Pediatric Seizures

~~I.~~1. Follow **General Pre-Hospital Care ~~–~~ Treatment Protocol**~~.~~
~~II.~~2. For focal ~~seizure~~seizures, contact Medical Control
~~III.~~3. **IF PATIENT IS ACTIVELY SEIZING (GENERALIZED TONIC~~-~~CLONIC):**
A. Protect patient from injury~~.~~
B. Maintain airway and provide supplemental oxygen
C. Administer **midazolam** according to the **MI-MEDIC** ~~cards~~Cards
~~a.~~ If **MI-MEDIC** is unavailable, administer **midazolam** 0.~~1mg~~1 mg/kg IM, maximum
i. ~~individual~~single dose 10 mg~~.~~

~~b.~~ If IV established prior to seizure activity, administer midazolam 0.05 mg/kg

ii. IV/IO, maximum single dose of 5 mg~~.~~

~~c.~~ Monitor ~~SpO2~~Spo2, EKG, and waveform capnography (**per End Tidal Carbon Dioxide Monitoring~~-~~ ~~–~~ Procedure Protocol**) after midazolam administration~~.~~

~~D.~~ Consider trauma ~~if;~~ If evidence or suspicion of trauma, treat according to
D. applicable protocol in addition to ~~stopping the seizure.~~treating seizures
~~.~~Check blood glucose (may be MFR skill, see **Blood Glucose Testing~~-~~ ~~–~~ Procedure Protocol**~~).~~)
~~S~~ S ~~i.~~ Start IV/IO if needed
~~S b.~~ S dminister **dextrose** according to **MI-~~MEDICS CARDS~~MEDIC** when~~:~~

~~i. < 2 months old and blood glucose is <40 mg/dL~~

ii. ~~ii. > 3months old and~~ blood glucose is <60 mg/dL
1. ~~iii.~~ If **MI~~-~~MEDIC** ~~cards are~~is unavailable, utilize the table below

Color	Age	Weight	Dose	Concentration	Volume		Concentration	Volume
Grey	0-2 months	3-5 kg (6-11 lbs.)	2.5g	Dextrose 12.5%	20 mL	**OR**	Dextrose 10%	25 mL
Pink	3-6 months	6-7 kg (13-16 lbs.)	3.25g	Dextrose 25%	13 mL	**OR**	Dextrose 10%	33 mL

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Red	7-10 months	8-9 kg (17-20 lbs.)	4.25g	Dextrose 25%	17 mL	**OR**	Dextrose 10%	43 mL
Purple	11-18 months	10-11 kg (21-25 lbs.)	5g	Dextrose 25%	20 mL	**OR**	Dextrose 10%	50 mL
Yellow	19-35 months	12-14 kg (26-31 lbs.)	6.25g	Dextrose 25%	25 mL	**OR**	Dextrose 10%	63 mL
White	3-4 years	15-18 kg (32-40 lbs.)	8g	Dextrose 25%	32 mL	**OR**	Dextrose 10%	80 mL
Blue	5-6 years	19-23 kg (41-50 lbs.)	10g	Dextrose 25%	40 mL	**OR**	Dextrose 10%	100 mL
Orange	7-9 years	24-29 kg (52-64 lbs.)	12.5g	Dextrose 50%	25 mL	**OR**	Dextrose 10%	125 mL
Green	10-14 Years	30-36 kg (65-79 lbs.)	15g	Dextrose 50%	40 mL	**OR**	Dextrose 10%	150 mL

iii. ~~c.~~ If unable to start IV, administer **glucagon** IM/IN (if available per MCA selection), (may be EMT skill per MCA selection~~).~~)

~~**Glucagon** administration~~

~~☐ **Not included**~~

		~~**Glucagon IM**~~	~~**Glucagon IN**~~
		~~A. Patients < than 5 years of age administer **glucagon** 0.5 mg IM~~ ~~B. Patients ≥ 5 years of age administer **glucagon** 1 mg IM~~	~~A. Patients < than 5 years of age administer **glucagon** 0.5 mg IN~~ ~~B. Patients ≥ 5 years of age administer **glucagon** 1 mg IN~~
	~~Paramedic~~	☐	☐
	~~Specialist~~	☐	☐
	~~EMT~~	☐	☐

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1. ~~d.~~ If **MI-MEDIC** is unavailable, utilize the table below

