaster Preparedness Guidelines: Hospitals.

This standards document is based on The Joint Commission and other national requirements for hospitals, tailored for pediatric issues.

EMSC. (n.d.). Checklist: Essential Pediatric Domains and Considerations for Every Hospital's Disaster Preparedness Policies.

This Checklist is intended to be used as a tool to help hospital administrators and leadership incorporate essential pediatric considerations into existing hospital disaster policies. This publication is available in two versions: static pdf and interactive pdf.

Illinois Emergency Medical Services for Children. (2010). Hospital Pediatric Preparedness Checklist.

All hospitals need to assure that they are prepared to handle the unique needs of children in a disaster event. As hospitals develop their emergency operations plans, Illinois EMSC recommends the inclusion of pediatric components in several key areas. This checklist was designed to help hospitals identify their current level of pediatric preparedness and recognize additional opportunities for improvement.

Illinois Emergency Medical Services for Children. (2005). Pediatric Disaster Preparedness Guidelines

This document was created to promote awareness of children’s unique vulnerabilities in a disaster or mass casualty incident and to guide organizations in integrating pediatric considerations into their disaster plans. Implementing these recommendations and guidelines is only the first step in improving emergency and disaster preparedness for children.

National Advisory Committee on Children and Disasters. (2015). Healthcare Preparedness for Children in Disasters: A Report of the NACCD Healthcare Preparedness Working Group.

This report was developed in response to a tasking by the U.S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for Preparedness and Response (ASPR) to assess the readiness to care for children affected by disasters. It focuses on three key areas: coalition building, workforce development, and medical countermeasure readiness.

National Association of State EMS Officials. (2014). Checklist Tool for Pediatric Disaster Preparedness.

Derived from the 2010 report of the National Commission on Children and Disasters, this document is a tool for State EMS Offices to establish standards for EMS providers and agencies.

Other Relevant Resources

Committee for Tactical Emergency Casualty Care. (2015). Pediatric Tactical Emergency Casualty Care.

This resource provides guidelines for the immediate on-scene stabilization of victims, depending on whether or not there is an ongoing threat to safety.

Illinois Emergency Medical Services for Children. (2013). NICU/Nursery Evacuation Tabletop Exercise Toolkit.

This toolkit provides various resources and tools developed specifically for exercises, and offers guidance on planning, conducting, and evaluating tabletop exercises focused on the neonatal intensive care unit and nursery population.

Laraque, D., Jensen, P., and Schonfeld, D.J. (2006). Feelings Need Check-ups Too Toolkit. American Academy of Pediatrics.

This toolkit can help practitioners intervene effectively with children experiencing emotional distress related to catastrophic events. Various screening tools are demonstrated through case studies, and treatment options are described, along with information on accessing mental health resources for treatment referrals.

The National Child Traumatic Stress Network. (2018). For Teens: Coping after Mass Violence.

This fact sheet identifies emotions and reactions that teens might experience after witnessing and surviving a traumatic event. It also addresses expectations that others may have and challenges and opportunities for recovery. Self-care is emphasized in addition to connecting with community partners and locations that offer support.

Resources related to healthcare evacuation specific to Neonatal Intensive Care Units (NICU), newborn babies, laboring mothers, and high-risk obstetrics (OB)

ASPR TRACIE Technical Assistance Request

Request Receipt Date (by ASPR TRACIE): 13 February 2019 **Response Date:** 14 February 2019 **Type of TA Request:** Standard

Request:

The requestor asked if ASPR TRACIE had any resources related to healthcare evacuation specific to Neonatal Intensive Care Units (NICU), newborn babies, laboring mothers, and high risk obstetrics (OB), during notice and no-notice events.

Response:

The ASPR TRACIE Team reviewed exiting Topic Collections; namely the following:

- Access and Functional Needs
    - In particular, please review the Population-Specific Resources: Women and Gender Issues section
- Healthcare Facility Evacuation / Sheltering
    - In particular, please review the Special Populations: Pediatric, NICU, and OB/GYN-Related Resources section
- Pediatric

We also conducted a search online for additional resources. Section I in this document includes resources specific to evacuation and NICUs/ pediatrics. Section II provides materials specific to women and obstetrics.

NICU and Pediatric Evacuation-Specific Resources
California Hospital Association. (2013). NICU Surge & Evacuation Considerations.

> This document provides a list of considerations for hospital personnel to use when evacuating NICU patients. It includes a list of surge factors for the receiving hospitals and evacuation factors for the transferring hospital to consider.

Carbine, D., Cohen, R., Hopper, A., et al. (2014). Neonatal Disaster Preparedness Toolkit. California Association of Neonatologists.

> This toolkit identifies major hazards faced by neonatal intensive care units in California and provides suggested mitigation and response planning strategies, including evacuation and sheltering in place. It also provides appendices with sample check lists, job action sheets, and information transfer sheets for specific hazards.

Espiritu, M.,Patil. U., Cruz, H., et al. (2014). Evacuation of a Neonatal Intensive Care Unit in a Disaster: Lessons from Hurricane Sandy. Pediatrics. 134(6).

> The authors identify lessons learned from the evacuation of NICU patients during Hurricanes Irene and Sandy in 2012.

Femino, M., Young, S., and Smith, V. (2013). Hospital-Based Emergency Preparedness: Evacuation of the Neonatal Intensive Care Unit-The Smallest and Most Vulnerable Population. (Abstract only.) Pediatric Emergency Care. 29(1):107-13.

The authors describe a full-scale neonatal intensive care unit evacuation exercise and emphasize the importance of constant, clear communication.

Graciano, A.L., and Turner, D. (2015). Current Concepts in Pediatric Critical Care. (Book available for purchase.) Society of Critical Care Medicine.

Chapter 16 of this book addresses pediatric preparedness, and specifically includes sections on the evacuation of pediatric intensive care units.

Hoskins, J., Krupa., A., and Lyons. E. (2016). Pediatric Evacuation: You Don't Get To Go Home But You Can't Stay Here. Illinois Public Health Association.

This presentation provides information on pediatric evacuation initiatives within the State of Illinois.

Illinois Emergency Medical Services for Children. (2009). Neonatal Intensive Care Unit (NICU) Evacuation Guidelines.

These neonatal intensive care unit (NICU) evacuation guidelines were developed by professionals throughout Illinois. A multi-disciplinary committee was also convened to collate personal experiences, recommendations, and current literature on NICU evacuations. This guide is intended to assist healthcare providers assess pre-event vulnerabilities and plan for the evacuation of medically fragile Level III NICU patients while addressing core components of incident management, in conjunction with the promotion of patient safety and evacuation procedures based on lessons learned from past disasters and experiences.

Illinois Emergency Medical Services for Children. (2013). NICU/Nursery Evacuation Tabletop Exercise Toolkit.

This toolkit provides various resources and tools developed specifically for exercises, and offers guidance on planning, conducting, and evaluating tabletop exercises focused on the neonatal intensive care unit and nursery population.

Loma Linda University Children's Hospital. (2013). Pediatric/Neonatal Disaster Reference Guide: Bridging the Gap between EMS and Hospital Care.

This guide was created to help emergency managers, coordinators, and hospitals in their efforts to develop their own specific departmental Emergency Operations Plan that addresses the special needs of children and infants.

Lucile Packard Children's Hospital. (n.d.). Preplanning Disaster Triage for Pediatric Hospitals: TRAIN TOOLKIT. (Accessed 2/14/2019.)

The Triage by Resource Allocation for IN-patient (TRAIN) matrix is a tool for pediatric hospital disaster "pre-planning" and an in-patient triage system designed to facilitate evacuation in a major crisis. It categorizes pediatric inpatients according to their resource transportation needs. It can be implemented manually or within an electronic medical record.

Texas Perinatal Services. (2018). NICU Disaster Training: El Paso Hospitals Test Plans for Evacuating Tiniest Patients in an Emergency.

This resource provides information on the lessons learned from exercises that were conducted by El Paso hospitals in 2018 specific to the evacuation of NICUs.

Women and Obstetrics-Specific Resources

American College of Obstetricians and Gynecologists' Committee on Obstetric Practice. (2017). Hospital Disaster Preparedness for Obstetricians and Facilities Providing Maternity Care. ACOG Committee Opinion. 726.

According to the authors, disasters can increase the likelihood of spontaneous miscarriages, preterm births, and low-birth weight infants. This opinion paper lists recommendations hospitals that provide maternity services can include in their disaster plans.

Centers for Disease Control and Prevention. 2014). Critical Needs in Caring for Pregnant Women During Times of Disaster for Non-Obstetric Health Care Providers.

This tip sheet addresses the critical obstetric considerations for non-obstetric providers for patients relocated due to disasters.

Centers for Disease Control and Prevention, Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion. (n.d.). Estimating the Number of Pregnant Women in a Geographic Area. (Accessed 2/14/2019.)

This factsheet describes the process used to estimate the number of pregnant women in a United States jurisdiction at any given time. It can be used by emergency planners to ensure adequate resource allocation and tailored planning.

Daniels, K., Austin, N., and Hilton, G. (n.d.). Get Ready Stay Ready. (Accessed 2/14/2019.) California Hospital Association.

This presentation provides disaster planning information for obstetric units. It addresses the unique needs of these units, and includes information on disaster training for obstetric units.

Daniels, K., and Peterson, N. (n.d.). We're in this Together. (Accessed 2/14/2019.) California Hospital Association.

