**PREM Protocol: Triage & resuscitate using Pediatric Resuscitation and Emergency Medicine (PREM) Triangles**

**NORMAL PHYSIOLOGICAL STATUS**

**AIRWAY Stable (vocalizes)**

**DISABILITY**
LOC: Alert; T&P: N; Eyes: EOM N; PERL

**CIRCULATION**
HR: Normal; No muffled or gallop; P&C: Warm, pink; pulses +++; CRT: 2 secs; Liver span: N; Blood Pressure: SBP N, DBP N; MAP N

*Pulses: Femoral (F) & Dorsalis Pedis (DP) +++/++ means both normal volume

Note: +++/+++ F = DP ; ++/+ both weak; ++/0 or +/0 weak Femoral palpable but no DP

**RESPIRATORY DISTRESS**

**AIRWAY Stable Breathing ↑ RR**

**DISABILITY**
LOC: Alert; T&P: N; Eyes: EOM N; PERL

**CIRCULATION**
HR: ↑/ N; NS: N; P&C: Warm, pink; pulses +++/+; CRT: 2 secs; No shock; No hepatomegaly; BP: SBP N, DBP N, PP N, MAP N

**RESPIRATORY FAILURE (RESPIRATORY EMERGENCIES)**

**AIRWAY Stable/unstable Breathing RR↑↓**

**DISABILITY**
LOC: Responds to pain; T&P abnormal: Agitated, combative, fighting mask or floppy, 1 or more intubations; EOM ± abN; PERL; NCSE

**CIRCULATION**
HR: Tachycardia; NS: N; P&C: Warm, pink; Pulses: +++/+; CRT: 2 secs; Shock; Liver span N; BP: SBP N, DBP ↓, wide PP; MAP N

**RESPIRATORY DISTRESS**

**AIRWAY Stable Breathing ↑ RR**

**DISABILITY**
LOC: Alert; T&P: N; Eyes: EOM N; PERL

**CIRCULATION**
HR: Tachycardia; NS: N; P&C: Warm, pink; Pulses: +++/+; CRT: 2 secs; No shock; No hepatomegaly; BP: SBP N, DBP N, PP N, MAP N

**RESPIRATORY FAILURE (RESPIRATORY EMERGENCIES)**

**AIRWAY Stable/unstable Breathing RR↑↓**

**DISABILITY**
LOC: Responds to pain; T&P abnormal: Agitated, combative, fighting mask or floppy, 1 or more intubations; EOM ± abN; PERL; NCSE

**CIRCULATION**
HR: Tachycardia/relative bradycardia; NS: Muffling, gallop; P&C: Very warm, very pink; Pulses: +++/++; CRT instant; Shock; Hepatomegaly; BP: SBP N, DBP ↓, wide PP; MAP N

**IMMINENT ARREST**

**AIRWAY Unstable Breathing**

**DISABILITY**
LOC: Unresponsive; T&P abnormal: Posturing, GTCS; EOM abn, pupils sluggnish; NCSE

**CIRCULATION**
HR: Bradycardia; NS: Muffling, gallop; P&C: Cool, dusky; Pulses: < 0/0 or <; CRT > 2 secs; Shock; Hepatomegaly; BP: SBP ↓, DBP ↓, PP N, wide or narrow, MAP ↓

**PREM Terminology & Definitions:**

- **Breathing Normal** = Normal RR + normal work of breathing
- **Respiratory distress** = Increased RR + retractions
- **Impending respiratory failure** = Grunt + respiratory distress
- **Relative bradycardia** = Heart rate within normal range for age - whilst other sides of the triangle are abnormal
- **Wide Pulse pressure** = SBP-DBP > 40 mm Hg
- **Vasodilatory shock** = DBP < 50% SBP + wide PP with or without low MAP
- **Mean Arterial Pressure** = Normal MAP is DBP + 1/3rd pulse pressure
- **Liver span** = Mark lower border along right costal margin, percuss & mark upper border for liver dullness. Measure span (cms) in the mid-clavicular line. Check lower border & remeasure span after every intervention.
- **Non-Convulsive Status Epilepticus** = LOC: Responsive to pain or unresponsive + 1 or more abn EOM: Conjugate deviation, nystagmus, lid twitch

