Universal Patient Care

Scene Safety
Bring all necessary equipment to patient's side
Demonstrate Professionalism and Courtesy

PPE (Consider Airborne or Droplet if indicated)

Consider Spinal Motion Restriction [as indicated]
Age Appropriate Assessment Procedure
(PEDIATRIC: < 12 years old AND [a] < 55 Kg -or- [b] Fits on Standardized Pediatric Length Based Tape)

B
- ABCDE Assessment
- Consider F.A.S.T / R. A. C. E. Assessment
- Consider Load & Go Management
- Consider Need for Additional Resources

As Indicated - Go To Appropriate C.O.G. – such as- Airway, Respiratory Distress, Cardiac Arrest, Hemorrhage Control, Altered Mental Status

B
- History
  Full Secondary Assessment or Problem Focused Assessment as indicated
- Vital Signs Assessment
- Consider Mechanism of Injury, Environment/ Exposures, Comorbidities/Risk Factors
- Consider Pulse Oximetry / Capnography
- Consider Blood Glucose Assessment

Glucose Management C.O.G.

Cardiac Monitor/12 Lead ECG Acquisition / Interpretation

At any point where findings dictate - Exit To Appropriate C.O.G.

B
- REPEAT Assessment / Vital Signs per Protocol or as warranted during care and Transport
- **Transfer:** Patient hand-off includes patient information – including history, physical examination, vital signs throughout, personal property, and summary of care and response to care

A patient is defined as any person who meets ANY of the following criteria:
- Receives basic or advanced medical or trauma treatment or;
- Is physically examined or;
- Has visible signs of injury or illness or has a medical complaint or;
- Requires EMS **specific** assistance to change locations and/or position or;
- Identified by any party as a possible patient because of some known, or reasonably suspected illness or injury or;
- Has a personal medical device evaluated or manipulated by EMS or;
- Requests EMS assistance with the administration of personal medications or treatments.

Patient does not fit specific C.O.G.

Notify Destination or Contact Medical Control

UNIVERSAL PATIENT CARE

Universal Patient Care Protocol

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Completion of a PCR (ePCR) is required for any and all patient encounters.

Normal Vital Signs

Age	Pulse-Awake (bpm)	Pulse-Sleeping (bpm)	Respiratory Rate	Systolic B/P
Preterm (<1Kg)	120-160		30-60	39-59
Preterm (1 - 3Kg)	120-1160		40-60	60-76
Newly Born	100-205	85-160	40-60	67-84
Up To 1 Y	100-190	90-160	30-60	72-104
1-2 Y	100-190	90-160	24-40	86-106
2-3 Y	98-140	60-120	24-40	86-106
3-4 Y	80-140	60-100	24-40	89-112
4-5 Y	80-140	60-100	22-34	89-112
5-6Y	75-140	58-90	22-34	89-112
6-10 Y	75-140	58-90	18-30	97-115
10-12 Y	75-118	58-90	18-30	102-120
12-13 Y	60-100	58-90	15-20	110-131
13-15 Y	60-100	50-90	15-20	110-131
> 15 Y	60-100	50-90	15-20	110-131

PEDIATRIC GLASGOW COMA SCALE (PGCS)

