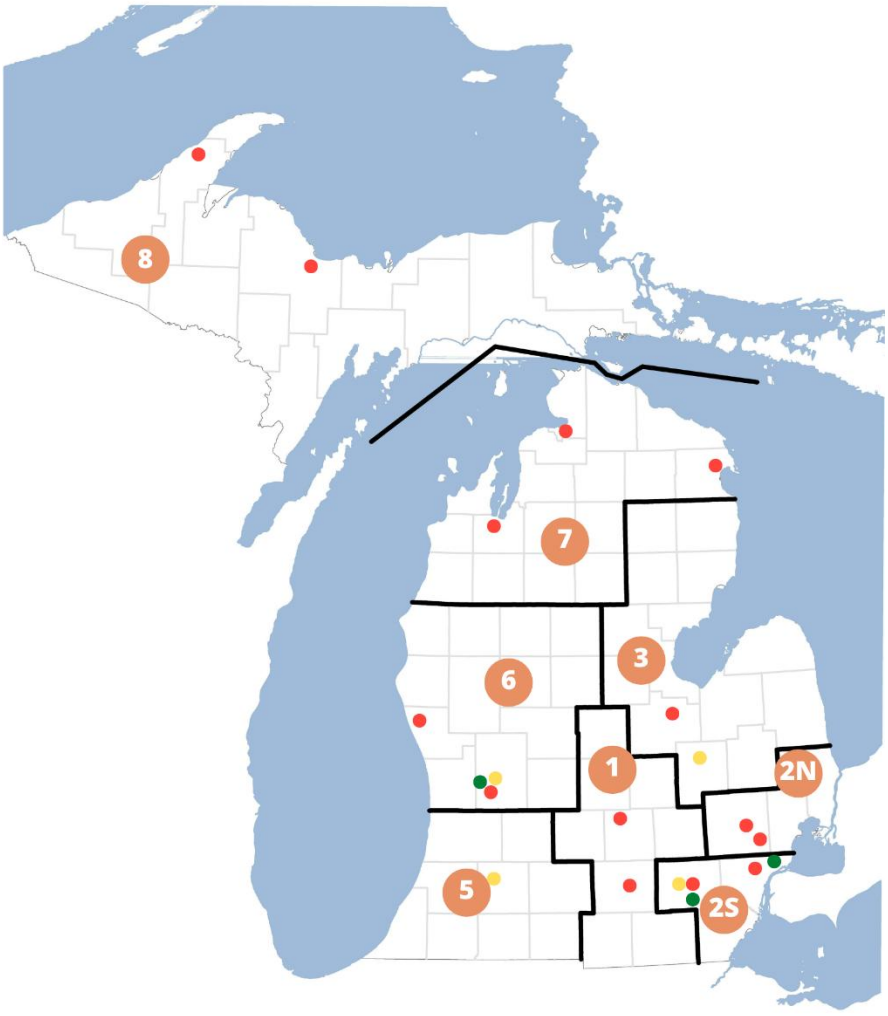
State of Michigan Burn Mass Casualty Incident Plan

Pediatric Annex

Michigan Department of Health and Human Services
Bureau of Emergency Preparedness, EMS and Systems of Care

State Burn Coordinating Center

MDHHS Michigan Department of Health & Human Services | Bureau of Emergency Preparedness, EMS and Systems of Care



Burn Surge Facility
Burn Center
Pediatric Burn Center
Healthcare Preparedness Region #

Contents

Pediatric Burn Surge Annex

The Pediatric Burn Surge Annex supports the State of Michigan Burn Mass Casualty Incident (BMCI) Plan by outlining processes for the assessment, stabilization, and coordination of care for pediatric burn patients during a mass-casualty event. This annex provides guidance for hospitals, Burn Surge Facilities (BSFs), emergency medical services (EMS), and other healthcare organizations when pediatric burn needs exceed regional capacity.

During a Burn Mass Casualty Incident involving pediatric patients, the State Burn Coordinating Center (SBCC), in collaboration with the Community Health Emergency Coordination Center (CHECC) and regional Healthcare Coalitions (HCCs), will coordinate the statewide pediatric burn response.

Pediatric burn expertise will be provided through the SBCC's partnership with Michigan Medicine, pediatric burn centers, and other healthcare facilities capable of delivering pediatric care. This support may include telemedicine consultation, coordination of patient transfers, and—when feasible—deployment of clinical staff to assist with patient triage and stabilization.

Given that pediatric patients have unique physiological and psychosocial needs, this annex emphasizes early stabilization, age-appropriate pain management, fluid resuscitation, and family reunification considerations. It also accounts for the potential that established burn centers may initially be overwhelmed, and transportation resources may be limited.

Activation and Coordination

Upon notification of a BMCI with pediatric involvement:

- The SBCC Medical Director will determine the need for pediatric consultation and coordinate activation with the CHECC.
- The SBCC will notify Michigan's pediatric burn centers and relevant regional MCCs to assess available capacity and resource needs.
- Pediatric burn expertise will be coordinated through telemedicine, on-site consultation, or interfacility transfer when appropriate.
- Coordination with the Great Lakes Healthcare Partnership (GLHP) may occur if Michigan resources are exceeded and interstate transfers are required.

All communications and coordination will follow established processes in the Michigan BMCI Plan.

Goals and Objectives

During a pediatric burn mass casualty incident, it is critical to ensure the rapid deployment of pediatric burn expertise and age-appropriate medical resources to any facility receiving multiple pediatric patients. The State Burn Coordinating Center (SBCC), in coordination with the Community Health Emergency Coordination Center (CHECC), will facilitate this support through telemedicine consultation, EMS coordination, and when available, on-site clinical assistance.

