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OPERATIONAL BULLETIN

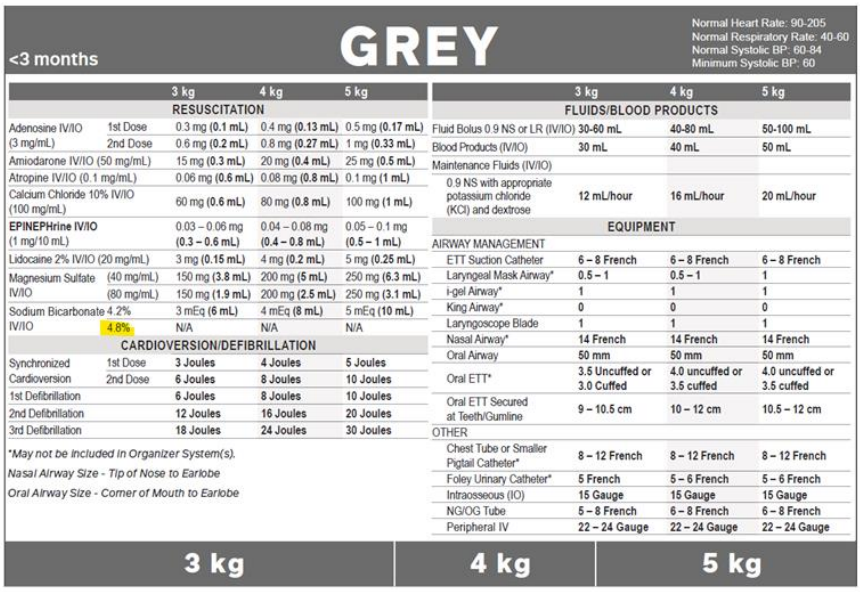
Bulletin #	Title		Date Issued
2025-05-21-01	**Broselow Tape Errors**		May 21, 2025
Superseded	**Released By:**	**Source:**	**Pages**
N/A	Maine EMS	Armstrong Medical	2

Maine EMS has been notified of errors in the newly released Broselow Pediatric Emergency Tape, 2025 edition. This does not affect any previous editions of the Broselow Tape.

These tapes would have been sold through Armstrong Medical (the only vendor for Broselow Pediatric Emergency Tapes), and found at https://www.armstrongmedical.com/products/broselow-pediatric-emergency-tape-2025-edition/)

