

Quick Reference Page – Peds (<18 y/o)

| Legend | |
|--------|-----------------|
| | EMT |
| A | A-EMT |
| P | Paramedic |
| M | Medical Control |

Vital Signs In Children

| Age | Heart Rate (Beats Per Minute) | | Age | Respiratory Rate (Breaths Per Minute) | Age | Minimum Systolic Blood Pressure |
|------------------|-------------------------------|-------------------------|-------------------|---------------------------------------|--------------------------|---------------------------------|
| Newborn – 3mos | Awake Rate 85-205 | Sleeping Rate 80-160 | Infant | 30-60 | Term Neonates (0-28days) | >60 |
| 3mos – 2years | 100-190 | 75-160 | Toddler | 24-40 | Infants (1-12mos) | >70 |
| 2years – 10years | 60-140 | 60-90 | Preschooler | 22-34 | Children 1-10years | >70 + (age in years x 2) |
| >10years | 60-100 | 50-90 | School-Aged Child | 18-30 | Children >10years | >90 |
| | | | Adolescent | 12-16 | | |

Modified Glasgow Coma Scale for Infants and Children

| | Child | Infant | Score |
|-----------------------------|-------------------------------|------------------------------------|-------|
| Eye Opening | Spontaneous | Spontaneous | 4 |
| | To Speech | To Speech | 3 |
| | To Pain | To Pain | 2 |
| | None | None | 1 |
| | | | |
| Best Verbal Response | Oriented, Appropriate | Coos and Babbles | 5 |
| | Confused | Irritable, Cries | 4 |
| | Inappropriate Words | Cries in Response to Pain | 3 |
| | Incomprehensible Sounds | Moans in Response to Pain | 2 |
| | None | None | 1 |
| Best Motor Response | Obeys Commands | Moves Spontaneously and Purposely | 6 |
| | Localizes Painful Stimulus | Withdraws in Response to Touch | 5 |
| | Withdraws in Response to Pain | Withdraws in Response to Pain | 4 |
| | Flexion in Response to Pain | Abnormal Flexion Posture to Pain | 3 |
| | Extension in Response to Pain | Abnormal Extension Posture to Pain | 2 |
| | None | None | 1 |
| | | | |

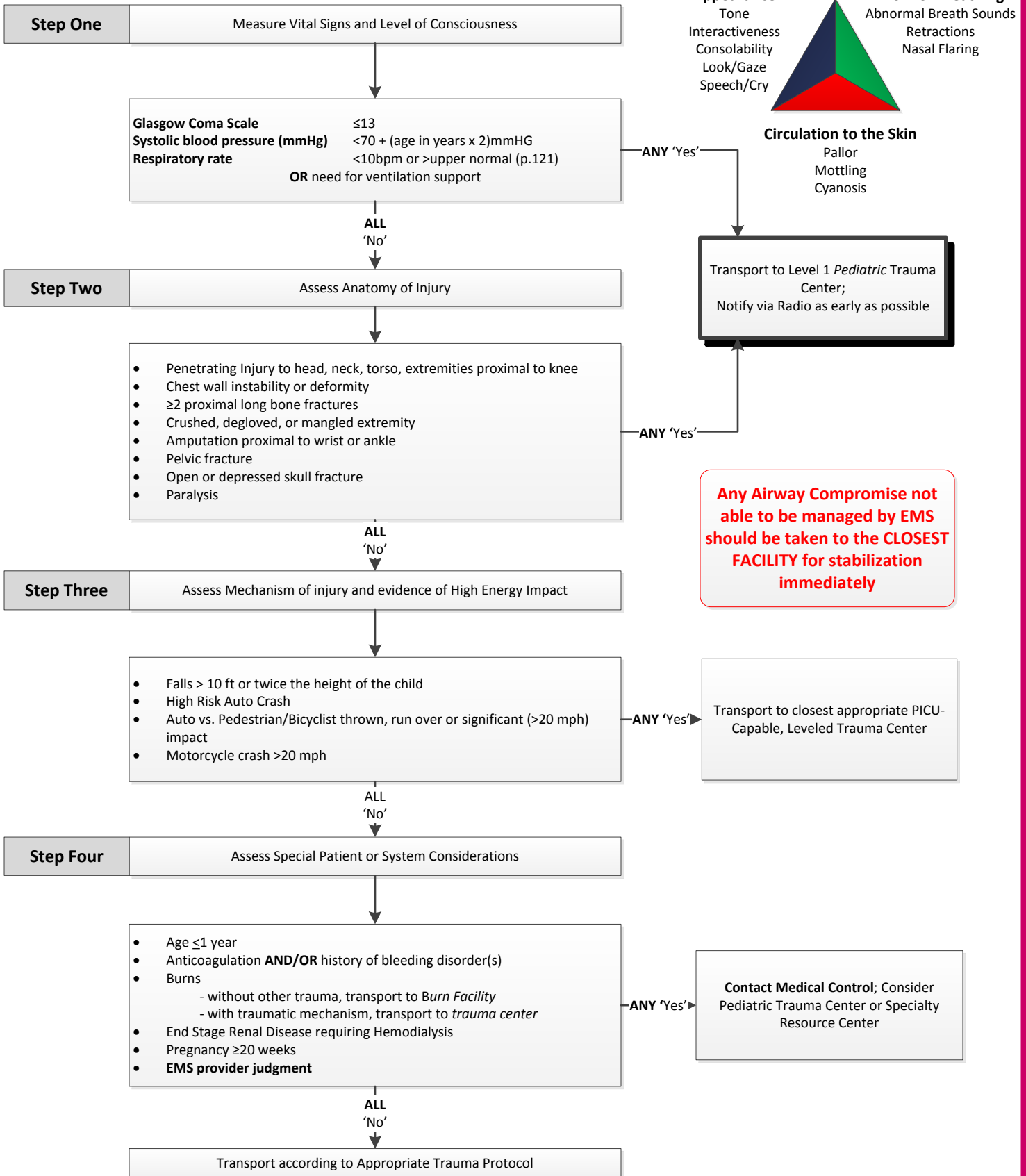
Wisconsin EMSC Recommended Weight Conversion (1 kg = 2.2 lbs -OR- 1 lb = 0.45 kgs)

| Lbs. | Kgs. | Lbs. | Kgs. | Lbs. | Kgs. |
|--|-------|--------|--------|--------|--------|
| 5 lbs | 2 kgs | 20 lbs | 9 kgs | 35 lbs | 16 kgs |
| 6 | 3 | 21 | 10 | 36 | 16 |
| 7 | 3 | 22 | 10 | 37 | 17 |
| 8 | 4 | 23 | 10 | 38 | 17 |
| 9 | 4 | 24 | 11 | 39 | 18 |
| 10 lbs | 5 kgs | 25 lbs | 11 kgs | 40 lbs | 18 kgs |
| 11 | 5 | 26 | 12 | 41 | 19 |
| 12 | 5 | 27 | 12 | 42 | 19 |
| 13 | 6 | 28 | 13 | 43 | 20 |
| 14 | 6 | 29 | 13 | 44 | 20 |
| 15 lbs | 7 kgs | 30 lbs | 14 kgs | 45 lbs | 20 kgs |
| 16 | 7 | 31 | 14 | 46 | 21 |
| 17 | 8 | 32 | 15 | 47 | 21 |
| 18 | 8 | 33 | 15 | 48 | 22 |
| 19 | 9 | 34 | 15 | 49 | 22 |
| www.chawiconsin.org | | | | 50 lbs | 23 kgs |

| Equipment | GRAY 3-5kg | PINK Small Infant 6-7kg | RED Infant 6-9kg | PURPLE Toddler 10-11kg | YELLOW Small Child 12-14kg | WHITE Child 15-18kg | BLUE Child 19-23kg | ORANGE Large Child 24-29kg | GREEN Adult 30-36kg |
|---------------------------|------------------------|-------------------------------|----------------------------|------------------------------|----------------------------------|----------------------------|----------------------------|----------------------------------|---------------------------|
| Resuscitation Bag | | Infant/Child | Infant/Child | Child | Child | Child | Child | Child | Adult |
| Oxygen Mask (NRB) | | Pediatric | Pediatric | Pediatric | Pediatric | Pediatric | Pediatric | Pediatric | Pediatric/Adult |
| Oral Airway (mm) | | 50 | 50 | 60 | 60 | 60 | 70 | 80 | 80 |
| Laryngoscope Blade (Size) | | 1 Straight | 1 Straight | 1 Straight | 2 Straight | 2 Straight | 2 Straight OR Curved | 2 Straight OR Curved | 3 Straight OR Curved |
| Endotracheal Tube (mm) | | 3.5 Uncuffed 3.0 Cuffed | 3.5 Uncuffed 3.0 Cuffed | 4.0 Uncuffed 3.5 Cuffed | 4.5 Uncuffed 4.0 Cuffed | 5.0 Uncuffed 4.5 Cuffed | 5.5 Uncuffed 5.0 Cuffed | 6.0 Cuffed | 6.5 Cuffed |
| King Airway | Size 0 (Clear) | Size 1 (White) | Size 1 (White) | Size 1 (White) | Size 2 (Green) | Size 2 (Green) | Size 2.5 (Orange) | Size 3 (Yellow) | Size 3 (Yellow) |
| LMA | NA | #1 | #1 | #1.5 | #2 | #2.5 | #3 | #3.5 | #4 |
| Suction Catheter (French) | | 8 | 8 | 10 | 10 | 10 | 10 | 10 | 10-12 |
| BP Cuff | Neonatal #5/ Infant | Infant/Child | Infant/Child | Child | Child | Child | Child | Child | Small Adult |
| IV Catheter (ga) | | 22-24 | 22-24 | 20-24 | 18-22 | 18-22 | 18-20 | 18-20 | 16-20 |
| IO (ga) | | 18/15 | 18/15 | 15 | 15 | 15 | 15 | 15 | 15 |
| NG Tube (French) | | 5-8 | 5-8 | 8-10 | 10 | 10 | 12-14 | 14-18 | 16-18 |

Destination Determination – Peds (<18 y/o)