This presentation provides disaster planning information for obstetric units. It provides strategies for surge and shelter-in-place procedures, and demonstrates a triage tool designed for obstetrical patients (OB TRAIN).

Haeri, S. and Marcozzi, D. (2015). Emergency Preparedness in Obstetrics. (Abstract only.) Obstetrics and Gynecology. 125(4):959-70.

The authors emphasize the need for emergency preparedness discussions and actions among obstetric providers, tailored plans for pregnant women and their families, and all-hazards hospital planning.

Harville, E.W., Xiong, X., and Buekens, P. (2010). Disasters and Perinatal Health: A Systematic Review. Obstetrics and Gynecological Survey. 65(11): 713728.

The authors examine the existing evidence on the effect of disasters on perinatal health. While there is evidence that disaster impacts maternal mental health outcomes and some perinatal

health outcomes, the authors suggest that future research focus on under-studied outcomes such as spontaneous abortion.

New York State Department of Health, Health Emergency Preparedness Program, and Division of Family Health Office of the Medical Director. (2010). Pediatric and Obstetric Emergency Preparedness Toolkit.

This toolkit is especially designed for those hospitals that do not have pediatric intensive care services or obstetric or newborn services, and must prepare for such patients during a disaster. Hospitals should use this document to inform their facility-specific plans.

Stanford Medicine Obstetrics and Gynecology. (2015). Stanford OB Disaster Planning Toolkit.

A Stanford Health Care multidisciplinary committee, consisting of obstetricians, obstetrical anesthesiologist, labor and delivery and postpartum nurses, created and tested in a simulated setting, a compilation of tools that can be employed in the event of a hospital disaster requiring evacuation. This toolkit addresses the evacuation of labor and delivery and antepartum units, and includes shelter in place plans for actively laboring patients.

UNC Center for Public Health Preparedness. (2011). Reproductive Health Assessment after Disasters A Toolkit for US Health Departments.

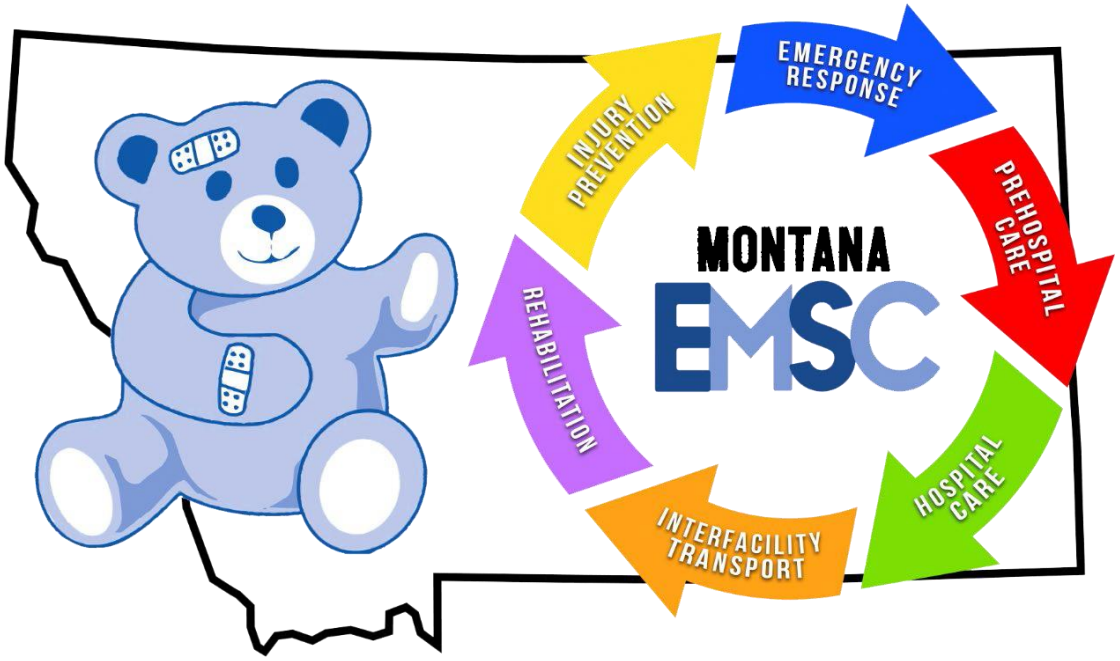
This toolkit can help healthcare providers assess the reproductive health needs of women aged 15-44 after a disaster. It includes links to a variety of resources including checklists, training resources, and instructions for analysis.

Appendix 5: Resources

- Recommended Pediatric Equipment and Supplies for EMS
- Recommended Pediatric Equipment and Supplies for Hospitals
- Engage, Calm, Distract – Understanding and Responding to Children in Crisis
- Pediatric Emotional Distress Reference System

Recommended Pediatric Equipment and Supplies for EMS

(Excerpted from the Montana Pediatric Facility Recognition Criteria)



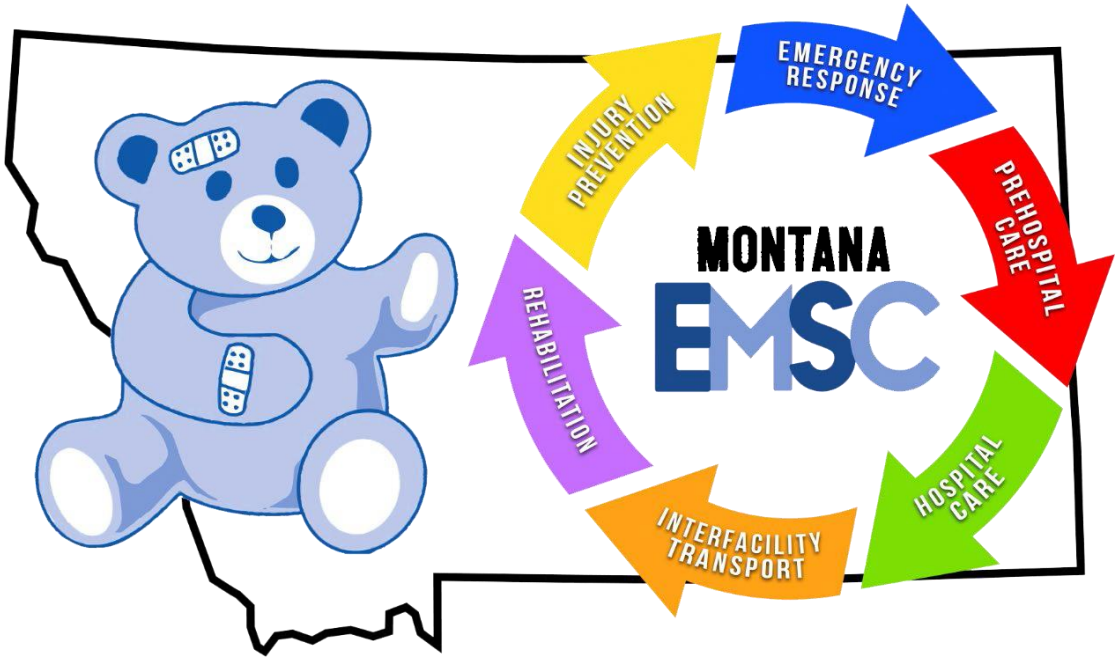
BLS UNITS LIST	Transporting and Nontransporting Agencies
☐ PEDIATRIC STETHOSCOPE	
☐ PARAMEDIC SHEARS	
☐ NASAL CANNULA-INFANT	
☐ NASAL CANNULA-PEDIATRIC	
☐ NON-REBREATHER MASKS-INFANT	
☐ NON-REBREATHER MASKS-CHILD	
☐ OXYGEN MASK -PEDIATRIC	
☐ BULB SUCTION FOR INFANTS	
☐ EXTRICATION COLLAR-MINI	
☐ PEDI-PAD BACKBOARD PAD	
☐ OB KIT- SOFT PACK W/ SCISSORS	
☐ PEDIATRIC E.C.G. ELECTRODES	
SPHYGMOMANOMETER - CUFF WITH INFLATION BULB & GAUGE	
☐ PEDIATRIC	
☐ INFANT	
☐ PADDED SPLINT ARMBOARD 3X9 IN	
☐ PADDED SPLINT ARMBOARD 3X6 IN	
☐ DOSE BY GROWTH TAPE	
BAG VALVE MASK	
☐ INFANT	
☐ CHILD (450-750 ml)	
7 COLOR CODED PEDIATRIC BAGS	
☐ **PINK/RED**	50 MM OPA; 14/16 NPA; 6 SUCTION CATHETER, JELLY, TONGUE DEPRESSOR
☐ **PURPLE**	60 MM OPA; 18 NPA; 10 SUCTION CATHETER, JELLY, TONGUE DEPRESSOR
☐ **YELLOW**	60 MM OPA; 20 NPA; 10 SUCTION CATHETER, JELLY, TONGUE DEPRESSOR
☐ **WHITE**	60 MM OPA; 22 NPA; 10 SUCTION CATHETER, JELLY, TONGUE DEPRESSOR
☐ **BLUE**	70 MM OPA; 24 NPA; 10 SUCTION CATHETER, JELLY, TONGUE DEPRESSOR
☐ **ORANGE**	80 MM OPA; 26 NPA; 10 SUCTION CATHETER, JELLY, TONGUE DEPRESSOR
☐ **GREEN**	80 MM OPA; 28 NPA; 10 SUCTION CATHETER, JELLY, TONGUE DEPRESSOR