**CARDIAC FAILURE**

**AIRWAY Stable Breathing ↑ RR**

**DISABILITY**
LOC: Alert; T&P: N; Eyes: EOM N; PERL

**CIRCULATION**
HR: Tachycardia; NS: N; P&C: Warm, pink; Pulses: +++/+; CRT: 2 secs; No shock; No hepatomegaly; BP: SBP N, DBP N, PP N, MAP N

**CIRCULATION**
HR: NCSE;

**CIRCULATION**
HR: Tachycardia; HS: N; P&C: Warm, pink; Pulses: +++/+; CRT: 2 secs; No shock; No hepatomegaly; BP: SBP N, DBP N, PP N, MAP N

**VASODILATORY CARDIOGENIC SHOCK (MAP N)**

**AIRWAY Stable Breathing ↑ RR**

**DISABILITY**
LOC: Incenseant cry/ not usual self/ lethargic/sleepy; T&P: N; Eyes: EOM N; PERL

**CIRCULATION**
HR: Tachycardia; HS: Muffling, gallop ±; P&C: Very warm, very pink; Pulses: +++/+; CRT instant; Shock; Hepatomegaly; BP: SBP↑, DBP ↓, wide PP, MAP N

**LOW SBP SHOCK**

**AIRWAY Stable/ unstable Breathing RR↑↓**

**DISABILITY**
LOC: Responds to pain; T&P abnormal: Thirsty, agitated, combative, fighting mask or floppy, 1 or more intubations; EOM ± abN; PERL; NCSE

**CIRCULATION**
HR: Tachycardia/relative bradycardia; HS: Muffling, gallop; P&C: Cool, dusky; Pulses: ++/+ or +/0; CRT: 2 secs; Shock; Hepatomegaly; BP: SBP ↓, DBP ↓, PP N, wide or narrow, MAP ↓

**IMMINENT ARREST**

**AIRWAY Unstable Breathing**

**DISABILITY**
LOC: Unresponsive; T&P abnormal: Posturing, GTCS; EOM abn, pupils sluggnish; NCSE

**CIRCULATION**
HR: Bradycardia; HS: Muffling, gallop; P&C: Cool, dusky; Pulses: < 0/0 or <; CRT > 2 secs; Shock; Hepatomegaly; BP: SBP ↓, DBP ↓, PP N, wide or narrow, MAP ↓

**DISABILITY**
LOC: Unresponsive; T&P abnormal: Posturing, GTCS; EOM abn, pupils sluggnish; NCSE

**CIRCULATION**
HR: Bradycardia; HS: Muffling, gallop; P&C: Cool, dusky; Pulses: < 0/0 or <; CRT > 2 secs; Shock; Hepatomegaly; BP: SBP ↓, DBP ↓, PP N, wide or narrow, MAP ↓

**DISABILITY**
LOC: Unresponsive; T&P abnormal: Posturing, GTCS; EOM abn, pupils sluggnish; NCSE

**CIRCULATION**
HR: Bradycardia; HS: Muffling, gallop; P&C: Cool, dusky; Pulses: < 0/0 or <; CRT > 2 secs; Shock; Hepatomegaly; BP: SBP ↓, DBP ↓, PP N, wide or narrow, MAP ↓

Note: All Normal (N), Increased (↑), relative (N) or Decreased (↓) values – are interpreted with respect to normal ranges for age and the other parts of the PREM triangle.

National Health Mission-Strengthening of Pediatric Emergency Care System in Tamil Nadu-Establishment of Pediatric Resuscitation and emergency Units under Tamil Nadu Accidents and Emergency Care Initiative under the name of PREM G.O(D)No. 539, Department of Health and Family Welfare, dated 30.11.19