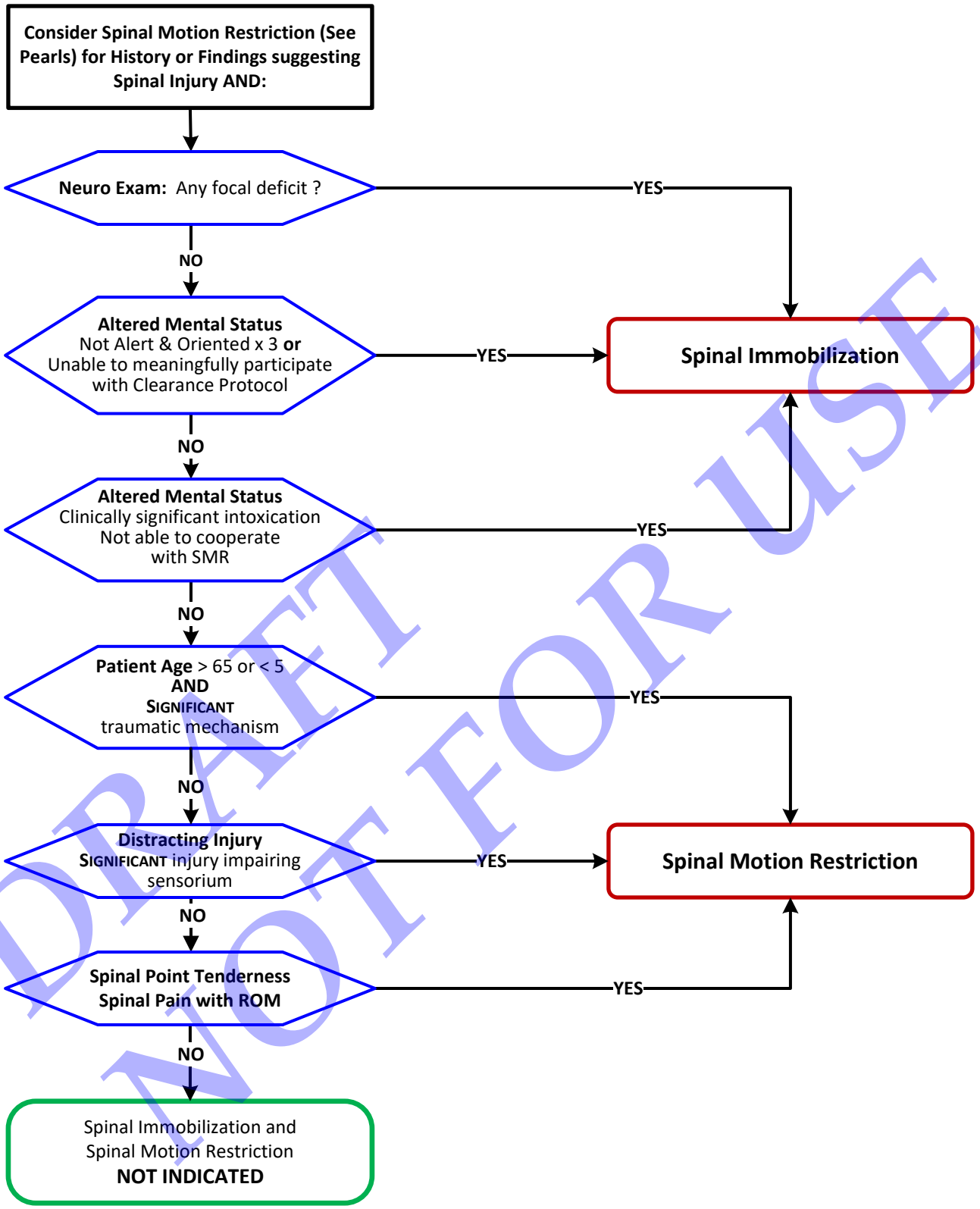
ACTION	AGE > 1 year	AGE < 1 YEAR		SCORE
EYE Opening	Spontaneously	Spontaneously		4
	To Verbal Command	To Shout		3
	To Pain	To Pain		2
	No Response	No Response		1
MOTOR Response	Obeys	Spontaneously		6
	Localizes Pain	Localizes Pain		5
	Flexion - Withdrawal	Flexion - Withdrawal		4
	Flexion - Abnormal (Decorticate Rigidity)	Flexion - Abnormal (Decorticate Rigidity)		3
	Extension (Decerebrate Rigidity)	Extension (Decerebrate Rigidity)		2
	No Response	No Response		1
	> 5 years	**2 - 5 Years**	**0 - 23 Months**	
VERBAL Response	Oriented	Appropriate words/pharases	Smiles/coos appropriately	5
	Disoriented/Confused	Inappropriate words	Cries and IS Consolable	4
	Inappropriate words	Persistent cries and screams	Persistent inappropriate crying and/or screaming	3
	Incomprehensible sounds	Grunts	Grunts, agitated, and restless	2
	No Response	No Response	No Response	1
Total Pediatric Glascow Coma Score (3-15)				