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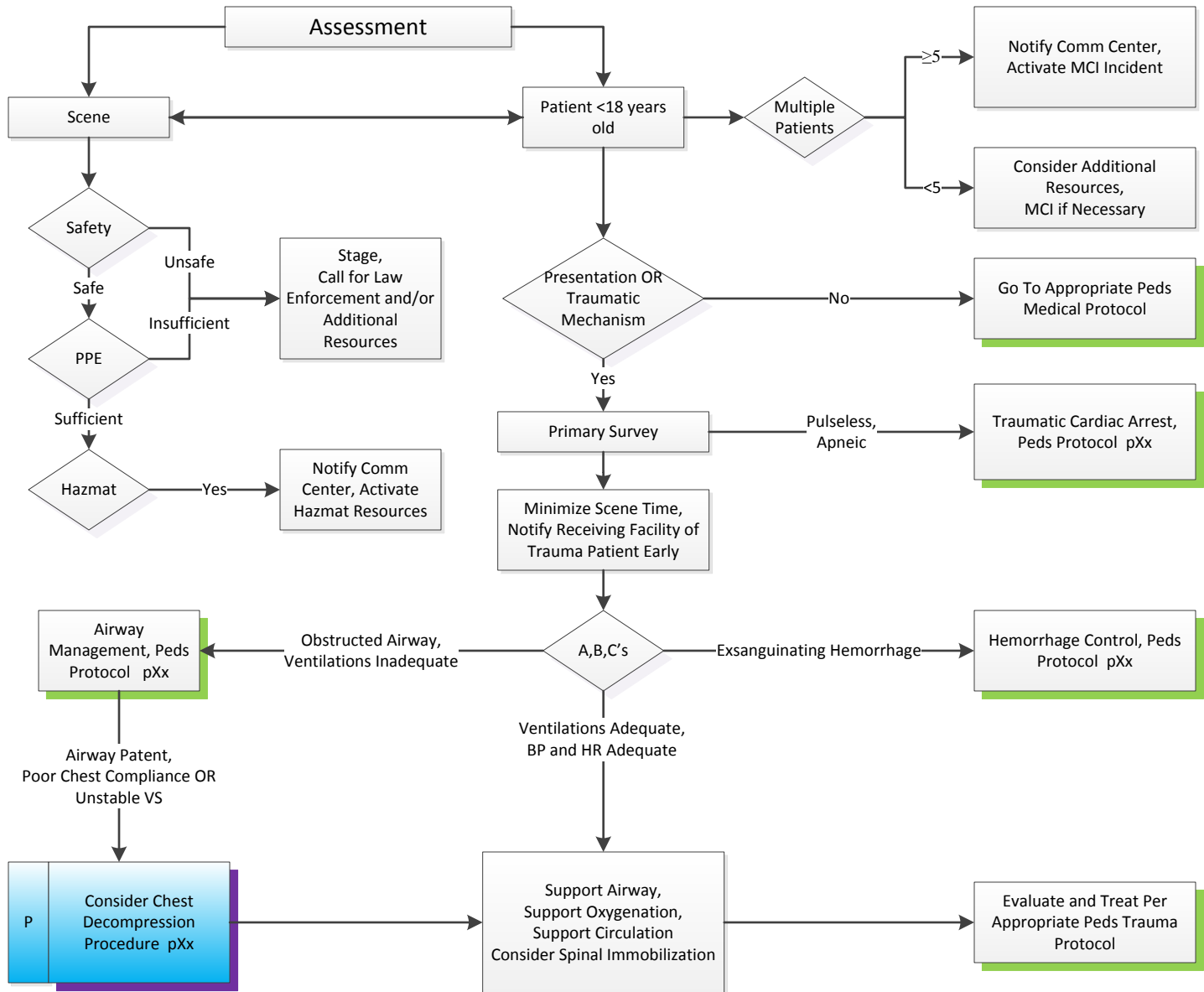
General Approach – Peds, Trauma

Pertinent Positives and Negatives

- Age, VS, GCS
- Time of Injury, Mechanism of Injury
- DCAP-BTLS
- SAMPLE History
- OPQRST History
- Pain / Swelling
- Mental Status
- Hypotension / Shock

Differential

- Stroke
- STEMI
- Overdose
- Child Abuse / Non-Accidental Trauma
- Domestic Violence
- Non-Accidental Trauma



Pearls

REQUIRED EXAM: Vital Signs, GCS, Loss of Consciousness, Location of Pain (then targeted per Appropriate Trauma Protocol)

- Assess for major trauma criteria immediately upon patient contact
 - RR <10 or >upper normal (p.121); SBP <70 + (age in years x 2)mmHG; Pulse <50 or >upper normal (p.121); GCS <13; SpO2<93%
 - Transport to Trauma Center, minimize scene time to goal of <10 minutes
- Disability – assess for neuro deficits including paralysis, weakness, abnormal sensation
- Suspect Tension Pneumothorax when:
 - Mechanism consistent with Chest Trauma; Resp Distress; Decreased Breath Sounds; JVD; Low BP; Tachycardia; Tracheal Deviation
 - Signs and Symptoms of Tension Pneumothorax may be present *with or without* positive pressure ventilations
 - Needle Decompression should be performed with an 18-20ga needle at the 2nd intercostal space, midclavicular line
 - If repeat decompression necessary, continue to move laterally along the superior aspect of the 3rd rib

Traumatic Cardiac Arrest – Peds, Trauma

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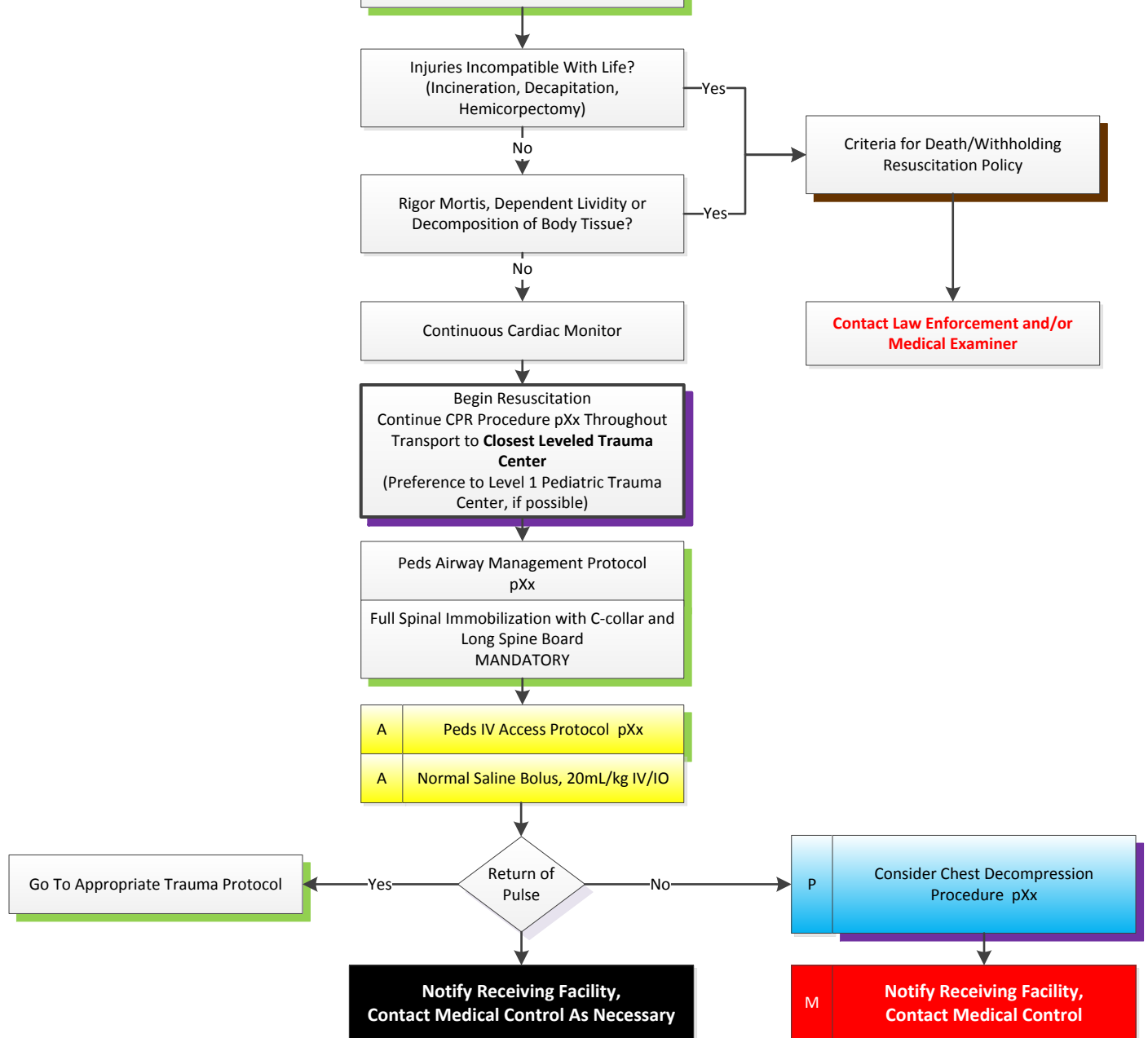
Pertinent Positives and Negatives

- Age, if known
- Mechanism of Injury
- Events leading up to arrest

Differential

- Hypovolemic Shock
 - External Hemorrhage
 - Internal Hemorrhage
 - Unstable Pelvic Fracture
- Tension Pneumothorax
- Medical Condition Causing Trauma (i.e. Cardiac Arrest)

General Approach – Peds, Trauma



Pearls

REQUIRED EXAM: Pupillary Light Reflex, Palpation of Pulses, Heart and Lung Auscultation

- This protocol is compliant with the Joint Position Statement of the ACS, ACEP, NAEMSP and AAP and can be referenced here: [http://www.annemergmed.com/article/S0196-0644\(14\)00074-2/fulltext#sec6](http://www.annemergmed.com/article/S0196-0644(14)00074-2/fulltext#sec6)
- Injuries incompatible with life include; decapitation, incineration, massively deforming head or chest injury, dependent lividity, rigor mortis
- As with all trauma patients, DO NOT delay transport
- Consider using medical cardiac arrest protocols if uncertainty exists regarding etiology of arrest
- Use of a long spine board will make chest compressions more effective; however, if spinal immobilization interferes with CPR use reasonable effort to limit patient and spine movement
- Be aware that these may be crime scenes: do your best to avoid disturbing forensic evidence
- If provider safety becomes a concern, transport of deceased patients to the hospital is acceptable

Trauma Protocols - Pediatric

Bites and Envenomations – Peds, Trauma

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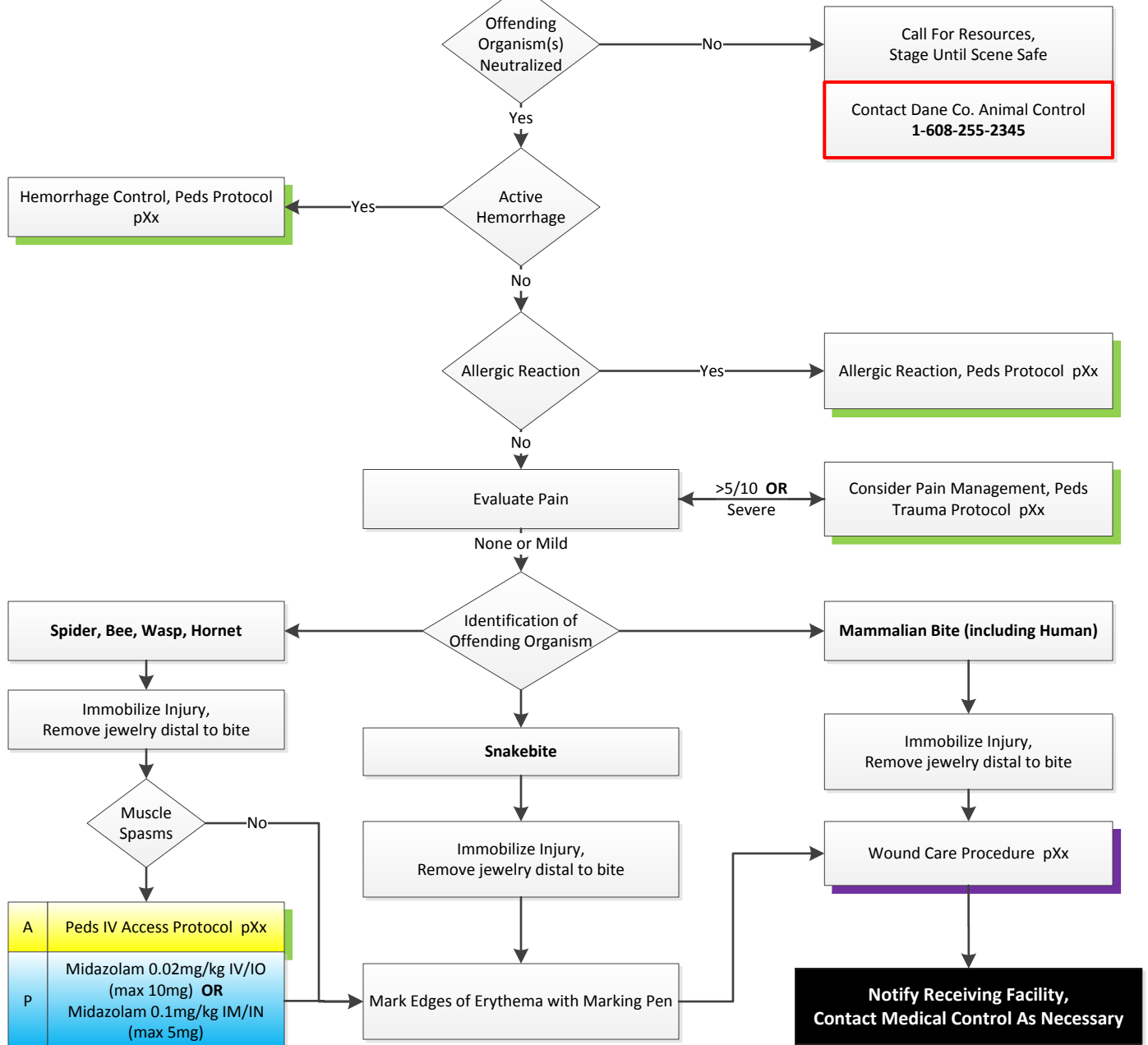
Pertinent Positives and Negatives