The goals of this annex are to:

- Provide the highest possible level of care for pediatric burn patients during surge events.
- Expand the statewide ability to stabilize and manage pediatric burn injuries.
- Prioritize the use of limited resources while maintaining equitable access to care.
- Support Michigan healthcare facilities caring for a surge of pediatric burn patients through coordinated consultation, transfer, and education.
- Ensure that critical clinical priorities—such as initial resuscitation, fluid management, airway control, mechanical ventilation, pain management, and wound assessment—are addressed in a standardized manner.

Health Equity and Access Considerations

Pediatric patients present unique physiological and psychosocial vulnerabilities during a Burn Mass Casualty Incident (BMCI). Children are more susceptible to environmental hazards and toxic exposures due to their proximity to ground-level threats. Limited motor skills and cognitive development may prevent them from escaping dangerous situations, and they may be frightened or disoriented by responders wearing personal protective equipment. Additionally, children are at increased risk for separation from caregivers and require age-appropriate emotional support and reunification assistance.

This annex incorporates health equity principles to address disparities in access to care. Response operations will:

- Identify and mitigate barriers affecting children with disabilities, those from rural or underserved communities, and families with limited English proficiency.
- Ensure communication materials and discharge instructions are provided in clear, culturally and linguistically appropriate formats.
- Consider social, psychological, and developmental needs when planning patient care, reunification, and follow-up.

These considerations help ensure that all pediatric patients receive equitable, timely, and appropriate care during and after a burn mass casualty incident.

Basic Treatment Considerations

Children have a greater surface area per unit of body weight than adults and require relatively greater amounts of resuscitation fluid. Children have a higher percentage of Body Surface Area (BSA) devoted to the head relative to the lower extremities.

- The ratio of BSA: is highest at birth and diminishes as the child grows.
- The large head also contributes to larger heat loss.
- Pediatric skin is thinner and more permeable; toxins, if present will be absorbed faster and exert greater systemic effects.
- Smaller children have limited glycogen stores which can be rapidly depleted under stress; they should receive a maintenance fluid of D5LR, in addition to resuscitation fluids. (Refer to the Exemplar Burn Resuscitation Fluid Calculations page of *Pediatric BMCI Surge Appendix*).

Pediatric Vulnerabilities in Burn Incidents

Understanding the unique physical and behavioral characteristics of children is essential to planning for burn surge response. Table 1 highlights common pediatric vulnerabilities that may influence triage, treatment, and psychosocial support during a Burn Mass Casualty Incident (BMCI). These factors should be considered by all facilities receiving pediatric patients and incorporated into staff training and family reunification planning.

Table # 1

Pediatric Characteristic	Special risk during disaster
Respiratory	Higher minute volume increases risk from exposure to inhaled agents.
Gastrointestinal	Higher risk for dehydration from vomiting and diarrhea after exposure to contamination.
Skin	Higher body surface area increases risk for skin exposure. Skin is thinner and more susceptible to injury from burns, chemicals and absorbable toxins. Evaporation loss is higher when skin is wet or cold, so hypothermia is more likely.
Endocrine	Increased risk of thyroid cancer from radiation exposure.
Thermoregulation	Less able to cope with temperature problems, with higher risk for hypothermia.
Developmental	Lower ability to escape environmental dangers or anticipate hazards.
Psychological	Prolonged stress from critical events. Susceptible to separation anxiety.

Table # 2 Vital Signs at Various Ages

Age	Heart Rate (beats/min)	Blood Pressure (mm Hg)	Respiratory Rate (breaths/min)
Premature	120-170	55-75/35-45	40-70
0-3 mo.	100-150	65-85/45-55	35-55
3-6 mo.	90-120	70-90/50-65	30-45
6-12 mo.	80-120	80-100/55-65	25-40
1-3 yr.	70-110	90-105/55-70	20-30
3-6 yr.	65-110	95-110/60-75	20-25
6-12 yr.	60-95	100-120/60/75	14-22

Kleigman, R.M., et. al. Nelson Textbook of Pediatrics, 19th Edition. Saunders. Philadelphia.

Special Airway Considerations for the Pediatric Patient

Airway

Anatomical differences to be aware of:

- The tongue is proportionally larger relative to the oropharynx, which may contribute to airway obstruction.
- The larynx is positioned higher and more anterior in the neck, and the vocal cords lie at a more anterocaudal angle.
- The epiglottis is omega-shaped and more flexible.
- The narrowest portion of the airway is the cricoid ring rather than the vocal cords.
- Infants younger than 6 months are obligate nasal breathers; burns involving the nasal passages can quickly result in airway compromise.

***Patients should remain NPO until airway assessment has been completed*.**

Indications for emergent intubation:

- Burns involving the mouth and/or nose.
- Stridor, wheezing, respiratory distress, hypoxia.
- Altered mental status with inability to protect airway

Indications for urgent airway evaluation:

- Carbonaceous sputum.
- Facial burns.
- Cough with distress, stridor or hypoxia.
- Prolonged exposure to enclosed-space heat or smoke.
- Large burns (>20% TBSA).

Early intubation, if airway control is anticipated, is critical to prevent deterioration and potentially difficult intubation later in care.

Key management points:

- Maintain the patient NPO.
- Administer 100% oxygen as early as possible.
- Elevate the head of the bed (HOB) to minimize airway edema.
- Select an appropriately sized endotracheal tube (ETT).
- Secure the ETT using an approved commercial device or tape/twill ties.
- Insert a nasogastric (NGT) or orogastric (OGT) tube as indicated to decompress the stomach and reduce aspiration risk.