ALS SERVICE UNITS

- [ ] **MUCOSAL ATOMIZATION DEVICE (MAD)**
- [ ] **LENGTH-WEIGHT BASED TAPE 2019 Version**
- [ ] **PEDIATRIC NEBULIZER MASK**
- [ ] **3-WAY STOPCOCK**

Recommended Pediatric Equipment and Supplies for Hospitals

(Excerpted from the Montana Pediatric Facility Recognition Criteria)



PEDIATRIC EQUIPMENT AND SUPPLIES:
Patient warming device
Intravenous blood/fluid warmer
Weight scale, in kilograms, not pounds for infants and children.
Length-based resuscitation tape 2019 version
Age appropriate Pain Scale assessment tools
Feeding Tubes (sizes 5 Fr, 8 Fr)
Foley Catheter
MONITORING EQUIPMENT
Accurate Temperature Monitoring Device
Blood pressure cuffs (neonatal, infant, child)
Continuous end-tidal C02 monitoring device
Electrocardiography monitor/defibrillator with pediatric-sized pads/paddles
Handheld Doppler ultrasonography devices
Pulse oximeter with pediatric probes
Glucose monitor
RESPIRATORY EQUIPMENT AND SUPPLIES
Endotracheal tubes (Cuffed/uncuffed-3.0, 3.5-8.0 mm)
Laryngoscope blades (curved: 2, 3 and straight: 0-3)
Laryngoscope handle
Oropharyngeal airways *Size* (0, 1, 2, 3, 4, 5)
Magill Forceps (pediatric)
Naso/Orogastric Tubes (6Fr – 18 Fr)
Nasopharyngeal airways (infant and child)
Stylets for endotracheal tubes (pediatric)
Suction Catheters (Sizes: 6, 8, 10, 12, 14, 16 Fr)
Yankauer/rigid Suction Tip
Tube Tracheostomy tray with chest tubes (*Sizes 2, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5 mm)*
King Tube (2, 2.5, 3, 4, 5) if within local use
Bag-mask device (manual), self-inflating (sizes 250 ml & 450 ml)
Clear oxygen masks (Standard infant and child)
Partial non-rebreather infant
Non-rebreather child
Masks to fit bag-mask device adaptor (*Neonatal, infant, and child)*
Nasal cannulas (infant and child)

Laryngeal mask airway *Sizes 1- 5 (if within local use)*
Supplies/kit for patients with difficult airway conditions (to include but not limited to supraglottic airways of all sizes, such as the laryngeal mask airway, 2 needle cricothyrotomy supplies.)
VASCULAR ACCESS SUPPLIES AND EQUIPMENT
Interosseous needles AND device (pediatric size)
Arm Boards (infant and child)
Umbilical vein catheters (Size 3.5 F, 5.0 F)
Central Venous Catheters (**any two sizes 4.0F – 7.0 F**)
Catheter-over-the-needle device (14 – 24 gauge)
FRACTURE MANAGEMENT DEVICES
Extremity splints, including femur splints (pediatric sizes)
Cervical/spinal immobilization supplies with age appropriate (infant and child) including semi-rigid collars, backboards, towel rolls, straps, etc.
SPECIALIZED PEDIATRIC TRAYS OR KITS
Chest Tubes: Infant Size 10 F or 12 F
Chest Tubes: Child Size 16 F or 18F and 20F or 24 F
Newborn delivery kit (including equipment for initial resuscitation, umbilical clamp, scissors, bulb syringe and towel.)
Pediatric BAG or Cart w/ defined list of weight-based contents, easily accessed w/ list on outside
MEDICINES
Adenosine
Amiodarone
Antimicrobials (parenteral and oral)
Atropine
Calcium chloride
Charcoal (activated, with or w/out sorbitol)
Corticosteroids
Dextrose (D10W, D50W)
Dopamine
Epinephrine- (1:1000; 1:10,000 solutions)
Flumazenil
Glucose
Lidocaine
Magnesium Sulfate
Naloxone Hydrochloride

Sodium Bicarbonate (4.2%, 8.4%)

RAPID SEQUENCE/DRUG ASSISTED INTUBATION
Induction agents
Paralytic Medications
OTHER MEDICATIONS
Activated Charcoal (with & without sorbitol)
Analgesics
Anticonvulsants (benzodiazepines, barbiturates
Antidotes (including cyanide)
Antipyretics
Bronchodilators
Corticosteroids
Diuretics
Insulin
Topical, oral and parenteral analgesics
Narcotics
Ocular Anesthetics
Sedatives
Vaccines-Tetanus, diphtheria-Tetanus, dPT, Immune globulin
Vasopressor agents

Engage – Calm – Distract

Understanding and Responding to Children in Crisis

A Resource Kit for EMS and Emergency Department Providers

Table of Contents

Section 1 - Understand

"EMS 3, please respond to a car/pedestrian accident involving an eight-year-old female." Suddenly your heart starts pounding and palms begin sweating, knowing that you are headed into a scene that can tax your resources and skills. As you exit the vehicle, you see a bent bike and a huddle of adults in the middle of the street. The driver of the car is standing over the child repeating, "I'm so sorry, I'm so sorry." You have to move other people out of the way, including two other children. A woman who identifies herself as the child's mother is screaming and crying as she holds her daughter's hand. Another adult is trying to remove her bike helmet. Although the child appears to have significant injuries, she is conscious, crying and screaming. As you move in she tries to push you away and yells "No, no! Don't touch me!"

Children pose particular challenges to EMS and emergency department providers. They can compensate for injury and illness better than adults, then unexpectedly decompensate. In addition to the unique physical differences and medical needs, children have different emotional needs providers find difficult to address. Pediatric patients can trigger responders' own emotions, interfering with their information processing and decision making. Children typically come with caregivers who can escalate an already stressful situation. Between addressing immediate medical needs, calming the distressed child, and dealing with a distraught or intrusive parent, pediatric patients can quickly raise anyone's anxiety.

In a recent survey of EMS professionals on the factors perceived to contribute to pediatric patient safety events, heightened anxiety when caring for children ranked second only to airway mismanagement issues. Responders reported their own emotional responses, lack of experience in responding to children, and the emotions of family members can negatively affect the quality of care when responding to pediatric emergencies. Guise, J., et al. (2015).[1]

While general lack of clinical experience with children is an important factor, lack of training about how to respond to children in emotional crisis plays a role. We brought together experts in child trauma, emergency medical services, and pediatric emergency care to create this resource kit and fill this significant gap in pediatric training and resources.

The kit provides information, strategies, and activities to help both prehospital and hospital emergency providers respond more quickly and effectively to the emotional needs of children and parents in crisis. This kit is intended as a job aid: a structure that helps guide your actions during a pediatric emergency. Just as your actions to address medical emergencies improve with practice (and your anxiety decreases), so does practicing the use of these strategies and activities. Providing comfort, listening, and reducing traumatic stress reactions in children, as well as their caregivers, allows you to focus more on providing needed medical treatment and can lead to better immediate and long-term outcomes for your patient. Using these resources can help children and the adults around them feel more in control and less helpless and hopeless. We know that this can lead to better emotional, as well as physical, outcomes.

Overview and Organization

This resource kit is divided into threee convenient sections to provide easy access to its various components. We have also identified three main categories to help you find the specific resource you need:

Information: It's important to understand why children react the way they do and the rationale for implementing the strategies and activities. You want to know why it's critical to address the emotional distress experienced by children and their caregivers during a medical emergency.

Strategies: We will identify specific approaches and practices for addressing the emotional needs of children and provide a framework for specific actions.

Activities: Drawing from the experience of a broad range of professionals, the resource kit provides specific activities and materials shown effective in reducing distress in children and adults. We encourage you to identify and develop activities that work for you and to borrow from and share your ideas with others.

Designed and formatted so pages contain specific topics, you can print each separately for easy reference or to share with others. In addition, we have prepared a reference system that identifies stress reactions by age with specific actions to help calm and distract children.

Inside "Understanding and Responding to Children in Crisis" you will find the following sections:

Section 1: Understand	• Stress and the brain • Child psychological traumatic stress • Trauma-informed approach
Section 2: Identify	• Common pediatric distress reactions by age and developmental level • Common responder reactions to pediatric patients • Description of **Pediatric Emotional Distress Reference system**
Section 3: Respond	• Engagement • Safety • Calming • Distraction • Strategies for managing responder reactions

The strategies and activities provided in this resource kit are designed to be used by professionals in both the field and the emergency department. We have worked to keep activities simple and referenced supplies inexpensive and accessible. Keeping supplies and activities in a backpack or duffle, along with the *Pediatric Emotional Distress Reference System,* increases the likelihood responders will use them—just another piece of medical equipment available when the need arises. You can assemble your own kit from our included supply and vendor lists or make your own materials.

Please review and discuss this resource kit as part of your ongoing training and departmental meetings. Adapt freely and develop your own protocols for implementation and use. Implementing these simple strategies can help improve the immediate outcomes for your youngest patients and support children's recovery long after the end of your direct care.

Stress and the Brain

When sensory information enters the brain, it is routed to the thalamus in the limbic system. The thalamus acts as a switching station and sends the information to the appropriate area of the cortex for processing:

- Occipital Lobe (Green) – visual processing and visual memory;
- Temporal Lobe (Orange) – auditory processing, language, and emotional regulation;
- Parietal Lobe (Purple) – sensory processing and integration, location of parts of the body, interpreting visual information and processing language and mathematics; or,
- Frontal Lobe (Red) – motor function, problem solving, memory, language, judgement, planning, and impulse control.