Glucagon administration per MCA Selection

☐ Not included

	Glucagon IM *Injectable formulation ONLY* A. Patients < 5 years of age administer **glucagon** 0.5 mg IM B. Patients > 5 years of age administer **glucagon** 1 mg IM	**Glucagon** IN *Intranasal formulation ONLY* **A.** Patients < 5 years of age **Do NOT Administer** B. Patients > 5 years of age administer **glucagon** 3 mg IN
EMT	☐	☐
Specialist	☐	☐
Paramedic	☐	☐

*INTRANASAL GLUCAGON ADMINISTRATION: Only glucagon that is FDA-approved for nasal administration (e.g., Baqsimi(R)) may be given by IN route. Injectable glucagon is not to be administered via IN route. EMS clinicians may assist family/patient care givers in administering glucagon that is FDA-approved for IN use, if prescribed for the patient (regardless of age).

F. If seizure persists 10 minutes after initial dose of **midazolam** and correction of low blood glucose, repeat ~~one time~~ **midazolam** one time (per MCA selection)

☐ Pre-radio **midazolam** administration (without Medical Control contact)

☐ Post-radio **midazolam** administration (contact Medical Control prior to administration)

~~☐ Pre-radio **midazolam** administration (without Medical Control contact)~~

~~☐ Post-radio **midazolam** administration (contact Medical Control)~~

MCA Name:

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i. ~~i.~~ 0.~~1mg~~1 mg/kg IM, maximum single dose of 10 mg

OR

ii. ~~ii.~~ If IV ~~already~~ available, 0.05 mg/kg IV/IO, maximum single dose of 5 mg~~.~~

~~F.~~ If seizures persist after second dose, consider underlying causes and contact

G. Medical Control for further instructions~~.~~

~~IV.~~4. ~~For~~**IF PATIENT IS NOT** ~~CURRENTLY~~**ACTIVELY SEIZING**, monitor and treat known underlying causes, if possible~~:~~

~~A.~~ Check blood glucose (may be MFR skill, see **Blood Glucose Testing~~-~~ – Procedure**

A. **Protocol**) and treat as outlined above (~~III~~3. E.)

i. ~~If patient is altered and~~If blood glucose <60 mg/dL:

1. Altered, able to swallow, AND 3 months old or older – Administer oral glucose

~~a.~~2. Not Alert – administer ~~**oral glucose** when:~~dextrose according to **MI-MEDIC** or table above

~~i. < 2 months old and blood glucose is <40 mg/dL~~

~~ii. > 3months old and blood glucose is <60 mg/dL~~

B. Check temperature and refer to **Pediatric Fever~~-~~ – Treatment Protocol**, if applicable~~.~~

C. Monitor oxygenation and mental status, administer oxygen to maintain 94~~%,~~% SpO2, including ventilatory support as needed according to the **Airway Management~~-~~ – Procedure Protocol**

~~a.~~ For patients with respiratory depression and high suspicion o opioid involvement, administer **naloxone** per **Opioid Overdose Treatment and**

i. **Prevention~~-~~ – Treatment Protocol~~.~~**

D. Consider trauma~~.~~; if evidence or suspicion of trauma, treat according to applicable protocol~~.~~

E. Keep environment safe for the ~~child~~patient, padding around the patient~~.~~ if possible

~~NOTE:~~

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1. Instructions for diluting **dextrose** ~~-~~:
   ~~a.~~A. To obtain **dextrose** 10%, discard 40 ml out of one ~~amp~~p of D50, then draw up 40 ml of NS into the D50 ampule
   ~~b.~~B. To obtain **dextrose** 12.5%, discard 37.5 ml out of one amp of D50, then draw 37.5 ml of NS into the D50 ~~amp;~~ ampule
   ~~c.~~C. To obtain **dextros**e 25%, discard 25 ml out of one amp of D50, then draw 25 ml of NS into the D50 ~~amp~~ ampule
   ~~b.~~D. May utilize 10% for all ages 5 ml/kg (0.5 gm/kg) up to 250 ml, according to **Dextrose-Medication Protocol**~~.~~
2. ~~2.~~ To avoid extravasation, a patent IV must be available for IV administration of **dextrose**. **Dextrose** should always be pushed slowly (e.g., over 1-2 minutes~~).~~)

Medication Protocols

Dextrose

Glucagon

Midazolam

Naloxone