The following table can be used for reference and to assist with the induction for intubation.

RAPID SEQUENCE INTUBATION AGENTS

Table # 3

Agent	Dosage	Duration of Action	Comment
Induction			
Etomidate	0.2 – 0.4 mg/kg	10-15 minutes	Rapid onset 30-60 sec, peaks in 1 minute
Versed	0.1 -0.2 mg/kg	30-60 minutes	
Fentanyl	1 – 5 mcg/kg	1-2 hours	
Paralytics			
Rocuronium	1mg/kg	30 – 60 minutes	Rapid onset
Vecuronium	0.1 mg/kg	30-90 minutes	

Michigan Medicine, Pharmacy Protocols

Equipment and Supplies

Important Update:
The Burn Mass Casualty Incident (BMCI) supply kits are now being maintained by the State Burn Coordinating Center (SBCC). A centralized kit is currently housed at the SBCC office at the University of Michigan in Ann Arbor to support burn response operations.

This represents a change from previous guidance regarding the distribution and maintenance of BMCI go-bags. Healthcare facilities and Burn Surge Facilities (BSFs) should continue to ensure access to essential pediatric burn supplies through internal inventories while utilizing SBCC support and coordination as needed during an incident.

While centralized SBCC resources are available, Burn Surge Facilities and partner hospitals are encouraged to review their internal inventories to ensure the availability of essential items needed for initial stabilization of pediatric burn patients. Facilities should confirm access to pediatric airway management equipment, wound dressings, IV fluids, and pain control supplies through their existing emergency stock or supply chain partners. The State Burn Coordinating Center (SBCC) and the Department of Emergency Preparedness and Response (DEPR) will continue to provide technical assistance, training, and guidance to support local preparedness efforts during this transition period.

The following tables can be used for assistance with appropriate equipment and tube sizes.

Cuffed endotracheal tubes should be used if available

Equipment Sizes: Up to 20Kg Tables # 4

Weight	3 kg	5 kg	10 kg	15 kg	20 kg
ETT	3-3.5	3.5-4.0	4-4.5	4.5-5.0	5.0-5.5
L Blade	Miller 0-1	Miller 0-1	Miller 0-1	Miller 1-2	Miller 2
Suction	6-8 Fr	8-10 Fr	10 Fr	10 Fr	10 Fr
NG Tube	5-8 Fr	5-8 Fr	8-10 Fr	10-12 Fr	12-14 Fr
Foley	6-8 Fr	6-8 Fr	8-10 Fr	10-12 Fr	10-12 Fr
Chest Tube	10-12 Fr	12-16 Fr	16-20 Fr	20-24 Fr	24-32 Fr
LMA (cuff)	1 (4 mL)	1.5 (7 mL)	2 (10 mL)	2 (10 mL)	2-2.5 (14 mL)

Equipment Sizes: greater than 20kg Table # 5

Weight	20 -25 kg	30 kg	40 kg	> 50 kg
ETT	5.5-6.0 cuff	6.0-6.5 cuff	7.0-7.5 cuff	7.5-8.0 cuff
L Blade	Mil/Mac 2	Mil/Mac 2-3	Mil/Mac 3	Mil/Mac 3
Suction	10 Fr	10 Fr	12 Fr	12-14 Fr
NG Tube	12-14 Fr	14-26 Fr	14-16 Fr	16-18 Fr
Foley	12 Fr	12 Fr	12-14 Fr	12-14 Fr
Chest Tube	28-32 Fr	28-32 Fr	32-40 Fr	32-40 Fr
LMA (cuff)	2.5 (17 mL)	3 (20 mL)	3 (20 mL)	4-6 (30-50 mL)

Ventilator Management

Pediatric patients have smaller, more delicate lungs that are highly susceptible to barotrauma. Their respiratory physiology differs significantly from adults—they have a higher minute ventilation per kilogram of body weight and a faster respiratory rate. As a result, children inhale a greater volume of air relative to their size and are exposed to higher concentrations of airborne toxins during a Burn Mass Casualty Incident (BMCI).

Because of this, toxic exposures and inhalation injuries can develop more rapidly and have more severe effects on children. They may also absorb a greater total dose of harmful substances before these agents can be metabolized or cleared from the respiratory tissues. Additionally, many chemical agents have a high vapor density and tend to settle near the ground, increasing exposure risk for children who breathe and move within this lower air space.

Table # 6 Suggested Initial Ventilator Settings

Ideal Body Weight	≤ 5 kg	10-15 kg	15-25 kg	25-35 kg	> 35 kg
Mode	Pressure Control	Pressure Control	Pressure Control	Pressure Control	Pressure Control
Rate (bpm)	35-55	25-40	20-35	18-28	14-22
Inspiratory Pressure	Contact Physician for	10-12 cm H_2O	10-15 cm H_2O	18-20 cm H_2O	18-20 cm H_2O
PEEP		5-8 cm H_2O	5-10 cm H_2O	5-10 cm H_2O	5-10 cm H_2O

PIP*	Settings	15-20 cm H_2O	15-25 cm H_2O	25-28 cm H_2O	25-28 cm H_2O
FiO2**	**100%**	**100%**	**100%**	**100%**	**100%**
Inspiratory time		**0.6 sec.**	**0.8 sec.**	**1.0 sec.**	**1.0 sec.**

Ventilator Management Notes

Ensure ventilator settings provide visible chest rise and equal bilateral breath sounds. Adjust settings gradually. Excessive pressure can cause barotrauma or pneumothorax.

