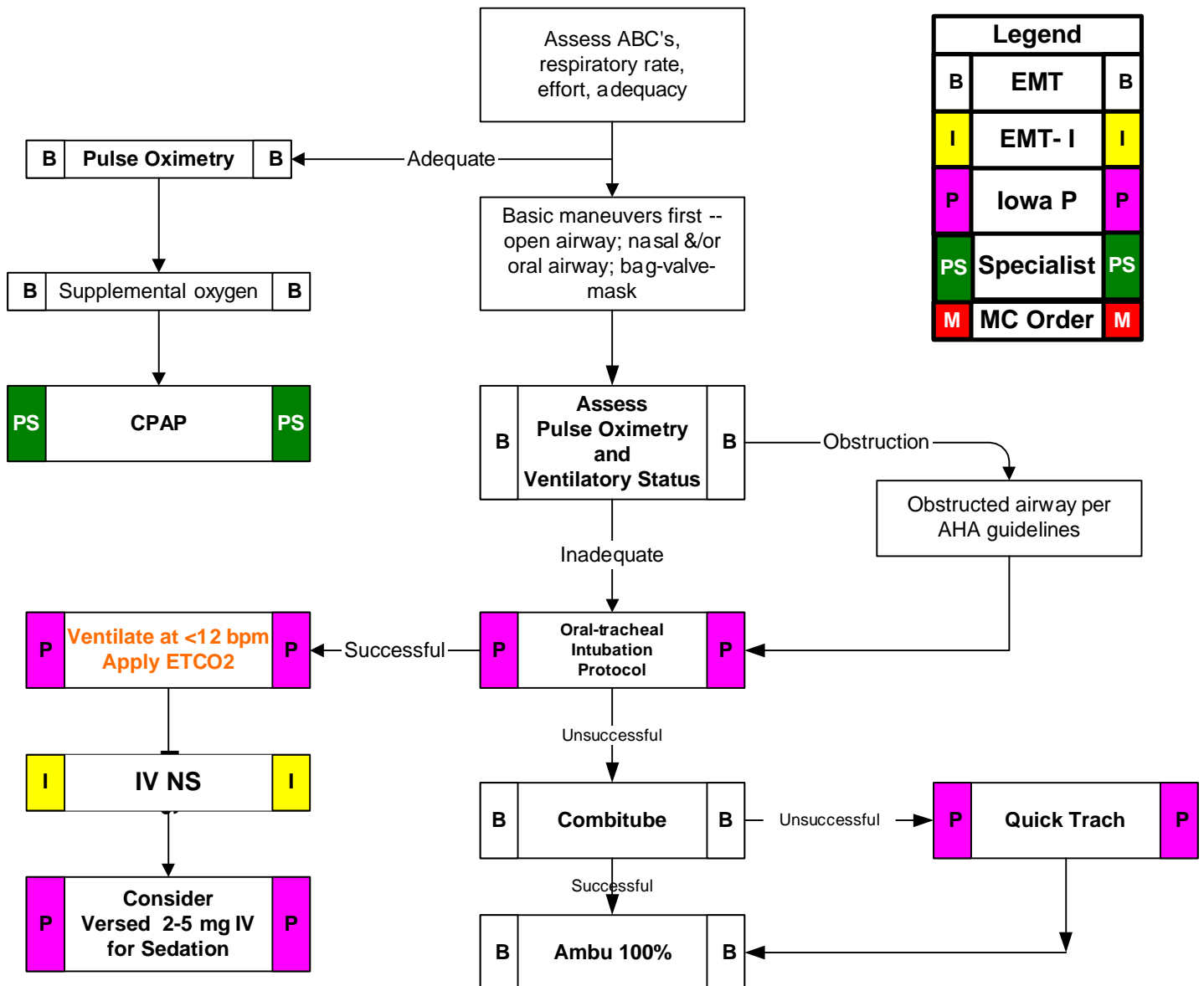




Airway-Adult



Legend		
B	EMT	B
I	EMT- I	I
P	Iowa P	P
PS	Specialist	PS
M	MC Order	M



Pearls:

- For this protocol, adult is defined as 12 years old or greater.
- Capnometry, Esophageal bulb, or capnography is mandatory with all methods of intubation. Document results.
- Maintain C-spine immobilization for patients with suspected spinal injury.
- Do not assume hyperventilation is psychogenic -- use oxygen, not a paper bag.
- Sellick's maneuver or the BURP maneuver should be used to assist with difficult intubations.
- Paramedics should consider using an Combitube when they are unable to intubate a patient.
- Hyperventilation in head trauma should only be done to maintain a pCO₂ of 30-35.
- Continuous pulse oximetry should be utilized in all patients with an inadequate respiratory function.
- Ventilatory rate should be 8-12 per minute to maintain pCO₂ of 30-35.
- Consider c-collar to maintain ETT placement for all intubated patients (REMOVE COLLAR upon patient TRANSFER).

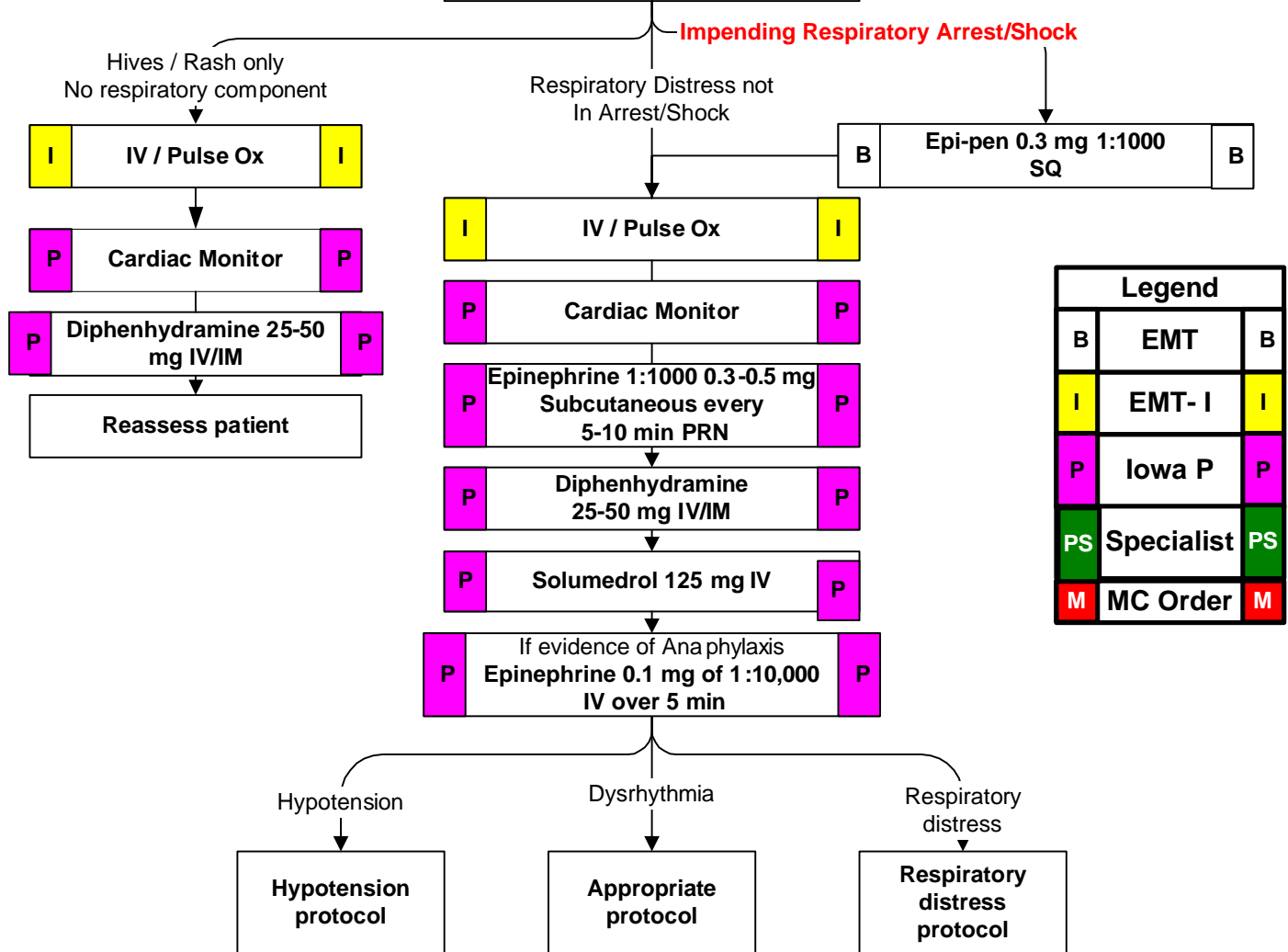


Allergic Reaction



History <ul style="list-style-type: none"> Onset and location Insect sting or bite Food allergy / exposure Medication allergy / exposure New clothing, soap, detergent Past history of reactions Past medical history Medication history 	Signs and Symptoms: <ul style="list-style-type: none"> Itching or hives Coughing / wheezing or respiratory distress Chest or throat constriction Difficulty swallowing Hypotension or shock Edema 	Differential: <ul style="list-style-type: none"> Urticaria (rash only) Anaphylaxis (systemic effect) Shock (vascular effect) Angioedema (drug induced) Aspiration / Airway obstruction Vasovagal event Asthma or COPD CHF
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Universal Patient Care Protocol



Legend		
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I	EMT- I	I
P	Iowa P	P
PS	Specialist	PS
M	MC Order	M

Pearls:

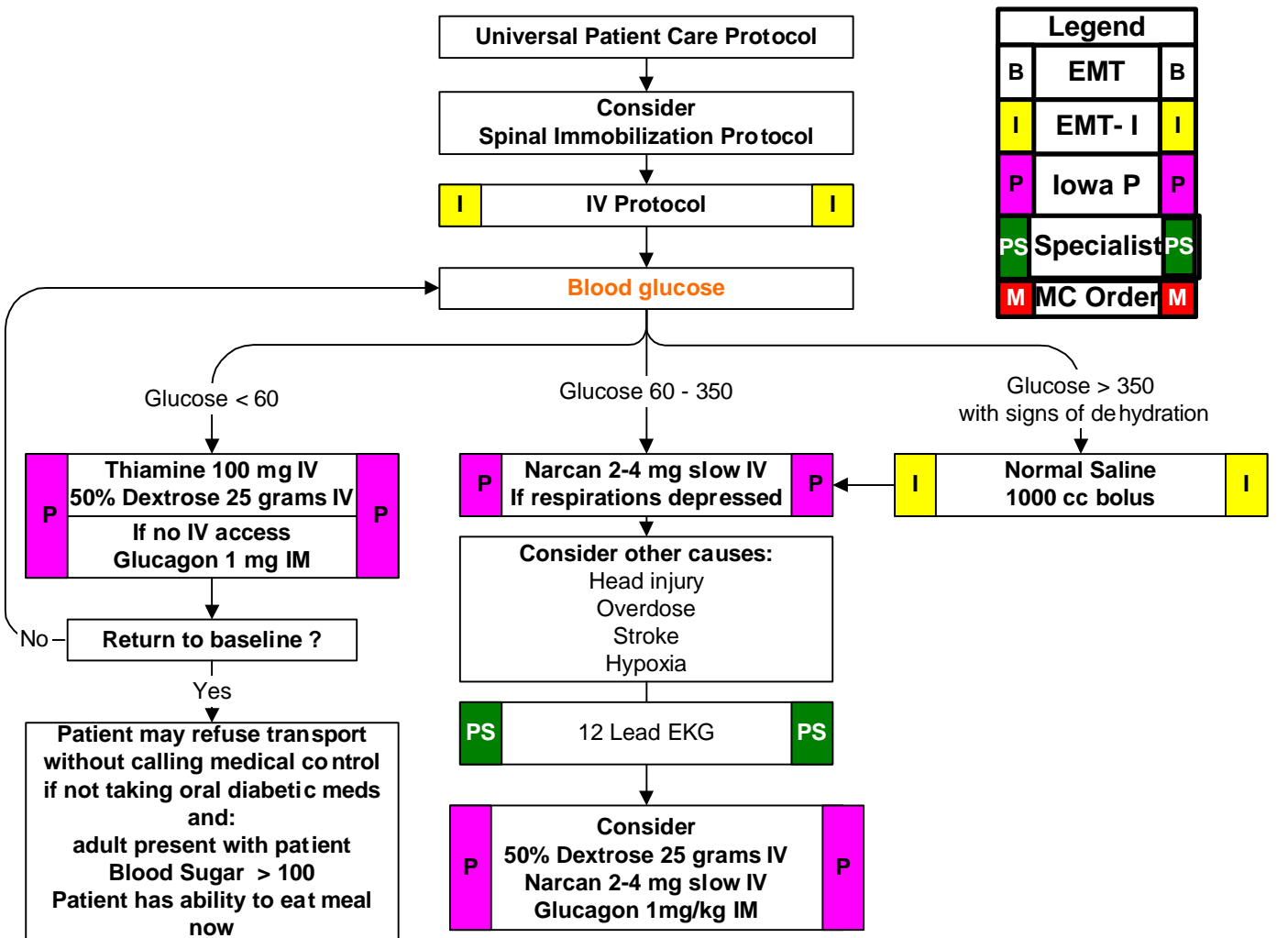
- Exam: Mental Status, Skin, Heart, Lungs
- Contact Medical Control** prior to administering epinephrine in patients who are >50 years of age, have a history of cardiac disease, or if the patient's heart rate is >150. Epinephrine may precipitate cardiac ischemia. These patients should receive a 12 lead ECG.
- Any patient with respiratory symptoms or extensive reaction should receive IV or IM diphenhydramine.
- The shorter the onset from symptoms to contact, the more severe the reaction.



Altered Mental Status



<p>History:</p> <ul style="list-style-type: none"> • Known diabetic, medic alert tag • Drugs, drug paraphernalia • Report of illicit drug use or toxic ingestion • Past medical history • Medications • History of trauma • Change in condition • Environment 	<p>Signs/Symptoms:</p> <ul style="list-style-type: none"> • Decreased mental status • Change in baseline mental status • Bizarre behavior • Hypoglycemia (cool, diaphoretic skin) • Hyperglycemia (warm, dry skin; fruity breath; Kussmaul resps; signs of dehydration) 	<p>Differential:</p> <ul style="list-style-type: none"> • Head trauma • CNS (stroke, tumor, seizure, infection) • Cardiac (MI, CHF) • Infection • Thyroid (hyper / hypo) • Shock (septic, metabolic, traumatic) • Diabetes (hyper / hypoglycemia) • Toxicologic • Acidosis / Alkalosis • Environmental exposure • Pulmonary (Hypoxia) • Electrolyte abnormality • Psychiatric disorder
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Legend		
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P	Iowa P	P
PS	Specialist	PS
M	MC Order	M

Pearls:

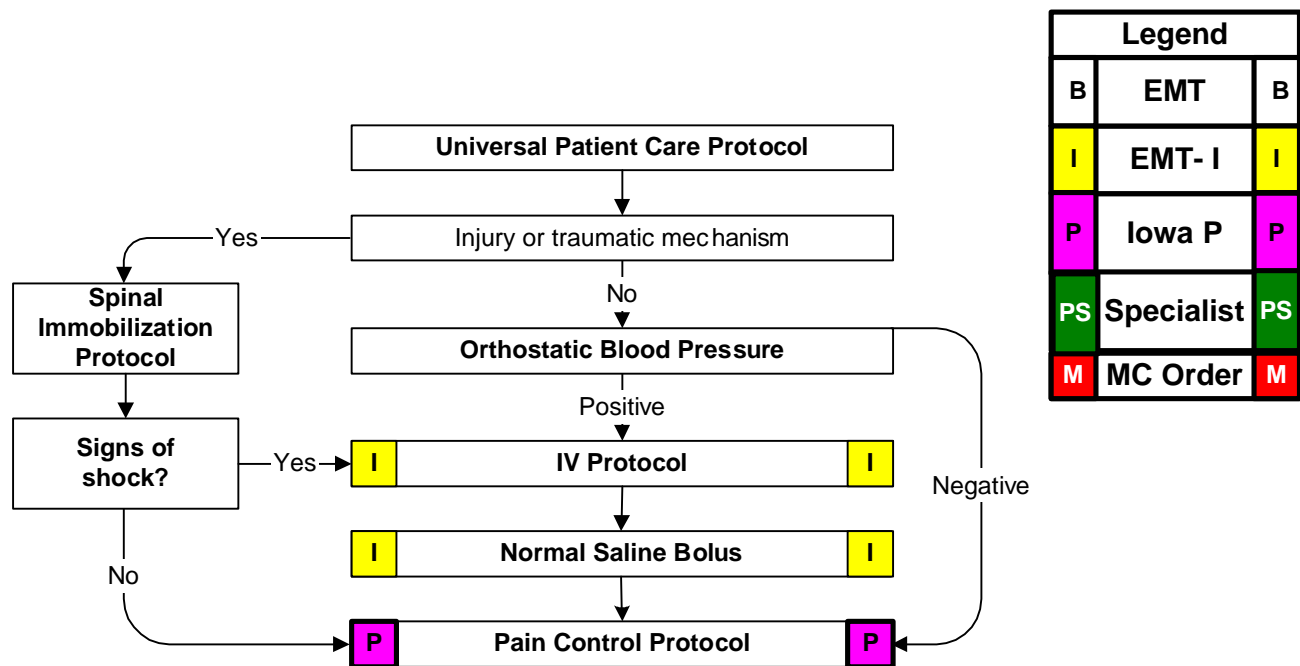
- Exam: Mental Status, HEENT, Skin, Heart, Lungs, Abdomen, Back, Extremities, Neuro
- Be aware of AMS as presenting sign of an environmental toxin or Haz-Mat exposure and protect personal safety.
- It is safer to assume hypoglycemia than hyperglycemia if doubt exists. Recheck blood glucose after D50 or Glucagon.
- Do not let alcohol confuse the clinical picture. Alcoholics frequently develop hypoglycemia.
- Low glucose (< 60), normal glucose (60 - 120), high glucose (> 350).
- Consider Restraints if necessary for patient's and/or personnel's protection per the restraint procedure.
- Thiamine may be omitted if the patient has no signs of malnutrition.



Back Pain



History: <ul style="list-style-type: none"> • Age • Past medical history • Past surgical history • Medications • Onset of pain / injury • Previous back injury • Traumatic mechanism • Location of pain • Fever • Improvement or worsening with activity 	Signs and Symptoms: <ul style="list-style-type: none"> Pain (paraspinous, spinous process) Swelling Pain with range of motion Extremity weakness Extremity numbness Shooting pain into an extremity Bowel / bladder dysfunction 	Differential: <ul style="list-style-type: none"> • Muscle spasm / strain • Herniated disc with nerve compression • Sciatica • Spine fracture • Kidney stone • Pyelonephritis (Kidney infection) • Aneurysm • Pneumonia • Cardiac related
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Pearls:

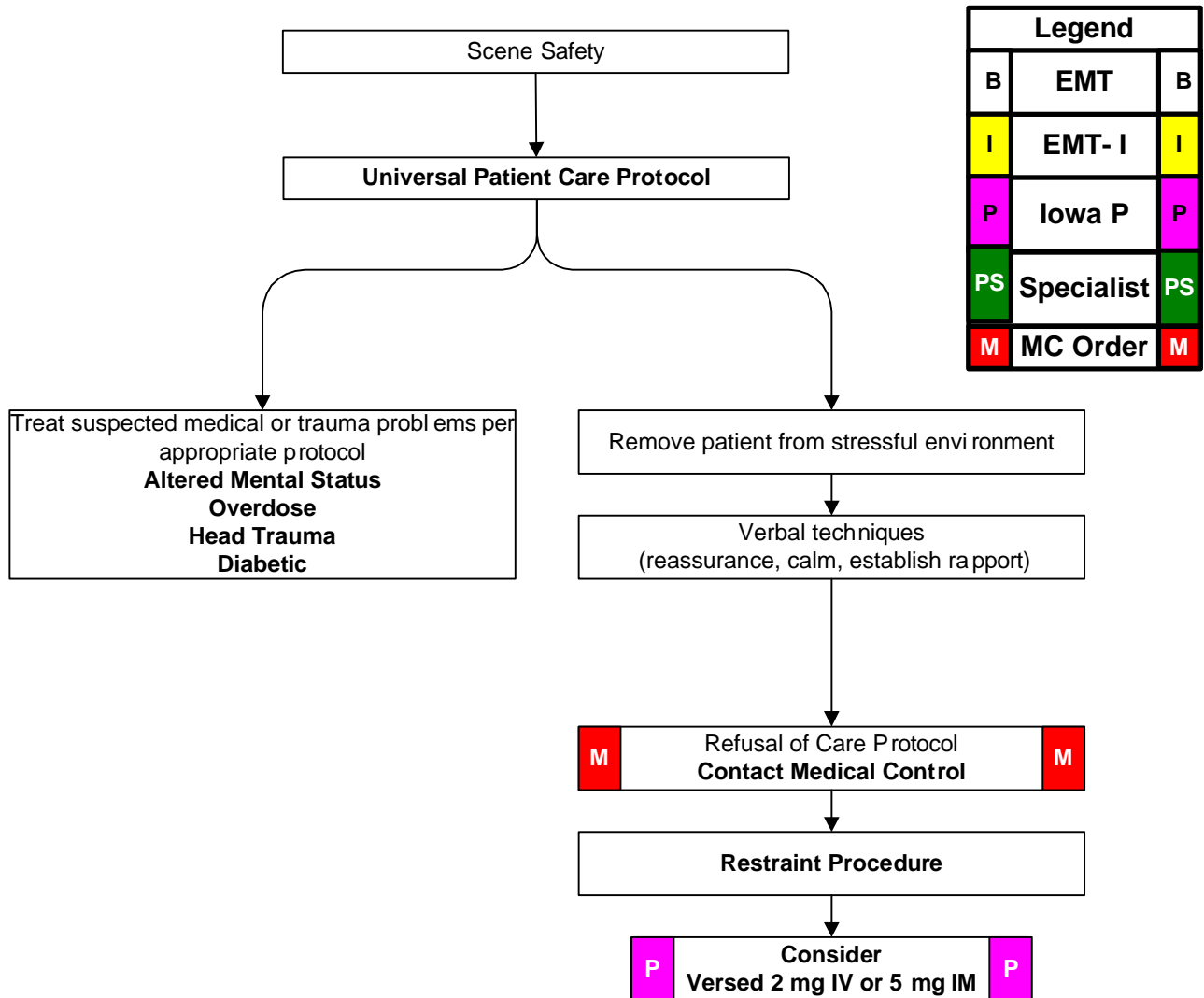
- **Exam: Mental Status, HEENT, Neck, Chest, Lungs, Abdomen, Back, Extremities, Neuro**
- Abdominal aneurysms are a concern in patients over the age of 50
- Kidney stones typically present with an acute onset of flank pain which radiates around to the groin area.
- Patients with midline pain over the spinous processes should be spinally immobilized.
- Any bowel or bladder incontinence is a significant finding which requires immediate medical evaluation