- Age, VS, Pulses distal to wound
- SAMPLE History
- OPQRST History
- Description or photo of offending creature
- Tetanus status
- Immunization History of Creature (if known)
- Domestic vs. Wild Animal
- Allergic Reaction
- Hypotension, Shock, Fever

Differential

- Penetrating Trauma
- Dry Bite (Snake)
- Abscess/Cellulitis
- Non-Accidental Trauma

General Approach – Peds, Trauma



Pearls

REQUIRED EXAM: VS, GCS, Evidence of Intoxication, Affected Extremity Neurovascular Exam

- Cat bites may not initially appear serious, but can progress rapidly to severe infection
- Human bites have higher rates of infection than animal bites and need to be evaluated in the Emergency Department for antibiotics
- Bites on the hands and lacerations over knuckles should be assumed to be “Fight Bites” until proven otherwise, and need evaluation
- Brown recluse spider bites are usually painless at the time of bite. Pain and tissue necrosis develops over hours to days
- Immunocompromised patients have higher risk of infection – Think: Diabetes, Chemotherapy, Organ Transplant

Burns – Peds, Trauma

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Pertinent Positives and Negatives

- Age, VS
- SAMPLE History
- OPQRST History
- Mechanism of Burn (heat, gas, chemical)
- Time of Injury

- Singed Facial Hair
- Wheezing, Hoarseness
- Subjective Throat Swelling
- Loss of Consciousness

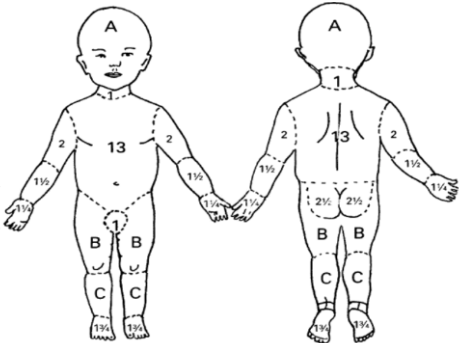
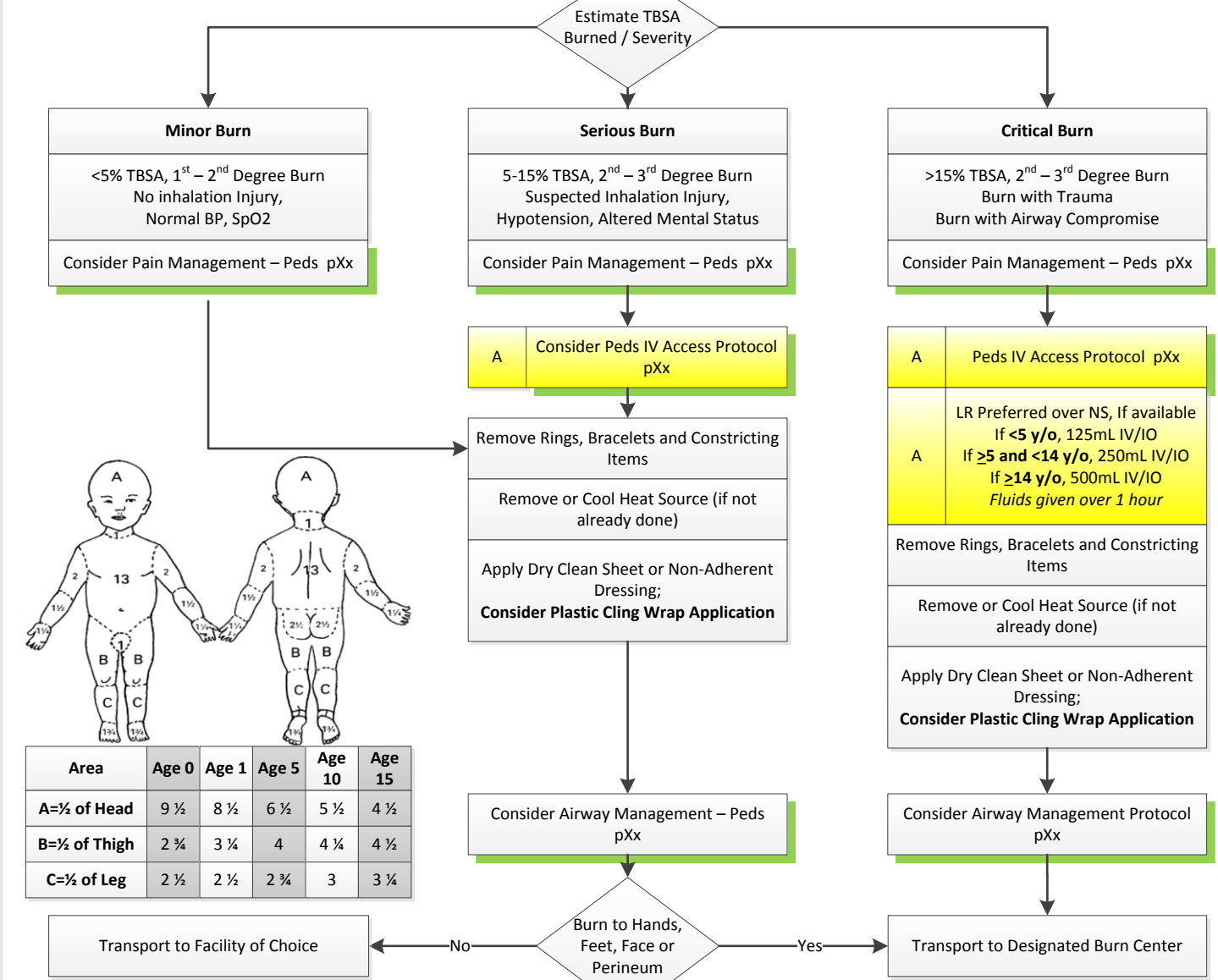
Differential

- Blast Injury
- Radiation Injury
- Electrical Injury
- Cyanokit Need?
- Cellulitis
- Dermatitis
- Drug Reaction (Stevens-Johnson Syndrome)

Consider Need for Airway Management EARLY

General Approach – Peds, Trauma

Consider CN Exposure for Enclosed Space Fire with Synthetic Materials



| Area | Age 0 | Age 1 | Age 5 | Age 10 | Age 15 |
|--------------|-------|-------|-------|--------|--------|
| A=½ of Head | 9 ½ | 8 ½ | 6 ½ | 5 ½ | 4 ½ |
| B=½ of Thigh | 2 ¾ | 3 ¾ | 4 | 4 ¾ | 4 ½ |
| C=½ of Leg | 2 ½ | 2 ½ | 2 ¾ | 3 | 3 ¾ |

Pearls

REQUIRED EXAM: VS, GCS, Lung Sounds, HEENT, Posterior Pharynx

- Safety First! Assure a Chemical source of burn is NOT a hazard to responders. Assure an Electrical source of burn is OFF or no longer contacting pt. Never overlook the possibility that a burn injury may be the result of child abuse / non-accidental trauma.
- High Voltage Electrical Burns (>600 volts) require spinal immobilization, continuous cardiac monitor and IV access regardless of external appearance of injury
- Chemical burns require removal of contaminated clothing, brush away dry powder before irrigation. Flush with copious warm water on scene and continue irrigation en route. Be sure to brush excess away and remove contaminated clothing BEFORE beginning irrigation Burns to face and eyes, remove contact lenses prior to irrigation
- Early intubation is strongly recommended if suspicion of inhalation injury. Suspicion is high in patients involved in an enclosed space fire, who have facial burns or show signs of airway involvement; carbonaceous sputum, facial burns or edema, hoarseness, singed nasal hairs, agitation, hypoxia or cyanosis
- **Indications of possible Cyanide Poisoning** - Exposure to fumes from burning Nitrile (polyurethane, vinyl) Seizures, coma, cardiac arrest, headache, vertigo and/or cherry red skin color from increased venous O2 concentration