PEARLS

- **Recommended Exam: Minimal exam if not noted on the specific C.O.G. is vital signs, mental status with GCS, and location of injury or complaint.**
- **Any patient contact which does not result in an EMS transport must have a completed disposition form.**
- **Required vital signs on every patient include Mental Status, blood pressure, pulse, and respirations.**
- **Pulse oximetry, ETCO2, and temperature documentation is dependent on the specific complaint.**
- **At least 2 sets of vital signs should be documented for every patient.**
- **All patient interventions and response to care should be documented**
- **ALL Major changes in clinical status including – but not limited to – vital signs and data from monitoring equipment should be documented**
- **Capnography is:**
  - **Required for ALL Intubated Patients and Cricothyroidotomy Patients***
  - **Strongly Recommended / Strongly Encouraged for all unstable patients**
  - **Strongly Recommended / Strongly Encouraged for utilization of any Airway Device (e.g. BIAD)**
- **A pediatric patient is defined as < 12 years old AND either [a] < 55 Kg -or- [b] Fits on Standardized Pediatric Length Based Tape**
- Timing of transport should be based on patient's clinical condition and the transport policy.
- **Never hesitate to contact medical control for patient who refuses transport.**
- **NO SCENE should be cleared prior to contact with the patient EMS has been called for or contact with the person who called for EMS.**
- **The EMS Service WILL HAVE a policy in place to address instances where no patient contact is made – i.e. call for Supervisor, call for Law Enforcement for "Wellness Check", etc.**
- **Patient Safety Considerations:**
  - **Routine use of Lights and sirens is not warranted**
  - **Be aware of potential need to adjust management based on patient age and comorbidities, including medication dosages**
  - **Medical Direction should be contacted when mandated or as needed.**
  - **Consider Air Medical Transport, if available, for patients with time critical conditions where ground transport time exceeds 30 minutes.**
- **KEY DOCUMENTATION ELEMENTS**
  - ☐ At least two sets of vital signs should be documented for every patient who is treated and/or transported..
  - ☐ Appropriate Physical Examination findings as per relevant protocols.
  - ☐ All patient interventions and response to care should be documented. **Including any care provided by First Responders / Others.**
  - ☐ All major changes in clinical status including – but not limited to – vital signs and data from monitoring equipment.
  - ☐ Maintain records of all ancillary recording equipment – e.g. monitor/EKG, Capnography, etc.
  - ☐ Documentation of transfer of care at receiving facility.

UNIVERSAL PATIENT CARE

Spinal Motion Restriction



Spinal Immobilization = C-Collar + Long Spine Board / Scoop Stretcher + HID
Spinal Motion Restriction (SMR) = Cervical Collar + Patient remains in position of comfort, assisted movement to prevent extremes of spinal motion.

Spinal Motion Restriction

PEARLS

- **Recommended Exam: Mental Status, Skin, Neck, Heart, Lungs, Abdomen, Back, Extremities, Neuro**
- **Consider Spinal Motion Restriction [SMR] in any patient with arthritis, cancer, or other underlying spinal or bone disease.**
- Significant mechanism includes high-energy events such as ejection, high falls, and abrupt deceleration crashes and may indicate the need for spinal motion restriction in the absence of symptoms.
- Range of motion should NOT be assessed if patient has midline spinal tenderness. Patient's range of motion should not be assisted. The patient should touch their chin to their chest, extend their neck (look up), and turn their head from side to side (shoulder to shoulder) without spinal process pain.
- The acronym "NSAIDS" should be used to remember the steps in this protocol.
- "**N**" = Neurologic exam. Look for focal deficits such as tingling, reduced strength, on numbness in an extremity.
- "**S**" = Significant mechanism or extremes of age.
- "**A**" = Alertness. Is patient oriented to person, place, time, and situation? Any change to alertness with this incident?
- "**I**" = Intoxication. Is there any indication that the person is intoxicated (impaired decision making ability)?
- "**D**" = Distracting injury. Is there any other injury which is capable of producing significant pain in this patient?
- "**S**" = Spinal exam. Look for point tenderness in any spinal process or spinal process tenderness with range of motion.