Before routing to the cortex occurs, the thalamus quickly checks to see if any of the sensory information signals danger. If so, the thalamus sends that information through a single neural pathway to the amygdala, also located in the limbic system. This area of the brain is responsible for emotional memory and survival instincts. Once activated, the amygdala triggers the physiologic changes we define as the fear or stress response.

In addition to physical changes to the heart, respiration, and circulation, stress and fear affect the brain. Among the most significant changes: several parts of the cortex begin to shut down. The frontal lobe goes first, affecting our executive functions such as the ability to plan, judge, problem solve, make decisions and control impulses. Next, the right and left temporal lobes shut down, reducing our ability to process and use language and regulate our emotions. While the process seems counter-intuitive, it makes a lot of sense for our survival.

The fear response prepares us to respond to danger immediately. Taking time to process information, make a plan, and decide upon a course of action delays our response and increases opportunities for injury or death. While these brain changes support an individuals' physical survival, they make interacting with him/her more difficult. Your patient has difficulty following your directions, understanding your explanations, explaining what is going on (language processing), making decisions (executive functions), regulating emotions, and controlling impulses. Because all these activities are already less developed in children, your job becomes even more difficult and stressful. Your brain can shut down as well. Having resources and job aids, such as the ones in this kit, helps responders keep functioning when situational stress shuts down cognitive capability.

Children, like adults, tend to respond to fear and stress with the fight, flight, freeze, or faint responses. These responses look different in children of different ages. We will cover common fear and stress responses in the section, “Trauma Reactions in Children: Developmental Considerations.”

Remember that the brain functions very differently during an acute fear reaction. Extreme stress reduces a child’s ability to cope. Normal cognitive functions slow or even shut down. These include the ability to understand and use language, organize thoughts, and make decisions.

Helping pediatric patients and their caregivers reactivate brain areas that process language and sensory information makes it easier to provide medical care. Reducing stress and anxiety increases everyone's ability to think and act to improve outcomes.

This resource kit will cover actions and activities in four core areas:

- *Engagement* – making initial contact and building rapport
- *Safety* – restoring the sense of physical and emotional safety
- *Comfort* – calming and reorienting to here and now
- *Distraction* – keeping the focus on something other than the medical procedure

In addition to the four commonly identified fear responses, we now know that people also "tend and befriend" when faced with danger. During stressful situations, people become more social. They seek out others and can show greater empathy and caring, especially if they are parents or caregivers. The strategies provided here engage this natural tendency of parents and help direct their energies to supporting rather than hindering or interfering with the medical response.

Child Traumatic Stress

Children's past experiences can influence their reactions to the current crisis. For children and families with a history of physical or psychological trauma, a medical emergency can trigger additional and more intense fear reactions. Several studies suggest over 60 % of children experience a potentially traumatic event by age 16.[2]

Child traumatic stress occurs when children—including adolescents—are exposed to traumatic situations that overwhelm their ability to cope. Traumatic stress reactions can interfere with daily life and the ability to function and interact with others.[3]

Potentially traumatic situations

- *Physical or sexual abuse*
- *Witnessing community or domestic violence*
- *Neglect or abandonment by a parent or caregiver*
- *Automobile or other types of accidents*
- *Physical violence, including bullying*
- *Witnessing police activity or having someone close arrested*
- *Witnessing another person being killed or seriously injured*
- *Death or other loss of someone close*

While full-blown post-traumatic stress disorder (PTSD) is fairly rare in children, over 20 % of those with previous trauma exposure exhibit some emotional or behavioral difficulties. This increases to over 50 % in children exposed to more than one traumatic event.[3] In particular, children living in stressed communities with higher rates of community and domestic violence, alcoholism, child abuse, mental illness and other adversities experience multiple traumas from an early age. Many of the children and families you see will come with histories that affect their reaction to the present emergency.

Pediatric mental health emergencies represent a large and growing segment of pediatric emergency medical care.[4] In many cases, children's past traumatic experience fuels the current mental health crisis. Differentiating between a medical emergency and a mental health emergency can be difficult, as many symptoms can mimic each other. Agitation, non-responsiveness, psychotic-like symptoms and confusion can indicate a medical or mental health issue. Physical symptoms such as illness or pain might be a manifestation of the underlying psychological trauma or mental health issues and not have an actual physical basis. Always address such symptoms as medical complaints until you can rule out physical causes. As you address potential medical issues, you can use the strategies and activities identified in this resource to calm and distract the child. This allows you to simultaneously address the symptoms as both physical and emotional.

Trauma over-activates the survival parts of the brain. Children who have experienced trauma can begin to see the world as dangerous. The loss of control can result in helplessness and hopelessness, a sense of vulnerability and distrust of others. They can view helping behaviors such as touch or eye contact as threatening. As with fear, trauma reactions are an automatic reaction to a threat. They help the child cope with and survive overwhelming events, whether present or past. Unfortunately, these behaviors often interfere with providing care and can make it hard for the provider to stay cool and not overreact. Children's fear and emotional distress often mask as anger and that anger can feel targeted, cruel, and unwarranted.

Whether addressing a medical or mental-health emergency, your words, tone, and actions can positively or negatively influence trauma reactions in your patients and their caregivers. Because you can never know your patients' backgrounds, assume they have experienced some level of trauma. Using a trauma-informed approach with every patient can help lessen their fear and trauma reactions and the chances of re-traumatization or of triggering additional trauma reactions.

Trauma-Informed Approach

A trauma-informed approach to care recognizes trauma symptoms and the role trauma plays in all aspects of a child's life. Caring for traumatized children requires a new understanding of the roots of their behavior. Their "normal" is not necessarily our "normal." Their behavior is normal for their internal state of distress. Acknowledging children's distress and helping them understand what they are feeling is common can be calming and reassuring. For example, "You seem pretty scared right now. It's pretty common for kids going through what you are to scream when we're trying to check you over." At this point, you can try one of the strategies or activities from this kit to engage and calm or distract the child. Common stress reactions by age and developmental level are found in *Section 2: Identify*.

A trauma-informed approach includes creating an environment supporting safety, trust, choice, and collaboration. Safety is first and foremost: as long as the child feels unsafe, the fear response remains activated. Children are safe when they believe they are safe, not when we believe they are safe. The feeling of trust (the belief by the child and family that you will not endanger them physically or emotionally and will provide competent care) relates closely to safety. Children and families experiencing a crisis can feel out of control, helpless, and hopeless. Providing choices, even simple ones, helps children regain their sense of control and autonomy over the situation and helps them calm and reorient. Collaboration provides children and families with a sense they are working with you rather than just having something done to them. Giving the child and caregiver a job provides them a focus away from you, allowing you to provide needed medical care.

Whether on scene, in the back of an ambulance, or in the emergency department, opportunities arise to implement each of these principles. Even seemingly small actions can have a large impact on overall medical and emotional outcomes.

Small actions can also have detrimental effects if they trigger a trauma reaction. Attending to our own behavior and avoiding actions that a child or family could interpret as threatening, or even dismissive, is an important aspect of the trauma-informed approach.

Section 2 – Identify

Common Pediatric Emotional Distress Reactions

The following list of distress reactions is arranged by developmental stage. While not exhaustive, the list does include many of the common and typical reactions experienced by children. Reactions can vary significantly within developmental stages and are influenced by past experience, family patterns, culture, and biology. While some children might exhibit reactions typical of earlier or later developmental periods, most will exhibit behaviors typical of their age. However, when distressed, many children will regress to behaviors typically found in earlier developmental stages. If a parent/caregiver is present, ask if their child seems stressed or is showing changes in behavior. For children exhibiting distress, provide appropriate calming strategies and activities. Please note that children who have experienced previous trauma could react to the current crisis with much stronger and more extreme reactions (see 1-6).

Birth – 1 Year (Infant) 3 – 9 kg
The range and number of distress reactions increase across the first year of development.

- **Crying/screaming** – can become so intense that the infant turns red and can briefly stop breathing
- **Biting** – becomes more pronounced as infant begins teething
- **Sucking**
- **Turning away/avoiding eye contact when handled**
- **Increased startle response**
- **Arching back/leg or arm extension**
- **Clinging** – not letting go or clinching fist
- **Difficulty separating from caregiver**
- **Freezing** – conscious but non-reactive to stimuli, staring "off into space"
- **Hiccupping**

1 – 2 Years (Toddler) 10 -14 kg

- **Crying/Screaming**
- **Difficulty separating from caregiver** – holding on tightly, reaching, grab back on when pulled apart
- **Hitting**
- **Biting**
- **Pushing away**
- **Throwing objects**
- **Easily startled**
- **Withdrawal** – not answering questions, not looking at you, showing no interest in toy or comfort item presented
- **Freezing** – blank stare, non-responsive

3 – 6 Years (Preschool) 15 -23 kg

- **Crying/screaming**
- **Temper Tantrums**
- **Aggression** – hitting, biting, throwing things
- **Grabbing on/holding on to stationary objects to avoid being moved**
- **Physical symptoms not directly related to current medical issues** – stomach ache/headache
- **Wetting pants**
- **Difficulty separating from caregiver**
- **Freezing** – conscious but non-reactive to stimuli, staring "off into space"

Common Pediatric Emotional Distress Reactions

7 – 11 Years (School Age) 24 – 36 kg

- **Difficulty paying attention/easily distracted**
- **Easily startled**
- **Asking questions about the event/what you are doing/what things are**
- **Physical complaints not directly related to medical condition (stomach ache/headache)**
- **Difficulty with authority/following directions/being redirected**
- **Easily angered/temper tantrums**
- **Sad/crying**
- **Screaming uncontrollably**
- **Withdrawal/refusal to answer questions**
- **Difficulty separating from caregiver**
- **Freezing/unresponsive**

12 – 17 (Adolescent) 36 + kg

- **Difficulty paying attention/easily distracted**
- **Easily startled**
- **Asking about the event/what you are doing/what things are** (perseverating on a question)
- **Wanting to know how bad it is/what will happen to him/her**
- **Focused on cell phone/social media/contacting friends**
- **Physical complaints not directly related to medical condition** (c/o stomach ache/headache)
- **Difficulty with authority/following directions/being redirected**
- **Aggressive behavior** – verbal and/or physical
- **Sad/crying**
- **Withdrawal/refusal to answer questions**
- **Freezing/unresponsive**

Parent/Caregiver

Rarely will you work with a pediatric patient without also having to work with his/her parent or caregiver. You will frequently see distress reactions among this group, as well.