Behavioral



History: <ul style="list-style-type: none"> Situational crisis Psychiatric illness/ medications Injury to self or threats to others Medic alert tag Substance abuse / overdose Diabetes 	Signs and Symptoms: <ul style="list-style-type: none"> Anxiety, agitation, confusion Affect change, hallucinations Delusional thoughts, bizarre behavior Combative violent Expression of suicidal / homicidal thoughts 	Differential: <ul style="list-style-type: none"> see Altered Mental Status differential Hypoxia Alcohol Intoxication Toxin / Substance abuse Medication effect / overdose Withdrawal syndromes Depression Bipolar (manic-depressive) Schizophrenia, anxiety disorders, etc
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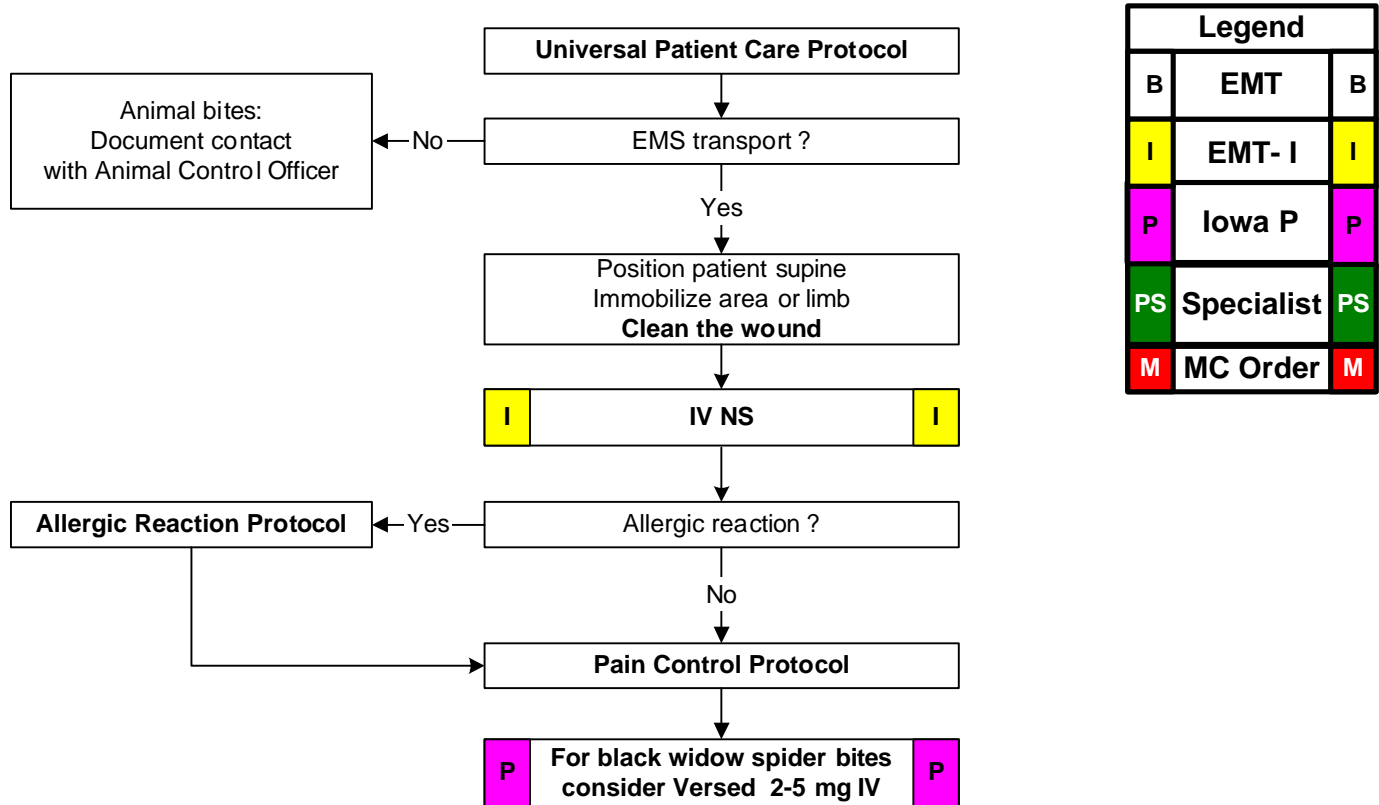
Pearls: <ul style="list-style-type: none"> Exam: Mental Status, Skin, Heart, Lungs , Neuro Consider , Versed for patients with presumed substance abuse. Be sure to consider all possible medical/trauma causes for behavior (hypoglycemia, over dose, substance abuse, hypoxia, head injury, etc.) Do not overlook the possibility of associated domestic violence or child abuse. All patients who receive either physical or chemical restraint must be continuously observed by ALS personnel on scene or immediately upon their arrival.
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Bites and Envenomations



History: <ul style="list-style-type: none"> Type of bite / sting Description / photo with patient for identification of animal involved Time, location, size of bite / sting Previous reaction to bite / sting Domestic vs. Wild Tetanus and Rabies risk Immunocompromised patient 	Signs and Symptoms: <ul style="list-style-type: none"> Rash, skin break, wound Pain, soft tissue swelling, redness Blood oozing from the bite wound Evidence of infection Shortness of breath, wheezing Allergic reaction, hives, itching Hypotension or shock 	Differential: <ul style="list-style-type: none"> Animal bite Human bite Snake bite (poisonous) Spider bite (poisonous) Insect sting / bite (bee, wasp, ant, tick) Infection risk Rabies risk Tetanus risk
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Pearls:

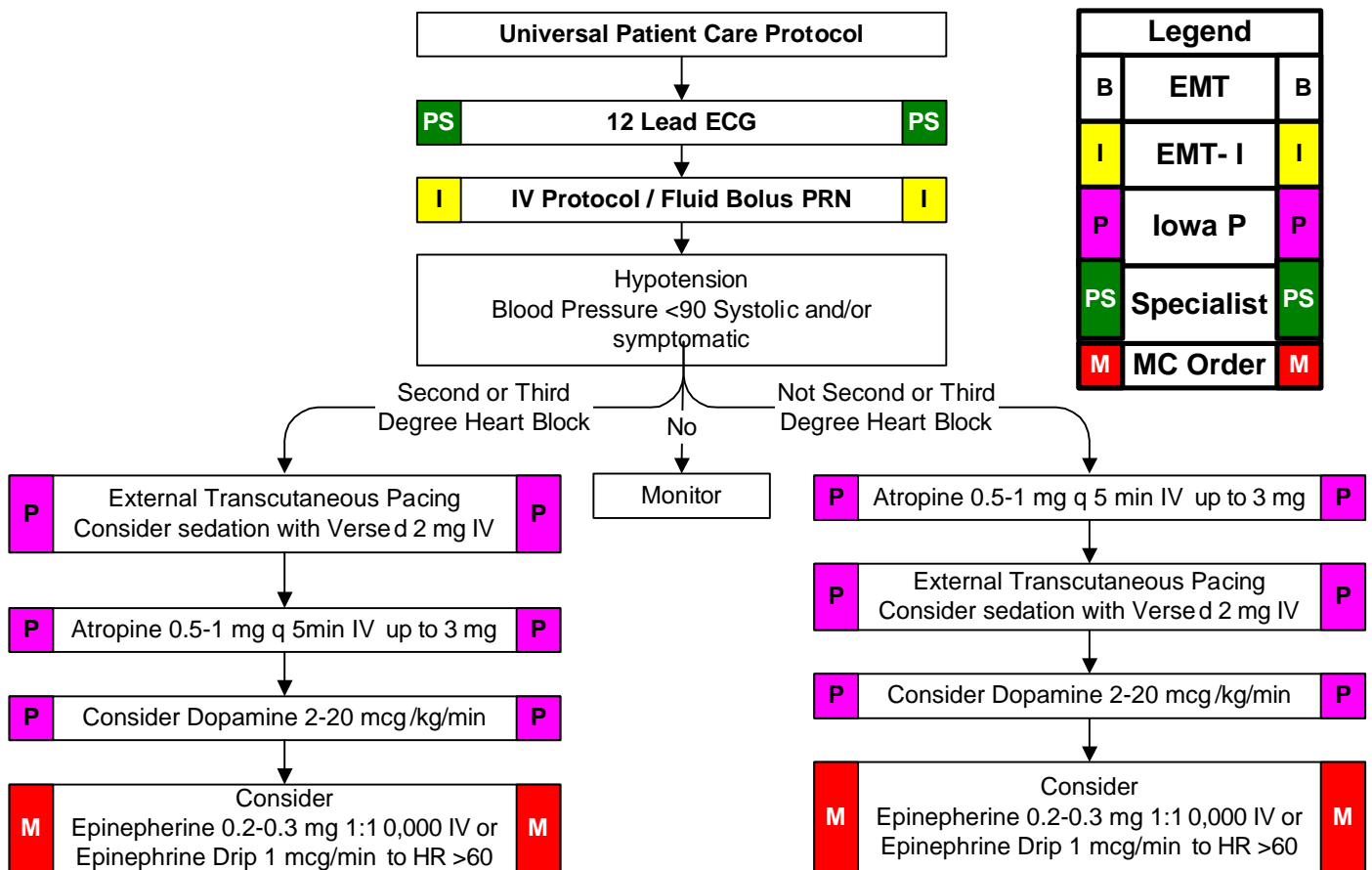
- Exam: Mental Status, Skin, Extremities (Location of injury), and a complete Neck, Lung, Heart, Abdomen, Back, and Neuro exam if systemic effects are noted**
- Human bites are much worse than animal bites due to normal mouth bacteria.
- Carnivore bites are much more likely to become infected and all have risk of Rabies exposure.
- Cat bites may progress to infection rapidly due to a specific bacteria (Pasteurella multocida).
- Poisonous snakes in this area are generally of the pit viper family: rattlesnake, copperhead, and water moccasin.
 - Coral snake bites are rare: Very little pain but very toxic. "Red on yellow - kill a fellow, red on black - venom lack."
 - Amount of envenomation is variable, generally worse with larger snakes and early in spring.
 - If no pain or swelling, envenomation is unlikely.
 - It is **NOT** necessary to take the snake to the ED with the patient.
- Black Widow spider bites tend to be minimally painful, but over a few hours, muscular pain and severe abdominal pain may develop (spider is black with red hourglass on belly).
- Brown Recluse spider bites are minimally painful to painless. Little reaction is noted initially but tissue necrosis at the site of the bite develops over the next few days (brown spider with fiddle shape on back).
- Evidence of infection: swelling, redness, drainage, fever, red streaks proximal to wound.
- Immunocompromised patients are at an increased risk for infection: diabetes, chemotherapy, transplant patients.



Bradycardia



History: <ul style="list-style-type: none"> Past medical history Medications <ul style="list-style-type: none"> Beta-Blockers (Toprol, Atenolol) Calcium channel blockers (Verapamil, Calan) Clonidine Digitalis Pacemaker 	Signs and Symptoms: <ul style="list-style-type: none"> HR < 60/min Chest pain Respiratory distress Hypotension or Shock Altered mental status Syncope 	Differential: <ul style="list-style-type: none"> Acute myocardial infarction Hypoxia Hypothermia Sinus bradycardia Athletes Head injury (elevated ICP) or Stroke Spinal cord lesion Sick sinus syndrome AV blocks (1°, 2°, or 3°) Overdose
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Pearls:

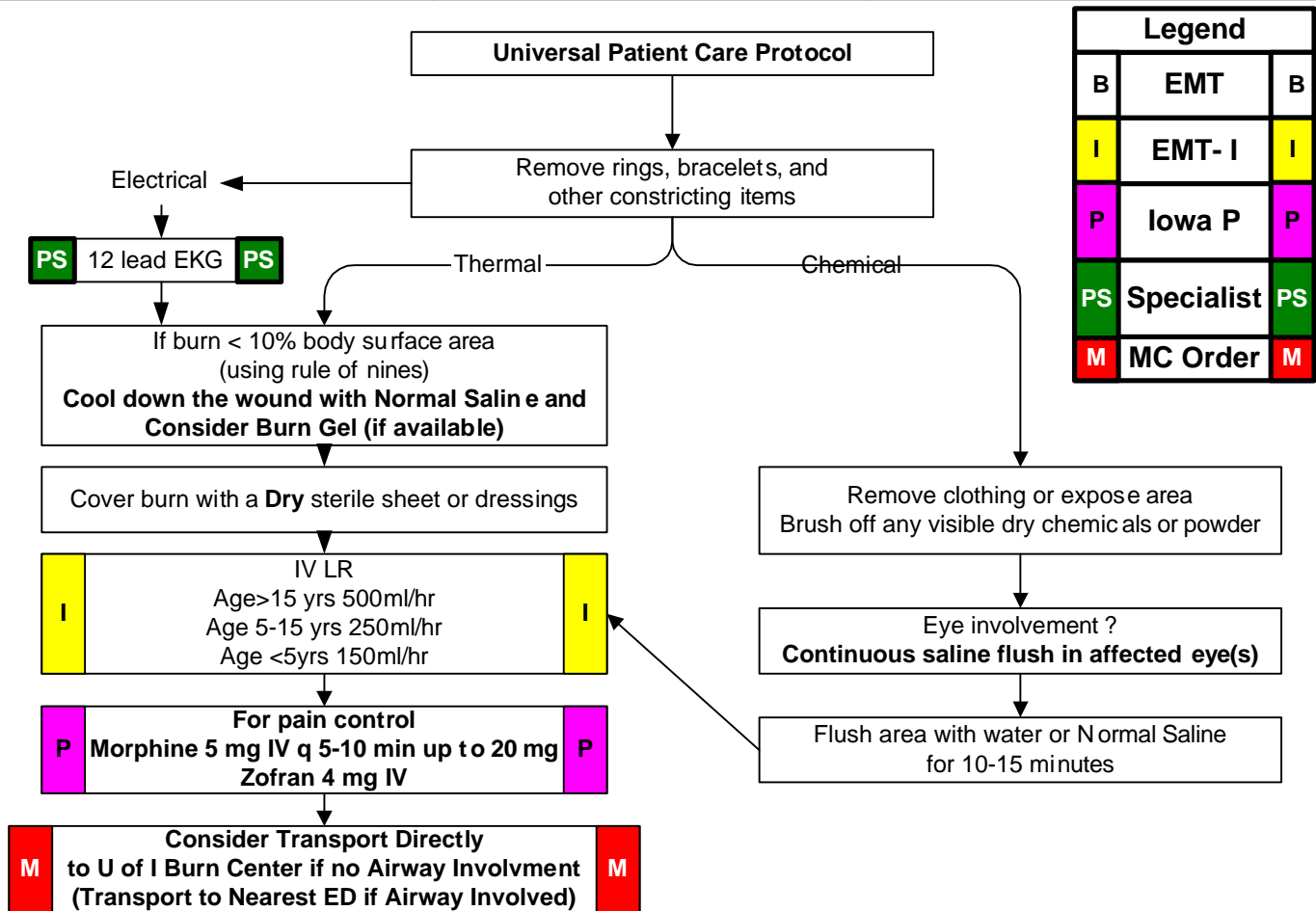
- Exam: Mental Status, Neck, Heart, Lungs, Neuro**
- The use of lidocaine in heart block can worsen bradycardia and lead to asystole and death.
- Pharmacological treatment of Bradycardia is based upon the presence or absence of symptoms.
- If symptomatic, treat. If asymptomatic, monitor only.**
- Remember: The use of Atropine for PVC's in the presence of an MI may worsen heart damage.
- Consider treatable causes for bradycardia (Beta blocker OD, Calcium channel blocker OD, etc.)
- Be sure to aggressively oxygenate the patient and support respiratory effort.
- Epinephrine Drip 1mg of 1:1000 in 50ml NS, titrate 2-10ug/min.



Burns



History: <ul style="list-style-type: none"> Type of exposure (heat, gas, chemical) Inhalation injury Time of injury Past medical history Medications Other trauma Loss of consciousness Tetanus/Immunization status 	Signs and Symptoms: <ul style="list-style-type: none"> Burns, pain, swelling Dizziness Loss of consciousness Hypotension / shock Airway compromise / distress Singed facial or nasal hair Hoarseness / wheezing 	Differential: <ul style="list-style-type: none"> Superficial (1°) red and painful Partial thickness (2°) blistering Full thickness (3°) painless and charred or leathery skin Chemical Thermal Electrical Radiation
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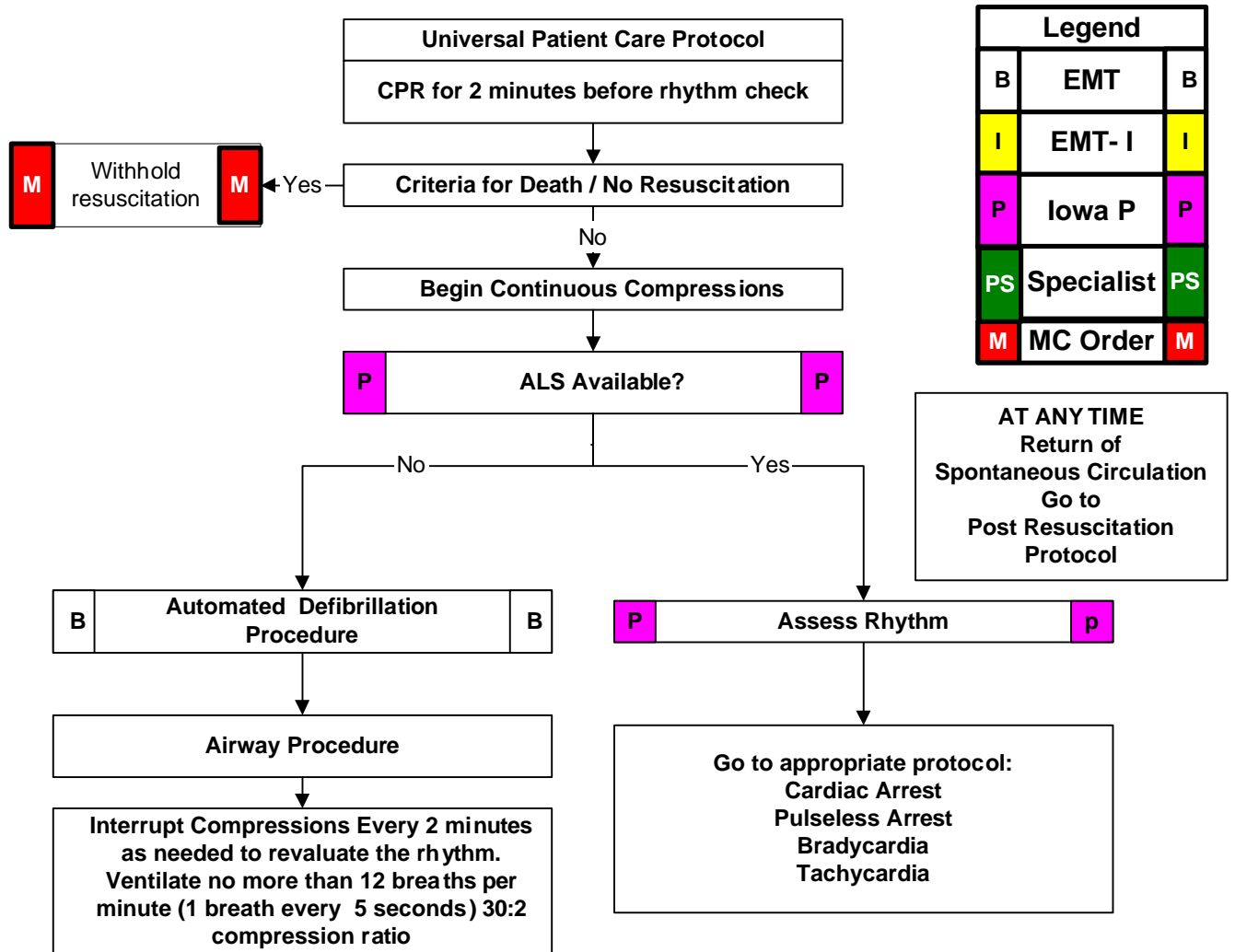
- Pearls:**
- Exam: Mental Status, HEENT, Neck, Heart, Lungs, Abdomen, Extremities, Back, Neuro**
 - Critical Burns:** >25% body surface area (BSA); 3° burns >10% BSA; 2° and 3° burns to face, eyes, hands or feet; electrical burns; respiratory burns; deep chemical burns; burns with extremes of age or chronic disease; and burns with associated major traumatic injury. These burns may require hospital admission or transfer to a burn center.
 - Early intubation is required in significant inhalation injuries.
 - Potential CO exposure should be treated with 100% oxygen.
 - Circumferential burns to extremities are dangerous due to potential vascular compromise 2° to soft tissue swelling.
 - Burn patients are prone to hypothermia - Never apply ice or cool burns that involve >10% body surface area.
 - Do not overlook the possibility of multiple system trauma.
 - Do not overlook the possibility for child abuse with children and burn injuries.
 - Consider transport directly to a Burn center (University of Iowa).



