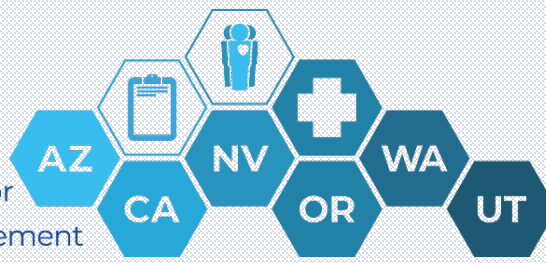


WRAP-EM

Western Regional Alliance for
Pediatric Emergency Management



Pediatric Perspectives on Critical Supply Chain



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Introductions

- **WRAP-EM: Western Regional Alliance for Pediatric Emergency Management**
 - One of two ASPR- funded Pediatric Disaster Care Centers of Excellence
 - Six States, 14 Pediatric Medical Centers, > 200 members, 14 Million Children
- **Pediatric Supply Chain Focus Group:**
 - Pharmacy and Formulary
 - Dr. Greg Nelsen – Primary Children's Hospital, NDMS, NPDC
 - Terri Wilson – Children's Hospital Association
 - Dr. Titilola Afolabi – Midwestern University, Phoenix Children's Hospital
 - Children's Hospital Association (CHA)
 - Jennifer Gedney, Vice President
 - Julie Abrams, Director, Supply Chain Services
 - Terri Wilson, Director, Supply Chain Services
 - Eastern Great Lakes Pediatric Consortium for Disaster Response
 - Dr. Regina Yaskey – University Hospitals Case Medical Center, Rainbow Babies and Children's Hospital
 - Strategic National Stockpile (SNS)
 - Dr. Susan Gorman, Associate Director for Science, Branch Chief of Science
 - Pediatric Logistics Managers

Supply Chain Focus Group Work

- **Define “child” for emergency management considerations**
 - Assumption: Less than 10 and/or Less than 30 kg
- **Define “Time Sensitive”**
 - Assumption: 1 hour or 48 hours
- **Different paradigms and different needs that are NOT the same**
 - Strategic National Stockpile
 - Adult community hospitals
 - Ancillary / Temporary care sites
 - Strike teams
 - Pediatric facilities and/or Regional Cache
- **Appreciation of existing information and infrastructure (Peds)**
 - EMS for Children and National Pediatric Readiness Program (NPRP)
 - Supply Chain Management Forum

Separate But Related Discussions:

- **Critical equipment Questions:**
 - Pediatric “Do-not-substitute” critical list
 - Durable medical equipment (Ventilators)
 - National Stockpile re-stock
 - Regional Equipment Cache
 - Hospital pediatric readiness critical lists (community hospitals)
- **Formulary Questions:**
 - FDA guidelines and Legal Questions
 - Availability of compounding pediatric “cookbook”
 - Pediatric- specific critical needs (“do-not-substitute” list)

Important refining issues:

- Par Levels
 - Rare vs common considerations
- Pediatric specific supply challenges
 - Rare items and single vendor source
- Practical but important supply items NOT on lists
 - ie – desitin and diapers
 - Pediatric PPE
 - Breast milk pumps / storage capability
- Items with dosing challenges: ie – Radiologics, countermeasures

Pediatric critical list example

Pediatric Considerations for FDA essential meds list			
GI agents	Miralax	Equipment	Peds size ET tubes (down to 3-0)
Anti / Pro coagulants	Tranexamic acid (TXA)		Chest tubes (12,16,20)
Psychiatric	Methylphenidate (concerta)		8 French pigtail catheter insertion set
Analgesics	Tylenol (IV)		ECMO - portable pump capability
	Fentanyl (intranasal)		Vents - low tidal volume capability
	Oxycodone liquid (replace codeine)		IV pumps - per kg and concentration capable
Antibiotics	Neo Poly Dex Otic/Ophtho drops		IV's (24 G)
	Augmentin PO		Intraosseous catheters
Pulmonary	Racemic Epinephrine		Pediatric PPE (masks)
	Hypertonic saline NEB		Neonatal Isolate / warming equipment
Sedative / Hypnotics	Midazolam or Dipazepam (PO)		Peds Foley catheters
Vasopressors	Milrinone		Peds NG Tubes
	Dopamine		Peds Bag valve masks
	Prostaglandin E		Diapers
Chemical Threats	Peds dose auto injectors		
Burn / Blast/ wounds	Mepitel / Xerophorm dressings		
	Medihoney		
	cavilon		
	Desitin		
Fluids	D5 NS +20 KCL		
Other	Compounding Syrup		

Committee Focus Questions:

- What makes a product (or formulary) critical for pediatric care?:
 - Size requirements / dosing requirements
 - Clinical urgency / time sensitive
 - Lack of alternative
 - Adequate training (or formulary compounding experience)
 - Delivery system special need
- Examples:
 - Endotracheal tubes
 - Chest tubes
 - IV's
 - Meter-dose medications (ie - countermeasures)

Committee Focus Questions:

- What outcome measures matter to the end users (adult practitioner caring for a pediatric patient in a disaster setting)?
 - **Survival** of the child to definitive care
 - **No Harm** to the child with “alternative and appropriate methods”
 - Iatrogenic injury from wrong-size equipment
 - Safety in dosing – Standardized Formulary
 - Accurate weight determination
 - Triage decisions (CSC for children)
 - JIT training and experience
 - Mental health outcomes and legal consequences
 - *Time to definitive care and support systems or re-supply*

Committee Focus Questions:

- Approaches to mitigate failures in the supply chain process (*for children*)?
 - CHA:
 - Supply Chain Management forum
 - Coordinated vendor negotiations
 - “Sharing” Logistics
 - Vetting of alternative suppliers
 - Critical equipment lists for pediatrics
 - Pediatric readiness projects
 - Compounding cookbook and pediatric dosing resources
 - Pediatric Cache discussions
 - System redundancy
 - Team based approaches (RDHRS Programs)
 - Adult hospitals with peds capabilities
 - Anticipating shortages based on HVA identified scenarios (ped specific)