** Peak Inspiratory Pressure (PIP) = Inspiratory Pressure + Positive End-Expiratory Pressure (PEEP)*

** Wean oxygen as tolerated.*

Effective ventilator adjustments:

- Poor oxygenation: Increases FiO2 or increase PIP/PEEP.
- High CO2: Increase ventilator rate or PEEP.
  (Make changes one at a time to identify which adjustment improves ventilation or oxygenation.)

Additional considerations:

- Burn patients undergoing fluid resuscitation often require higher ventilator pressures.
- In patients with circumferential burns of the torso or abdomen, escalating ventilator pressures may indicate restricted chest wall movement and the need for escharotomy.

If escharotomy is being considered, contact the State Burn Coordinating Center (SBCC) at 734-936-2876.

Sedation

Ongoing sedation for care while waiting for and during transport should be considered. Does the patient need to be restrained? Consider the use of arm immobilizer as well as soft restraints, whichever method is presently used by the transport teams.

Table # 7

Agent	Age	Dosage	Max Doses
Versed	GA ≤ 32 weeks	0.03 mg/kg/hr.	0.06mg/kg/hr.
	> 32 weeks	0.06 mg/kg/hr.	0.12mg/kg/hr.
Loading dose	1 month – 18 yrs.	0.05 – 0.2 mg/kg	Given slow IV over 2-3 minutes
Continuous IV		0.06 – 0.12 mg/kg/hr.	0.36 mg/kg/hr.; titrate to effect

Morphine	< 50kg	0.01 mg/kg/hr.	0.04 mg/kg/hr.
	≥ 50 kg	1.5 mg/hr.	
Fentanyl	< 50 kg	Load: 1 – 10 mcg/kg <5 mcg/kg 3-5 minutes >5mcg/kg 5-10 minutes	1 - 10 mcg/kg hr.

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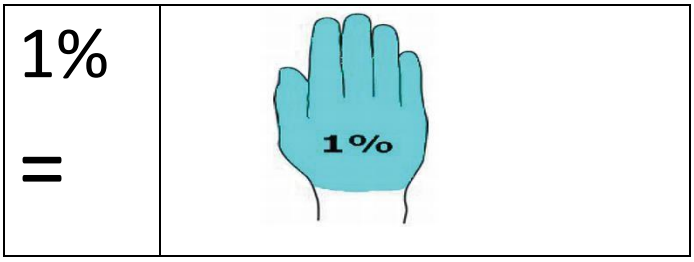
Burn Assessment Models

Assessing the patient's burns and estimating the area involved is important for the resuscitation phase of care. This can be done in several ways. Two methods are the palm method and the Lund and Browder chart. It is important to note that only partial and full thickness burns are to be included in the Total Body Surface Area (TBSA) estimation.

The Palm Method - Is an extremely easy and is very helpful when the burns are scattered over the body. With this method and using the PATIENT'S hand as a guide, the palmar surface is equal to 1% of the patient's body.

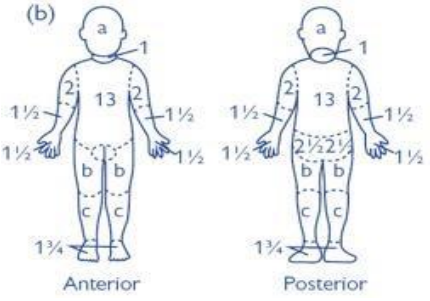
Diagram # 1 The Palm Method



Defining Total Body Surface Area (TBSA) (phoenix-society.org)

Lund and Browder Chart - If used correctly, is the most accurate method for determining TBSA burns in pediatrics. It compensates for the variation in body shape with age and therefore can give an accurate assessment of burns area in children.

Diagram # 2 Lund and Browder Chart



Relative percentage of body surface area (% BSA) affected by growth

	Age				
Body part	0y	1y	5y	10y	15y
a = ½ of head	9½	8½	6½	5½	4½
b = ½ of one thigh	2¾	3¼	4	4¼	2½
c = ½ of one lower leg	2½	2½	2¾	3	3¼

Defining Total Body Surface Area (TBSA) (phoenix-society.org)

Fluid Resuscitation

Maintaining normal body temperature in infants and children is critical during burn resuscitation due to their relatively greater body surface area (BSA)–to–weight ratio. Infants generate less intrinsic heat through shivering, and this mechanism is impaired in children younger than six months. To prevent hypothermia, keep the child warm using room warmers, warm blankets, and warmed IV fluids, particularly during the resuscitation phase.

If intravenous (IV) access cannot be obtained, intraosseous (IO) access should be used.

1. Initial Starting Points

Recommended starting points for pediatric fluid resuscitation (to be adjusted once TBSA is calculated)

≤ 1 year: discuss with burn unit attending physician

≤ 5years: 125 ml Lactated Ringers (LR) per hour

6-13 years old: 250 ml LR per hour

≥ 14 years: 500 ml LR per hour

2. Pediatric patients with burns ≥ 20% TBSA

Pediatric patients with ≥20% total body surface area (TBSA) burns require resuscitative fluids in addition to maintenance fluids (see Table for example calculations).