Cardiac Arrest



History: <ul style="list-style-type: none"> • Events leading to arrest • Estimated downtime • Past medical history • Medications • Existence of terminal illness • Signs of lividity, rigor mortis • DNR 	Signs and Symptoms: <ul style="list-style-type: none"> • Unresponsive • Apneic • Pulseless 	Differential: <ul style="list-style-type: none"> • Medical vs Trauma • V. fib vs Pulseless V. tach • Asystole • Pulseless electrical activity (PEA)
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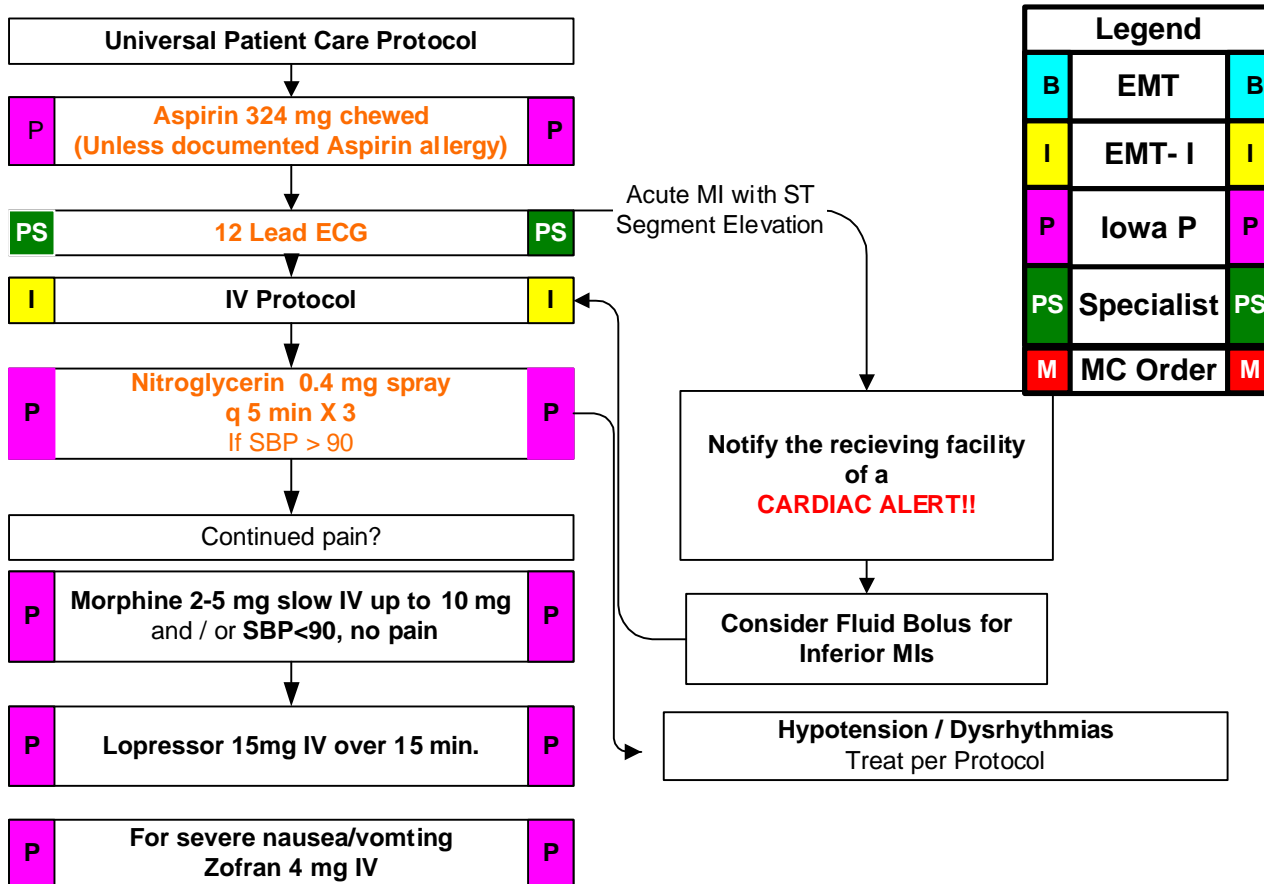
Pearls: <ul style="list-style-type: none"> • Exam: Mental Status • Success is based on proper planning and execution. Procedures require space and patient access. Make room to work. • If witnessed arrest - administer a precordial thump. • Reassess airway frequently and with every patient move. • Maternal Arrest - Treat mother per appropriate protocol with immediate notification to Medical Control and rapid transport. • Adequate compressions with timely defibrillation are the keys to success.
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Chest Pain Suspected Cardiac Event



History: <ul style="list-style-type: none"> • Age • Medications • Viagra, Levitra, Cialis • Past medical history (MI, Angina, Diabetes, Post Menopausal) • Allergies (Morphine, Lidocaine) • Recent physical exertion • Onset • Palliation / Provocation • Quality (crampy, constant, sharp, dull, etc.) • Region / Radiation / Referred • Severity (1-10) • Time (duration / repetition) 	Signs and Symptoms: <ul style="list-style-type: none"> • CP (pain, pressure, aching, vice-like tightness) • Location (substernal, epigastric, arm, jaw, neck, shoulder) • Radiation of pain • Pale, diaphoresis • Shortness of breath • Nausea, vomiting, dizziness 	Differential: <ul style="list-style-type: none"> • Trauma vs. Medical • Angina vs. Myocardial infarction • Pericarditis • Pulmonary embolism • Asthma / COPD • Pneumothorax • Aortic dissection or aneurysm • GE reflux or Hiatal hernia • Esophageal spasm • Chest wall injury or pain • Pleural pain • Overdose (Cocaine)
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Pearls:

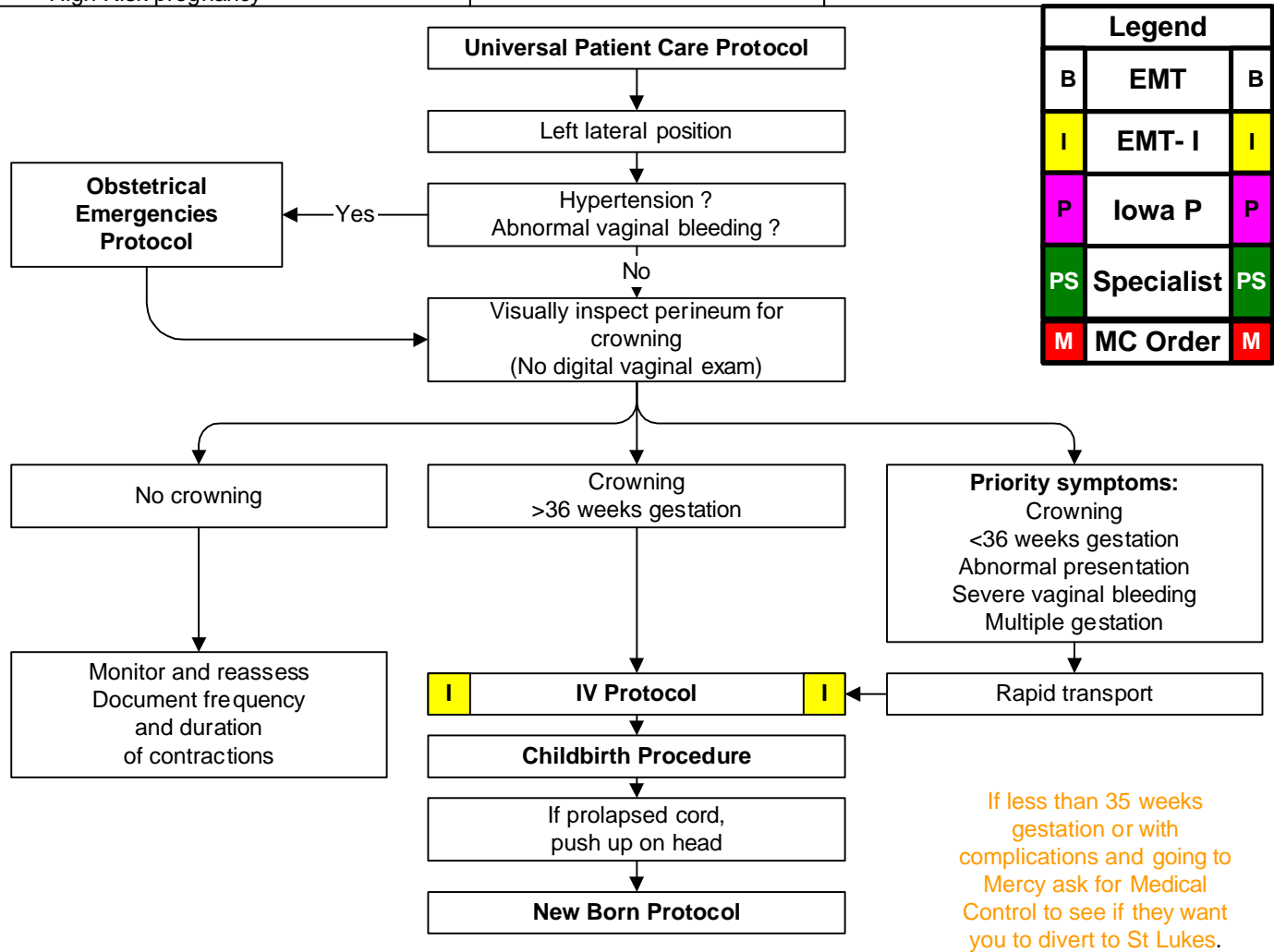
- **Exam: Mental Status, Skin, Neck, Lung, Heart, Abdomen, Back, Extre mities, Neuro**
- **Avoid Nitroglycerin in any patient who has used Viagra or Levitra in the past 24 hours or Cialis in the past 36 hours due to potential severe hypotension.**
- If patient has taken nitroglycerin without relief, consider potency of the medication.
- If positive ECG changes, establish a second IV while en route to the hospital.
- Monitor for hypotension after administration of nitro glycerin and morphine.
- Patients with chest pain who do not have ST-segment elevation on their EKG should be transported to the hospital of their choice.
- Diabetics and geriatric patients often have atypical pain, or only generalized complaints.



Childbirth / Labor



History: <ul style="list-style-type: none"> • Due date • Time contractions started / how often • Rupture of membranes • Time / amount of any vaginal bleeding • Sensation of fetal activity • Past medical and delivery history • Medications • Drug use • Gravida/Para status • High Risk pregnancy 	Signs and Symptoms: <ul style="list-style-type: none"> • Spasmodic pain • Vaginal discharge or bleeding • Crowning or urge to push • Meconium 	Differential: <ul style="list-style-type: none"> • Abnormal presentation Buttock Foot Hand • Prolapsed cord • Placenta previa • Abruptio placenta
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Legend		
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PS	Specialist	PS
M	MC Order	M

Pearls: <ul style="list-style-type: none"> • Exam (of Mother): Mental Status, Heart, Lungs, Abdomen , Neuro • Document all times (delivery, contraction frequency, and length). • If maternal seizures occur notify the receiving hospital immediately, Seizure protocol. • After delivery, massaging the uterus (lower abdomen) will promote uterine contraction and help to control post-partum bleeding. • Some perineal bleeding is normal with any childbirth. Large quantities of blood or free bleeding are abnormal. • Record APGAR at 1 minute and 5 minutes after birth.
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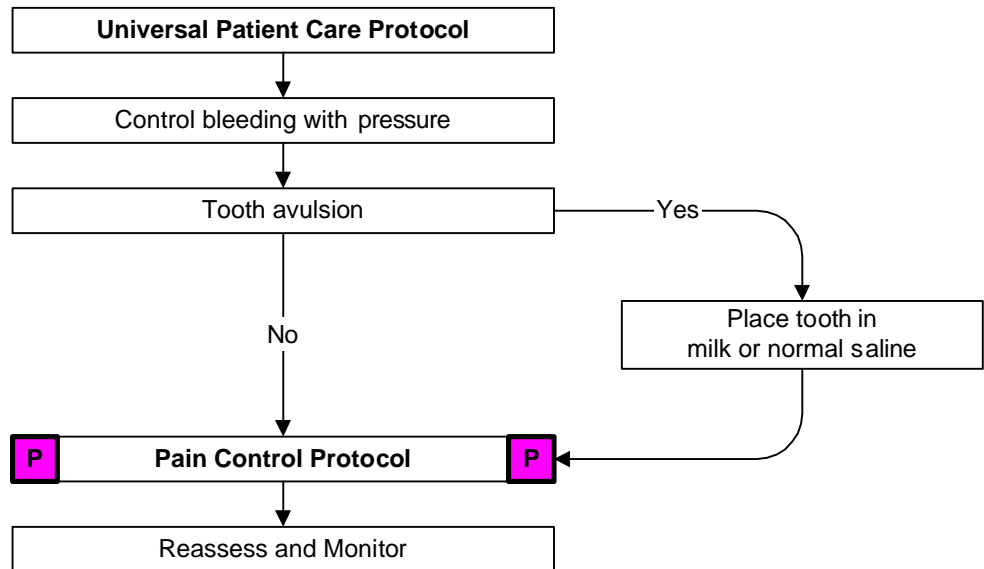


Dental Problems



History: <ul style="list-style-type: none"> • Age • Past medical history • Medications • Onset of pain / injury • Trauma with "knocked out" tooth • Location of tooth • Whole vs partial tooth injury 	Signs and Symptoms: <ul style="list-style-type: none"> • Bleeding • Pain • Fever • Swelling • Tooth missing or fractured 	Differential: <ul style="list-style-type: none"> • Decay • Infection • Fracture • Avulsion • Abscess • Facial cellulitis • Impacted tooth (wisdom) • TMJ syndrome • Myocardial infarction
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PS	Specialist	PS
M	MC Order	M



Pearls:

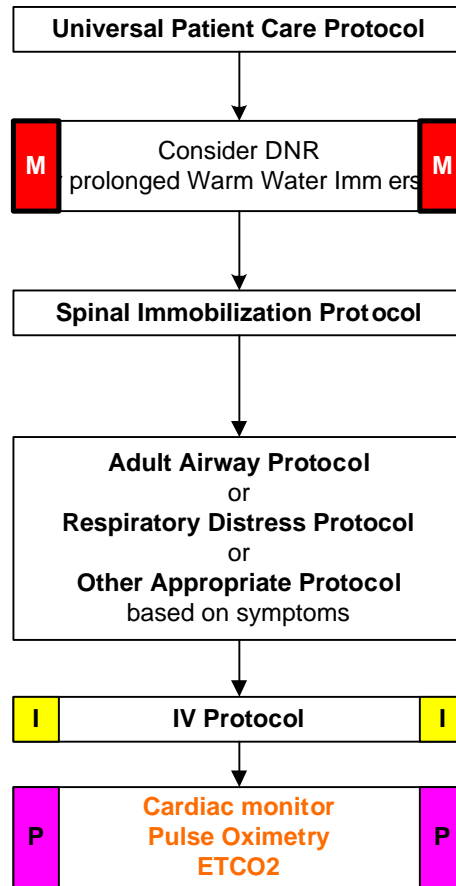
- **Exam: Mental Status, HEENT, Neck, Chest, Lungs, Neuro**
- Significant soft tissue swelling to the face or oral cavity can represent a cellulitis or abscess.
- Scene and transport times should be minimized in complete tooth avulsions. Reimplantation is possible within 4 hours if the tooth is properly cared for.
- All tooth disorders typically need antibiotic coverage in addition to pain control
- Occasionally cardiac chest pain can radiate to the jaw.
- All pain associated with teeth should be associated with a tooth which is tender to tapping or touch (or sensitivity to cold or hot).



Drowning / Near Drowning



History: <ul style="list-style-type: none"> Submersion in water regardless of depth Possible history of trauma ie: diving board Duration of immersion Temperature of water Fresh/Salt Water 	Signs and Symptoms: <ul style="list-style-type: none"> Unresponsive Mental status changes Decreased or absent vital signs Vomiting Coughing 	Differential: <ul style="list-style-type: none"> Trauma Pre-existing medical problem Pressure injury (diving) <ul style="list-style-type: none"> Barotrauma Decompression sickness
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Legend		
B	EMT	B
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P	Iowa P	P
PS	Specialist	PS
M	MC Order	M

Pearls:

- Exam: Trauma Survey, Head, Neck, Chest, Abdomen, Pelvis, Back, Extremities, Skin, Neuro
- With cold water no time limit -- resuscitate all.
- All victims should be transported for evaluation due to potential for worsening over the next several hours.
- Drowning is a leading cause of death among would-be rescuers.
- Allow appropriately trained and certified rescuers to remove victims from areas of danger.
- With pressure injuries (decompression / barotrauma), consider transport or availability of a hyperbaric chamber (University of Iowa).

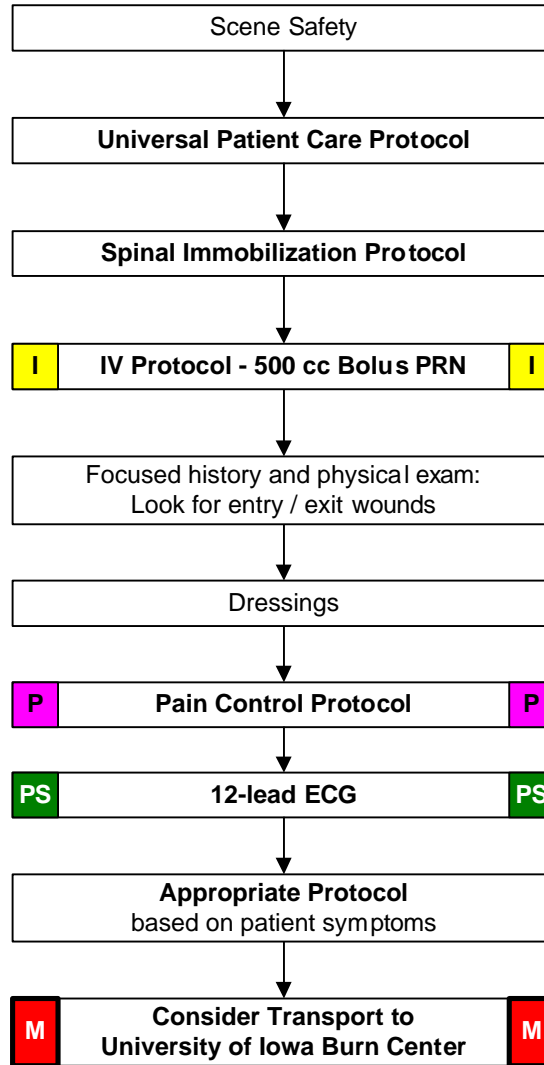


Electrical Injuries



History: <ul style="list-style-type: none"> • Lightning or electrical exposure • Single or multiple victims • Trauma secondary to fall from highwire or MVC into line • Duration of exposure • Voltage and current (AC / DC) 	Signs and Symptoms: <ul style="list-style-type: none"> • Burns • Pain • Entry and exit wounds • Hypotension or shock • Arrest 	Differential: <ul style="list-style-type: none"> • Cardiac arrest • Seizure • Burns (see Burn Protocol) • Multiple trauma
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Lightning Arrests require Immediate Defibrillation despite down times and asystole rhythm



Legend		
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PS	Specialist	PS
M	MC Order	M

Pearls:

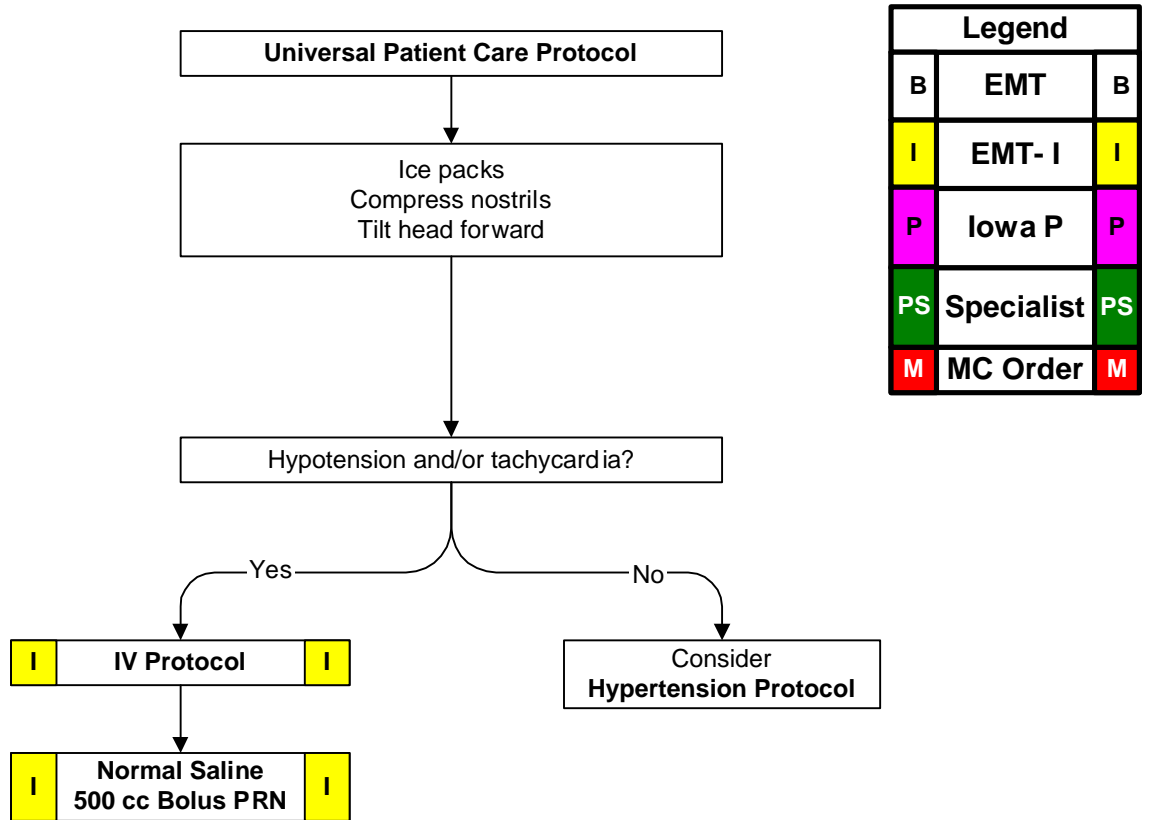
- **Exam: Mental Status, HEENT, Neck, Heart, Lungs, Abdomen, Extremities, Back, Neuro**
- Ventricular fibrillation and asystole are the most common dysrhythmias.
- Damage is often hidden; the most severe damage will occur in muscle, vessels and nerves.
- In a mass casualty lightning incident, attend to victims in full arrest first. If the victim did not arrest initially, it is likely they will survive. These patients are often resuscitated with adequate CPR and ALS.
- Do not overlook other trauma (i.e. falls).
- Lightning is a massive DC shock most often leading to asystole as a dysrhythmia.
- In lightning injuries, most of the current will travel over the body surface producing flash burns.