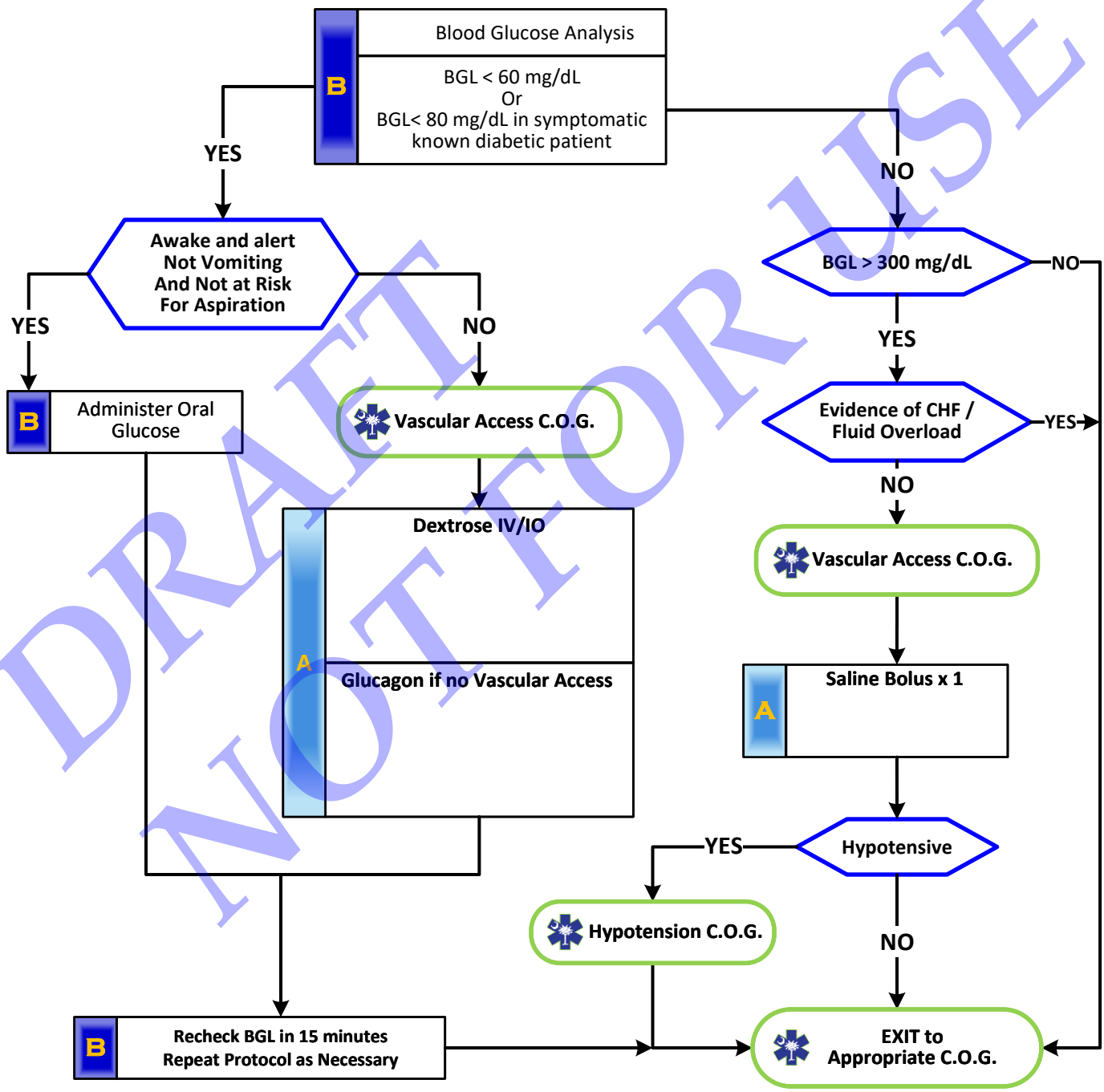
- **KEY DOCUMENTATION ELEMENTS**
  - ❑ Patient complaint of neck or spine pain
  - ❑ Spinal tenderness
  - ❑ Mental status/GCS
  - ❑ Neurologic examination
  - ❑ Evidence of intoxication
  - ❑ Documentation of multiple trauma
  - ❑ Documentation of mechanism of injury
  - ❑ Document patient capacity with:
    - ❑ All barriers to patient care in the NEMSIS element “Barriers to Patient Care” (eHistory.01—required of all software systems)
    - ❑ Exam fields for Mental Status and Neurological Assessment
    - ❑ Vitals for Level of Responsiveness and Glasgow Coma Scale
    - ❑ Alcohol and drug use indicators
  - ❑ Patient age
  - ❑ Patient who is underage and not emancipated: legal guardian name, contact, and relationship
- **KEY PERFORMANCE MEASURES**
  - ❑ Percentage of patients with high-risk mechanisms of injury and/or signs or symptoms of cervical spine injury who are placed in a cervical collar
  - ❑ Percentage of patients without known trauma who have a cervical immobilization device placed (higher percentage creates a negative aspect of care)
  - ❑ Percentage of trauma patients who are transported on a long backboard (target is a low percentage)
  - ❑ Percentage of patients with a cervical spinal cord injury or unstable cervical fracture who did not receive cervical collar