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Chest Injury – Peds, Trauma

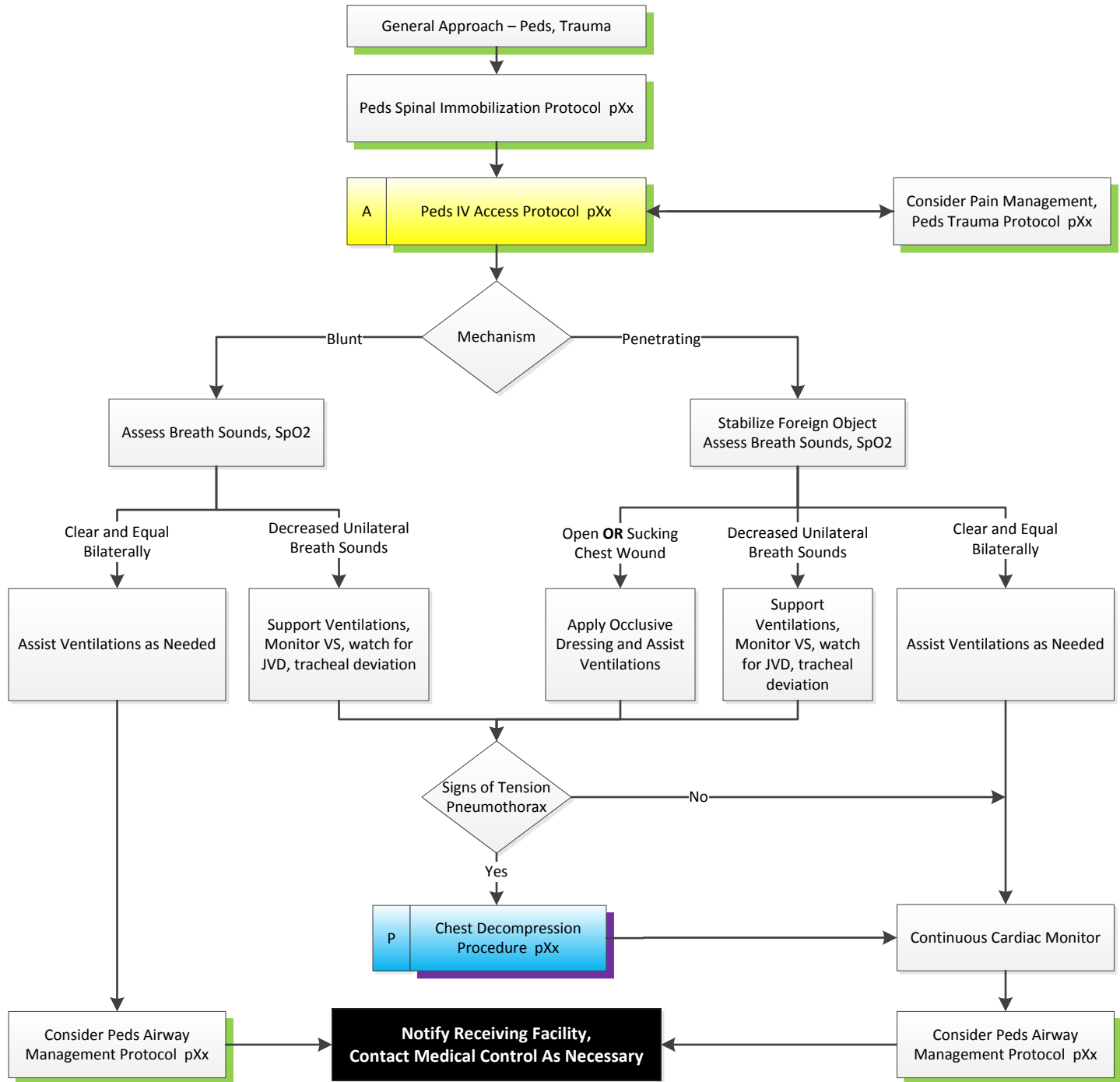
Pertinent Positives and Negatives

- Type of injury
- Mechanism (blunt vs. penetrating)
- Respiratory Effort, Adequacy
- Abnormal Breath Sounds (unilateral vs. bilateral)

- SAMPLE History
- OPQRST History
- Evidence of Intoxication
- Evidence of Multi-System Trauma

Differential

- Simple Pneumothorax
- Tension Pneumothorax
- Pericardial Tamponade
- Aortic Root Disruption
- Bronchial Tree Injury
- Tracheal Disruption
- Great Vessel Laceration
- Cardiac Contusion
- Cardiac Laceration



Pearls

REQUIRED EXAM: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremity, Back, Neuro

- Consider tension pneumothorax in any patient with penetrating chest trauma, OR blunt chest trauma with decreased unilateral breath sounds, hypotension, tachycardia, hypoxia, tracheal deviation (late) or JVD (late)
- Aortic root injuries, bronchial disruption and tracheal disruptions are common with major deceleration injuries (i.e. MVC)
- Cardiac contusions are common with blunt chest trauma, and may present with ectopy, PVCs or even STEMI appearance on cardiac monitor
- Pericardial Tamponade is a surgical emergency and needs rapid transport. Look for muffled heart tones, hypotension, tachycardia

Trauma Protocols - Pediatric

Prolonged Crush Injury – Peds, Trauma

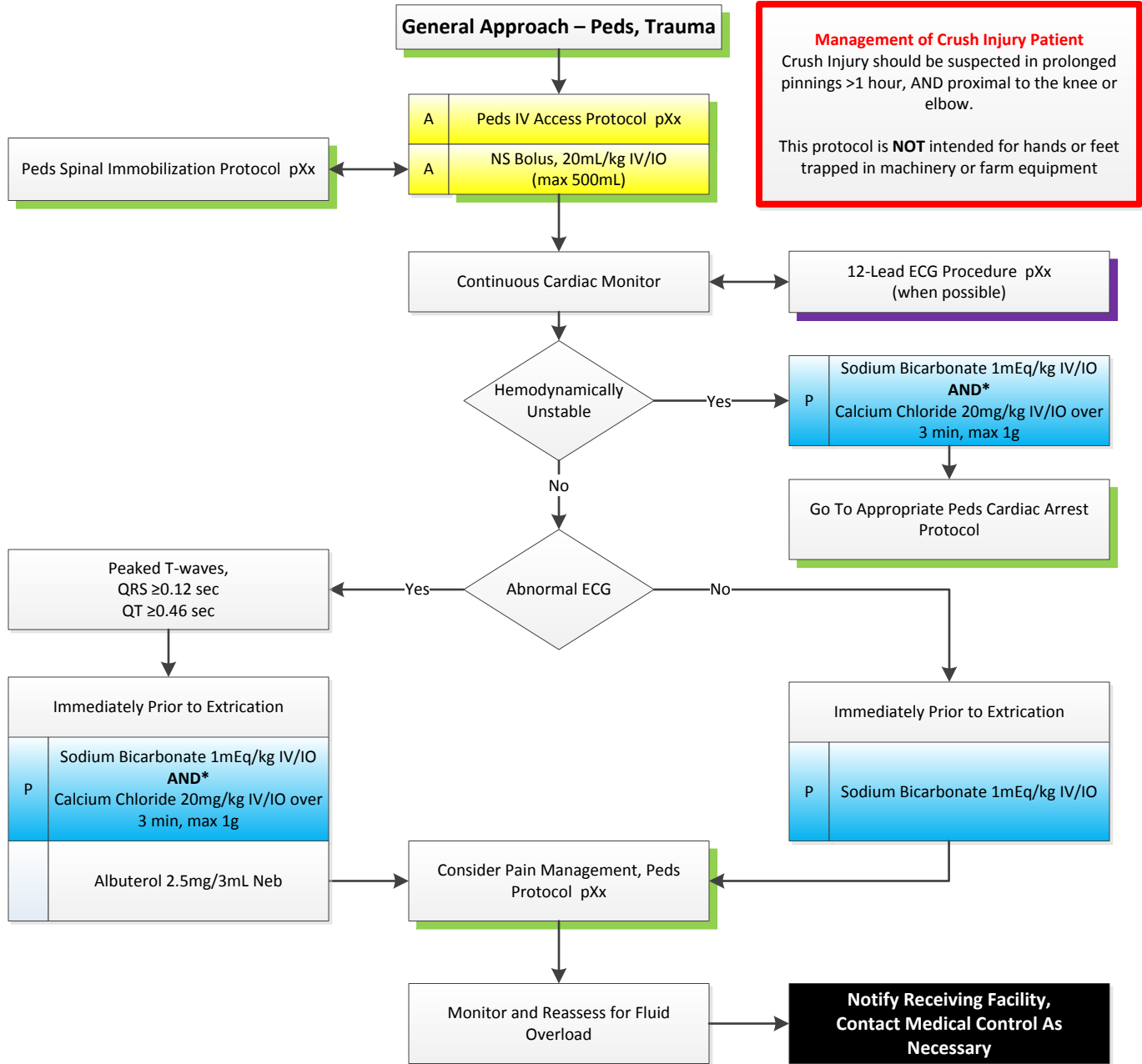
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Pertinent Positives and Negatives

- Age, VS, GCS
- SAMPLE History
- OPQRST History
- Crushed under heavy load ≥ 30 min
- Building collapse, trench collapse, industrial accident, heavy equipment pinning

Differential

- Compartment Syndrome
- Entrapment without Crush
- Fracture, Sprain, Strain
- Pelvic Fracture
- Hypothermia



Pearls

REQUIRED EXAM: Vital Signs, GCS, Lung Sounds, Neuro Exam, Musculoskeletal Exam

- Structural Collapse, Crush Scenes are often full of hazards, provider safety is the most important consideration
- Patients may become hypothermic, even in warm environments
 - Hypothermia can lead to coagulopathy, which will increase bleeding times and have worse outcomes for the patient
- Crush injuries can result in hyperkalemia from shift of Potassium out of injured cells. Cardiac monitoring is required and 12-lead ECG preferred whenever possible (as dictated by the situation)
- Monitor extremities for signs of compartment syndrome after crush injury; **Pain, Pallor, Paresthesias, Paralysis, Pulselessness** and **Poikilothermia** (inability to regulate core body temperature)
- * Sodium Bicarb Infusion: 1mEq/kg added to 1L NS, administered 20mL/kg IV just prior to extrication
- **Utilize different IV lines or flush between bicarb and calcium to prevent precipitation in the line

Near-Drowning / Submersion Injury – Peds, Trauma

| Legend | |
|--------|-----------------|
| | EMT |
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Pertinent Positives and Negatives

- Submersion in water regardless of depth
- SAMPLE History
- OPQRST History
- Temperature of water
- Mental Status Changes

- Degree of Water Contamination
- Vomiting
- Coughing, Wheezing, Rales, Rhonchi, Stridor

Differential

- Spinal Trauma
- Pre-Existing Medical Condition
- Hypothermia
- Aspiration
- The Bends
- Pressure Injury
- Barotrauma
- Decompression Sickness
- Post-Immersion Syndrome



Pearls

REQUIRED EXAM: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremity, Back, Neuro

- Have a HIGH index of suspicion for possible spinal injuries. Any diving injury or submersion with unclear details should be fully immobilized
- Hypothermia is often associated with near-drowning and submersion injuries. Consider the Hypothermia Protocol as appropriate
- All patients with Near-Drowning / Submersion Injury should be transported for evaluation due to delayed presentation of respiratory failure
- With diving injuries (decompression / barotrauma) consider availability of a hyperbaric chamber; contact Medical Control early.
- Near-drowning patients who are awake and cooperative but with respiratory distress may benefit from CPAP / Positive Pressure Ventilation

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Environmental, Hyperthermia – Peds, Trauma