Overly intrusive – wanting to know everything you are doing and why
Difficulty separating from child – hanging on to child/hovering – making it difficult to gather information from child or perform medical intervention
Inability to focus/answer questions
Easily distracted
Giving too much or unrelated information
Worry/concern about what is going to happen
Panic (May be valuable to define further. Panic is an uncommon, but frequently misunderstood response)
Crying
Anger/verbal aggression
Withdrawal
Freezing/Unresponsive

Responder Reactions

As a responder, you can experience your own stress reactions when working with children and their parents or caregivers. We often hear from providers that they find working with children difficult. Frequent explanations include: fewer opportunities to practice; less time spent on training on pediatric care; children have unique medical needs; and children can go from doing "OK" to being in crisis more quickly than adults. For these same reasons, responders often find it difficult to deal with children's unique emotional needs. The belief that children are hard to work with, whether from experience or hearing it from others, can increase anxiety when dealing with a pediatric patient.

In a recent report, the Emergency Medical Services for Children Innovation and Improvement Center found that:

"Primary and continuing education related to pediatric patients is provided at a lesser extent than adult related education. This leads to an unfamiliarity with effective pediatric care and a lack of comfort in patient assessment and management of children. Qualitative studies have shown that paramedics have provider anxiety, discomfort, and unfamiliarity with pediatric patients, which contributes to a delay in treatment." [6]

Another statement common in pediatric care comes in the form of "Wait until you have your own kids." The meaning of this statement seems somewhat ambiguous. It could mean that the experience of dealing with your own child will make it easier to work with pediatric patients, or, that having you own child can make it more difficult, as you imagine your child going through the experience of your pediatric patient.

Understanding your own stress reactions when confronted with a pediatric patient is important for both you and the child. You might find that your reactions vary based on the child's age, presenting medical problems, behavior, and caregiver's reactions. By identifying the specific factors that contribute to your anxiety, you can focus on improving your skills and identifying strategies to manage your stress reaction. This will help increase your own sense of confidence in working with children and potentially improve both the child's experience and his/her medical outcomes. We have provided some activities in Section 3 designed to help manage your own stress and anxiety.

Common Responder Reactions

Below are some common reactions to stress. Identifying how you react under stress can provide cues that you are in a stressful situation and need to take action.

- Shortness of breath or rapid breathing
- Muscle tension – particularly in the chest, neck, shoulders, or back
- Increased heart rate
- Increased perspiration
- Headache or upset stomach
- Increased irritability
- Fear
- Difficulty focusing or paying attention
- Difficulty making decisions

This short assessment is designed to help you identify factors that increase your discomfort in working with children. This is designed solely for your own use. The information provided can help you identify areas where you might want to focus your initial efforts. Look for any patterns or areas where you score 4 or 5, as these indicate a higher level of discomfort.

Rank each of the statements below from 1 (Never), 2 (Infrequently), 3 (Sometimes), 4 (Often), to 5 (Very Often).

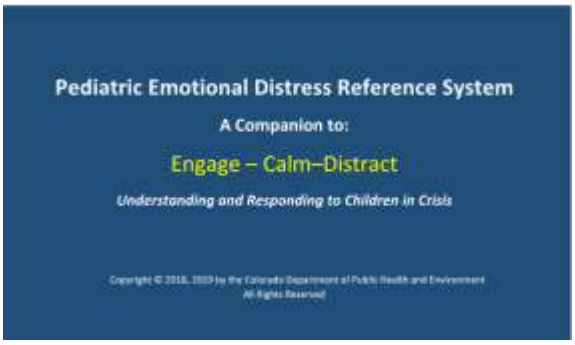
1. I have difficulty dealing with a child based upon his/her age:					
Infant (0-1 year)	1	2	3	4	5
Toddler (1-2 years)	1	2	3	4	5
Preschool (3-5 years)	1	2	3	4	5
School Age (6-11 years)	1	2	3	4	5
Adolescent (12-17 years)	1	2	3	4	5
2. I have difficulty dealing with a child based upon his/her gender:					
Female	1	2	3	4	5
Male	1	2	3	4	5
3. I have difficulty dealing with a child based upon his/her behavior:					
Hostile	1	2	3	4	5
Aggressive	1	2	3	4	5
Refusing to answer questions	1	2	3	4	5
Screaming	1	2	3	4	5
Crying	1	2	3	4	5
Refusing to let go of parent/caregiver	1	2	3	4	5
Conscious but non-responsive	1	2	3	4	5
Throwing a tantrum	1	2	3	4	5
Fighting you off (not letting you do an assessment or provide care)	1	2	3	4	5
Asking a lot of questions or perseverating on one question	1	2	3	4	5

Pediatric Emotional Distress Reference System (PEDRS)

The **Pediatric Emotional Distress Reference System (PEDRS)** is a quick reference for identifying common emotional distress reactions and age-appropriate calming and distraction activities by developmental level.

- Cross-reference by age, developmental level, weight and color code
- Information presented for five developmental levels: infant; toddler; preschool; school age; and adolescent
- Strategies and activities for working with parents and caregivers
- Sized to be included with other pediatric reference systems

Weight ranges and color code are only estimates of age and developmental level. The list of common reactions is not exhaustive, but does provide those we have found to occur most frequently. Not all calming and distraction activities will work with all children. You might need to try several different strategies/activities. You can also try using ones identified with other developmental levels. As you get more comfortable in working with children, we encourage you to experiment and find strategies/activities that work for both you and the child. The more a strategy/activity fits with your style, the more effective you will find it for the child or parent/caregiver.



Instructions for Use

The **PEDRS** is designed to be carried as part of your pediatric medical kit. If you know the age of the child, use it to refer to developmental level. Only refer to weight and/or color code if the child's age is not available. Refer to the card with the corresponding age, weight, or color code for common distress reactions and calming and distraction activities.

Developmental level can vary higher or lower than a child's chronological age. You might find some children exhibiting behaviors either above or below their age. Distress can also result in children regressing to a lower developmental level. If a child is exhibiting distress reactions different than predicted by the **PEDRS** for their age, try using the calming and distraction activities from the developmental level that matches the distress reactions you are observing.

We suggest that you review the material in "Engage – Calm – Distract: *Understanding and Responding to Children in Crisis"* before using the **PEDRS.**

Printing Instructions – Electronic Version Only

Set printer to print on both sides and flip on long edge. Card stock is recommended.

Section 3 – Respond (Engage, Calm, Distract)

Engaging the Child

Your first contact with a child is an opportunity to show a presence of calm, support and safety. Quickly building rapport can reduce the child's distress and make it easier to get the information you need, make your assessment, and begin providing medical interventions. Positive engagement can also help reduce your own anxiety.

Quickly Building Rapport

- Get on the child's physical level
- Speak softly and gently, using age appropriate, honest language
- Introduce yourself**,** ask her or his name and explain you are there to help
- Let the child know you need to touch her or him in order to find out how you can help
- Keep instructions simple and give only one at a time.
- Practice medical procedures with a caregiver or stuffed animal first to show the child it's OK
- Ask questions about pets, friends, and favorites, such as a toy, the comfort item they chose, etc.
- When possible, give the child choices (this or this – "Do you want me to use your left hand or right hand?") but a choice should not include the opportunity to say "no"

Talking to Children

General tips when talking to kids:

- Be honest and sensitive
- Use developmentally appropriate language in a soft voice
- Ask what questions they have. (Don't ask if they have questions, but instead what questions they have
- Provide a sequence of events with examples (medical items you are going to use demonstration on yourself, caregiver, stuffed animal, etc.)
- Only make promises you can keep
- Offer choices only when choices are available
- Have just one person talk to the child
- Acknowledge that it's OK to cry. Avoid telling kids to be "brave" or "a big kid"
- Watch for physical cues: body language, facial expressions
- Give them a simple job to do

Language	
Avoid:	Try:
"Don't move while I do this."	"Your job is to hold as still as you can."
"It's a needle that goes in your arm."	"I am going to slide this straw under your skin into your vein/blue line."
"The blood pressure cuff feels like a hug."	"You're going to feel a tight squeeze for just a few seconds."
"The IV will hurt …"	"You'll feel a quick poke or pinch."
"The medicine will burn …"	"The medicine might feel cold or warm going in."
"Show me how brave you are (or what a big kid you are)."	"It's OK to cry." "I know that this is really scary."