- Resuscitation formula: 3 mL LR × %TBSA (partial and full-thickness burns) = estimated resuscitation fluid requirement for the first 24 hours.
- Divide the total volume by two (½ over the first 8 hours from the time of injury, and the remaining ½ over the next 16 hours).
- For patients under 30 kg, add Dextrose 5% Lactated Ringer's (D5LR) at a maintenance rate **in addition to** the resuscitation fluids.
- If the patient remains in a Burn Surge Facility (BSF) after the initial resuscitation period, continue maintenance IV fluids until adequate oral (PO) intake is established.

3. Urine Output

- **Target:** 1–2 mL/kg/hr (adjusting resuscitation rate as needed).
    - Patients ≤30 kg: 0.8–1.2 mL/kg/hr.
    - Patients >30 kg: 0.3–0.7 mL/kg/hr.

Low urine output (two consecutive hours):

- If patient <30 kg: urine output <0.8 mL/kg/hr.
- If patient >30 kg: urine output <0.3 mL/kg/hr.
    1. Increase fluid rate by 15%.
    2. Reassess after 1 hour.

3. If urine output remains low after 2 consecutive hours, begin **albumin** infusion if not already initiated.
4. If urine output remains low for 2 hours after starting albumin, contact the State Burn Coordinating Center (SBCC) and start a dopamine drip at 3 mcg/kg/min.

High urine output (two consecutive hours):

- If patient <30 kg: urine output >1.2 mL/kg/hr.
- If patient >30 kg: urine output >0.8 mL/kg/hr.
    1. Dip urine to exclude glycosuria.
    2. Reduce fluid rate by 15%.

Table # 8 Exemplar Burn Resuscitation Fluid Calculations

Patient Weight	TBSA burn	Calculation	Estimated 24h Resuscitation Total (NOT including maintenance fluids)	Fluid type (dependent on patient weight)
8 kg	20%	3 x 8 x 20	480 ml	D5 LR
8 kg	40%	3 x 8 x 40	960 ml	D5 LR
8 kg	60%	3 x 8 x 60	1,440 ml	D5 LR
8 kg	80%	3 x 8 x 80	1,920 ml	D5 LR
10 kg	20%	3 x 10 x 20	600 ml	LR
10 kg	40%	3 x 10 x 40	1,200 ml	LR
10 kg	60%	3 x 10 x 60	1,800 ml	LR
10 kg	80%	3 x 10 x 80	2,400 ml	LR
20 kg	20%	3 x 20 x 20	1,200 ml	LR
20 kg	40%	3 x 20 x 40	2,400 ml	LR
20 kg	60%	3 x 20 x 60	3,600 ml	LR
20 kg	80%	3 x 20 x 80	4,800 ml	LR
30 kg	20%	3 x 30 x 20	1,800 ml	LR
30 kg	40%	3 x 30 x 40	3,600 ml	LR
30 kg	60%	3 x 30 x 60	5,400 ml	LR
30 kg	80%	3 x 30 x 80	7,200 ml	LR
40 kg	20%	3 x 40 x 20	2,400 ml	LR
40 kg	40%	3 x 40 x 40	4,800 ml	LR

40 kg	60%	3 x 40 x 60	7,200 ml	LR
40 kg	80%	3 x 40 x 80	9,600 ml	LR
50 kg	20%	3 x 50 x 20	3,000 ml	LR
50 kg	40%	3 x 50 x 40	6,000 ml	LR
50 kg	60%	3 x 50 x 60	9,000 ml	LR
50 kg	80%	3 x 50 x 80	12,000 ml	LR

Give HALF (1/2) of the estimated 24-hour resuscitation fluid total OVER THE FIRST 8 HOURS post-injury, in addition to maintenance fluids.

Table # 9 Assessing Dehydration in Children

Feature	Mild (<5%)	Moderate (5% to 10%)	Severe (>10%)
Appearance	Active, alert	Irritable, alert, thirsty	Lethargic, looks sick
Skin perfusion	Normal capillary refill (<2 seconds)	Capillary refill slowed (2-4 seconds); skin cool to touch	Capillary refill markedly delayed (>4 seconds); skin cool, mottled, gray
Pulse	Normal	Slightly increased	Rapid, weak
Respirations	Normal	Fast	Fast and deep
Systolic BP	Normal	Normal to orthostatic, >10 mmHg change	Hypotension
Mucous membranes	Slightly dry	Very dry	Parched
Tears	Present	Decreased, eyes sunken	Absent, eyes sunken
Eyes	Normal	Normal to sunken	Sunken
Skin	Normal turgor	Decreased turgor	Tenting
Anterior fontanel	Normal	Normal to sunken	Sunken
Urine output	Decreased	Moderately decreased	Marked decrease, anuria