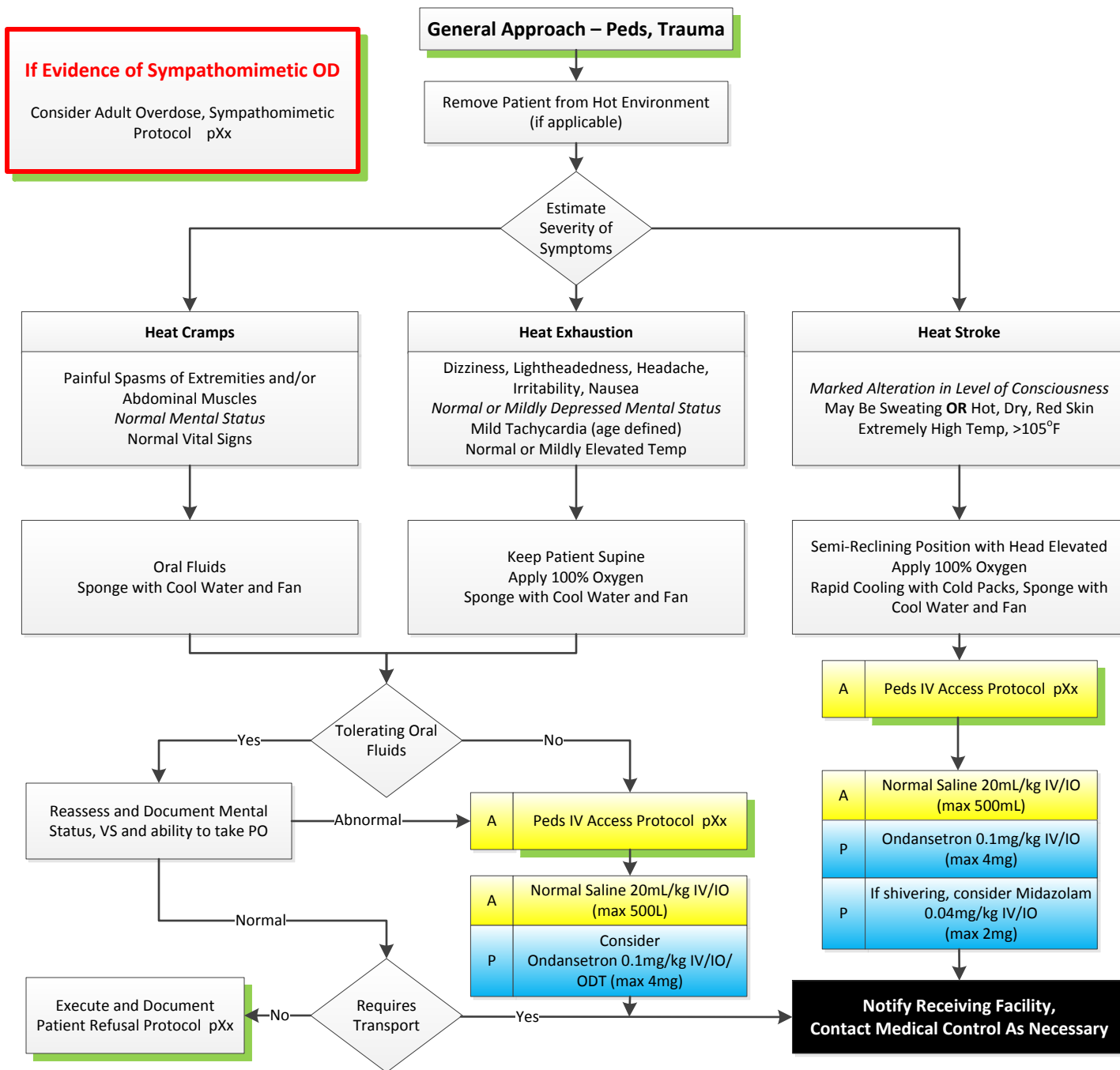
Pertinent Positives and Negatives

- Age, VS, Mental Status
- SAMPLE History
- OPQRST History
- Time and length of exposure to hot environment

- Hot, dry or sweaty skin
- Seizures
- Nausea
- Hypotension, Shock, Fever

Differential

- Alcohol Withdrawal (DTs)
- Hyperthyroidism (Thyroid Storm)
- Dehydration
- Cocaine or Sympathomimetic OD
- Sepsis
- CNS Lesion or Head Injury
- Abuse or Neglect (Elderly or disabled)
- Medication (Serotonin Syndrome, Malignant Hyperthermia)



Pearls

REQUIRED EXAM: VS, GCS, Skin, HEENT, Neuro, Evidence of Intoxication, Mental Status

- Extremes of Age are more prone to heat emergencies due to inability to easily self-extricate from hot environments
- Patients on Tricyclic Antidepressants, Anticholinergics, Diuretics (i.e. Lasix) are more susceptible to heat emergencies due to medication effects
- Cocaine, amphetamines and salicylates all may elevate body temperature or interfere with the ability to auto-regulate
- Sweating generally disappears as body temperature rises above 104°F
- If Heat Cramps resolved without IV Access or Medications, patients may refuse transport, IF tolerating oral fluids and VS normal

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Environmental, Hypothermia – Peds, Trauma

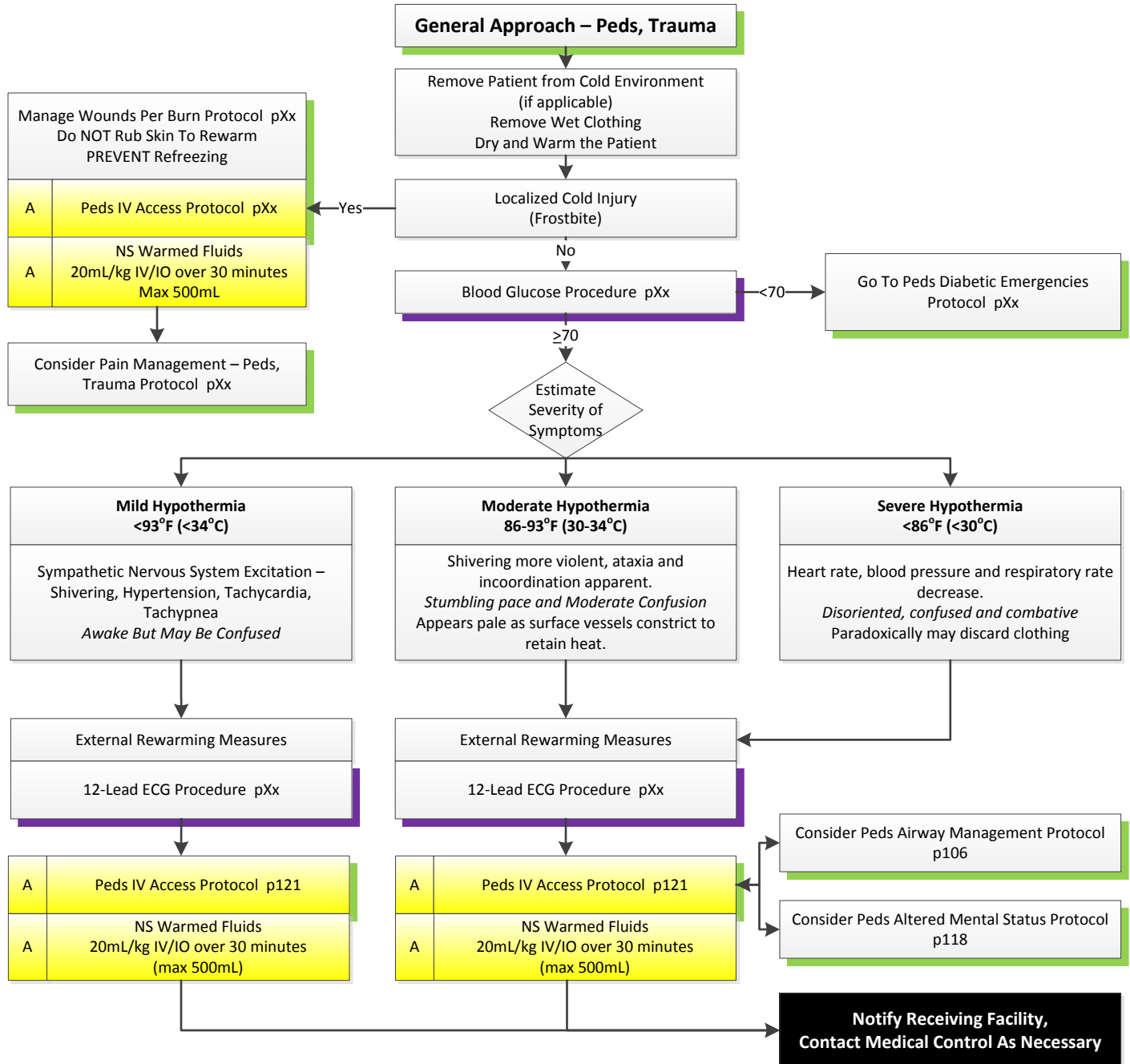
Pertinent Positives and Negatives

- Age, VS, Mental Status
- SAMPLE History
- OPQRST History
- Time and length of exposure to cold environment

- Cold or clammy skin
- Confusion
- Arrhythmias, J-waves on ECG
- Hypotension, Shock

Differential

- Alcohol Intoxication
- Hypothyroidism (Myxedema Coma)
- Dehydration
- Sepsis
- CNS Lesion or Head Injury
- Abuse or Neglect (Elderly or disabled)
- Medication (beta blocker overdose, opiate overdose)



Pearls

REQUIRED EXAM: VS, GCS, Skin, HEENT, Neuro, Evidence of Intoxication, Mental Status

- Hypoglycemia is found in many hypothermic patients, because hypothermia may be a result of hypoglycemia
- Severe hypothermia may cause myocardial irritability and rough handling can theoretically cause V-fib. Please handle carefully.
-Do not withhold advanced airway or CPR for this concern, but only the most experienced provider available should *gently* attempt advanced airway
- Below 86°F (30°C), antiarrhythmics may not be effective. If given, they should be given at reduced intervals. Do NOT attempt to pace below 86°F. If antiarrhythmics necessary for severely hypothermic patient, Contact Medical Control
- Extremes of age, malnutrition, EtOH and drug abuse and outdoor hobbies / employment all predispose to hypothermia

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Extremity Injury – Peds, Trauma