Glucose Management

History
- Past medical history
- Medications
- Recent blood glucose check
- Last meal

Signs and Symptoms
- Altered mental status
- Combative / irritable
- Diaphoresis
- Seizures
- Abdominal pain
- Nausea / vomiting
- Weakness
- Dehydration
- Deep / rapid breathing

Differential
- Alcohol / drug use
- Toxic ingestion
- Trauma; head injury
- Seizure
- CVA
- Altered baseline mental status.



UNIVERSAL: GLUCOSE MANAGEMENT

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Glucose Management

Formula for calculating a 0.5 G/Kg dose of IV Dextrose:		
50 / (_____% Concentration of Glucose) = Fluid Dose (_____mL/Kg)		
Desired Dose (G/Kg)	Fluid Type	mL of Fluid Dose
	50% Dextrose (D50W)	1 mL/Kg
0.5 G/Kg	25% Dextrose (D25W)	2 mL/Kg
	10% Dextrose (D10W)	5 mL/Kg
	5% Dextrose (D5W)	10 mL/Kg
	50% Dextrose (D50W)	2mL/Kg
1 G/Kg	25% Dextrose (D25W)	4 mL/Kg
	10% Dextrose (D10W)	10 mL/Kg
	5% Dextrose (D5W)	20 mL/Kg

- Age < 31 days: Dextrose Concentration **NO MORE THAN D10**
- Age 31 d – 2 Y: Dextrose Concentration **NO MORE THAN D25**
- Age > 2 Y - Adult: Dextrose Concentration **UP TO D25**
- Age: Adult: Dextrose Concentration**: UP TO D50**

D25 = 25 ml D50 with 25 ml water/saline
D10 = 10 ml D50 with 40 ml water/saline
D5 = 5 ml D50 with 45 ml water/saline

PEARLS

- **Recommended exam: Mental Status, Skin, Respirations and effort, Neuro.**
- Patients with prolonged hypoglycemia (or who have already received Glucagon) may not respond to Glucagon.
- Do not administer oral glucose to patients that are not able to swallow or protect their airway.
- In extreme circumstances with no IV and no response to glucagon, Dextrose 50 % can be administered rectally. Contact medical control for advice.
- Infiltration of D50 may causes significant pain, swelling, and necrosis of tissues.
- **Patient's refusing transport to medical facility after treatment of hypoglycemia:**
  - **Oral Agents:**
    - Patient's taking oral diabetic medications should be strongly encouraged to allow transportation to a medical facility. They are at risk of recurrent hypoglycemia that can be delayed for hours and require close monitoring even after normal blood glucose is established. Not all oral agents have prolonged action so Contact Medical Control for advice.
    - Patient's who meet criteria to refuse care should be instructed to contact their physician immediately and consume a meal.
  - **Insulin Agents:**
    - Many forms of insulin now exist. Longer acting insulin places the patient at risk of recurrent hypoglycemia even after a normal blood glucose is established. Not all insulins have prolonged action so Contact Medical Control for advice.
    - Patient's who meet criteria to refuse care should be instructed to contact their physician immediately and consume a meal.
- **KEY DOCUMENTATION ELEMENTS:**
  - ❑ Document reassessment of vital signs and mental status after administration of glucose/dextrose/glucagon
  - ❑ Document initial and repeat point of care glucose levels
  - ❑ If patient released at scene, criteria documented for safe release and signed.
  - ❑ When hyperglycemia documented, appropriate volume replacement given while avoiding overzealous repletion before insulin therapy administered at receiving facility
  - ❑ 12 lead EKG obtained – if indicated.
  - ❑ For pediatrics – documentation of estimated weight.