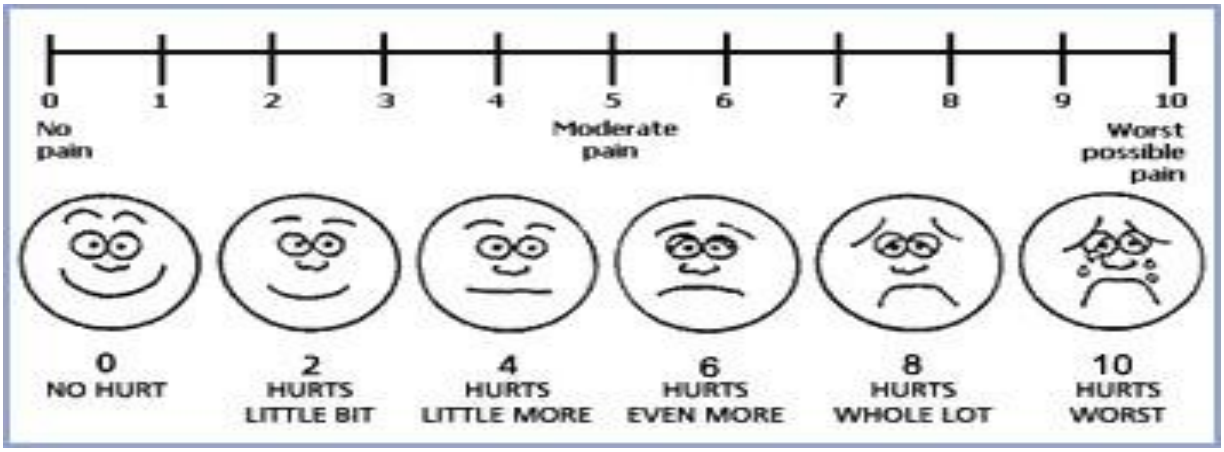
PAIN MANAGEMENT

The patient should only be given medication through IV access or IO access when available.
(Oral or IM route can have a variable absorption rate).

- Fentanyl 0.5 - 1 mcg/kg/dose Every 5 minutes with a Max of 2 mcg/kg/hour OR
- Morphine 0.05 – 0.1 mg/kg dose. May repeat to 0.2 mg/kg/hr. max dose.

- Oral pain medication should be reserved either for patients with very minor burns or patients with no other options for pain control.

Diagram # 3 Verbal Assessment Tool for Pediatric Pain



Non-Verbal Pain Assessment Tool

This is a behavioral pain assessment scale for use in children 2 months-7 years, or those unable to provide reports of pain. Instructions: Rate patient in each category, add together document total pain score.

Table # 10 FLACC SCALE (FACE, LEGS, ACTIVITY, CRY, CONSOLABILITY)

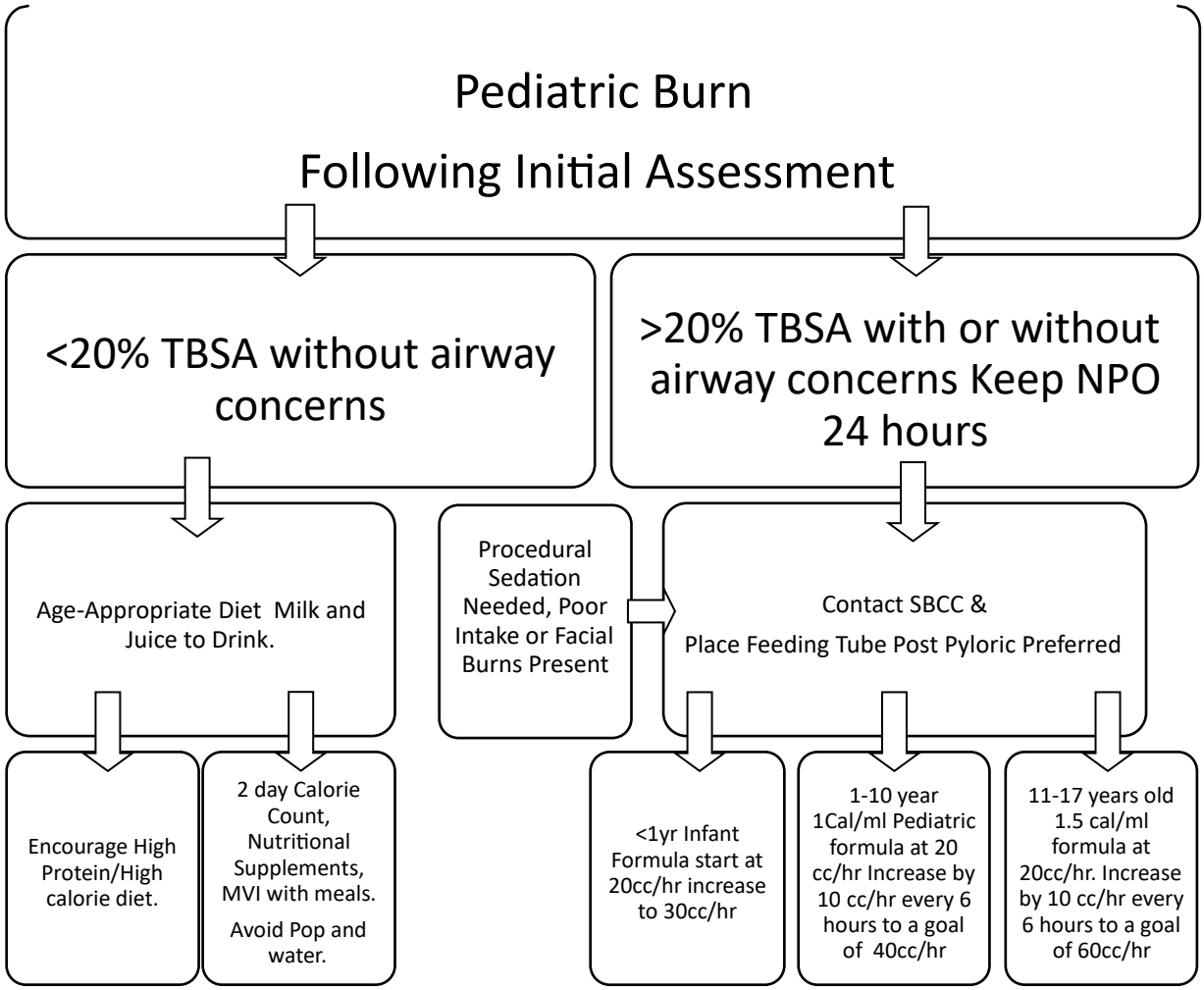
	0	1	2
FACE	No expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant frown, clenched jaw, quivering chin
LEGS	Normal position OR Relaxed	Uneasy, Restless, Tense	Kicking Or Legs drawn up
ACTIVITY	Lying quietly Normal position Moves easily	Squirming, Shifting back and forth, Tense	Arched, Rigid or Jerking
CRY	No cry (Awake or Asleep)	Moans or Whimpers Occasional complaint	Crying Steadily, Screams or Sobs, Frequent complaints
CONSOLABILITY	Content Relaxed	Reassured by occasional touching, hugging or talking, Distractible	Difficult to console or comfort