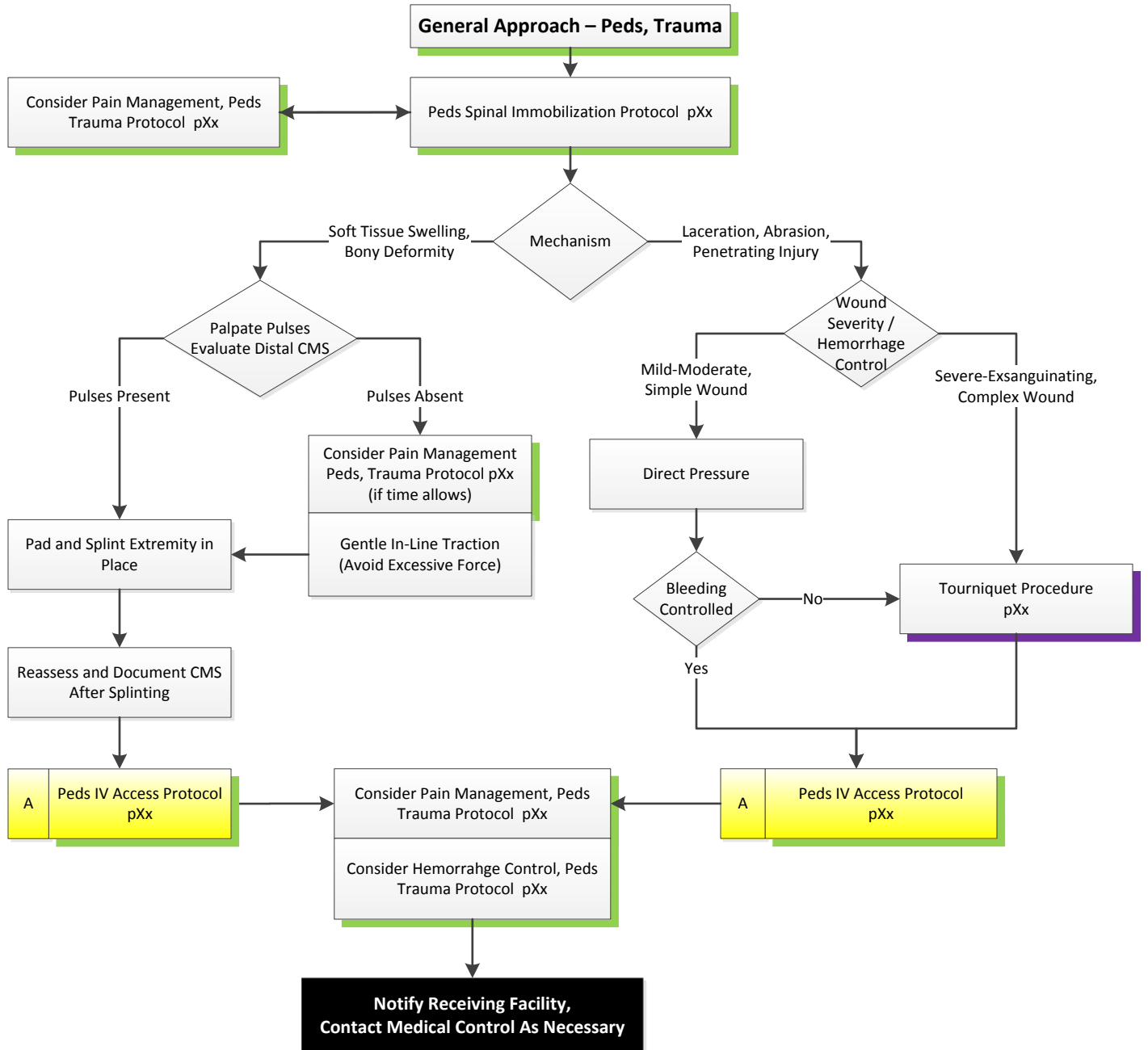
Pertinent Positives and Negatives

- Type of injury
- Mechanism (blunt vs. penetrating)
- Central and Peripheral Pulses
- Neuro Function Distal to Injury

- SAMPLE History
- OPQRST History
- Evidence of Intoxication
- Evidence of Multi-System Trauma

Differential

- Vascular Disruption
- Amputation
- Fracture, Dislocation
- Sprain, Strain
- Abrasion
- Contusion
- Laceration
- Compartment Syndrome



Pearls

REQUIRED EXAM: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremity, Back, Neuro

- Immobilization of bony injuries should include the joint above and below. Joint injuries require immobilization of bone above and below
- Palpate and document Circulation, Movement and Sensation both before and after splint application
- Tourniquets should remain in place once hemorrhage control is adequate. The tourniquet is tight enough when the bleeding stops!
- If active hemorrhage and bony/soft tissue deformity, priority should be put on hemorrhage control *first*, then splinting – remember A,B,C's
- If amputated extremities available, seal in a plastic bag and place in cool water and bring to the hospital with the patient

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Eye Pain – Peds, Trauma

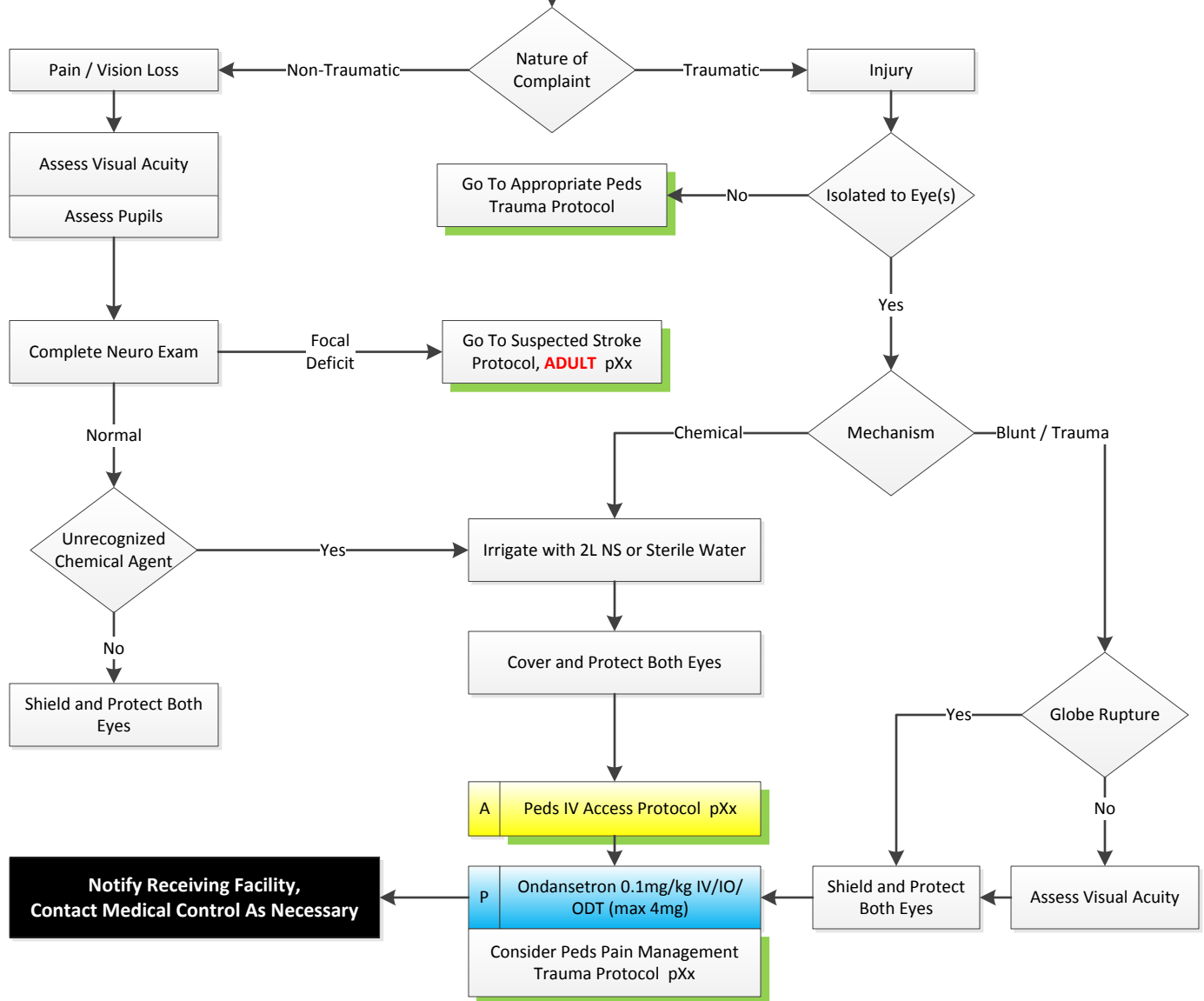
Pertinent Positives and Negatives

- Age, VS, Visual Acuity
- SAMPLE History
- OPQRST History
- Time of Injury
- Involved Chemical MSDS
- Contact / Corrective Lens Use
- "Shooting" or "Streaking" Lights
- Rust Ring
- "Lowering Shade" in Vision

Differential

- Globe Rupture
- Acute Closed Angle Glaucoma
- Stroke
- Retinal Artery Occlusion
- Chemical Burn
- Retinal Venous Thrombus

General Approach – Peds, Trauma



Pearls

REQUIRED EXAM: VS, GCS, Visual Acuity, Neuro Exam, Extraocular Movements

- Stabilize any penetrating objects. DO NOT remove any embedded / impaled objects
- If Long Spine Board not indicated, transport with head of stretcher elevated to 60 degrees to help reduce intraocular pressure
- Remove contact lenses when possible
- Always cover both eyes to prevent further injury
- Orbital fractures increase concern for globe or optic nerve injury; follow visual acuity and extraocular movements for changes
- Normal visual acuity can be present, even with severe injury

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Head Injury – Peds, Trauma

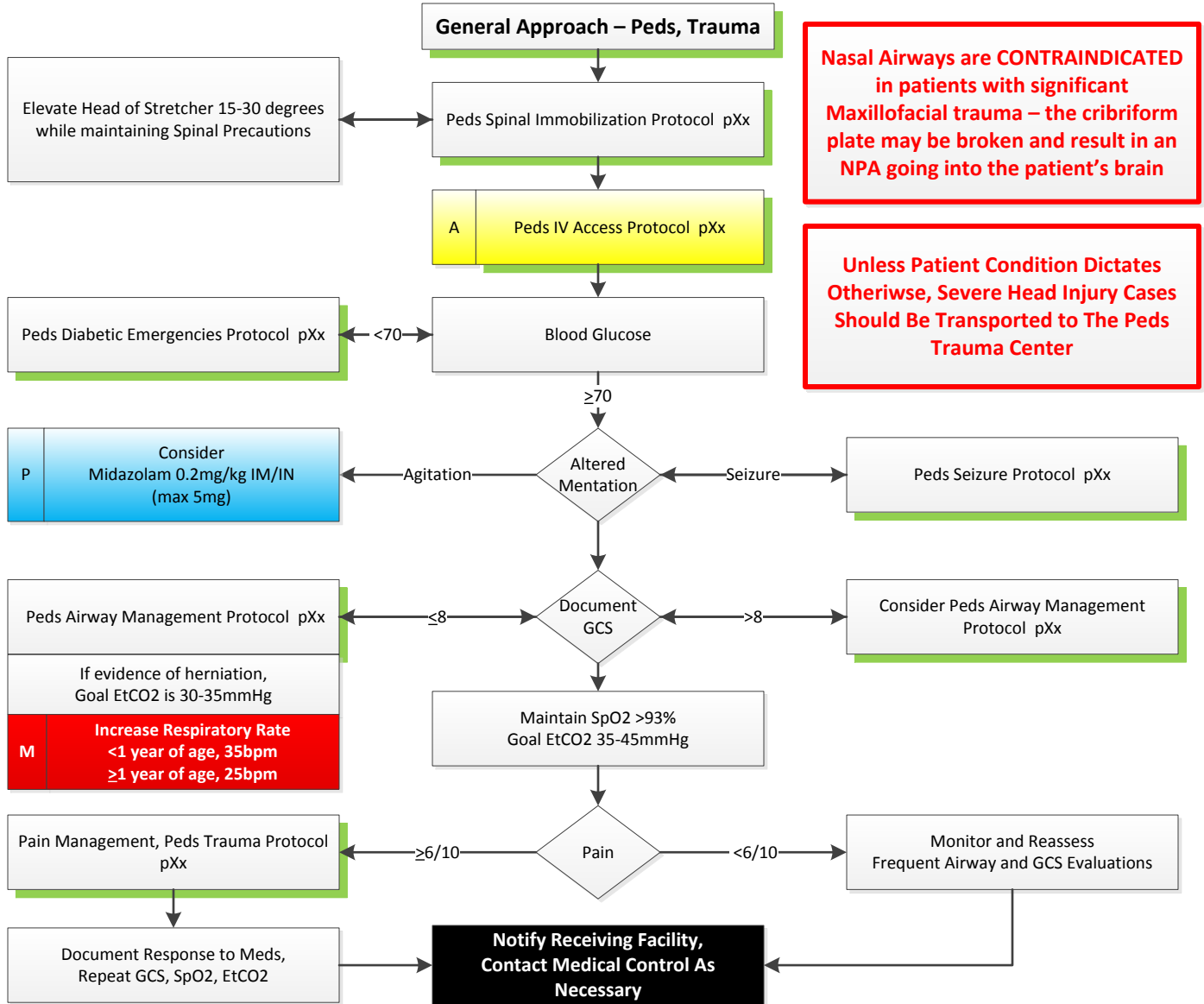
Pertinent Positives and Negatives

- Type of injury
- Mechanism (blunt vs. penetrating)
- Loss Of Consciousness
- Vomiting, Altered Mental Status