Epistaxis



History: <ul style="list-style-type: none"> • Age • Past medical history • Medications (HTN, anticoagulants) • Previous episodes of epistaxis • Trauma • Duration of bleeding • Quantity of bleeding 	Signs and Symptoms: <ul style="list-style-type: none"> • Bleeding from nasal passage • Pain • Nausea • Vomiting 	Differential: <ul style="list-style-type: none"> • Trauma • Infection (viral URI or Sinusitis) • Allergic rhinitis • Lesions (polyps, ulcers) • Hypertension
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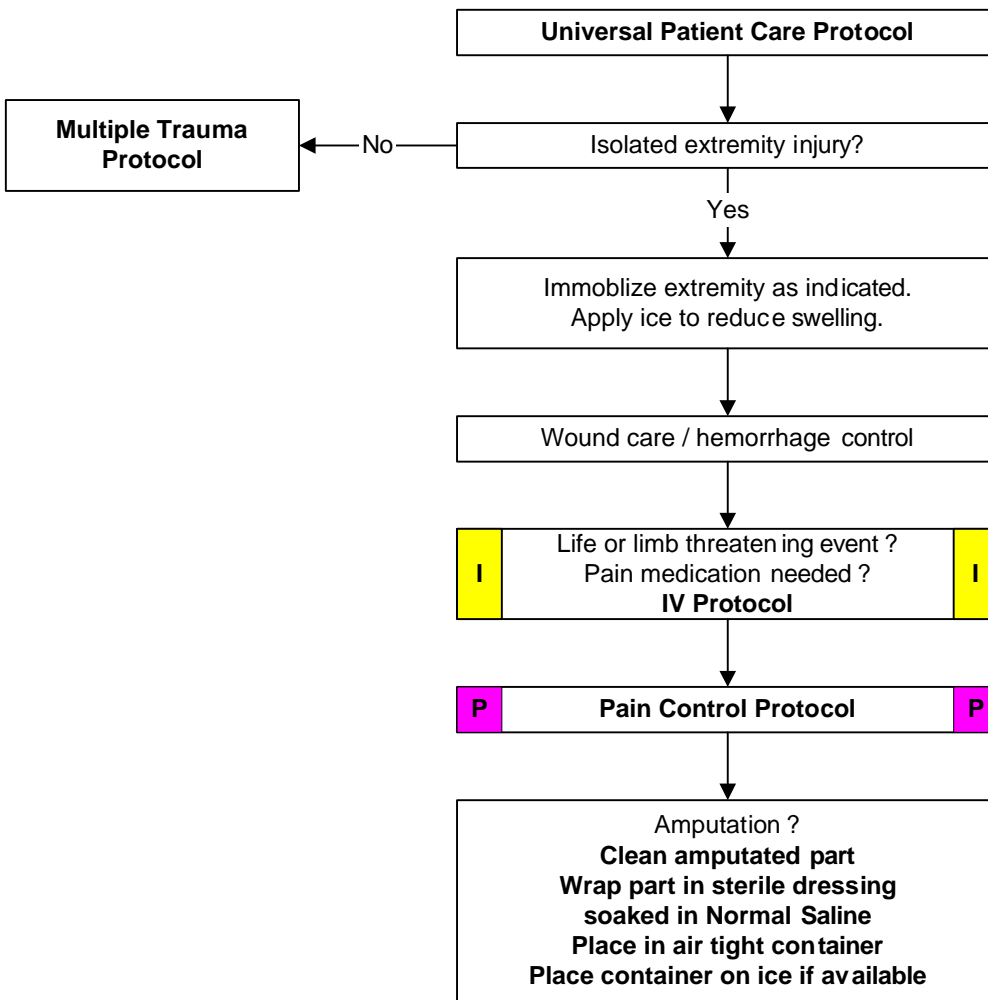
Pearls: <ul style="list-style-type: none"> • Exam: Mental Status, HEENT, Heart, Lungs, Neuro • Avoid Afrin in patients who have a blood pressure of greater than 110 diastolic or known coronary artery disease. • It is very difficult to quantify the amount of blood loss with epistaxis. • Bleeding may also be occurring posteriorly. Evaluate for posterior blood loss by examining the posterior pharynx. • Anticoagulants include aspirin, coumadin, non-steroidal anti-inflammatory medications (ibuprofen), and many over the counter headache relief products.



Extremity Trauma



History: <ul style="list-style-type: none"> Type of injury Mechanism: crush / penetrating / amputation Time of injury Open vs. closed wound / fracture Wound contamination Medical history Medications 	Signs and Symptoms: <ul style="list-style-type: none"> Pain, swelling Deformity Altered sensation / motor function Diminished pulse / capillary refill Decreased extremity temperature 	Differential: <ul style="list-style-type: none"> Abrasion Contusion Laceration Sprain Dislocation Fracture Amputation
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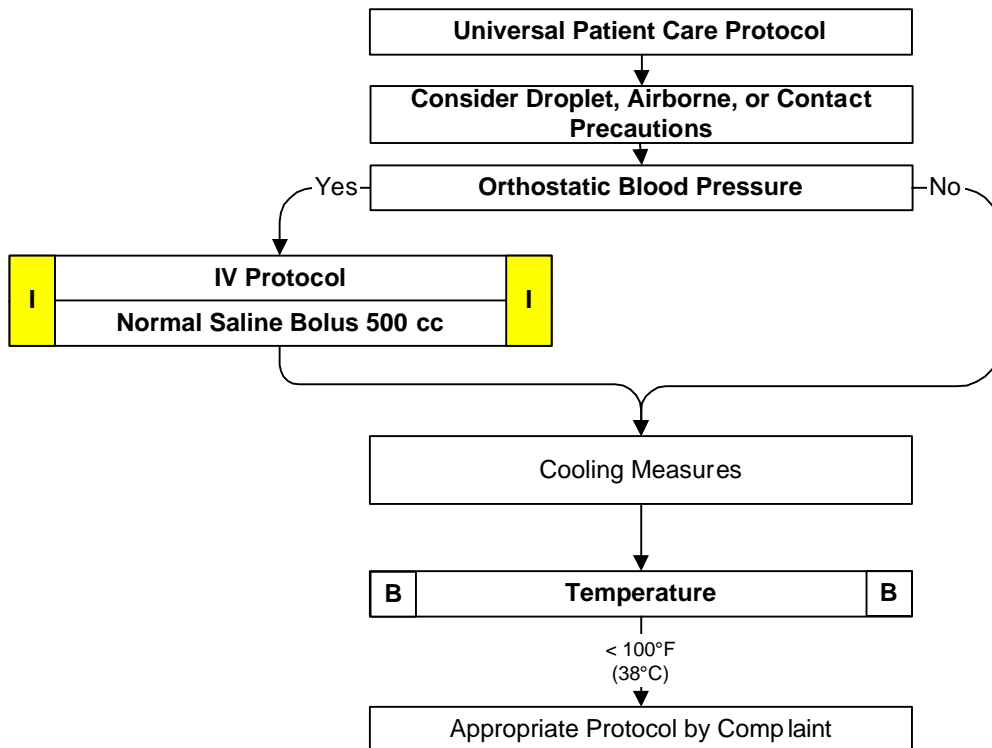
Pearls: <ul style="list-style-type: none"> Exam: Mental Status, Extremity, Neuro In amputations, time is critical. Transport to Trauma Center. Hip dislocations and knee and elbow fracture / dislocations have a high incidence of vascular compromise. Urgently transport any injury with vascular compromise. Blood loss may be concealed or not apparent with extremity injuries. Lacerations must be evaluated for repair within 8 hours from the time of injury.
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Fever/Infection Control



History: <ul style="list-style-type: none"> • Age • Duration of fever • Severity of fever • Past medical history • Medications • Immunocompromised (transplant, HIV, diabetes, cancer) • Environmental exposure • Last acetaminophen or ibuprofen 	Signs and Symptoms: <ul style="list-style-type: none"> • Warm • Flushed • Sweaty • Chills/Rigors Associated Symptoms: (Helpful to localize source) <ul style="list-style-type: none"> • myalgias, cough, chest pain, headache, dysuria, abdominal pain, mental status changes, rash, stiff neck 	Differential: <ul style="list-style-type: none"> • Infections / Sepsis • Cancer / Tumors / Lymphomas • Medication or drug reaction • Connective tissue disease <ul style="list-style-type: none"> • Arthritis • Vasculitis • Hyperthyroid • Heat Stroke • Meningitis
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PS	Specialist	PS
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Pearls:

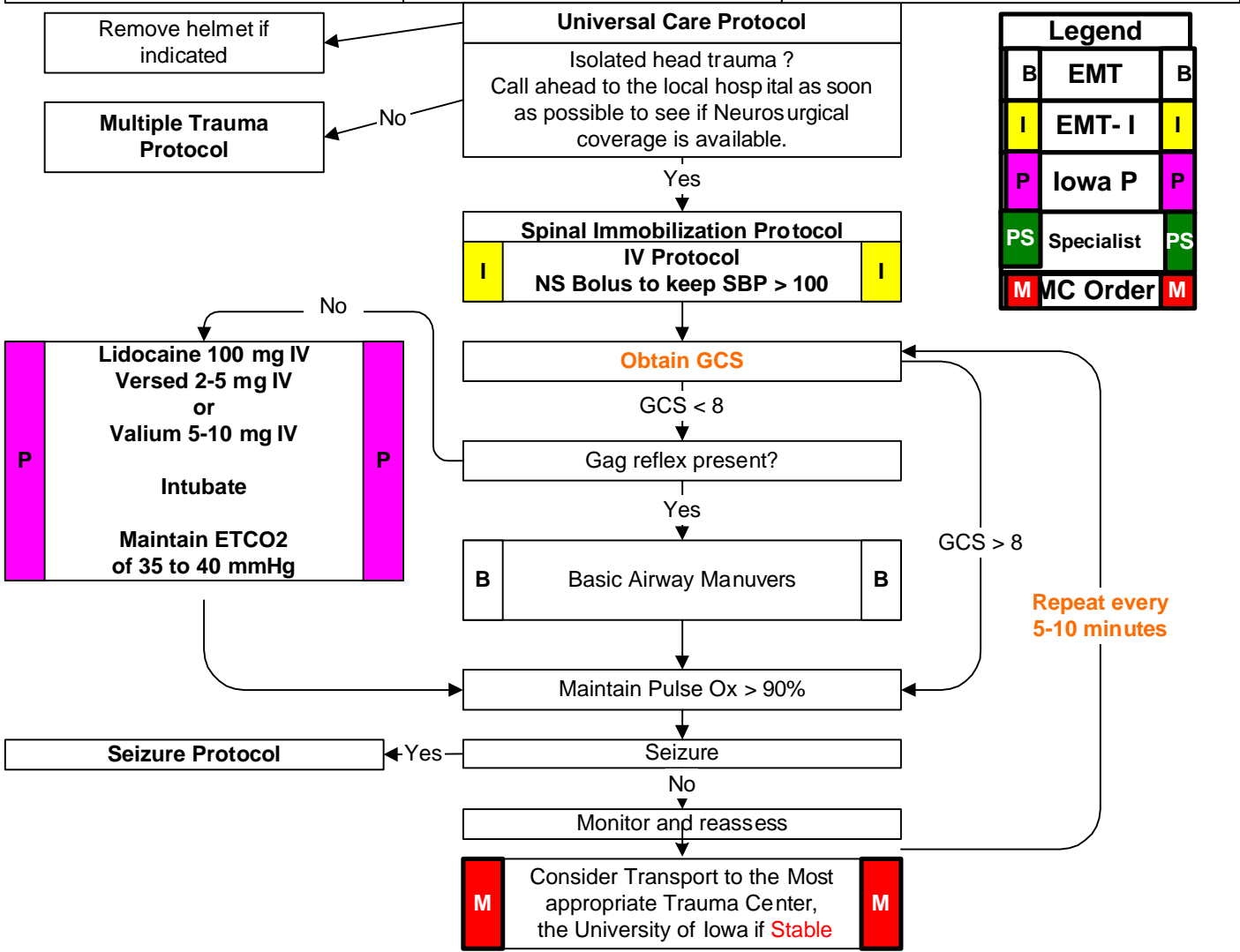
- **Exam: Mental Status, Skin, HEENT, Neck, Heart, Lungs, Abdomen, Back, Extremities, Neuro**
- Febrile seizures are more likely in children with a history of febrile seizures and with a rapid elevation in temperature.
- **Patients with history of Liver disease should not receive Tylenol.**
- Droplet precautions include standard PPE plus a standard surgical mask for providers who accompany patients in the back of the ambulance and a surgical mask or NRB O2 mask for the patient. This level of precaution should be utilized when influenza, meningitis, mumps, streptococcal pharyngitis, and other illnesses spread via large particle droplets are suspected.
- Airborne precautions include standard PPE plus an N-95 mask for providers who accompany patients in the back of the ambulance and a surgical mask or NRB O2 mask for the patient. This level of precaution should be utilized when tuberculosis, measles, varicella, or other infections that are spread by droplet nuclei are suspected.
- Contact precautions include standard PPE plus utilization of a gown, change of gloves after every patient contact, and strict handwashing precautions. This level of precaution is utilized when multi-drug resistant organisms (e.g., MRSA), scabies, or zoster (shingles), or other illnesses spread by contact are suspected.
- All-hazards precautions include standard PPE plus airborne precautions plus contact precautions. This level of precaution is utilized during the initial phases of an outbreak when the etiology of the infection is unknown or when the causative agent is found to be highly contagious (e.g., SARS).



Head Trauma



History: <ul style="list-style-type: none"> • Time of injury • Mechanism: blunt / penetrating • Loss of consciousness • Bleeding • Medical history • Medications • Evidence of multi-trauma • Helmet use or damage to helmet 	Signs and Symptoms: <ul style="list-style-type: none"> • Pain, swelling, bleeding • Altered mental status • Unconscious • Respiratory distress / failure • Vomiting • Significant mechanism of injury 	Differential: <ul style="list-style-type: none"> • Skull fracture • Brain injury (concussion, contusion, hemorrhage, or laceration) • Epidural hematoma • Subdural hematoma • Subarachnoid hemorrhage • Spinal injury • Abuse
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PS	Specialist	PS
M	MC Order	M

Pearls:

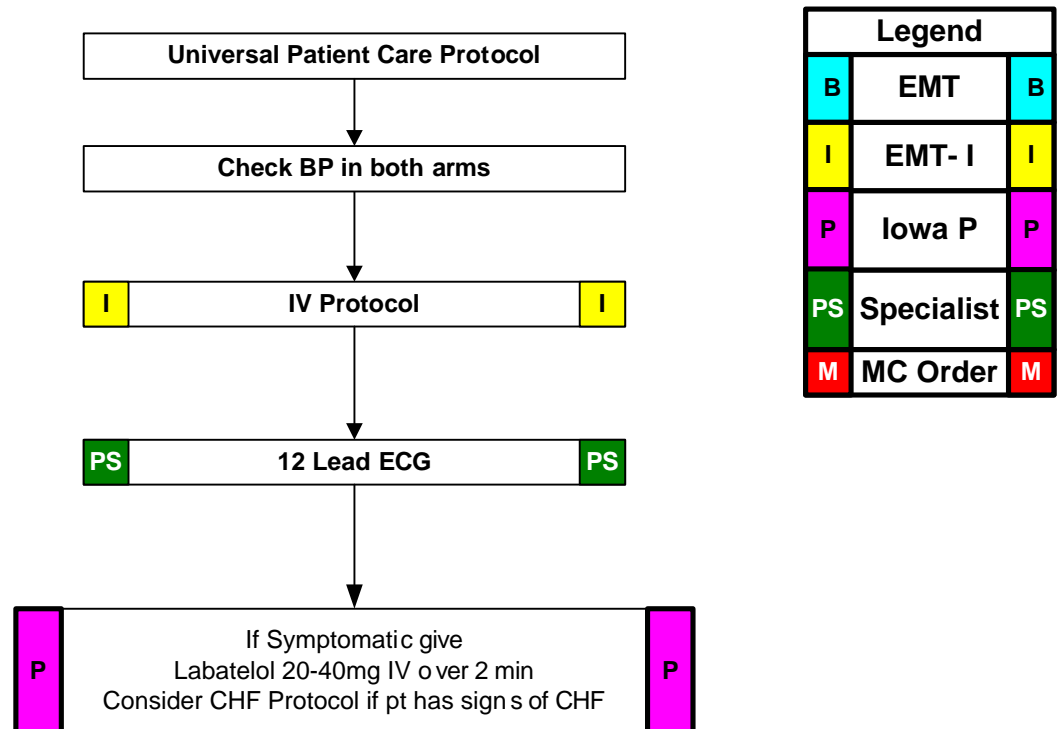
- **Exam: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremities, B ack, Neuro**
- In absence of capnometer, hyperventilate the patient (adult: 20 breaths / min, chi ld: 30, infant: 35) only if ongoing evidence of brain herniation (blown pupil, decorticate or decerebrat e posturing, or bradycardia).
- Increased intracranial pressure (ICP) may cause hypertension and bradycardia (Cus hing's Response).
- Hypotension usually indicates injury or shock unrelated to the head injury and sh ould be aggressively treated.
- The most important item to monitor and document is a change in the level of con sciousness and GCS.
- Consider **Restraints** if necessary for patient's and/or personnel's protection per the Res traint Procedure.
- Concussions are periods of confusion or LOC associated with trauma which may have r esolved by the time EMS arrives. Any prolonged confusion or mental status abnormality which does not return to normal within 15 minutes or any documented loss of consciousness should be evaluated by a physician ASAP.



Hypertension



<p>History:</p> <ul style="list-style-type: none"> • Documented hypertension • Related diseases: diabetes, CVA renal failure, cardiac • Medications (compliance ?) • Viagra, Levitra, Cialis • Pregnancy 	<p>Signs and Symptoms:</p> <p>One of these:</p> <ul style="list-style-type: none"> • Systolic BP 200 or greater • Diastolic BP 120 or greater <p>AND at least one of these:</p> <ul style="list-style-type: none"> • Headache • Nosebleed • Blurred vision • Dizziness 	<p>Differential:</p> <ul style="list-style-type: none"> • Hypertensive encephalopathy • Primary CNS Injury (Cushing's response = bradycardia with hypertension) • Myocardial infarction • Aortic dissection (aneurysm) • Pre-ecampsia / Eclampsia
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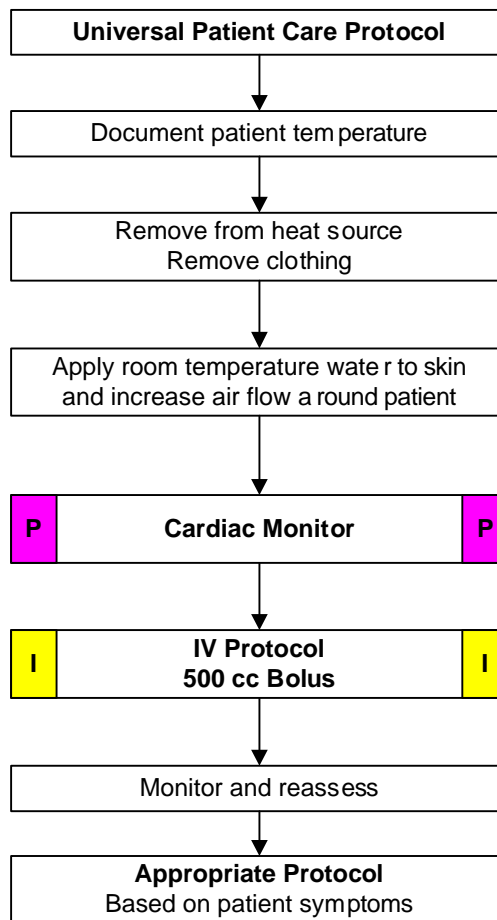
<p>Pearls:</p> <ul style="list-style-type: none"> • Exam: Mental Status, Skin, Neck, Lung, Heart, Abdomen, Back, Extre mities, Neuro • Never treat elevated blood pressure based on one set o f vital signs. • Symptomatic hypertension is typically revealed through end organ damage to the cardi ac, CNS or renal systems. • All symptomatic patients with hypertension should be transported with their head elevated.
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Hyperthermia



History: <ul style="list-style-type: none"> • Age • Exposure to increased temperatures and / or humidity • Past medical history / medications • Extreme exertion • Time and length of exposure • Poor PO intake • Fatigue and / or muscle cramping 	Signs and Symptoms: <ul style="list-style-type: none"> • Altered mental status or unconsciousness • Hot, dry or sweaty skin • Hypotension or shock • Seizures • Nausea 	Differential: <ul style="list-style-type: none"> • Fever (Infection) • Dehydration • Medications • Hyperthyroidism (Storm) • Delirium tremens (DT's) • Heat cramps • Heat exhaustion • Heat stroke • CNS lesions or tumors
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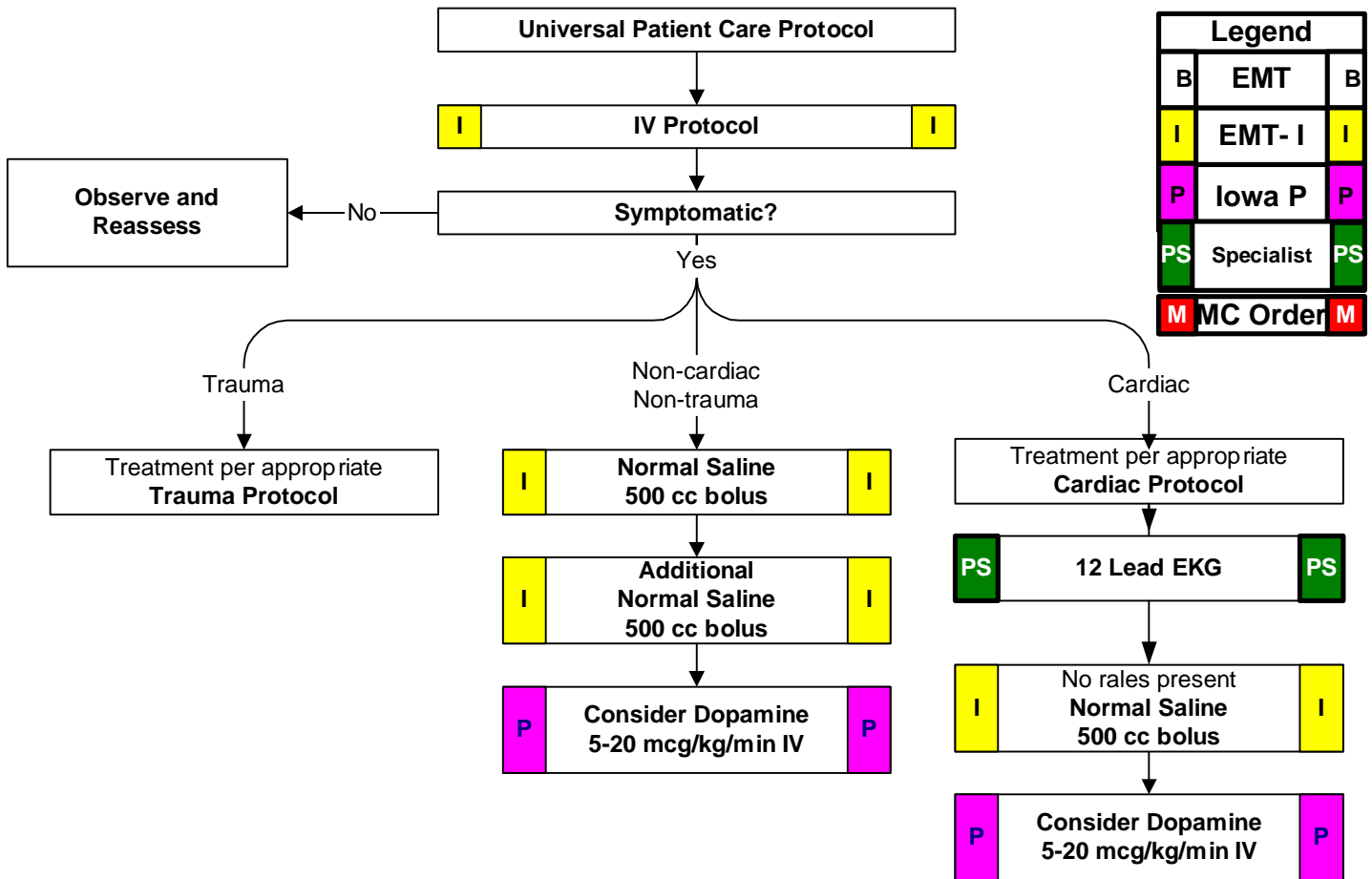
Pearls: <ul style="list-style-type: none"> • Exam: Mental Status, Skin, HEENT, Heart, Lungs, Neuro • Extremes of age are more prone to heat emergencies (i.e. young and old). • Predisposed by use of: tricyclic antidepressants, phenothiazines, anticholinergic medications, and alcohol. • Cocaine, Amphetamines, and Salicylates may elevate body temperatures. • Sweating generally disappears as body temperature rises above 104° F (40° C). • Intense shivering may occur as patient is cooled. • Heat Cramps consists of benign muscle cramping 2° to dehydration and is not associated with an elevated temperature. • Heat Exhaustion consists of dehydration, salt depletion, dizziness, fever, weakness, mental status changes, headache, cramping, nausea and vomiting. Vital signs usually consist of tachycardia, hypotension, and an elevated temperature. • Heat Stroke consists of dehydration, tachycardia, hypotension, temperature >104° F (40° C), and an altered mental status.
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Hypotension Shock (nontrauma)