Dealing with Difficult Questions

- Never give life changing news to children. They deserve to be in a calm, safe environment with loved ones when given bad news.
- When children ask questions which you cannot or should not answer:
  - Validate the concern and difficulty in not knowing.
  - Say that you do not have the answers.
  - Assure them that when more is known, they will be told what is happening or what happened.
  - Shift the focus to what is happening right now. Examples:
    - **Paralysis, possible amputation, etc.:** "We don't know for sure yet what might happen. I know it's really hard not to have answers. When we know more we will tell you. For now, we need to focus on helping you by …"
    - **Fatality:** "I don't know exactly what happened because I have been with you. I know it's really hard not to know what's happening with ___. Once we know more we will tell you. For now, we need to focus on helping you by …"

Safety

Restoring children's sense of physical and emotional safety sets the stage for all other response efforts. Remember that children experiencing fear and stress have difficulty processing information and understanding what you are saying. Reducing fear and helping instill a sense of safety can make it easier for you to provide care.

There are different types of safety. We tend to focus on physical safety, but children need to feel emotionally and socially safe as well - the sense that they trust those around them. What might feel safe for one child, or for you, might feel unsafe to another child. As adults, it is easy to think that once a child is away from the event in either space or time, he or she will automatically feel safe. It is important to remember that children feel safe when they think they are safe, not when we think they are safe.

Promoting Safety

- If the child is in an unsafe setting, get her or him away as quickly as possible
- Limit the number of people around the child
- Use the parent or caregiver to help in comforting the child
- If a parent or caregiver is interfering with medical care or seems to be upsetting the child, have another responder pull him or her aside to get additional information
- Have the parent or caregiver get an object the child finds comforting (stuffed toy, blanket, pacifier, etc.)
- Get the child into the ambulance as quickly as possible
- Let the child know you are there to keep him or her safe and help. Have one person take charge of talking to the child
- Determine if a parent or caregiver can help comfort the child, take instructions from you during transport, and be allowed in back of ambulance. Keep caregiver and child together unless otherwise indicated
- Have parent ride up front or follow if it appears that they could interfere with medical care or further distress the child

Calming and Distraction

Calming and distraction activities are listed by developmental level. Not all strategies and activities will work with every child. You might have to try out several before the child responds. As previously mentioned, children often regress to earlier stages of development when distressed. Your responses can be adjusted based upon the child's current level of distress and behavior.

Some of the activities listed are more appropriate for specific ages and developmental levels. You will find others that will appeal to multiple age groups. Sometimes it is a matter of experimentation or trial and error to find something that works. Developmental level can also vary within age ranges. Every child is different and might respond to different activities at different times.

Plan ahead and get a variety of child friendly, developmentally appropriate objects to keep handy. We have included examples of some of our favorites, but encourage you to find ones that work for you. Most toys will identify their appropriate age range on the packaging. At times, you might need to improvise and look for things available around you (a set of keys, sunglasses). We have also included activities that don't require specific toys or items. Of course, suggestions or strategies provided in this kit cannot take priority over life-saving procedures. We know you will use your experience and clinical judgement to best serve your patients.

Activities provided below are a few that we have found effective with children. Please adapt, change, and add your own. As you practice using the strategies and activities, you should find yourself becoming more comfortable in working with children. You will identify actions, activities, and materials that best suit your own style and the resources available to you. We encourage you and your organization to experiment and be creative.

Calming

Children whose distress makes it difficult for them to respond to your questions or directions will need help calming down. Calming activities are designed to reduce children's fear, help them focus on the here and now, and reactivate the thinking and language centers of the brain. Calming activities are designed to reduce children's immediate distress, allowing you to ask questions, do your initial assessment, and provide medical care. Spending a little time calming children can make care go more easily and quickly. Going a little slower during your initial contact can make it easier to go faster as you begin to provide aid.

Distraction

Distraction activities can help when performing a medical procedure, especially one that might be painful. Distraction can begin once a child is responsive to directions. Some activities can serve to both calm and distract. There is a lot of crossover between the two strategies but you should begin with activities designed to calm.

We have listed calming and distraction activities by developmental level for easy reference. The same information is available on the **Pediatric Emotional Distress Reference System (PEDRS).**

Supporting Children during a Procedure

Creating a plan:

When beginning a medical procedure, give children the choice to either watch what you are doing or to look away. This has two benefits: children gain some control in the situation; and they get to create their own coping plan. Remind children that either way, their job is to hold very still during the procedure. If they chose to watch, it is important to normalize that "Some kids want to watch but they find it hard to hold still when they're looking at what's happening. If you forget to hold still, I'll remind you or help hold your body still so you are safe." Whichever choice they make, you can then introduce an item or activity to support them with distraction.

Utilizing Distraction Support:

You can use items (page **3-12**) for both distraction and to block children's view of equipment and procedures that might frighten them. When using an I-Spy book, pushbutton book, tablet, etc., hold the item over the arm in which you are placing the IV. This can prevent them from seeing the supplies and needle. Similarly, you can use a "view finder" to cover their eyes, so they see the pictures and not what is coming. When children change their mind and begin squirming in order to see what you are doing, ask if they would like to watch and remind them their job is told very still and to take slow, deep breaths.

You can also utilize the parent or caregiver to comfort and hold children during the procedure. We call this "positioning for comfort". This engages the parent, comforts the child, and decreases the need for staff to hold the child down. Though sometimes necessary, being held down by adults during a painful and frightening medical procedure is distressing for the child and upsetting for the parent. If possible, have the parent sit on the pram with the child. The parent sits fully on the pram with the back raised. The child sits in-between the parent's legs and the parent wraps their ankles together to enclose the child in the comfort hold. The parent or a staff member can hold the distraction item while the procedure takes place. For infants or toddlers, ask the parent to hold the child chest-to-chest during the procedure.

Explaining what is happening:
Use a method called "One Voice" for giving information and support to children. This helps maintain a calm/quiet atmosphere and allows the child to focus on only one voice. Before beginning a procedure, identify one person to provide all information and comfort to the child. This person could be the parent, the paramedic, a nurse, a child life specialist, etc. Even though the team may be well-meaning, multiple people speaking at once raises the stress level of everyone.

Ask the child if he or she would like for you to tell the steps of what will happen. You can also give the child the choice of having you count before the main part of the procedure. If the child wants information, try not to pull his or her focus from the distraction item. Just give quick, simple steps. For example, when starting an IV say "Cold soap. Tight rubber band on your arm for a few seconds. 1-2-3, quick pinch. Ok, the straw is in your arm and I'm just covering it up. You're done."

Calming/Distraction Activities by Developmental Level

Birth – 1 Year (Infant)

Calming

If parent/caregiver is available and able to respond to your directions, have him/her hold or caress the infant during the initial assessment and/or during medical procedures
Talk to infant in soft soothing voice
Gently caress the infant's arm or leg
Wrap the infant in a blanket
Provide a pacifier. (If you provide one, ask parent permission before giving it to their child.)
Bottle (provided by parent)

Distraction

Hold up a stuffed animal/colorful object in infant's visual field and slowly move it from side to side
Provide a bottle or pacifier
Have parent/caregiver talk quietly, using his/her normal language
Allow parent/caregiver into child's visual field
Talk to child in a quiet, soothing voice
Play peek-a-boo
Give something to shake (rattle, toy keys)
Sing softly

1 – 2 Years (Toddler)

Calming

- Allow parent to stay with child when possible
- Raise the back of the ambulance cot to let the child sit up
- Provide a stuffed animal or have parent get the child's favorite object
- Talk in a quiet, soothing voice
- Sing softly
- Have child sing his/her favorite song
- Cover child in a blanket

Distraction

- Interactive books/musical light up toys (can be used to block view of needle as well as distract)
- Singing
- Stuffed Animals
- Ask parent/caregiver to play a favorite game
- Give child a penlight and show him/her how it works (pretend the penlight is a candle and have child blow it out)
- Use a hand puppet to talk to the child or give instructions
- Talk in a funny voice
- Ask what sound a _____ (cat, dog, cow, etc.) makes.

3 – 6 Years (Preschool)

Calming

Have child take deep, slow breaths with you
Ask child about a favorite toy, stuffed animal, pet, etc. (Get specifics such as color, name)
Let parent hold child's hand or stroke arm, leg
Give child a stuffed animal or have parent get child's favorite object
Ask child to tell you how to play her/his favorite game
Have child identify 5 things he/she can see/hear. (Make sure in a safe place without distressing stimuli)
Use a pin wheel or blow bubbles to facilitate breathing

Distraction

Provide a glitter wand or Meteor Storm
Interactive books/musical light up toys (can be used to block view of needle as well as distract)
Have child sing you a song. (Sing along if you know it.)
Show the child how to use a kaleidoscope.
Give the child a job – something simple he/she can do.
Give a stuffed animal, have the child name it, tell a story about where it came from, wrap it in a blanket, etc.