- SAMPLE History
- OPQRST History
- Evidence of Intoxication
- Evidence of Multi-System Trauma

Differential

- Skull fracture
- Epidural hematoma
- Concussion, Contusion, Laceration, Hematoma
- Non-Accidental Trauma
- Spinal Cord Injury
- Subdural Hematoma
- Subarachnoid Hemorrhage



Pearls

REQUIRED EXAM: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremity, Back, Neuro

- If GCS ≤ 13 consider Air transport or Rapid Transport to Leveled Trauma Facility
- Airway interventions can be detrimental to patients with head injury by raising intracranial pressure, worsening hypoxia (causing secondary brain injury) and increasing risk of aspiration. Whenever possible these patients should be managed in the least invasive manner to safely maintain O₂ saturation >90% (ie. NRB, BVM with 100% O₂, etc.)**
- Acute herniation should be suspected when the following signs are present: acute unilateral dilated and non-reactive pupil, abrupt deterioration in mental status, abrupt onset of motor posturing, abrupt increase in blood pressure, abrupt decrease in heart rate.
- Only** in suspected acute herniation – increase ventilatory rate with target EtCO₂ 30-35mmHg
- Increased intracranial pressure (ICP) may cause hypertension and bradycardia (Cushings response)
- Hypotension usually indicates injury or shock unrelated to the head injury and should be treated aggressively
- Most important vital sign to monitor and document is level of consciousness (GCS)
- Concussions are periods of confusion or loss of consciousness (LOC) associated with trauma which may have resolved by the time EMS arrives. Any confusion or mental status abnormality should be transported to an Emergency Department. **Any questions or clarifications, contact Medical Control.**

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Hemorrhage Control – Peds, Trauma

Pertinent Positives and Negatives

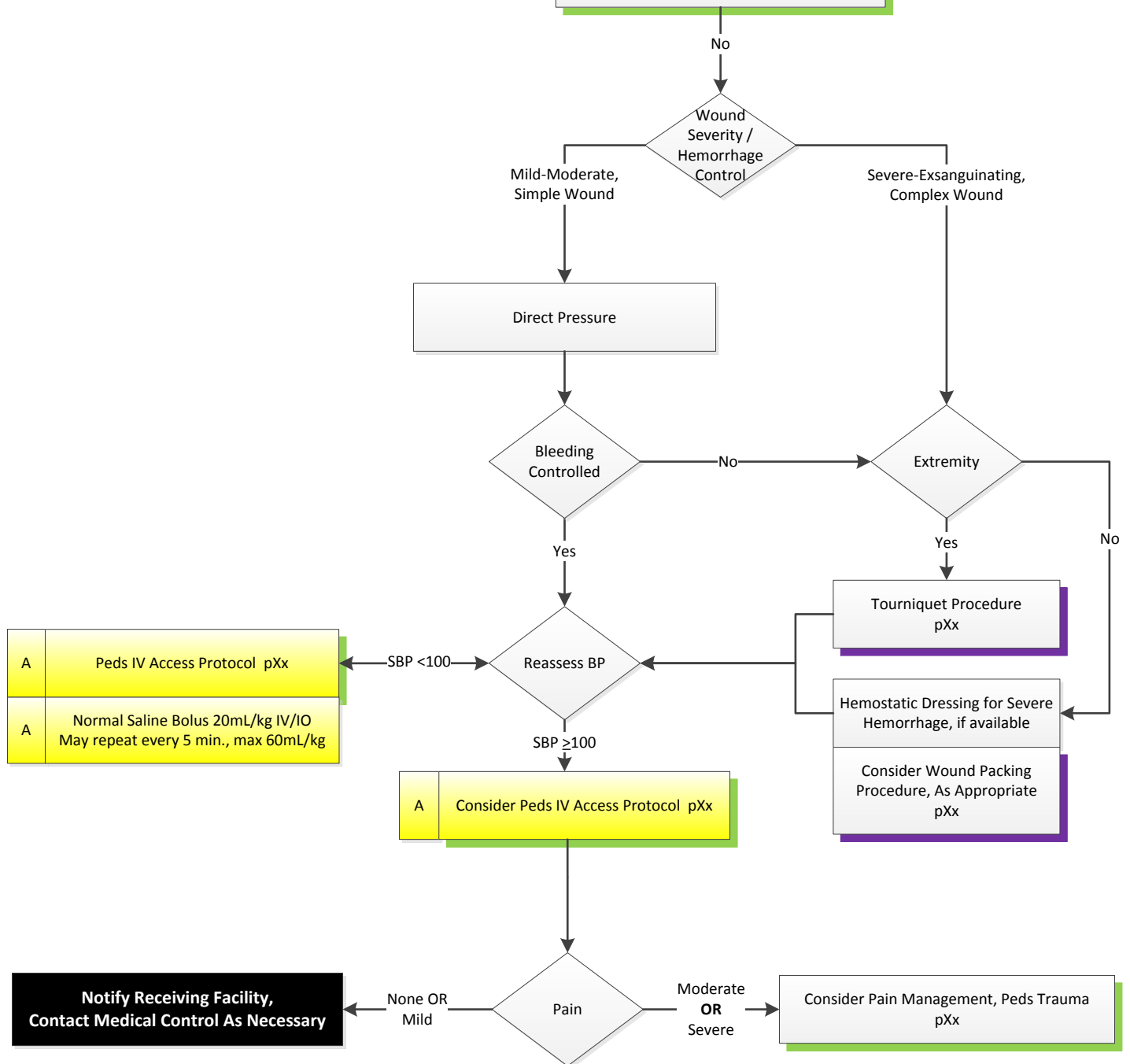
- Type of injury
- Mechanism (blunt vs. penetrating)
- Central and Peripheral Pulses
- Neuro Function Distal to Injury

- Time of Injury
- Deformity
- Diminished pulse / capillary refill

Differential

- Vascular Disruption
- Amputation
- Fracture, Dislocation
- Sprain, Strain
- Abrasion
- Contusion
- Laceration
- Compartment Syndrome

General Approach – Peds, Trauma



Pearls

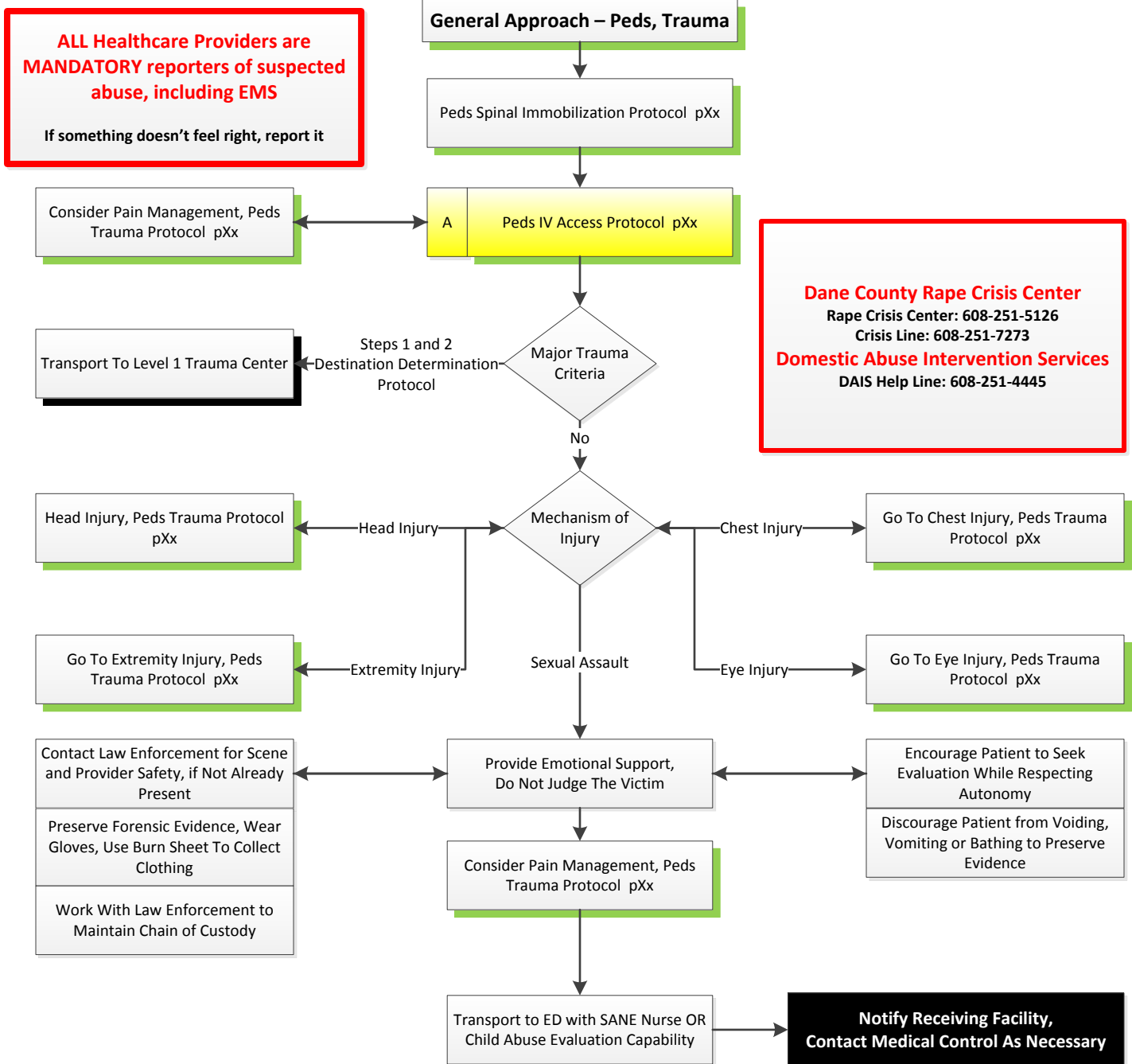
REQUIRED EXAM: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremity, Back, Neuro

- Hypotension in trauma needs blood products early, so minimize scene time. Goal for scene time in major trauma cases should be <10 min
- Multiple casualty incident or obvious life threatening hemorrhage, consider Tourniquet Procedure and/or Hemostatic Dressing FIRST
- Hemostatic Dressings are appropriate for hemorrhage that can't be controlled with a tourniquet, such as junctional wounds in the groin or axilla.
- Remember - hemostatic agents are contraindicated in wounds that violate the thoracic or abdominal cavity; if unsure, use sterile roll gauze.
- Signs/Symptoms of Shock include: altered mental status, pallor, cap refill >3 sec, faint/absent peripheral pulses, hypotension (age defined)

Sexual Assault / Intimate Partner Violence – Peds, Trauma

| Legend | |
|--------|-----------------|
| | EMT |
| A | A-EMT |
| P | Paramedic |
| M | Medical Control |