<p>History:</p> <ul style="list-style-type: none"> Blood loss - vaginal or gastrointestinal bleeding, AAA, ectopic Fluid loss - vomiting, diarrhea, fever Infection Cardiac ischemia (MI, CHF) Medications Allergic reaction Pregnancy History of poor oral intake 	<p>Signs and Symptoms:</p> <ul style="list-style-type: none"> Restlessness, confusion Weakness, dizziness Weak, rapid pulse Pale, cool, clammy skin Delayed capillary refill Hypotension Coffee-ground emesis Tarry stools 	<p>Differential:</p> <ul style="list-style-type: none"> Shock <ul style="list-style-type: none"> Hypovolemic Cardiogenic Septic Neurogenic Anaphylactic Ectopic pregnancy Dysrhythmias Pulmonary embolus Tension pneumothorax Medication effect / over dose Vasovagal Physiologic (pregnancy)
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Pearls:

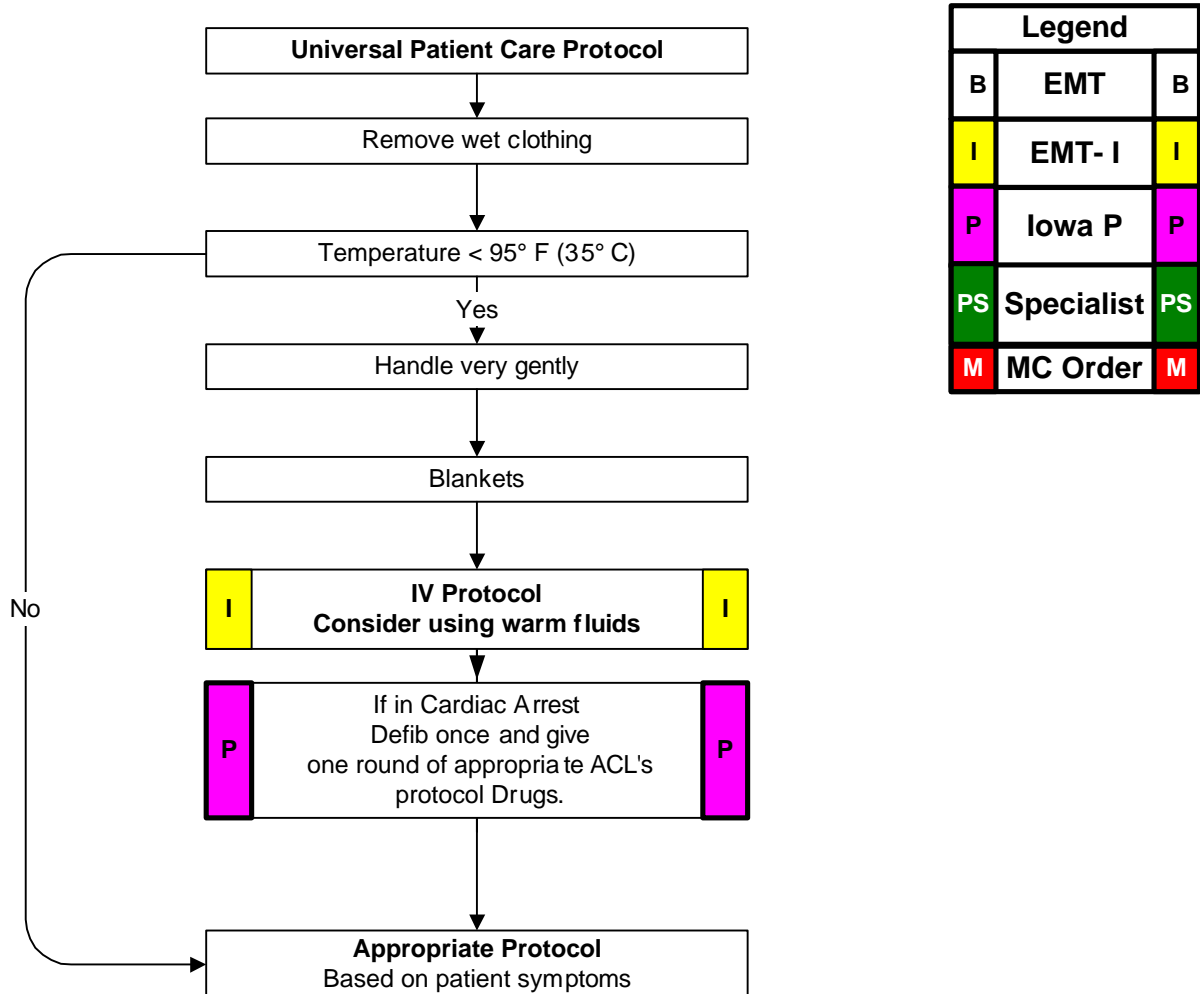
- Exam: Mental Status, Skin, Heart, Lungs, Abdomen, Back, Extremities, Neuro**
- Hypotension can be defined as a systolic blood pressure of less than 90.
- Consider performing orthostatic vital signs on patients in nontrauma situations if suspected blood or fluid loss.
- Consider all possible causes of shock and treat per appropriate protocol.



Hypothermia



History: <ul style="list-style-type: none"> • Past medical history • Medications • Exposure to environment even in normal temperatures • Exposure to extreme cold • Extremes of age • Drug use: Alcohol, barbituates • Infections / Sepsis • Length of exposure / Wetness 	Signs and Symptoms: <ul style="list-style-type: none"> • Cold, clammy • Shivering • Mental status changes • Extremity pain or sensory abnormality • Bradycardia • Hypotension or shock 	Differential: <ul style="list-style-type: none"> • Sepsis • Environmental exposure • Hypoglycemia • CNS dysfunction • Stroke • Head injury • Spinal cord injury
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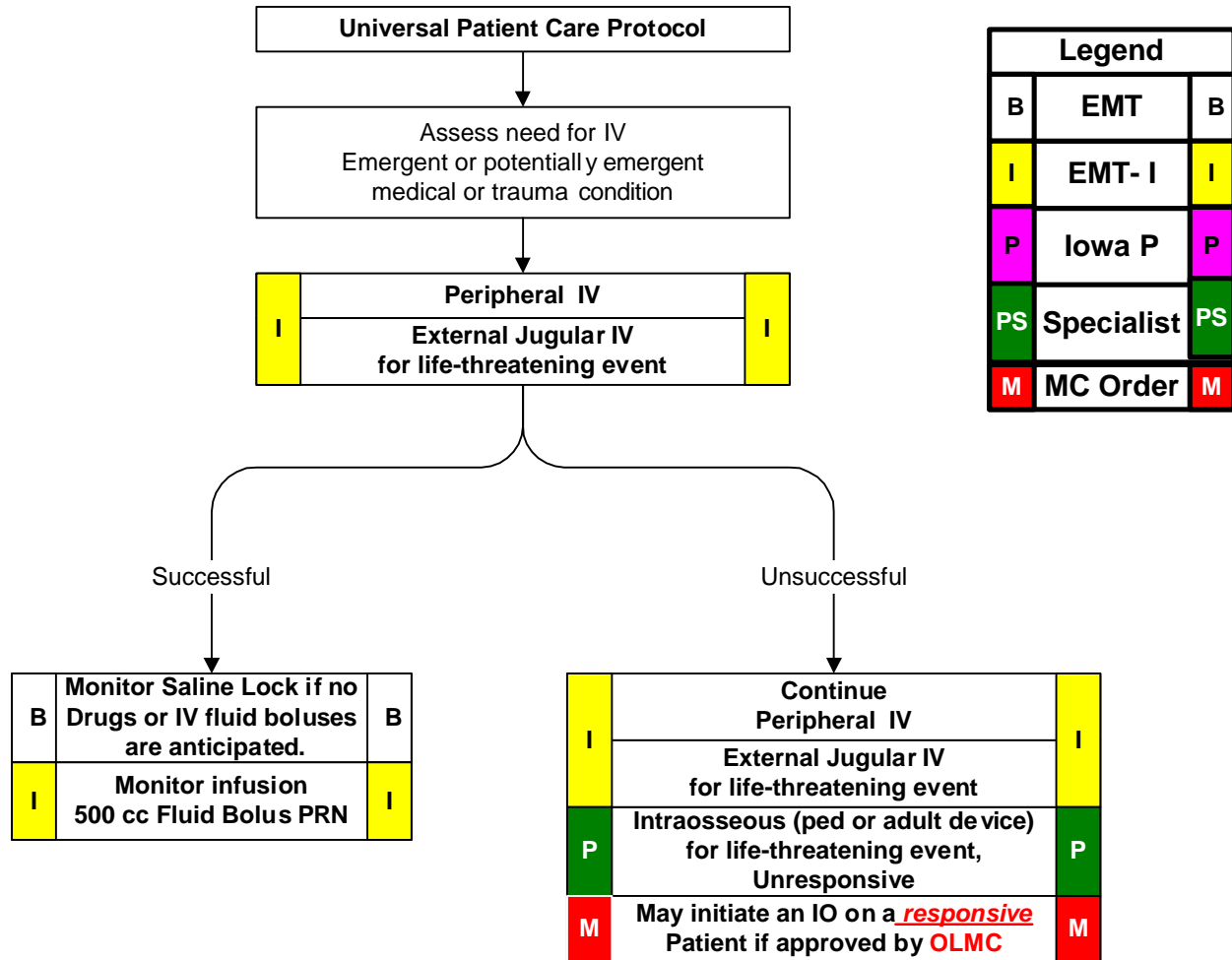


Pearls:

- Exam: Mental Status, Heart, Lungs, Abdomen, Extremities, Neuro
- **NO PATIENT IS DEAD UNTIL WARM AND DEAD.**
- Defined as core temperature < 35° C (95° F).
- Extremes of age are more susceptible (i.e. young and old).
- With temperature less than 31° C (88° F) ventricular fibrillation is common cause of death. Handling patients gently may prevent this (rarely responds to defibrillation).
- If the temperature is unable to be measured, treat the patient based on the suspected temperature.
- Hypothermia may produce severe bradycardia.
- Shivering stops below 32° C (90° F).



IV



Pearls:

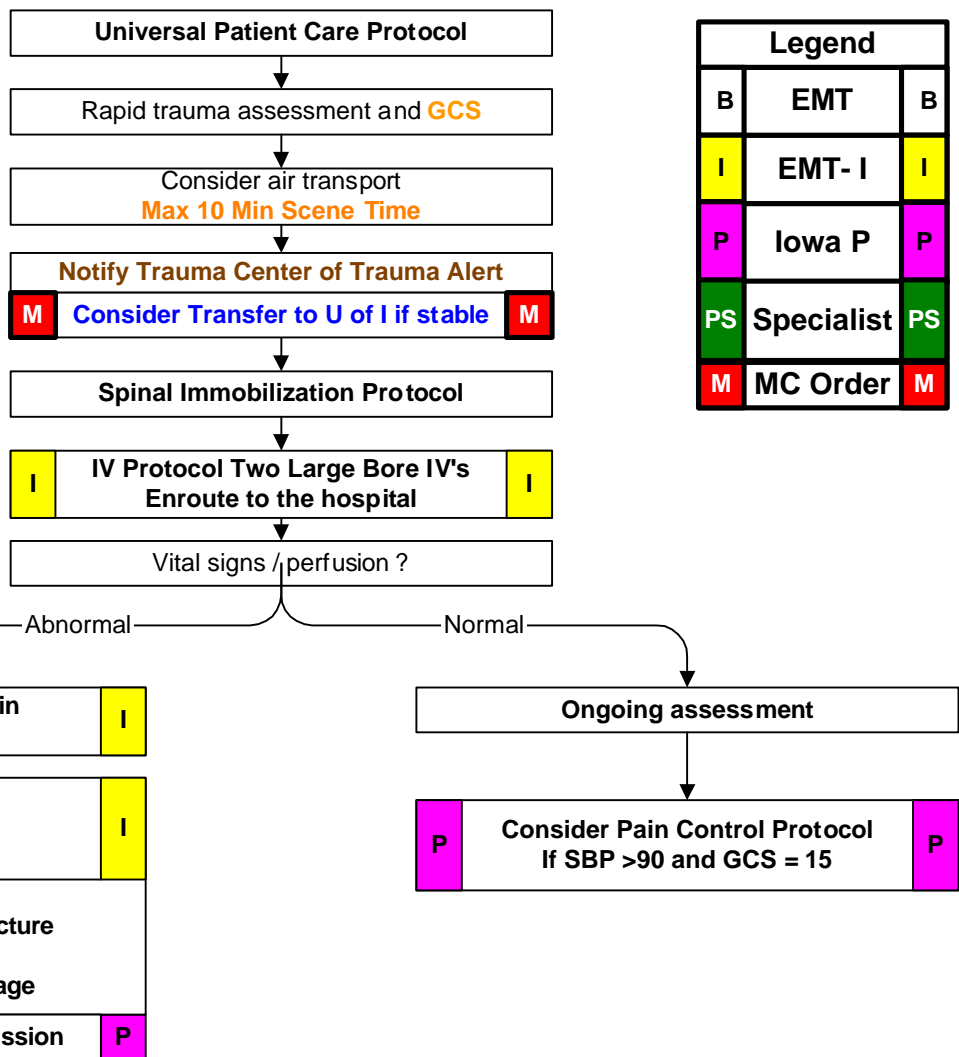
- Intraosseous with the appropriate adult or pediatric device.
- External jugular (≥ 12 years of age).
- Any prehospital fluids or medications approved for IV use, may be given through an intraosseous IV.
- All IV rates should be at KVO (minimal rate to keep vein open) unless administering fluid bolus.
- Use microdrips for all patients 6 years of age or less.
- External jugular lines can be attempted initially in life-threatening events where no obvious peripheral site is noted.
- In the setting of **cardiac arrest**, any preexisting dialysis shunt or external central venous catheter may be used.
- In patients who are hemodynamically unstable or in extremis, **contact medical control** prior to accessing dialysis shunts or external central venous catheters.
- Any venous catheter which has already been accessed prior to EMS arrival may be used.
- Upper extremity IV sites are preferable to lower extremity sites.
- Lower extremity IV sites are contraindicated in patients with vascular disease or diabetes.
- In post-mastectomy patients, avoid IV, blood draw, injection, or blood pressure in arm on affected side.



Multiple Trauma



History: <ul style="list-style-type: none"> • Time and mechanism of injury • Damage to structure or vehicle • Location in structure or vehicle • Others injured or dead • Speed and details of MVC • Restraints / protective equipment • Past medical history • Medications 	Signs and Symptoms: <ul style="list-style-type: none"> • Pain, swelling • Deformity, lesions, bleeding • Altered mental status or unconscious • Hypotension or shock • Arrest 	Differential (Life threatening): <ul style="list-style-type: none"> • Chest Tension pneumothorax Flail chest Pericardial tamponade Open chest wound Hemothorax • Intra-abdominal bleeding • Pelvis / Femur fracture • Spine fracture / Cord injury • Head injury (see Head Trauma) • Extremity fracture / Dislocation • HEENT (Airway obstruction) • Hypothermia
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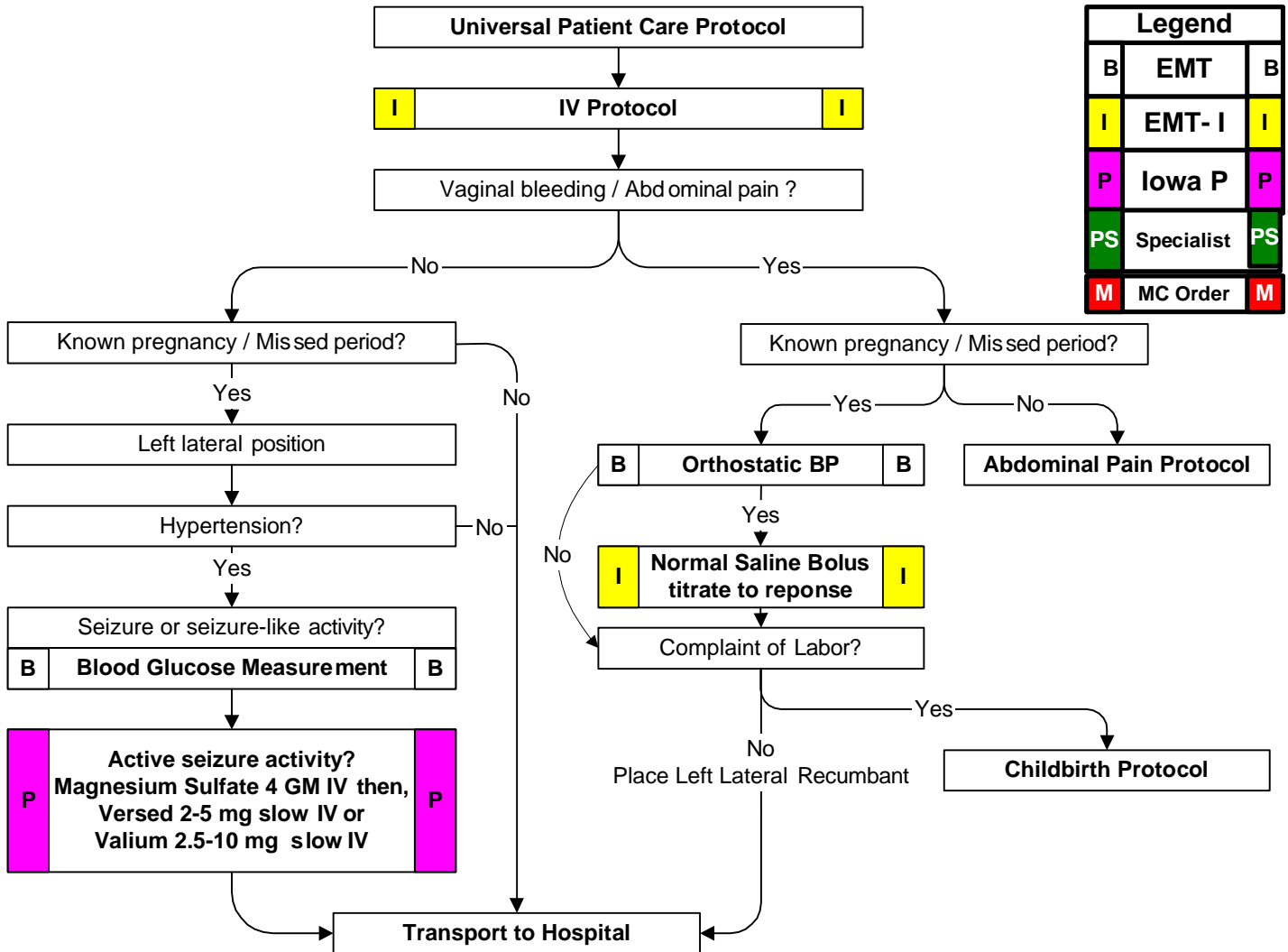
Pearls: <ul style="list-style-type: none"> • Consider Chest Decompression with signs of shock and injury to torso. • In prolonged extrications or serious trauma, consider air transportation for transport times greater than 30 min or direct transport to the University of Iowa if less than 30 minutes and stable for transport to the University. • See Trauma Procedure for criteria when notifying the ED of a Trauma Alert.
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Obstetrical Emergency



History: <ul style="list-style-type: none"> • Past medical history • Hypertension meds • Prenatal care • Prior pregnancies / births • Gravida / Para 	Signs and Symptoms: <ul style="list-style-type: none"> • Vaginal bleeding • Abdominal pain • Seizures • Hypertension • Severe headache • Visual changes • Edema of hands and face 	Differential: <ul style="list-style-type: none"> • Pre-eclampsia / Eclampsia • Placenta previa • Placenta abruptio • Spontaneous abortion
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Pearls:

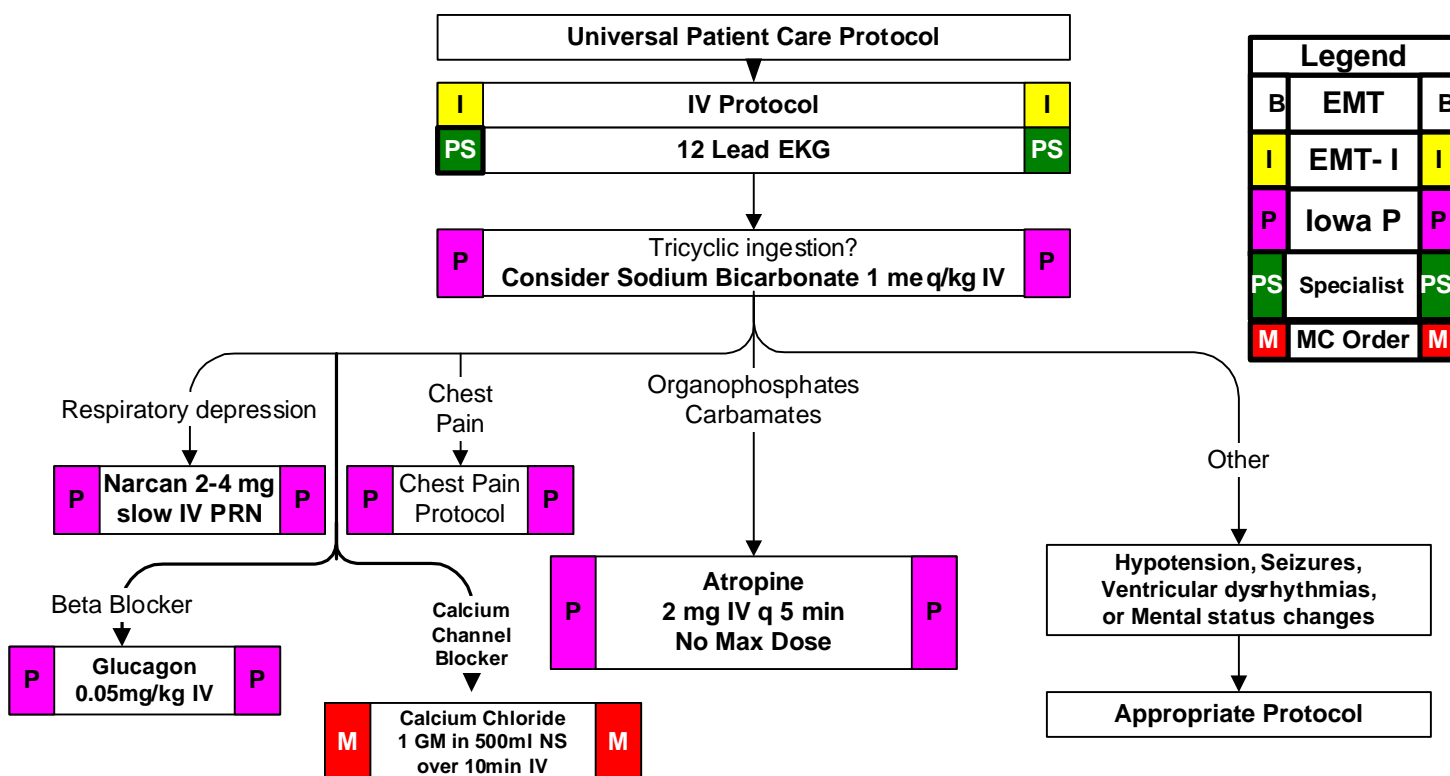
- **Exam: Mental Status, Abdomen, Heart, Lungs, Neuro**
- Severe headache, vision changes, or RUQ pain may indicate preeclampsia.
- In the setting of pregnancy, hypertension is defined as a BP greater than 140 systolic or greater than 90 diastolic, or a relative increase of 30 systolic and 20 diastolic from the patient's normal (pre-pregnancy) blood pressure.
- Maintain patient in a left lateral position to minimize risk of supine hypotensive syndrome.
- Eclampsia hyperreflexia, confusion, headache, epigastric pain, seizures, coma with BP >140/90 = **Medical Emergency**
- Ask patient to quantify bleeding - number of pads used per hour.
- Any pregnant patient involved in a MVC should be seen immediately by a physician for evaluation and fetal monitoring.



Overdose Toxic Ingestion



History: <ul style="list-style-type: none"> Ingestion or suspected ingestion of a potentially toxic substance Substance ingested, route, quantity Time of ingestion Reason (suicidal, accidental, criminal) Available medications in home Past medical history, medications 	Signs and Symptoms: <ul style="list-style-type: none"> Mental status changes Hypotension / hypertension Decreased respiratory rate Tachycardia, dysrhythmias Seizures 	Differential: <ul style="list-style-type: none"> Tricyclic antidepressants (TCAs) Acetaminophen (tylenol) Depressants Stimulants Anticholinergic Cardiac medications Solvents, Alcohols, Cleaning agents Insecticides (organophosphates)
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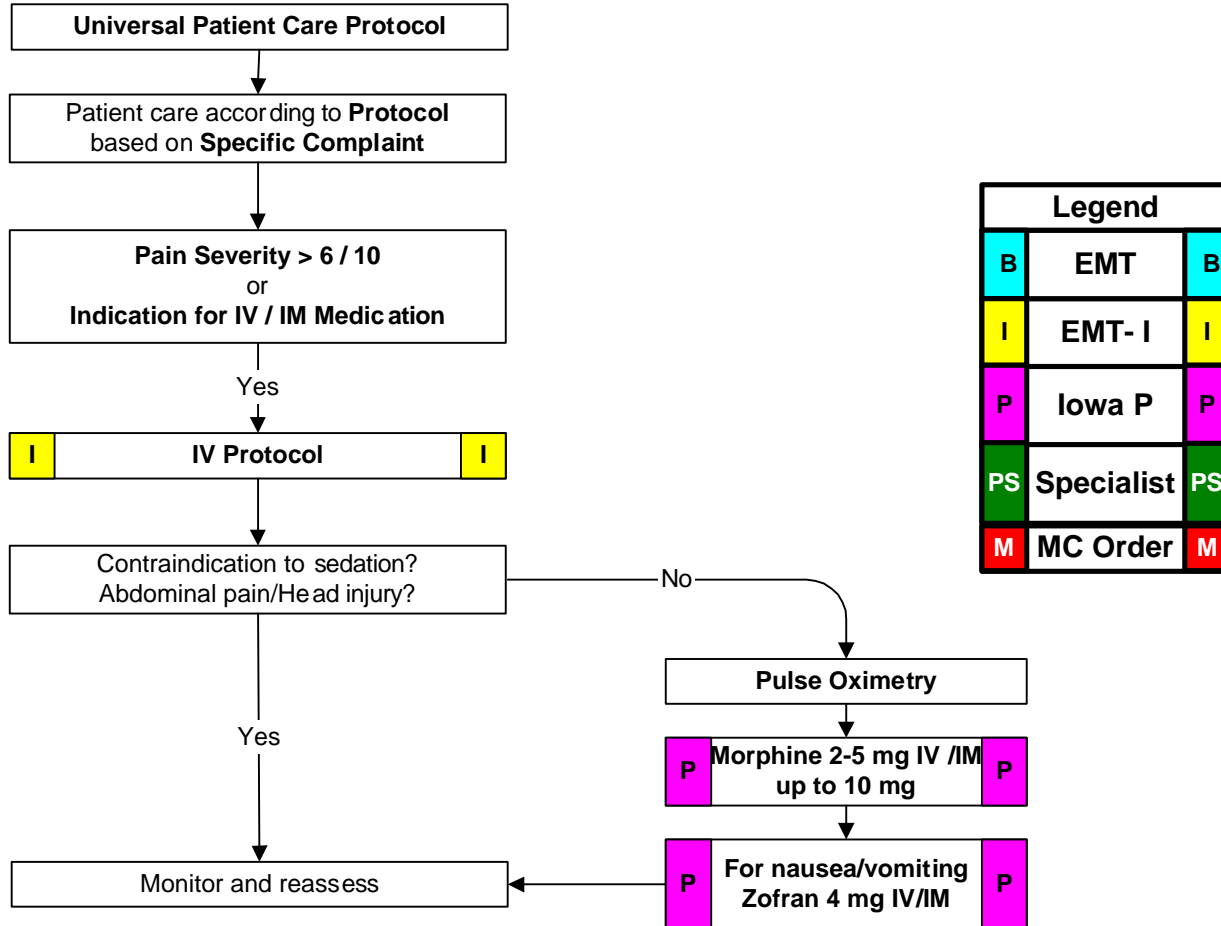
- Exam:** Mental Status, Skin, HEENT, Heart, Lungs, Abdomen, Extremities, Neuro
- Do not rely on patient history of ingestion, especially in suicide attempts.
- Bring bottles and contents to ED.
- Tricyclic:** 4 major areas of toxicity: seizures, dysrhythmias, hypotension, decreased mental status or coma; rapid progression from alert mental status to death. Consider early 12 Lead ECG.
- Acetaminophen:** Initially normal or nausea/vomiting. If not detected and treated, causes irreversible liver failure
- Depressants:** Decreased HR, decreased BP, decreased temperature, decreased respirations, non-specific pupils
- Stimulants:** Increased HR, increased BP, increased temperature, dilated pupils, seizures
- Anticholinergic:** Increased HR, increased temperature, dilated pupils, mental status changes
- Cardiac Meds:** Dysrhythmias and mental status changes
- Solvents:** Nausea, vomiting, and mental status changes
- Insecticides:** Increased or decreased HR, increased secretions, nausea, vomiting, diarrhea, pinpoint pupils
- Consider restraints if necessary for patient's and/or personnel's protection per the Restraint Procedure.
- Glucagon dose may exceed amount in drug box. (ie: 70KG person should get 3.5mg IV)



Pain Control



History: <ul style="list-style-type: none"> • Age • Location • Duration • Severity (1 - 10) • Past medical history • Medications • Drug allergies 	Signs and Symptoms: <ul style="list-style-type: none"> • Severity (pain scale) • Quality (sharp, dull, etc.) • Radiation • Relation to movement, respiration • Increased with palpation of area 	Differential: <ul style="list-style-type: none"> • Per the specific protocol • Musculoskeletal • Visceral (abdominal) • Cardiac • Pleural / Respiratory • Neurogenic • Renal (colic)
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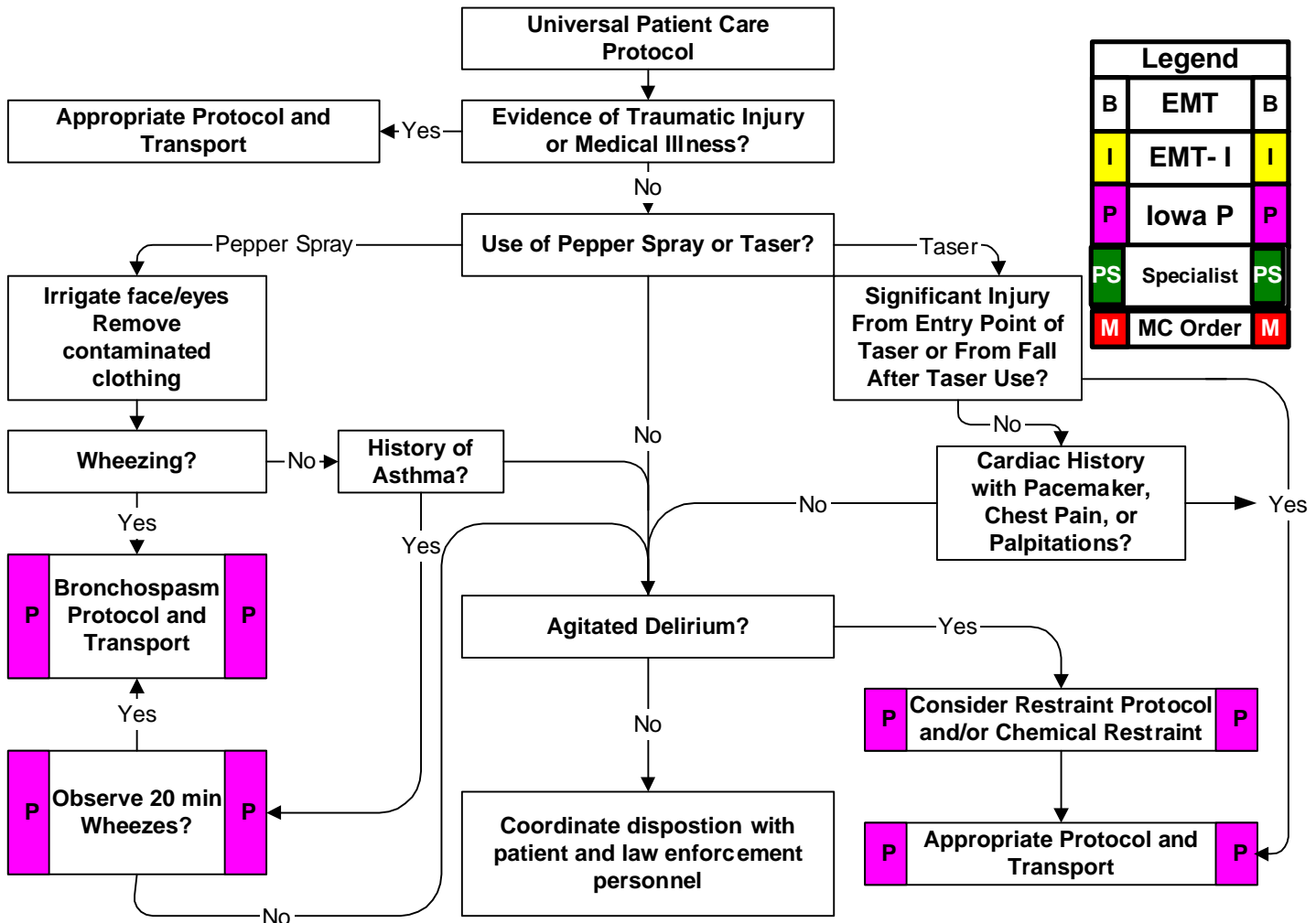
- Pain severity (0-10) is a vital sign to be recorded pre and post IV or IM medication delivery and at disposition.
- Vital signs should be obtained pre, 15 minutes post, and at disposition with all pain medications.
- Contraindications to Morphine use include hypotension, altered mental status, head injury, respiratory distress or severe COPD.
- All patients should have drug allergies documented prior to administering pain medications.
- All patients who receive IM or IV medications must be observed 15 minutes for drug reaction.
- No PO medications for patients who may need surgical intervention such as open fractures or fracture deformities.
- Choose the lower Phenergan dose for patients likely to experience sedative effects (e.g., elderly, debilitated, etc).



Police Custody



History: <ul style="list-style-type: none"> Traumatic injury Drug Abuse Cardiac History History of Asthma Psychiatric History 	Signs and Symptoms: <ul style="list-style-type: none"> External signs of trauma Palpitations Shortness of breath Wheezing Altered Mental Status Intoxication/Substance Abuse 	Differential: <ul style="list-style-type: none"> Agitated Delirium Secondary to Psychiatric Illness Agitated Delirium Secondary to Substance Abuse Traumatic Injury Closed Head Injury Asthma Exacerbation Cardiac Dysrhythmia
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Pearls:

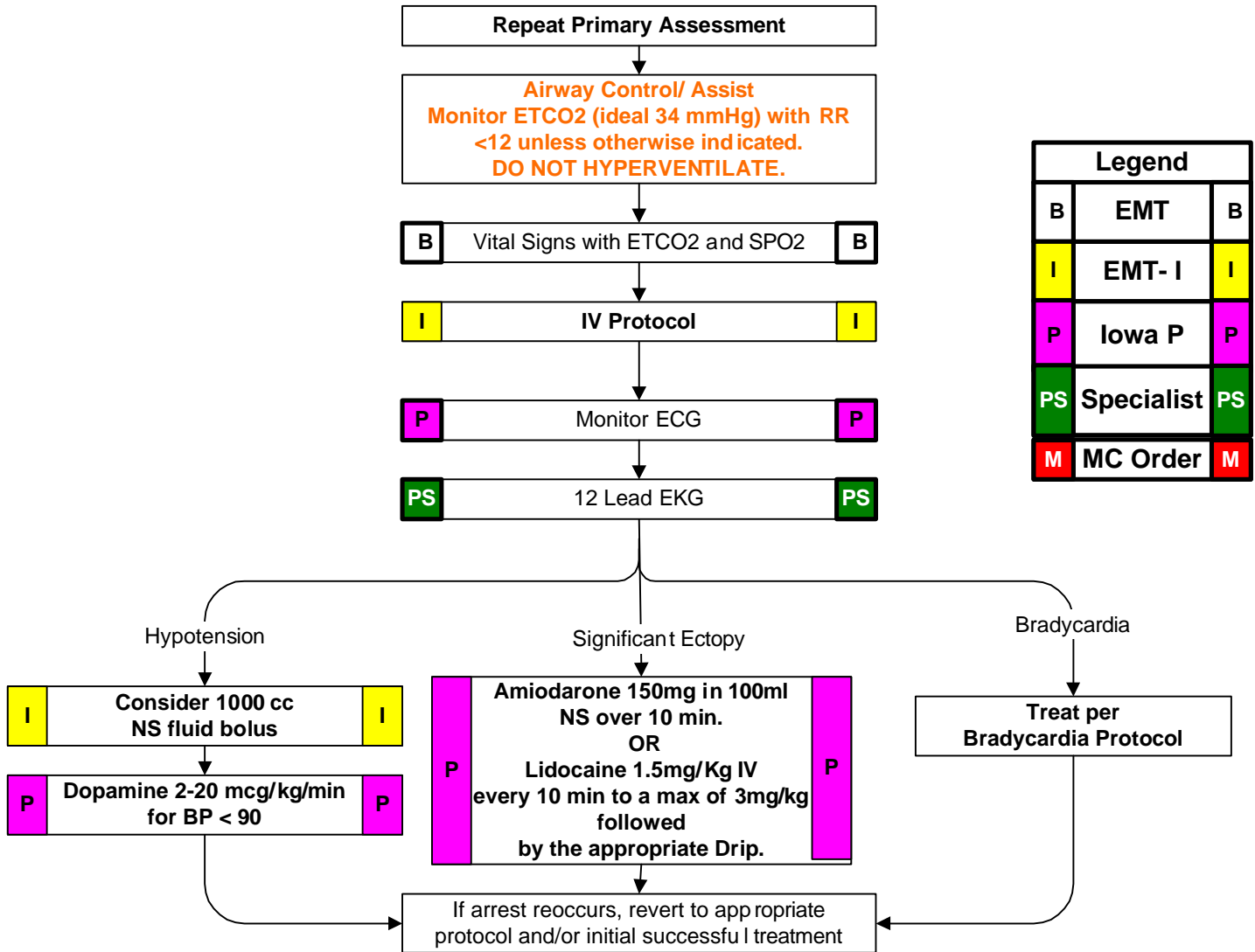
- Agitated delirium is characterized by marked restlessness, irritability, and/or high fever. Patients exhibiting these signs are at high risk for sudden death and should be transported to hospital by ALS personnel.
- Patients restrained by law enforcement devices cannot be transported in the ambulance without a law enforcement officer in the patient compartment who is capable of removing the devices.
- If there is any doubt about the cause of a patient's alteration in mental status, transport the patient to the hospital for evaluation.
- If an asthmatic patient is treated with pepper spray and released to law enforcement, all parties should be advised to immediately recontact EMS if wheezing/difficulty breathing occurs.
- All patients in police custody retain the right to request transport. This should be coordinated with law enforcement personnel. **Medics are not to do medical screening exams, this can only be done by a physician.**



Post Resuscitation



History: <ul style="list-style-type: none"> Respiratory arrest Cardiac arrest 	Signs/Symptoms: <ul style="list-style-type: none"> Return of pulse 	Differential: <ul style="list-style-type: none"> Continue to address specific differentials associated with the original dysrhythmia
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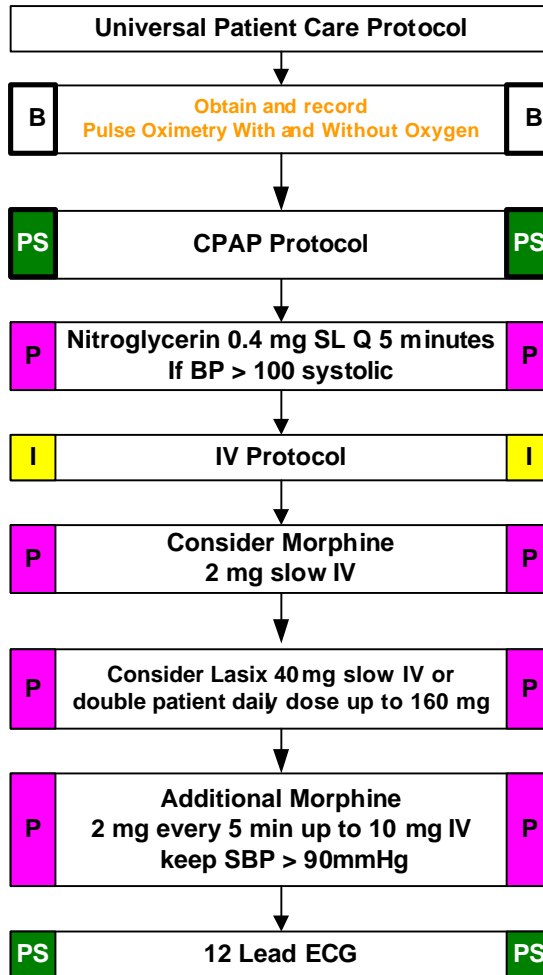
- Pearls:**
- Exam: Mental Status, Neck, Skin, Lungs, Heart, Abdomen, Extremities, Neuro
 - Hyperventilation is a significant cause of hypotension and recurrence of cardiac arrest in the post resuscitation phase and must be avoided at all costs.
 - Most patients immediately post resuscitation will require ventilatory assistance.
 - The condition of post-resuscitation patients fluctuates rapidly and continuously, and they require close monitoring. Appropriate post-resuscitation management may be planned in consultation with medical control.
 - Common causes of post-resuscitation hypotension include hyperventilation, hypovolemia, pneumothorax, and medication reaction to ALS drugs.
 - Titrate Dopamine to maintain MAP >90. Ensure adequate fluid resuscitation is ongoing.