Nutrition

Nutrition in a pediatric patient should be considered early in the treatment phase. Place enteral feeding tube as early as possible in all patients with burns ≥ 20% TBSA. If none are available or if the patient is awake and alert and able to drink and eat encourage patient to do so.

It is important to keep the patient NPO (nothing by mouth) until assessments have been completed.

Diagram # 4



- If patient has an NG/OG, check residuals Q 4 hr. If residuals are more than 3 times the hourly rate stop the tube feedings and notify physician.
- Consult dietitian for appropriate formula

Table # 11 Nutritional Guidelines for Birth to 1 yr. old

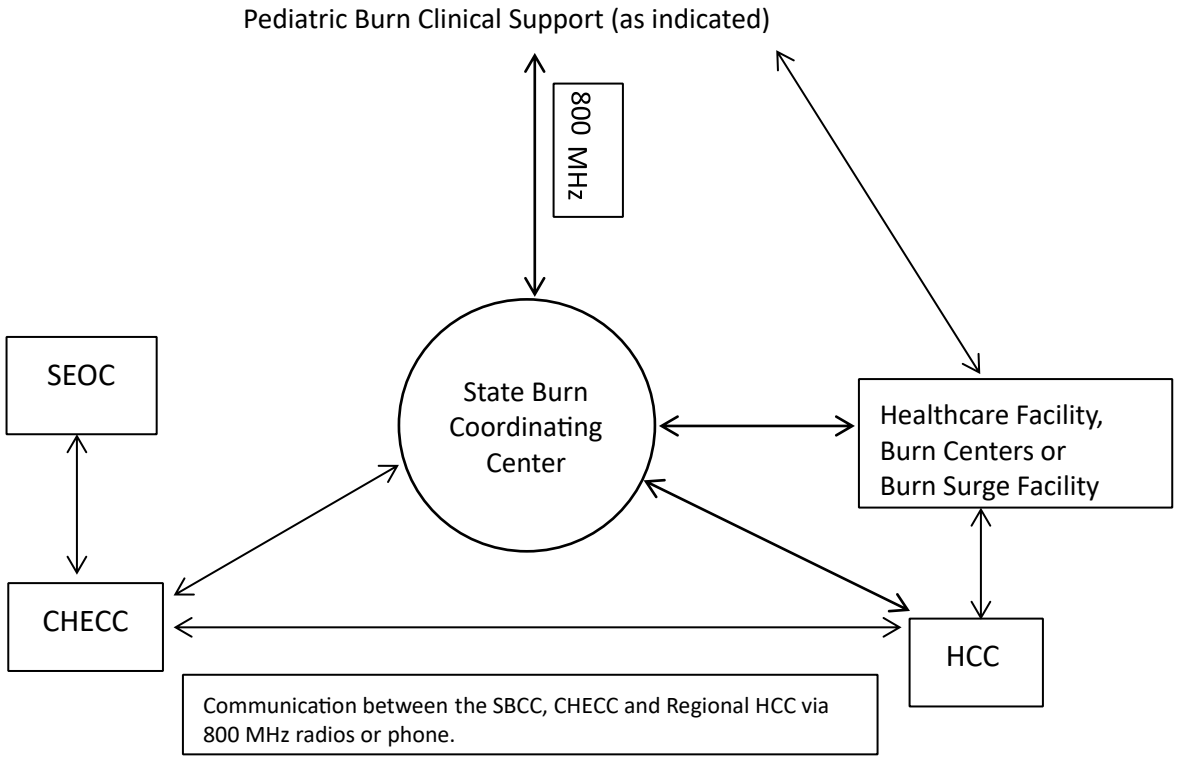
Age	
Birth - 1 month	2-3 ounces (6-90 mL) per feeding breast or bottle every 2-3 hours
2-4 months	3-4 ounces (90-120 mL) per feeding every 3-4 hours
4-6 months	4-5 ounces (120-150 mL) per feeding, four or more times daily Begins baby food, usually rice cereal
6-8 months	6-8 ounces (180-240 mL) per feeding, four times daily Eats baby food such as rice cereal, fruits and vegetables
8-10 months	6 ounces (180 mL) per feeding, four times a day Soft finger foods
10-12 months	6-8 ounces (180-240mL) per feeding, four times a day Soft table foods, uses spoon and cup with lid
Formulas	Milk Based: Enfamil, Enfacare & Similac Soy Based: Prosobee & Isomil