- | | | | |
|---|---|---|---|
| <p>Pertinent Positives and Negatives</p> <ul style="list-style-type: none"> • Age, VS, GCS • Mechanism of Injury • Events leading up to 9-1-1 Activation • Relationship to and Location of Offender • Strangling or Neck Injury | <ul style="list-style-type: none"> • SAMPLE History • OPQRST History • Evidence of Intoxication • Evidence of Multi-System Trauma | <p>Differential</p> <ul style="list-style-type: none"> • Hypovolemic Shock • -External Hemorrhage • -Internal Hemorrhage • -Unstable Pelvic Fracture | <ul style="list-style-type: none"> • Abrasion • Contusion • Laceration • Compartment Syndrome |
|---|---|---|---|



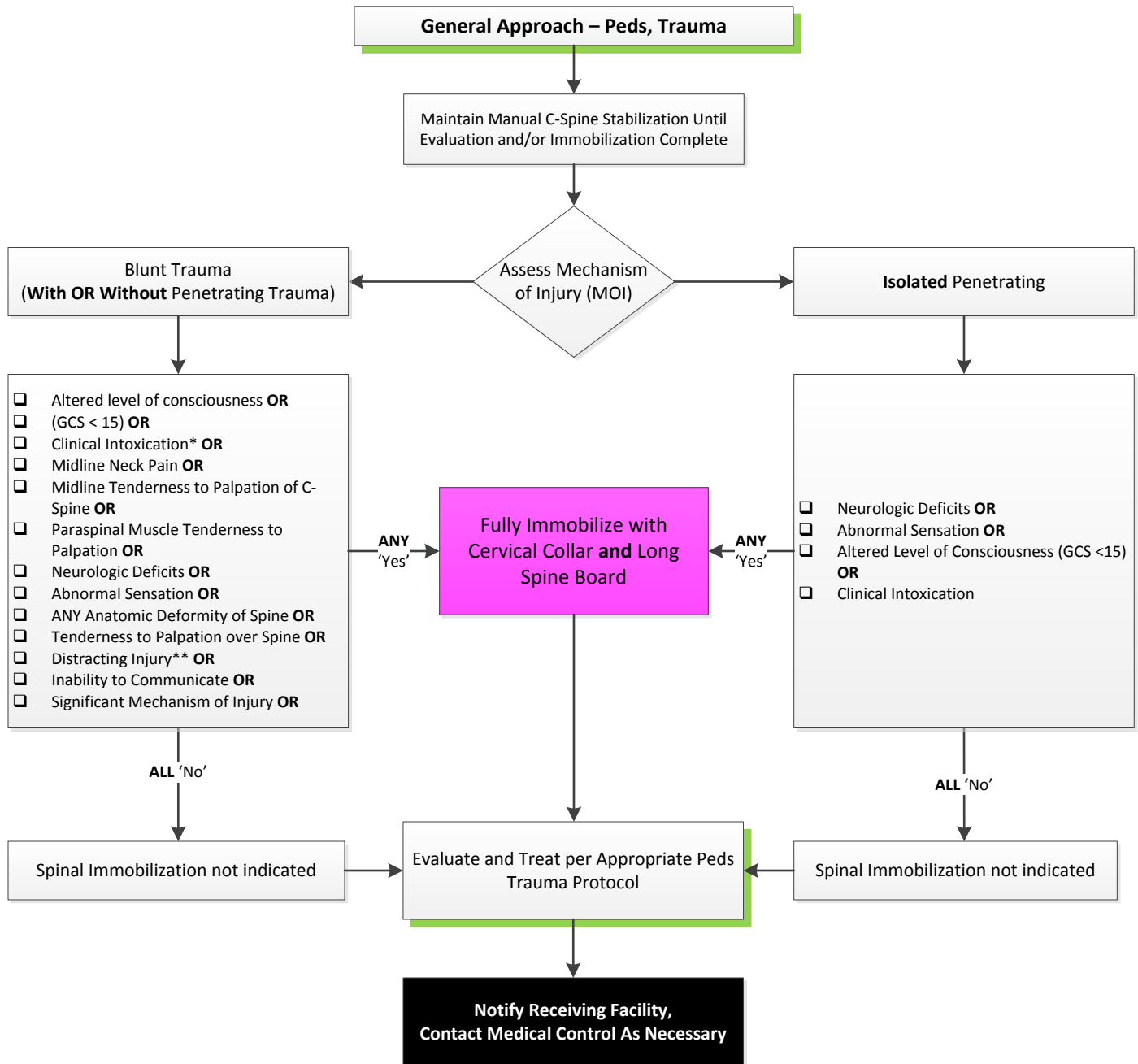
Pearls

REQUIRED EXAM: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremity, Back, Neuro

- Major Trauma Criteria – Step 1 and Step 2 in Destination Determination Protocol.
- Intimate Partner Violence is very difficult to disclose, and *many victims call 9-1-1 with vague complaints*; Have a HIGH index of suspicion
- Never judge a victim of intimate partner violence or sexual assault on the way they dress, act or present themselves
- Do not be afraid to involve Law Enforcement for assistance as needed, and have a low threshold to transport to a SANE Capable Emergency Department where Social Work, SANE Nurses, and Advocates can provide support and resources for these patients
- Child Abuse Evaluation centers are also specialized units with specialized forensic capabilities, Child-Life Specialists and Social Work.

| Legend | |
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Spinal Immobilization – Peds, Trauma



Pearls

REQUIRED EXAM: Motor Function both upper and lower extremities, Sensation of upper and lower extremities, subjective abnormal sensation, Tenderness to palpation of bony prominences OR paraspinal muscles

- ***Clinical Intoxication** – A transient condition resulting in disturbances in level of consciousness, cognition, perception, affect or behavior, or other psychophysiological functions and responses. Common examples include; ataxia, emotional instability, flight of ideas, tangential thought or motor incoordination.
- ****Distracting Injury** – Examples include, but are not limited to: long bone fracture, dislocations, large lacerations, deforming injuries, burns OR any condition preventing patient cooperation with history.
- It is always safer and better patient care to assume that a Spinal Cord injury has occurred and provide protection, and should be the standard of care in trauma patient management
- Rigid cervical collars and long spine boards have risks and benefits for patients. Spinal immobilization should always be applied when **any** doubt exists about the possibility of spinal trauma.
- EXTREMELY thoughtful consideration and careful physical exam should be part of any decision to apply or not apply the spinal immobilization, and *must be well documented*.

Electronic Control Device (a.k.a. TASER) – Peds, Trauma

| Legend | |
|--------|-----------------|
| | EMT |
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| M | Medical Control |

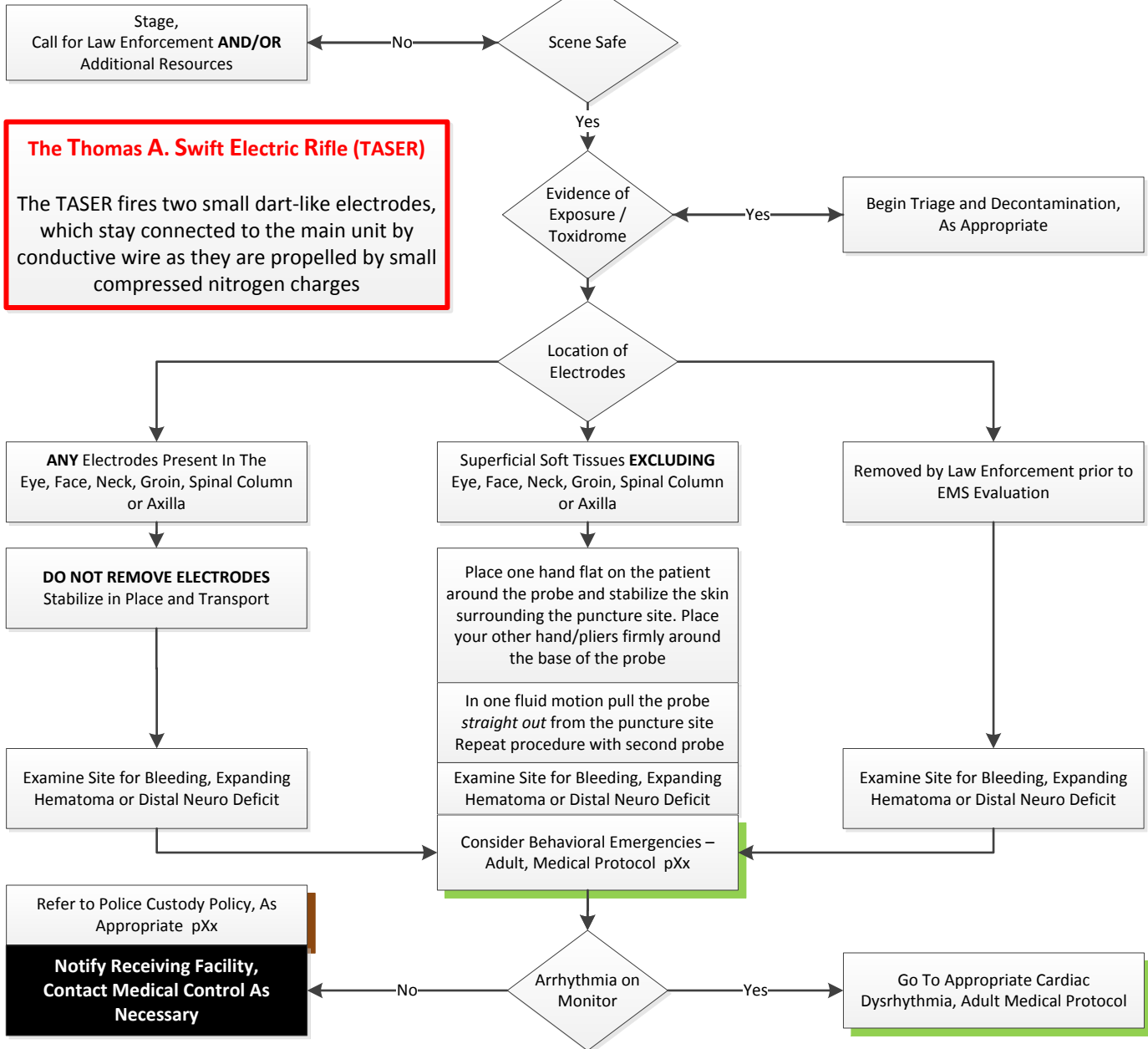
- Pertinent Positives and Negatives**
- Age, VS, SpO2, EtCO2, RR
 - SAMPLE History
 - OPQRST History
 - Situational Crisis

- Psychiatric Illness / Medication History
- Medic Alert Bracelet, DM History
- Anxiety, Agitation or Confusion
- Suicidal / Homicidal Thoughts or History
- Evidence of Substance Use / Overdose

- Differential**
- Illicit Drug Intoxication
 - Drug/EtOH Withdrawal
 - Primary Psychosis
 - Hypoglycemia

- Hypoxia
- Head Injury
- Occult Trauma
- Cerebral Hypoperfusion
- Toxic Ingestion

General Approach – Peds, Trauma



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REQUIRED EXAM: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremity, Back, Neuro

- Safety first – for Providers, Police and Patients. Never restrain any patients in the prone (face down) position.
- Document the site of electrode penetration as well as whether the barb was completely intact or broken on removal
- Patients who require repeated deployments of the Electronic Control Device are at a significantly higher risk of cardiac dysrhythmias as well as in-custody death. Have a high index of suspicion and a low threshold to treat per the Behavioral Emergencies Protocol
- Patients who are actively restrained by Law Enforcement require an officer be present in the ambulance patient compartment during transport. It is a patient safety issue as well as a medicolegal liability for the EMS Provider.