Pulmonary Edema



History: <ul style="list-style-type: none"> • Congestive heart failure • Past medical history • Medications (digoxin, Lasix) • Viagra, Levitra, Cialis • Cardiac history --past myocardial infarction 	Signs/Symptoms: <ul style="list-style-type: none"> • Respiratory distress, bilateral rales • Apprehension, orthopnea • Jugular vein distention • Pink, frothy sputum • Peripheral edema, diaphoresis • Hypotension, shock • Chest pain 	Differential: <ul style="list-style-type: none"> • Myocardial infarction • Congestive heart failure • Asthma • Anaphylaxis • Aspiration • COPD • Pleural effusion • Pneumonia • Pulmonary embolus • Pericardial tamponade • Toxic Exposure
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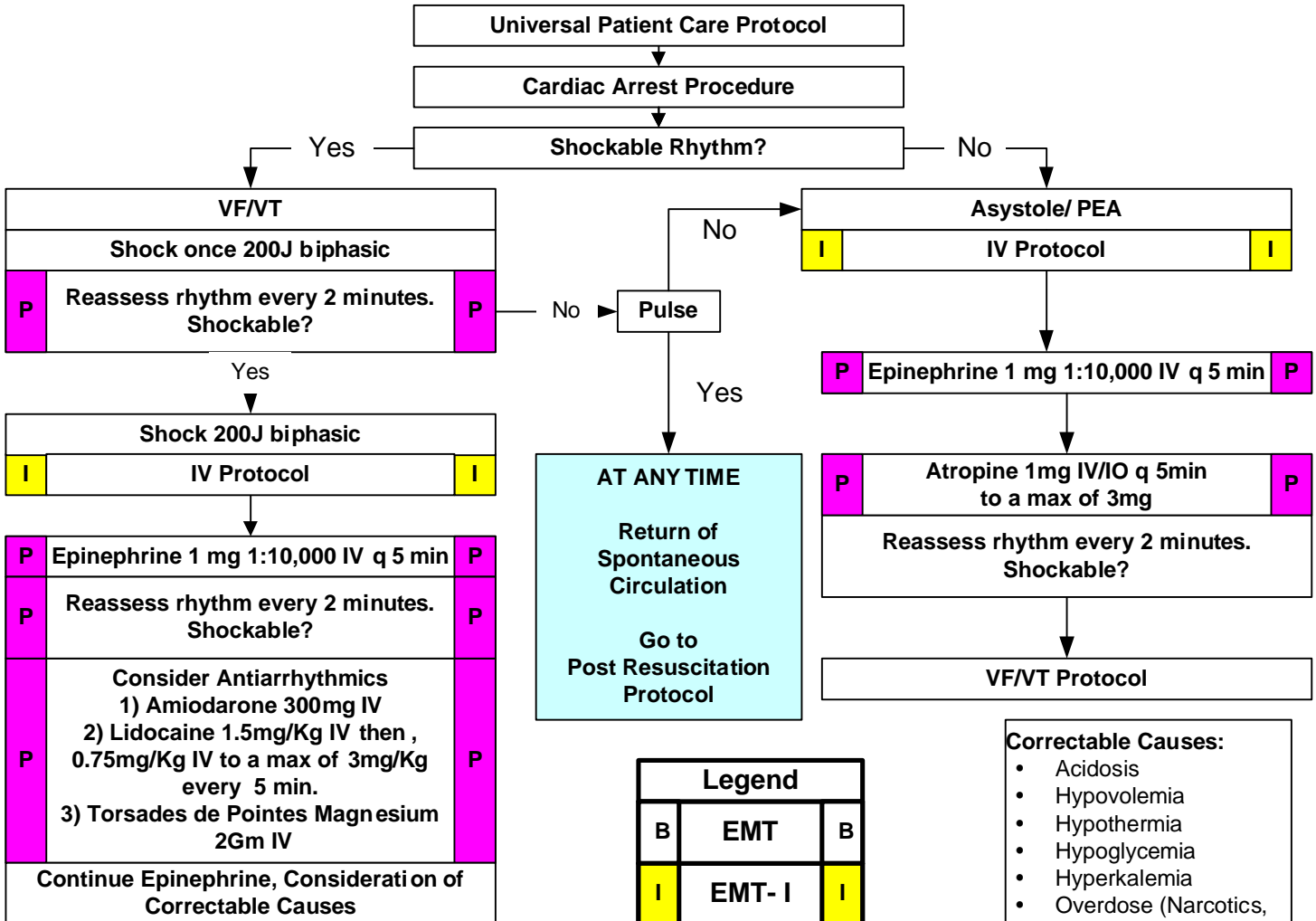
Pearls: <ul style="list-style-type: none"> • Exam: Mental Status, Skin, Neck, Lung, Heart, Abdomen, Back, Extre mities, Neuro • Avoid Nitroglycerin in any patient who's used Viagra or Levitra in the past 24 hours or Cialis i n the past 36 hours due to possible severe hypotension. • If patient has taken nitroglycerin without relief, consider potency of the medication. • Consider myocardial infarction in all these patients. • Diabetics and geriatric patients often have atypical pain, or on ly generalized complaints. • Careful monitoring of level of consciousness, BP, and respiratory status with above interventions is essential. • Allow the patient to be in their position of comfort to maximiz e their breathing effort.
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Pulseless Arrest



History: <ul style="list-style-type: none"> • Past medical history • Medications • Events leading to arrest • End stage renal disease • Estimated downtime • Suspected hypothermia • Suspected overdose • DNR 	Signs and Symptoms: <ul style="list-style-type: none"> • Pulseless • Apneic • No electrical activity on ECG • No auscultated heart tones 	Differential: <ul style="list-style-type: none"> • Medical or Trauma • Hypoxia • Potassium (hypo / hyper) • Drug overdose • Acidosis • Hypothermia • Device (lead) error • Death
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Criteria for Discontinuation ?

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Correctable Causes:

- Acidosis
- Hypovolemia
- Hypothermia
- Hypoglycemia
- Hyperkalemia
- Overdose (Narcotics, Tricyclic Antidepressants, Calcium Channel Blockers, Beta Blockers)
- Tension Pneumothorax

Pearls:

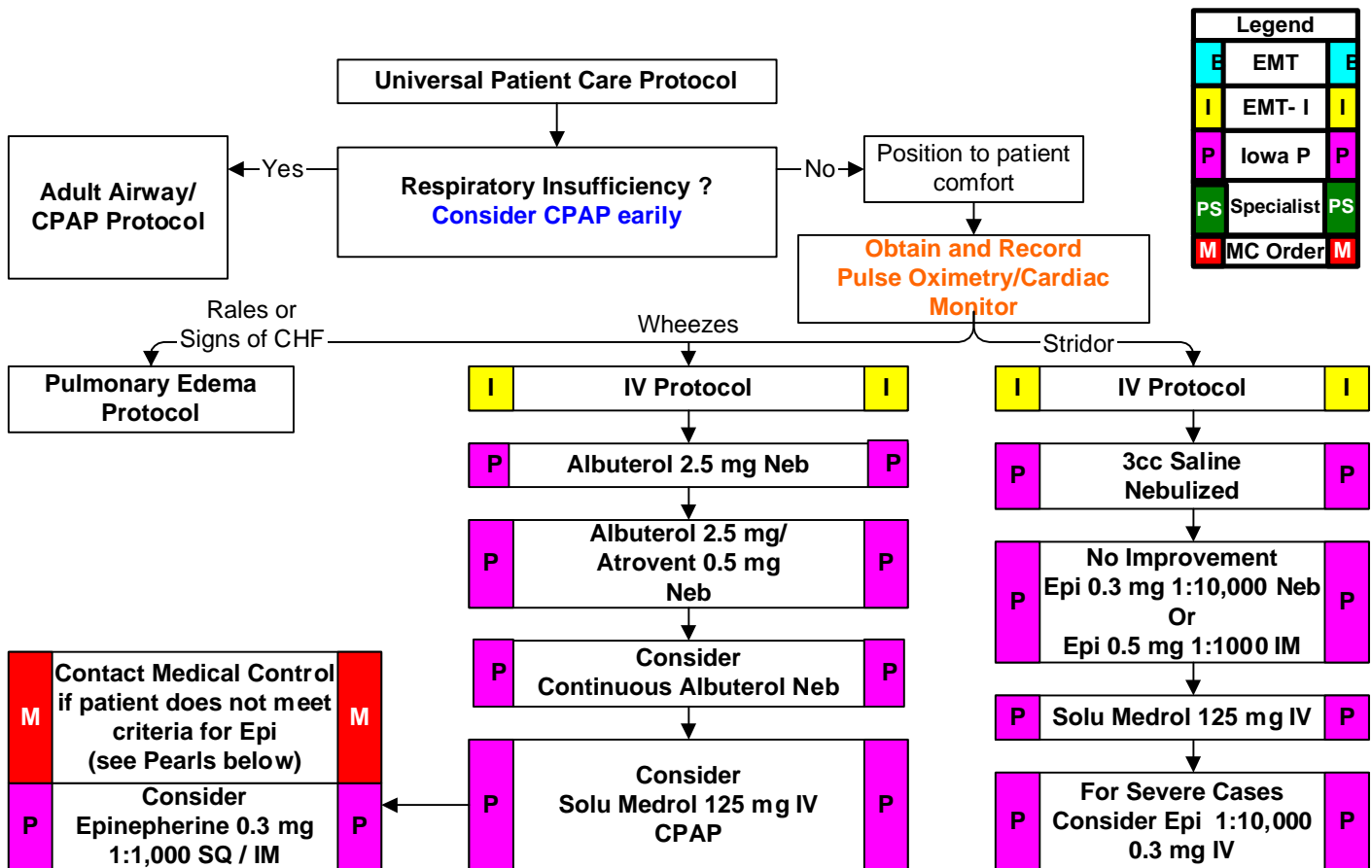
- Exam: Mental Status
- Always confirm asystole in more than one lead.
- Correctable causes must be addressed.



Respiratory Distress



History: <ul style="list-style-type: none"> Asthma; COPD -- chronic bronchitis, emphysema, congestive heart failure Home treatment (oxygen, nebulizer) Medications (theophylline, steroids, inhalers) Toxic exposure, smoke inhalation 	Signs and Symptoms: <ul style="list-style-type: none"> Shortness of breath Pursed lip breathing Decreased ability to speak Increased respiratory rate and effort Wheezing, rhonchi, rales, stridor Use of accessory muscles Fever, cough Tachycardia 	Differential: <ul style="list-style-type: none"> Asthma Anaphylaxis Aspiration COPD (Emphysema, Bronchitis) Pleural effusion Pneumonia Pulmonary embolus Pneumothorax Cardiac (MI or CHF) Pericardial tamponade Hyperventilation Inhaled toxin
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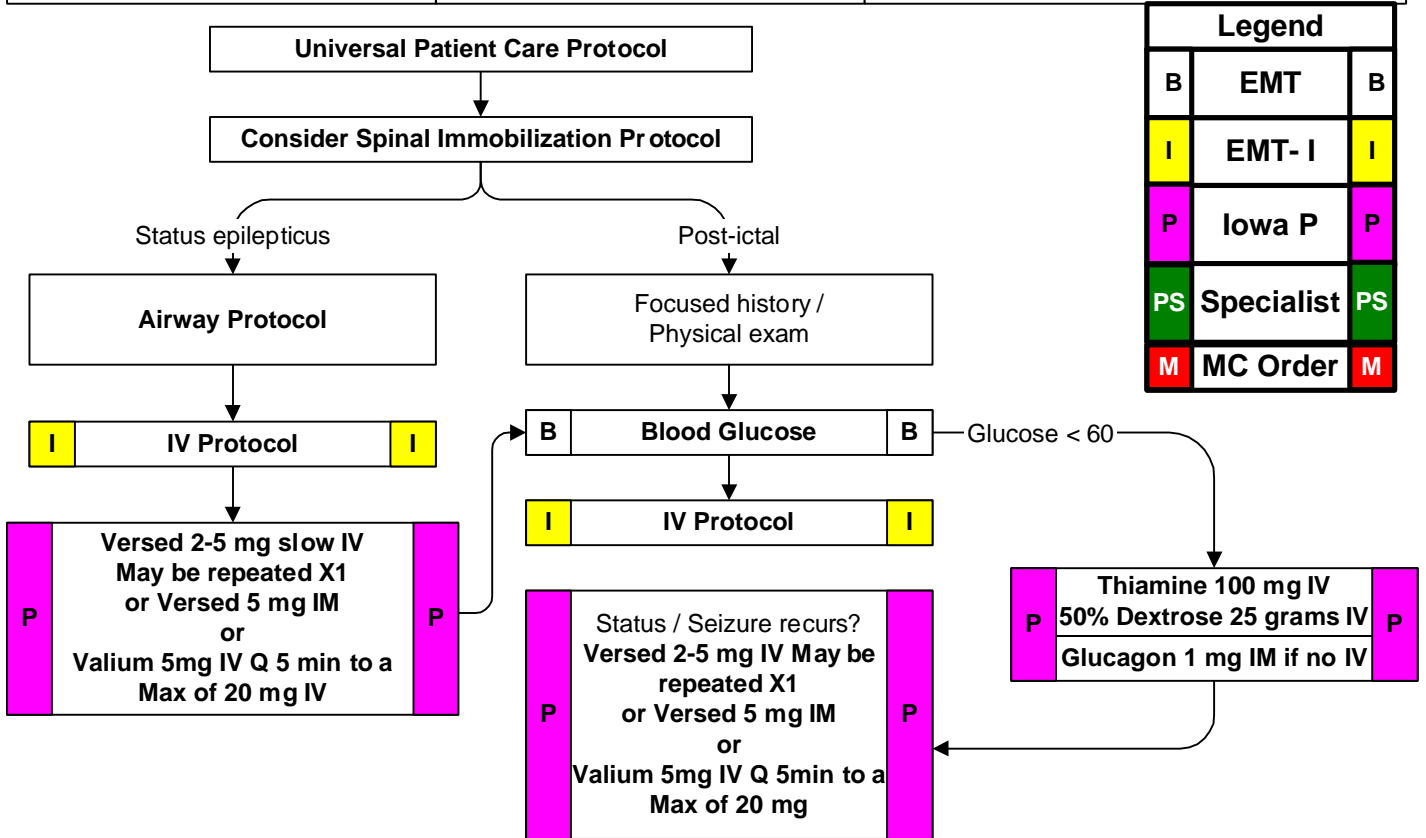
- Pulse oximetry** should be monitored continuously if initial saturation is < or = 96%, or there is a decline in patients status despite normal pulse oximetry reading.
- Contact Medical Control** prior to administering epinephrine in patients who are >50 years of age, have a history of cardiac disease, or if the patient's heart rate is >150. Epinephrine may precipitate cardiac ischemia. A 12-lead ECG should be performed on these patients.
- A silent chest in respiratory distress is a pre-respiratory arrest sign.



Seizure



History: <ul style="list-style-type: none"> Reported / witnessed seizure activity Previous seizure history Medical alert tag information Seizure medications History of trauma History of diabetes History of pregnancy 	Signs and Symptoms: <ul style="list-style-type: none"> Decreased mental status Sleepiness Incontinence Observed seizure activity Evidence of trauma Unconscious 	Differential: <ul style="list-style-type: none"> CNS (Head) trauma Tumor Metabolic, Hepatic, or Renal failure Hypoxia Electrolyte abnormality (Na, Ca, Mg) Drugs, Medications, Non-compliance Infection / Fever Alcohol withdrawal Eclampsia Stroke Hyperthermia Hypoglycemia
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Pearls:

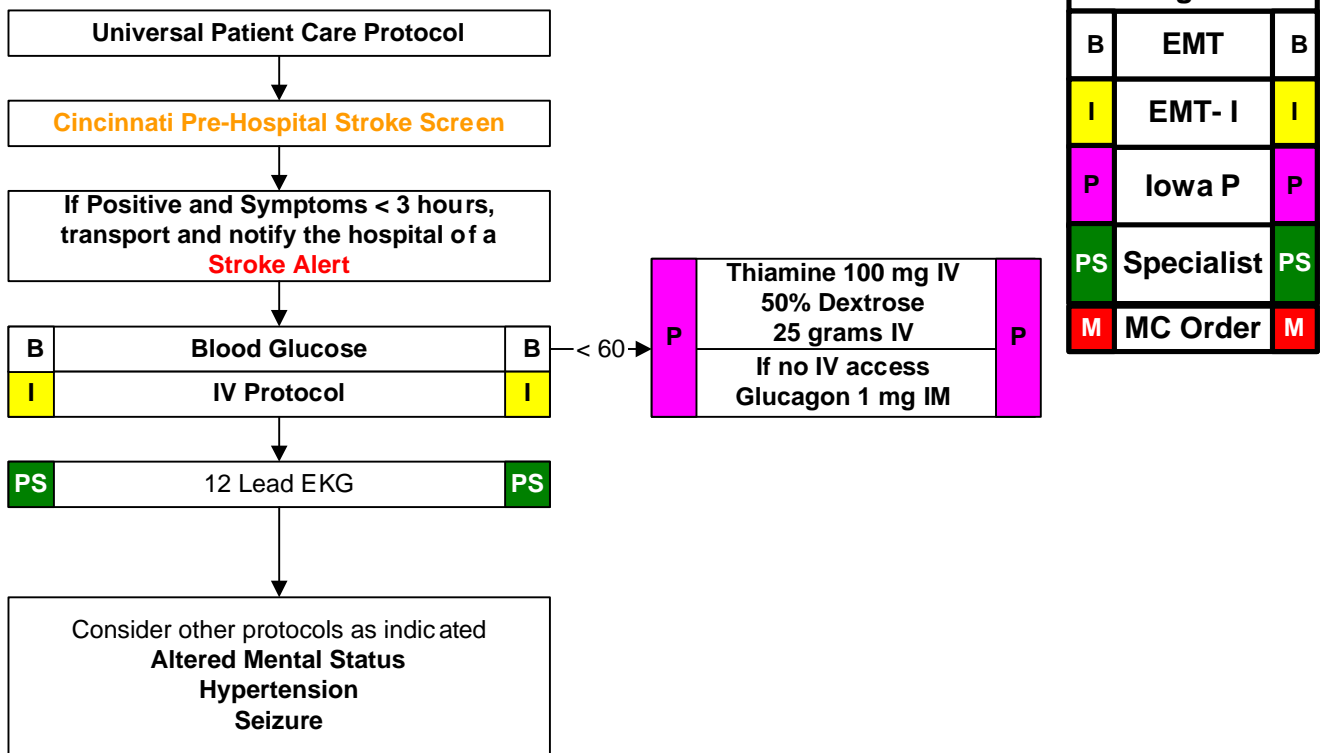
- Exam: Mental Status, HEENT, Heart, Lungs, Extremities , Neuro**
- Status epilepticus is defined as two or more successive seizures without a period of consciousness or recovery. This is a true emergency requiring rapid airway control, treatment, and transport.
- Grand mal seizures (generalized)** are associated with loss of consciousness, incontinence, and tongue trauma.
- Focal seizures (petit mal)** affect only a part of the body and are not usually associated with a loss of consciousness
- Jacksonian seizures** are seizures which start as a focal seizure and become generalized.
- Be prepared for airway problems and continued seizures.
- Assess possibility of occult trauma and substance abuse.
- Be prepared to assist ventilations especially if Versed is used.
- For any seizure in a pregnant patient, follow the OB Emergencies Protocol.
- Thiamine may be omitted in patients who do not appear malnourished.



Suspected Stroke



History: <ul style="list-style-type: none"> • Previous CVA, TIA's • Previous cardiac / vascular surgery • Associated diseases: diabetes, hypertension, CAD • Atrial fibrillation • Medications (blood thinners) • History of trauma 	Signs and Symptoms: <ul style="list-style-type: none"> • Altered mental status • Weakness / Paralysis • Blindness or other sensory loss • Aphasia / Dysarthria • Syncope • Vertigo / Dizziness • Vomiting • Headache • Seizures • Respiratory pattern change • Hypertension / hypotension 	Differential: <ul style="list-style-type: none"> • See Altered Mental Status • TIA (Transient ischemic attack) • Seizure • Hypoglycemia • Stroke <ul style="list-style-type: none"> Thrombotic > (~ 85%) Embolic Hemorrhagic (~ 15%) • Tumor • Trauma
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Pearls:

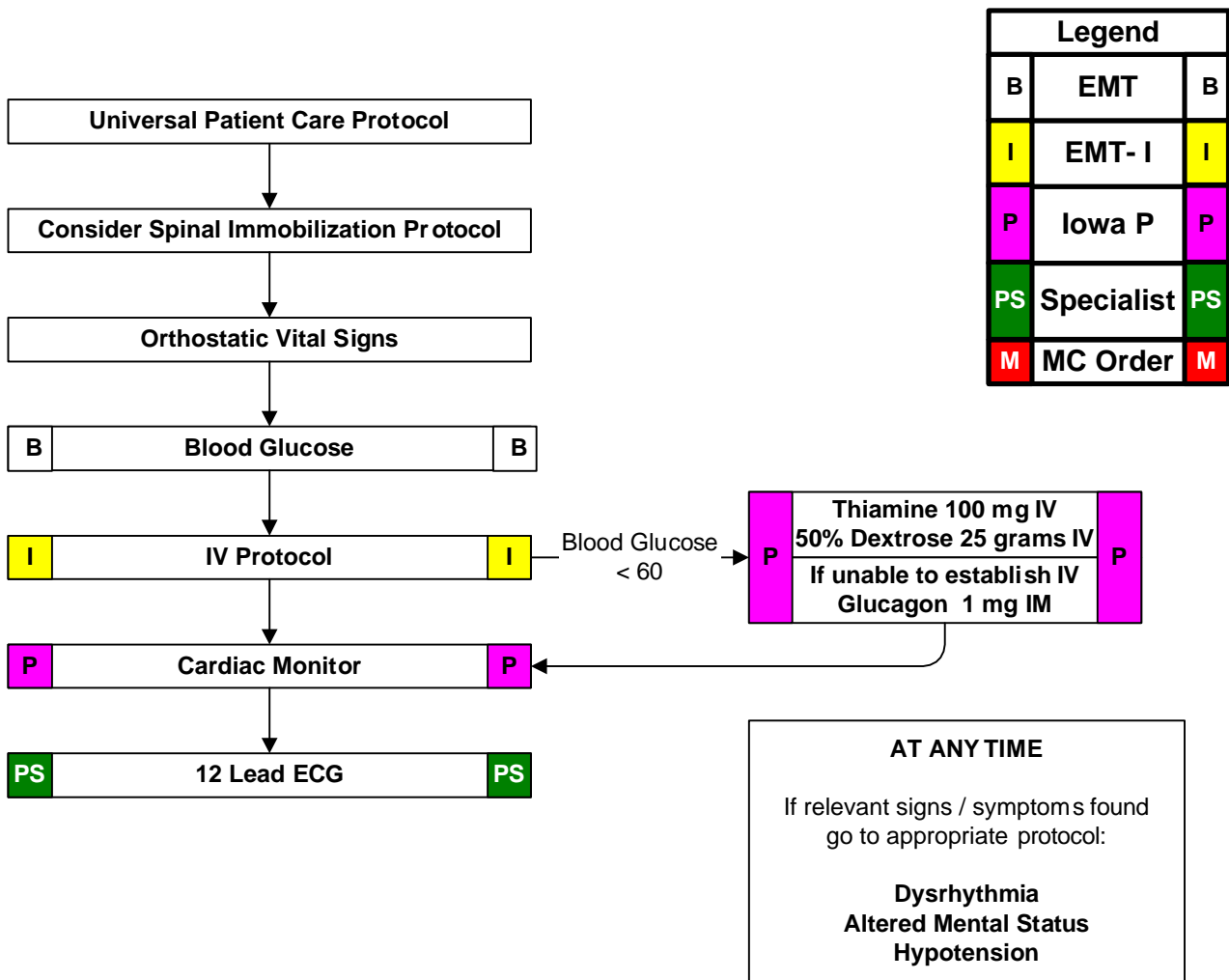
- Exam: Mental Status, HEENT, Heart, Lungs, Abdomen, Extremities, Neuro
- Cincinnati Pre-Hospital Stroke Screen: Arm drift, leg drift, facial drooping, slurred speech.
- With a duration of symptoms of less than 3 hours, scene times and transport times should be minimized.
- Onset of symptoms is defined as the last witnessed time the patient was symptom free (i.e. awakening with stroke symptoms would be defined as an onset time of the previous night when patient was symptom free)
- The differential listed on the Altered Mental Status Protocol should also be considered.
- Be alert for airway problems (swallowing difficulty, vomiting).
- Hypoglycemia can present as a localized neurologic deficit, especially in the elderly.
- Patients who do not appear malnourished do not require Thiamine.