7– 11 Years (School Age)

Calming

- Deep breathing (in through nose out through mouth)
- Ask child if she/he would like a stuffed animal
- 5 things child sees/hears/touches/feels (Make sure the child is away from distressing stimuli)
- Squeeze a stress ball
- Plastic slinky
- Play I-spy
- Ask child what she/he does to calm down when upset
- Give the child a koosh ball, tangle, or fidget spinner
- Let child listen to music on his/her phone. (Provide headphones if needed)
- Let child know that it is normal to feel scared, stressed, worried

Distraction

- Glitter wand with items floating
- Meteor Storm
- I-spy
- Listen to music on their phone/play video game
- Kaleidoscope
- Give child a job– something simple he/she can do
- View-Master
- Seek and find/20 questions/*Where's Waldo*

12 – 17 Years (Adolescent)

Note: This age range cuts across a variety of activities/strategies. What may work with younger teenagers might not appeal to older.

Caution on texting: Texting can be effective for helping calm and distract older teens. Try to keep them from taking pictures, especially of medical procedures like an IV. If texting becomes disruptive to you or the child, ask to take the phone. Say something like you want to keep it safe while transporting him/her to the hospital. If the event might be reported on the news or if there were fatalities, do not let her/him online.

Calming

- Ask child what she/he does to calm down when upset
- Let child listen to music on his/her phone. (Provide headphones if needed)
- Have child focus on you and do deep abdominal breathing (in through nose, out through mouth)
- Tangle/sensory item
- Koosh ball/stress ball (ones shaped like the brain work well)
- Texting (try to prevent sending pictures). Talk to child about what and who she/he is texting
- Ask child questions about favorite activities
- 5 things child sees/hears/touches/feels (Make sure the child is away from distressing stimuli)
- Let child know that it is normal to feel afraid, stressed, worried

Distraction

- Let child listen to music on his/her phone. (Provide headphones if needed)
- Texting (no pictures)
- Watch video or play game on his/her phone
- Fidget spinner or tangle
- Seek and find/20 questions/*Where's Waldo* (younger adolescent)
- Have child tell you about his/her favorite movie
- Koosh or stress ball

Working with a Parent or Caregiver

Parents or caregivers can serve as a primary advocate in working with a pediatric patient. They can provide comfort and support for the child and help distract during painful procedures. We recognize that the behavior of some parents and caregivers can increase their child's distress and interfere with your work.

Parents and caregivers face their own fear and distress when their child is injured or ill. Just like with children, engagement, calming, and distraction can help turn the panicked, disruptive, or intrusive parent into a helpful one. Including or excluding a parent or caregiver from attending to their child depends upon your experience, clinical judgment and personal preferences. However, we suggest you include parents, especially during transport, when possible. Separating children from their parent or caregiver can cause further distress, especially for infants and younger children. Use your judgment as to whether their presence will be calming or more distressful for your patient. You can ask older school-aged children and adolescents if they would like for their parent or caregiver to ride in the back of the ambulance or up front with the driver. In some cases, it might be necessary to ask the parent or caregiver to follow in another vehicle.

If a parent is unable to calm themselves, have another first responder pull the parent aside, saying you need more information from him or her. This can provide an opportunity to calm parents that need additional support. Remind the parent or caregiver that he or she needs to present a calm presence for their child. Once the parent or caregiver calms, return her or him to the child's side. Let parents and caregivers know that if they feel overwhelmed when bedside in the emergency department, they should step away to collect themselves. If a parent or caregiver begins interfering with medical care or becomes hostile or threatening, get law enforcement involved. In the case of suspected child abuse, always follow your agency and state guidelines.

Calming/Distraction Activities for Parent or Caregiver

Engagement

- Introduce yourself
- Assure the parent/caregiver that his/her child is being cared for
- Get basic information about the child
- Ask parent about what helps to calm and distract the child
- Give parent a role in the child's care (holding his/her hand, guiding patient in deep breathing, talking or singing to child)

Calming

- Ask parent to look at you and take deep, slow abdominal breaths (in through nose, out through mouth)
- Touch or gently hold parent's forearm between wrist and elbow (ask permission)
- Give parent something to hold – pen, koosh ball, stress ball, paper clip, anything handy
- Have parent close his/her eyes and describe the feeling against skin (ground, breeze, etc.) (Avoid this activity unless removed from any distressing stimuli.)
- Let parent know it is normal to feel afraid and concerned

Distraction

- Ask parent for information you need to better help the child
- Ask parent/caregiver to retrieve a favorite object that comforts the child
- Ask parent how he/she comforts and calms the child
- Give parent/caregiver a task or job to do
- Have parent fill out a form with personal and medical information about the child (even it is not required)
- Ask if there is someone the parent would like to call (or have you call) for support
- Give parent a role in the child's care

Pediatric Backpacks

Creating a Pediatric Backpack of calming and distraction toys can provide quick access and a convenient way to organize material.

We have listed items below that we have found effective. Most items are easily available at local toy or big-box stores. Most can be easily cleaned and reused. Consumable items like stuffed animals can be purchased in bulk from many online stores. We have tried to identify items that are not expensive. Look for other toys you think would be helpful.

Suggested Contents (see back of page for pictures of some of these items)

- Meteor Storm (one of our favorites)
- Glitter wand
- Interactive books
- Kaleidoscope
- Variety of stuffed animals
- Headphones – kind that comes with cell phones
- *Where's Waldo* books – pages can be cut out and laminated for easy cleanup.
- I-spy items – stickers (2-3 inches) attached to the roof of the ambulance can be great.
- Small blankets (or soft towels) – great for calming child or as distraction by having child wrap up and take care of the stuffed animal
- Koosh ball
- Stress ball – often giveaways from vendors – brain shaped can be particularly appealing
- Pen light – cover one with colored plastic to dim and become more attractive to infants.
- Infant toys – plastic keys, rattle, etc.
- Infant pacifier – unopened for single use only
- Pinwheel
- Bubble pen/small container of toy bubbles – recommend small wand to keep bubbles small
- View Master
- Plastic slinky
- Hand puppet

Calming/Distraction Toys – Ideal for including in distraction kit or backpack

Meteor Storm

I-Spy items

Tangle

View-Master

Glitter Wand

Where's Waldo?

Pin Wheel

Fidget Spinner

Interactive Books

Bubble pen

Kaleidoscope

Managing Responder Reactions

Managing your own reactions can improve your ability to respond to the medical and emotional needs of your pediatric patient. Below are a few actions and activities that you can do before and during a pediatric response, as well as activities that can help your overall well-being in the long-term. Identify activities that work for you. What do you already do that helps you reduce your stress?

Activities that can reduce the immediate effects of stress

Deep Breathing
Tightening and loosening muscles (legs, abdomen, back, shoulders, face)
Eating a good snack – nuts, dark chocolate (≥ 70 % cocoa), avocado, yogurt, fruit
Imagining yourself being successful
Listening to music
Chewing gum – reduces cortisol levels
Drinking water – avoid dehydration

Activities that support long-term emotional well-being

Mindfulness
Gratitude journal
Physical exercise
Daily journal
Writing poetry
Gardening
Dancing
Hugs
Talking
Having fun
Humor (including work-related dark humor)

References

[1] Guise, J., Meckler, G., O'Brien, K., Curry, M., Engle, P., Dickinson, K., Hansen, M. and Lambert, W. (2015). Patient safety perceptions in pediatric out-of-hospital emergency care: children's safety initiative. *Journal of Pediatrics,* 167(5) 1143-1148.

[2] Facts and figures: rates of exposure to traumatic events (2017, December 12) Retrieved from http://www.nctsn.org/resources/topics/facts-and-figures

[3] What is child traumatic stress (2017, December 16) Retrieved from http://www.nctsn.org/resources/audiences/parents-caregivers/what-is-cts

[4] Pediatric mental health emergencies in the emergency medical services system (2017, December 19) Retrieved from https:/www.acep.org/Clinical---Practice-Management/Pediatric-Mental-Health-Emergencies-in-the-Emergency-Medical-Services-System/#sm.00000ezl7h4r4cx5uk94yniqnt4e

[5] Substance Abuse and Mental Health Services Administration. *SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach*. HHS Publication No. (SMA) 14-4884. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014.

[6] Calhoun, A., Keller, M., Shi,J., et al. (2017). Do pediatric teams affect outcomes of injured children requiring inter-hospital transport. *Prehospital Emergency Care, 21(2) 192-200.*

This Resource Kit is Sponsored by:

The Colorado Department of Public Health and Environment

Authors

Lynn Garst, M.Ed.

Jenaya Gordon, MA, CCLS, NCC

Ezekiel Peters, Esq., NRP

Additional Contributors

Curt Drennen, PsyD, RN

Nicolena Johnson, NRP

For More Information:

Office of Emergency Preparedness & Response

Colorado Dept. of Public Health & Environment

4300 Cherry Creek Dr., South, Denver, CO 80246

Email: lynn.garst@state.co.us

2nd Edition - February, 2019

COLORADO
Department of Public Health & Environment

Pediatric Emotional Distress Reference System

A Companion to:

Engage – Calm – Distract

Understanding and Responding to Children in Crisis

Common Distress Reactions

This list is not intended to be an exhaustive list of distress reactions among children. Reactions can vary significantly within developmental level. When distressed, children often regress to behaviors found in earlier developmental stages. The reference cards include the most common reactions you are likely to experience in working with pediatric patients. Symptoms of emotional distress can also be indicative of medical distress. Rule out physical causes first. Many calming and distraction strategies identified on the other side of this tape can be used while addressing medical issues.