Communication Activation Model

Diagram # 5 Initial Communication

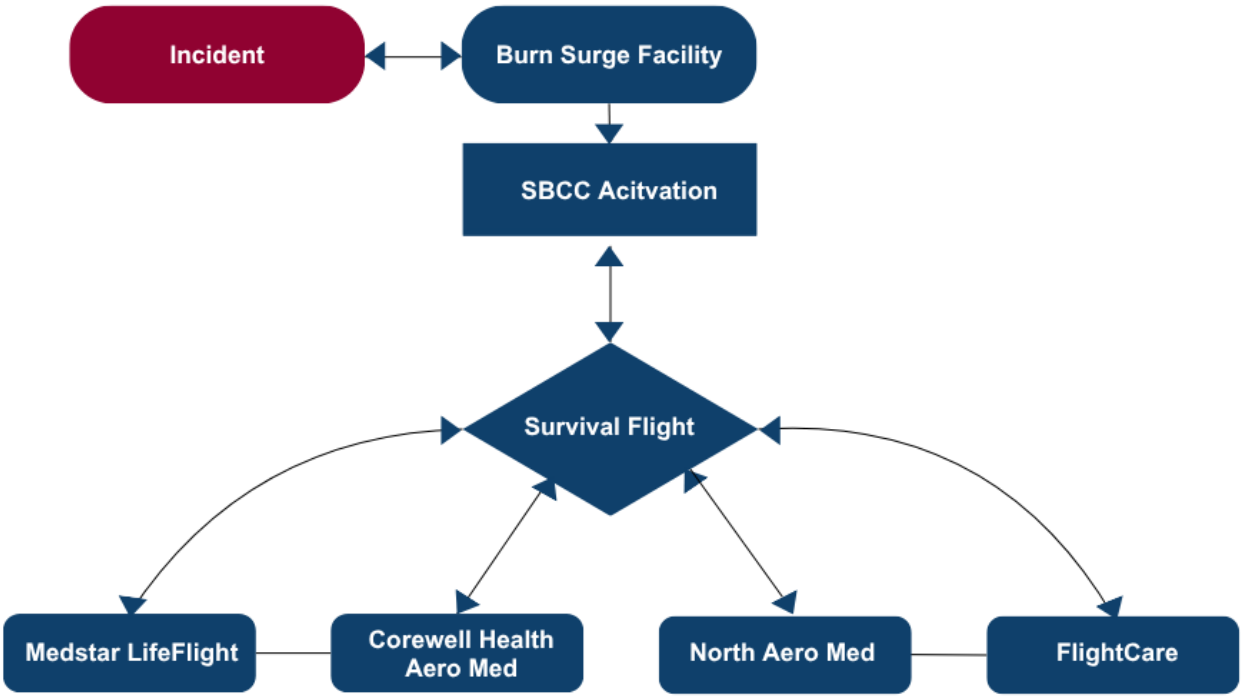
Gathering incident-specific information is critical to ensure accurate communication between hospitals, regional partners, and the State Burn Coordinating Center (SBCC). When pediatric burn patients are involved, the SBCC will collect Elements of Essential Information (EEI) from the receiving Healthcare or Burn Surge Facility, as outlined in the Michigan Burn Mass-Casualty Incident Surge Plan (Appendix B). This information supports coordinated decision-making on triage, consultation, and transport.
All air ambulance services maintain 800 MHz radio capability; OPHP 1 is the fallback frequency. Direct phone communications and MIHAN alerts will also be used.

Diagram # 6 On-going Communication Incident



Special Event frequencies for the 800 MHz radios will be determined and provided by the CHECC. All air ambulance services have Special Event frequencies.

Diagram # 7
Air Ambulance Activation



With activation of the SBCC, the Medical Director or designee will contact Survival Flight dispatch. The nearest available air medical service will be placed on standby or dispatched to the impacted hospital or Burn Surge Facility (BSF) as needed.

The SBCC will coordinate directly with flight services to support patient stabilization, interfacility transfers, and transport of critical burn patients to definitive care centers. Pediatric patients requiring urgent transfer will be prioritized.

Additional air medical services may be placed on standby to assist with patient movement as needed. Outside landing zones may need to be established by trained local personnel to ensure flight-crew safety.

References

Pediatric Disaster CBRNE Incidents – Quick Medical Reference Guide.
Developed by the Region 2 South Healthcare Coalition in collaboration with the Michigan Department of Health and Human Services (MDHHS), Office of Public Health Preparedness, and the U.S. Department of Health and Human Services (HHS), Office of the Assistant Secretary for Preparedness and Response (ASPR), Hospital Preparedness Program.

University of Michigan – Department of Pharmacy Services.
IV Guidelines for Brandon Newborn ICU.
http://med.umich.edu/surgery/burn/BrandonIVDripGuide.pdf

University of Michigan – Department of Pharmacy Services.
Pediatric Intensive Care Unit (PICU) IV Infusion Chart.
http://med.umich.edu/surgery/burn/PICU_IV_InfusionChart.pdf

Acronyms

Acronym	Term
BMCI	Burn Mass Casualty Incident
BEPESoC	Bureau of Emergency Preparedness, EMS and Systems of Care
BSA	Body Surface Area
BSF	Burn Surge Facility
CHECC	Community Health Emergency Coordination Center
CO_2	Carbon dioxide
Cric	Cricothyrotomy
D5LR	Dextrose 5% Lactated Ringers
ETT	Endotracheal tube
FiO2	Fracture inspired oxygen
Fr.	French
ga.	gauge
GA	Gestational age
hr.	hour
IO	intraosseous
IVF	Intravenous fluid
IV	intravenous
kg	Kilograms
LR	Lactated Ringers
mcg	micrograms
mg	milligrams
mL	milliliter
mm	millimeter
NPO	Nothing per mouth
PEEP	Positive end expiratory pressure
PERC	Percutaneous
PIP	Peak inspiratory pressure
PO	by mouth
SBCC	State Burn Coordinating Center
TBSA	Total body surface area
trach	Tracheostomy tube

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