Syncope



History: <ul style="list-style-type: none"> • Cardiac history, stroke, seizure • Occult blood loss (GI, ectopic) • Females: LMP, vaginal bleeding • Fluid loss: nausea, vomiting, diarrhea • Past medical history • Medications 	Signs and Symptoms: <ul style="list-style-type: none"> • Loss of consciousness with recovery • Lightheadedness, dizziness • Palpitations, slow or rapid pulse • Pulse irregularity • Decreased blood pressure 	Differential: <ul style="list-style-type: none"> • Vasovagal • Orthostatic hypotension • Cardiac syncope • Micturition / Defecation syncope • Psychiatric • Stroke • Hypoglycemia • Seizure • Shock (see Shock Protocol) • Toxicologic (Alcohol) • Medication effect (hypertension)
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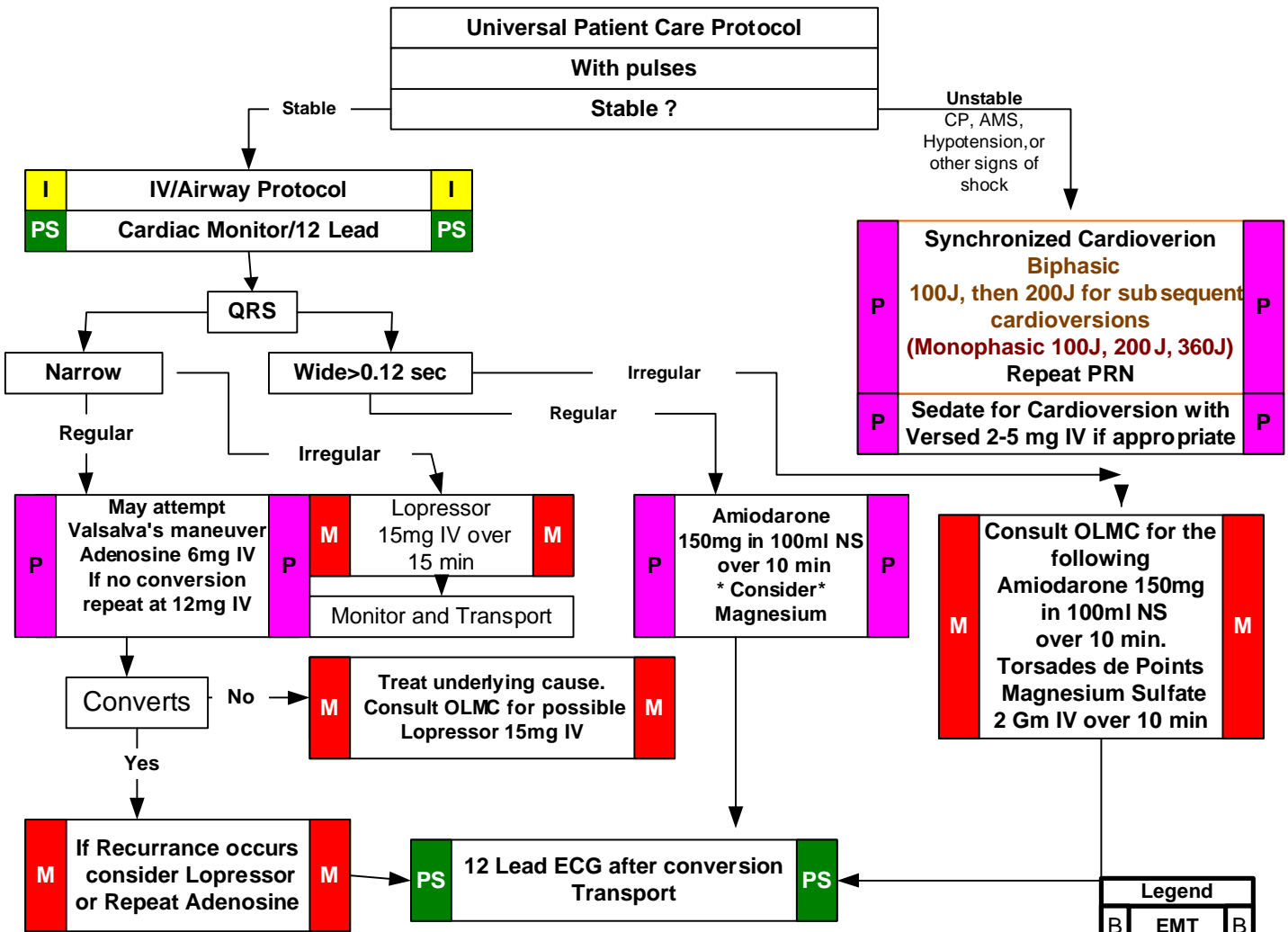
Pearls: <ul style="list-style-type: none"> • Exam: Mental Status, Skin, HEENT, Heart, Lungs, Abdomen, Back, Extremities, Neuro • Assess for signs and symptoms of trauma if associated or questionable for all with syncope. • Consider dysrhythmias, GI bleed, ectopic pregnancy, and seizure as possible causes of syncope. • These patients should be transported. • More than 25% of geriatric syncope is cardiac dysrhythmia based. • Thiamine may be omitted in patients who do not appear malnourished.
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Tachycardia



History: <ul style="list-style-type: none"> • Medications (Aminophylline, Diet pills, Thyroid supplements, Decongestants, Digoxin) • Diet (caffeine, chocolate) • Drugs (nicotine, cocaine) • Past medical history • History of palpitations / heart racing • Syncope / near syncope 	Signs and Symptoms: <ul style="list-style-type: none"> • HR > 150/Min • QRS < .12 Sec (QRS > .12 sec go to V-Tach Protocol) • If history of WPW, go to V-Tach Protocol • Dizziness, CP, SOB • Potential presenting rhythm <ul style="list-style-type: none"> • Sinus tachycardia • Atrial fibrillation / flutter • Multifocal atrial tachycardia 	Differential: <ul style="list-style-type: none"> • Heart disease (WPW, Valvular) • Sick sinus syndrome • Myocardial infarction • Electrolyte imbalance • Exertion, Pain, Emotional stress • Fever • Hypoxia • Hypovolemia or Anemia • Drug effect / Overdose (see HX) • Hyperthyroidism • Pulmonary embolus
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Legend		
B	EMT	B
I	EMT- I	I
P	Iowa P	P
PS	Specialist	PS
M	MC Order	M

Pearls:

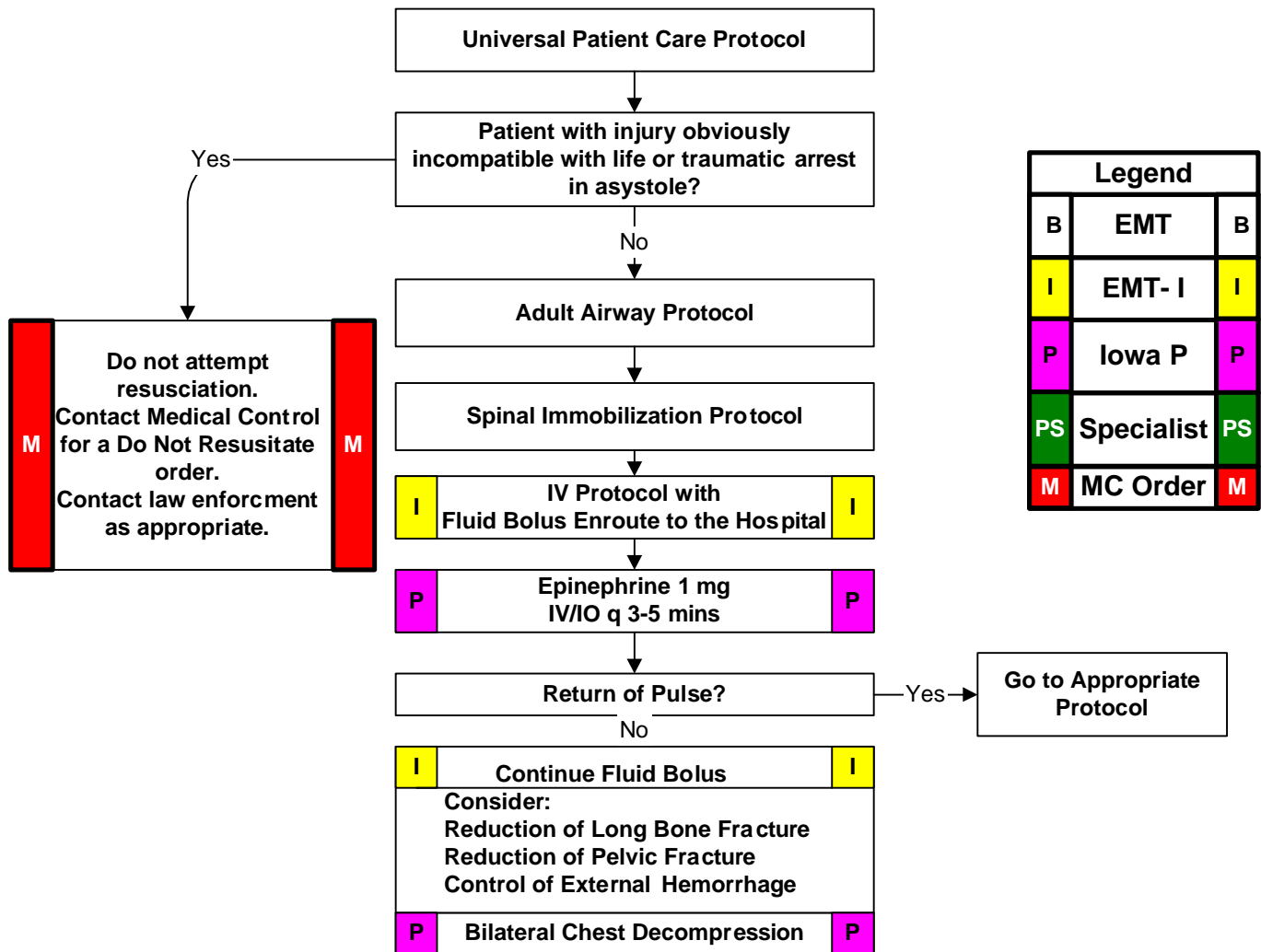
- **Exam: Mental Status, Skin, Neck, Lung, Heart, Abdomen, Back, Extre mities, Neuro**
- Adenosine may not be effective in identifiable atrial flutter/fibrillation, yet is not harmful. Cardioversion with 50-100J effective with A-Fib/A-Flutter patients that are unstable.
- Monitor for respiratory depression and hypotension associated with Versed.
- Continuous pulse oximetry is required for all SVT Patients.
- Document all rhythm changes with monitor strips and obtain monitor strips with each therapeutic intervention.
- Wide QRS consider OLMC as soon as possible for directions.
- Rate related symptoms uncommon if heart rate < 150.



Trauma Arrest



History: <ul style="list-style-type: none"> • Patient who has suffered traumatic injury and is now pulseless 	Signs and Symptoms: <ul style="list-style-type: none"> • Evidence of penetrating trauma • Evidence of blunt trauma 	Differential: <ul style="list-style-type: none"> • Medical condition preceding traumatic event as cause of a arrest. • Tension Pneumothorax • Hypovolemic Shock <ul style="list-style-type: none"> • External hemorrhage • Unstable pelvic fracture • Displaced long bone fracture(s) • Hemothorax • Intra-abdominal hemorrhage • Retroperitoneal hemorrhage
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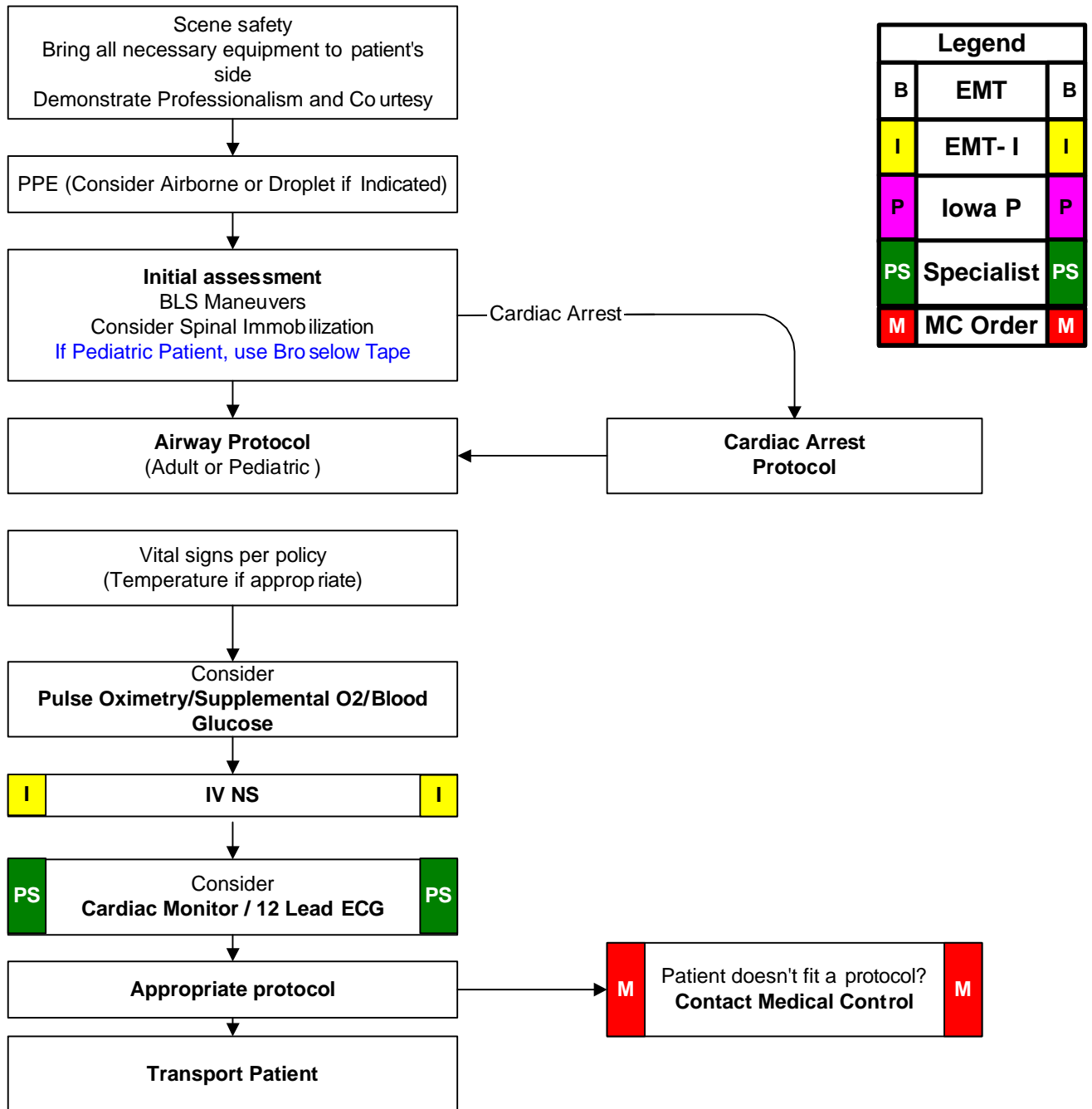
Legend		
B	EMT	B
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Pearls:

- Injuries obviously incompatible with life include decapitation, massively deforming head or chest injuries, or other features of a particular patient encounter that would make resuscitation futile. If in doubt, place patient on the monitor.
- Perform bilateral decompression on trauma arrest victims with injuries to torso.
- Consider using medical cardiac arrest protocols if uncertainty exists regarding medical or traumatic cause of arrest.



Universal Patient Care Protocol



Legend		
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Pearls:

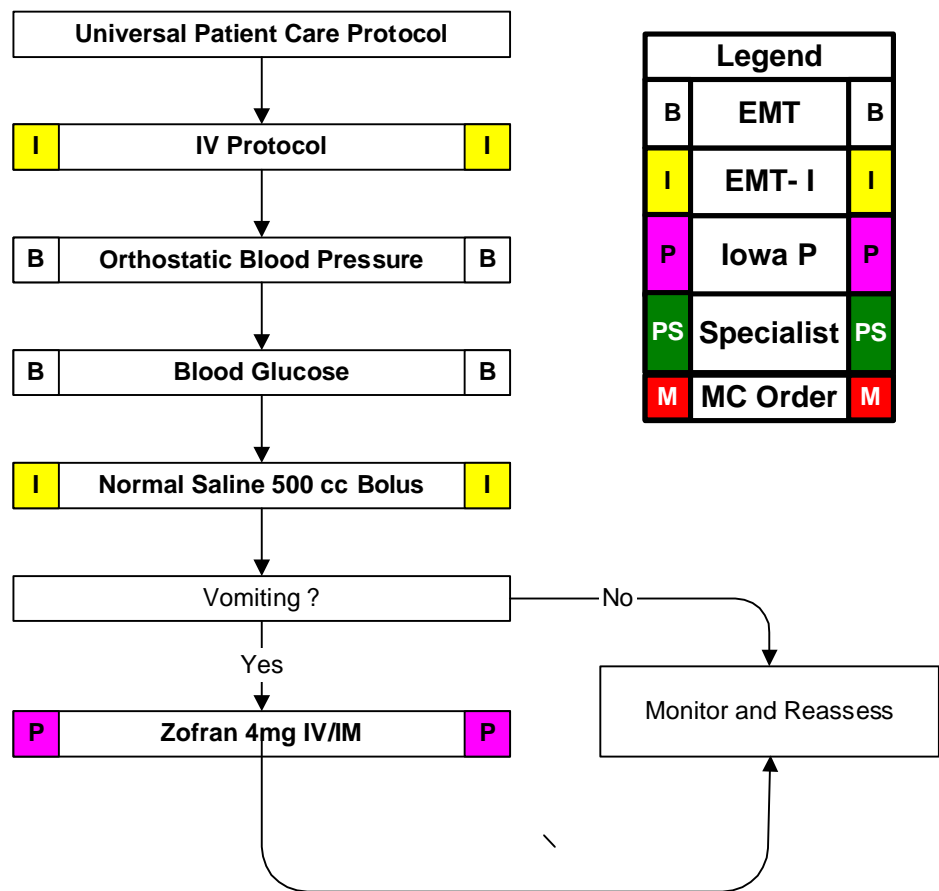
- Any patient contact which does not result in an EMS transport must have a completed disposition form.
- Exam: Minimal exam if not noted on the specific protocol is vital signs, mental status, and location of injury or complaint.
- Required vital signs on every patient include blood pressure (systolic and diastolic), if transported two sets of full vitals are required, pulse, respirations, pulse ox, pain / severity, Glasgow Coma Scale.
- Pulse oximetry, temperature, EKG, and blood glucose documentation is dependent on the specific complaint.
- Timing of transport should be based on patient's clinical condition. Desired scene times 10min for Trauma and 20 min. for medical. Exceptions need documentation of why.



Vomiting and Diarrhea



<p>History:</p> <ul style="list-style-type: none"> • Age • Time of last meal • Last bowel movement/ emesis • Improvement or worsening with food or activity • Duration of problem • Other sick contacts • Past medical history • Past surgical history • Medications • Menstrual history (pregnancy) • Travel history • Bloody emesis / diarrhea 	<p>Signs and Symptoms:</p> <ul style="list-style-type: none"> • Pain • Character of pain (constant, intermittent, sharp, dull, etc.) • Distention • Constipation • Diarrhea • Anorexia • Radiation <p>Associated symptoms: (Helpful to localize source) Fever, headache, blurred vision, weakness, malaise, myalgias, cough, headache, dysuria, mental status changes, rash</p>	<p>Differential:</p> <ul style="list-style-type: none"> • CNS (increased pressure, headache, stroke, CNS lesions, trauma or hemorrhage, vestibular) • Myocardial infarction May need a 12 Lead • Drugs (NSAID's, antibiotics, narcotics, chemotherapy) • GI or Renal disorders • Diabetic ketoacidosis • Gynecologic disease (ovarian cyst, PID) • Infections (pneumonia, influenza) • Electrolyte abnormalities • Food or toxin induced • Medication or Substance abuse • Pregnancy • Psychologic
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Legend		
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M	MC Order	M

Pearls:

- **Exam: Mental Status, Skin, HEENT, Neck, Heart, Lungs, Abdomen, Back, Extrem ities, Neuro**
- Be alert for a dystonic reaction. If present give Benadryl 25-50mg IV. If pt is on Reg lan, Phenergan, or Compazine at home.