Note: Developmental levels are based upon age. If you don't know the child's age, weight ranges are approximate estimates of developmental level. Use child's actual age when known. Developmental level can vary higher or lower than child's chronological age.

Calming and Distraction

Strategies and activities are arranged by developmental level and are intended as general guidelines based upon the child's age. Children frequently regress to behaviors found in earlier developmental levels when distressed. If a child is exhibiting regressed behaviors, you might start with calming and distraction activities found in the stage where they appear to be functioning. You might need to try several strategies/activities before finding one that the child will respond to.

Note: Developmental levels are based upon age. If you don't know the child's age, weight ranges are approximate estimates of developmental level. Use child's actual age when known. Developmental level can vary higher or lower than child's chronological age.

This Handbook is Sponsored by:

The Colorado Department of Public Health and Environment

Authors:
Lynn Garst, M.Ed.
Jenaya Gordon, MA, CCLS, NCC
Ezekiel Peters, Esq., NRP
For More Information:
Office of Emergency Preparedness & Response
Colorado Dept. of Public Health & Environment
4300 Cherry Creek Dr., South, Denver, CO 80246
Email: lynn.garst@state.co.us

2nd Edition - February, 2019

COLORADO
Department of Public Health & Environment

Birth – 1 Year (Infant)

Common Reactions Birth to 1 Year (Infant)

The range and number of distress reactions increase across the first year of development.
Crying/screaming – can become so intense that the infant turns red and can briefly stop breathing
Biting – becomes more pronounced as infant begins teething
Sucking
Turning away/avoiding eye contact when handled
Increased startle response
Arching back/leg or arm extension
Clinging – not letting go or clinching fist
Difficulty separating from caregiver
Freezing – conscious but non-reactive to stimuli, staring "off into space"
Hiccupping

3

3 – 4 kg	8 – 9 kg	6 – 7 kg

1 – 2 Years (Toddler)

Common Reactions 1 – 2 Years (Toddler)

Crying/Screaming
Difficulty separating from caregiver – holding on tightly, reaching out or trying to grab back on when pulled apart
Hitting
Biting
Pushing away
Throwing objects
Easily startled
Withdrawal – not answering questions, not looking at you, showing no interest in toy or comfort item presented
Freezing – blank stare, non-responsive

5

10 -12 kg	13 – 14 kg

1 – 2 Years (Toddler)

Calming

- Allow parent to stay with child when possible
- Raise the back of the ambulance cot to let the child sit up
- Provide a stuffed animal or have parent get the child's favorite object
- Talk in a quiet, soothing voice
- Sing softly
- Have child sing their favorite song
- Cover child in a blanket

Distraction

- Interactive books/musical light up toys (can be used to block view of needle as well as distract)
- Singing
- Stuffed Animals
- Ask parent/caregiver to play a favorite game
- Give child a penlight and show him/her how it works (pretend the penlight is a candle and have child blow it out)
- Use a puppet to talk to the child or give instructions
- Talk in a funny voice
- Ask what sound a _____ (cat, dog, cow, etc.) makes.

6

10 -12 kg | 13 – 14 kg

Birth – 1 Year (Infant)

Calming

- If parent/caregiver is available and able to respond to your directions, have him/her hold or caress the infant during the initial assessment and/or during medical procedures.
- Talk to infant in soft soothing voice
- Gently caress the infant's arm or leg
- Wrap the infant in a blanket
- Provide a pacifier (if you provide one, ask parent permission before giving it to their child).
- Bottle (provided by parent)

Distraction

- Hold up a stuffed animal/colorful object in infant's visual field and slowly move it from side to side
- Provide a bottle or pacifier
- Have parent/caregiver talk quietly, using his/her normal language
- Allow parent/caregiver into child's visual field
- Talk to infant in a quiet soothing voice
- Play Peek-a-Boo

4

3 – 4 kg | 6 – 7 kg | 8 – 9 kg

3 – 6 Years (Preschool)

Common Reactions 3 – 6 Years (Preschool)

The range and number of distress reactions increase across the first year of development.

Crying/screaming
Temper Tantrums
Aggression – hitting, biting, throwing things
Grabbing on/holding on to stationary objects to avoid being moved
Physical symptoms not directly related to current medical issues (c/o stomach ache/headache
Wetting pants
Difficulty separating from caregiver
Freezing – conscious but non-reactive to stimuli, staring "off into space"

7

15 -18 kg | 19 – 23 kg

7 – 11 Years (School Age)

Common Reactions 7 – 11 Years (School Age)

Difficulty paying attention/easily distracted
Easily startled
Asking about the event/what you are doing/what things are (perseverating on a question)
Physical complaints not directly related to medical condition (c/o stomach ache/headache)
Difficulty with authority/following directions/being redirected
Easily angered/temper tantrums
Sad/crying
Screaming uncontrollably
Withdrawal/refusal to answer questions
Difficulty separating from caregiver
Freezing/unresponsive

9

24 -29 kg | 30 – 36 kg

7 – 11 (School Age)

Calming

- Deep breathing (in through nose out through mouth)
- Ask child if she/he would like a stuffed animal
- 5 things child sees/hears/touches-feels (make sure child is away from distressing stimuli)
- Squeeze a stress ball
- Plastic slinky
- Play I-Spy
- Ask child what she/he does to calm down
- Give the child a Koosh ball, tangle or fidget spinner
- Let child listen to music on his/her phone (provide head-phones if needed)

Distraction

- Glitter wand/items floating
- Meteor Storm
- I-Spy
- Listen to music on their phone/play video game
- Kaleidoscope
- Give the child a job – something simple he/she can do
- View Master
- Seek and Find/20 Questions/Where's Waldo

10

24 -29 kg	30 – 36 kg

3 – 6 Years (Preschool)

Calming

- Have child take deep, slow breaths with you
- Use a pin wheel or blow bubbles to facilitate deep breathing
- Ask child about their favorite toy, stuffed animal, pet, etc. (get specifics such as color, name)
- Let parent hold child's hand or stroke arm, leg
- Give child a stuffed animal
- Ask child to tell you how to play their favorite game
- Have child identify 5 things they see/hear (make sure child is in a safe place without distressing stimuli)

Distraction

- Provide a glitter wand or meteor storm
- Interactive book/musical light up toys (can be used to block view of needle as well as distract)
- Have child sing to you
- Show the child how to use a kaleidoscope
- Give the child a job – something simple he/she can do
- Give a stuffed animal, have the child name it, tell a story about where it came from, wrap it in a blanket, etc.

8

15 -18 kg	19 – 23 kg

12 – 17 Years (Adolescent)

Common Reactions 12 – 17 Years (Adolescent)

Difficulty paying attention/easily distracted
Easily startled
Asking about the event/what you are doing/what things are (perseverating on a question)
Wanting to know how bad it is/what will happen to him/her
Focused on cell phone/social media/contacting friends
Physical complaints not directly related to medical condition (c/o stomach ache/headache)
Difficulty with authority/following directions/being redirected
Aggressive behavior – verbal and/or physical
Sad/crying
Withdrawal/refusal to answer questions
Freezing/unresponsive
Attempting to act as if nothing is wrong/they are not afraid

11

37 kg and Above

Parent/Caregiver

Common Reactions Parent/Caregiver

Overly intrusive – wanting to know everything you are doing and why
Difficulty separating from child – hanging on to child/hovering – making it difficult to gather information from child or perform medical intervention
Inability to focus/answer questions
Easily distracted
Giving too much or unrelated information
Worry/concern about what is going to happen
Panic
Crying
Anger/verbal aggression
Withdrawal
Freeze/Unresponsive

13

Parent/Caregiver

Parent/Caregiver

Calming

- Ask parent to look at you and take deep, slow abdominal breaths (in through nose, out through mouth)
- Touch or gently hold parent's forearm between wrist and elbow (ask permission)
- Give parent something to hold – pen, koosh ball, stress ball, paperclip, anything handy
- Have parent close his/her eyes and describe the feeling against skin-ground, breeze, etc. (Avoid this activity unless removed from any distressing stimuli.)
- Let parent know that it is normal to feel afraid and concerned

Distraction

- Ask parent for information that you need to better help the child
- Ask parent to retrieve a favorite object that comforts their child
- Ask parent how he/she comforts and calms the child
- Give parent a task or job to do
- Have parent fill out a form with personal and medical information about the child (even if it is not required)
- Ask if there is someone the parent would like to call (or have you call) for support
- Give parent a role in the child's care

Parent/Caregiver

12 – 17 Years (Adolescent)

Calming

- Ask child what she/he does to calm down
- Let child listen to music his/her phone (provide headphones if needed)
- Have child focus on you and do deep abdominal breathing (in through nose, out through mouth
- Tangle/sensory item
- Koosh ball/Stress ball (brain shape works well)
- Texting (see Distraction box for guidelines)
- Ask questions about child's favorite activities
- 5 things child sees/hears/touches-feels (make sure child is away from distressing stimuli)
- Let child know that it is normal of feel afraid, stress, worried

Distraction

- Let child Listen to music on his/her phone (provide headphones if needed)
- Allow child to text friends *(no pictures, ask about who/ what they are texting, discontinue if it becomes disruptive/ distressful, do not allow if event could be reported on news or involved fatalities)*
- Watch video or play game on his/her phone
- Fidget spinner or tangle
- Seek & Find/20 Questions/Where's Waldo (younger adolescent)
- Have child tell you about his/her favorite movie
- Koosh/stress ball

37 kg and Above