Noted Errors

1. The Grey section incorrectly lists Sodium Bicarbonate at 4.8% concentration, instead of 8.4% concentration.

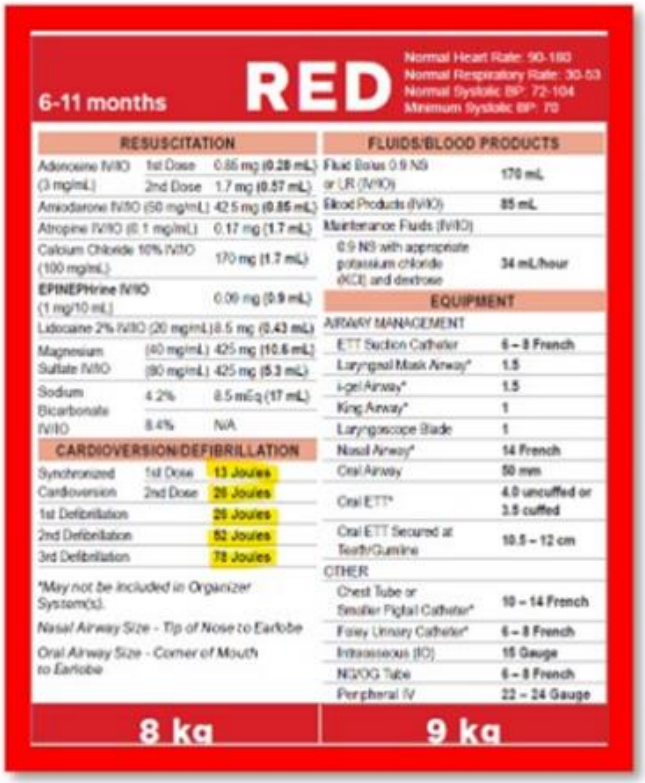


		3 kg	4 kg	5 kg
RESUSCITATION				
Adenosine IV/IO (3 mg/mL)	1st Dose	0.3 mg (0.1 mL)	0.4 mg (0.13 mL)	0.5 mg (0.17 mL)
	2nd Dose	0.6 mg (0.2 mL)	0.8 mg (0.27 mL)	1 mg (0.33 mL)
Amiodarone IV/IO (50 mg/mL)		15 mg (0.3 mL)	20 mg (0.4 mL)	25 mg (0.5 mL)
Atropine IV/IO (0.1 mg/mL)		0.06 mg (0.6 mL)	0.08 mg (0.8 mL)	0.1 mg (1 mL)
Calcium Chloride 10% IV/IO (100 mg/mL)		60 mg (0.6 mL)	80 mg (0.8 mL)	100 mg (1 mL)
EPINEPHrine IV/IO (1 mg/10 mL)		0.03 – 0.06 mg (0.3 – 0.6 mL)	0.04 – 0.08 mg (0.4 – 0.8 mL)	0.05 – 0.1 mg (0.5 – 1 mL)
Lidocaine 2% IV/IO (20 mg/mL)		3 mg (0.15 mL)	4 mg (0.2 mL)	5 mg (0.25 mL)
Magnesium Sulfate IV/IO	(40 mg/mL)	150 mg (3.8 mL)	200 mg (5 mL)	250 mg (6.3 mL)
	(80 mg/mL)	150 mg (1.9 mL)	200 mg (2.5 mL)	250 mg (3.1 mL)
Sodium Bicarbonate IV/IO	4.2%	3 mEq (6 mL)	4 mEq (8 mL)	5 mEq (10 mL)
	4.8%	N/A	N/A	N/A
CARDIOVERSION/DEFIBRILLATION				
Synchronized Cardioversion	1st Dose	3 Joules	4 Joules	5 Joules
	2nd Dose	6 Joules	8 Joules	10 Joules
1st Defibrillation		6 Joules	8 Joules	10 Joules
2nd Defibrillation		12 Joules	16 Joules	20 Joules
3rd Defibrillation		18 Joules	24 Joules	30 Joules

*May not be included in Organizer System(s).
Nasal Airway Size - Tip of Nose to Earlobe
Oral Airway Size - Corner of Mouth to Earlobe

	3 kg	4 kg	5 kg
FLUIDS/BLOOD PRODUCTS			
Fluid Bolus 0.9 NS or LR (IV/IO)	30-60 mL	40-80 mL	50-100 mL
Blood Products (IV/IO)	30 mL	40 mL	50 mL
Maintenance Fluids (IV/IO)			
0.9 NS with appropriate potassium chloride (KCl) and dextrose	12 mL/hour	16 mL/hour	20 mL/hour
EQUIPMENT			
AIRWAY MANAGEMENT			
ETT Suction Catheter	6 – 8 French	6 – 8 French	6 – 8 French
Laryngeal Mask Airway*	0.5 – 1	0.5 – 1	1
i-gel Airway*	1	1	1
King Airway*	0	0	0
Laryngoscope Blade	1	1	1
Nasal Airway*	14 French	14 French	14 French
Oral Airway	50 mm	50 mm	50 mm
Oral ETT*	3.5 Uncuffed or 3.0 Cuffed	4.0 uncuffed or 3.5 cuffed	4.0 uncuffed or 3.5 cuffed
Oral ETT Secured at Teeth/Gumline	9 – 10.5 cm	10 – 12 cm	10.5 – 12 cm
OTHER			
Chest Tube or Smaller Pigtail Catheter*	8 – 12 French	8 – 12 French	8 – 12 French
Foley Urinary Catheter*	5 French	5 – 6 French	5 – 6 French
Intraosseous (IO)	15 Gauge	15 Gauge	15 Gauge
NG/OG Tube	5 – 8 French	6 – 8 French	6 – 8 French
Peripheral IV	22 – 24 Gauge	22 – 24 Gauge	22 – 24 Gauge

2. The Red section lists the wrong settings for cardioversion and defibrillation



6-11 months **RED**

Normal Heart Rate: 90-160
Normal Respiratory Rate: 30-53
Normal Systolic BP: 72-104
Minimum Systolic BP: 70

RESUSCITATION		
Adenosine IV/IO (3 mg/mL)	1st Dose	0.86 mg (0.28 mL)
	2nd Dose	1.7 mg (0.57 mL)
Amiodarone IV/IO (50 mg/mL)		42.5 mg (0.85 mL)
Atropine IV/IO (0.1 mg/mL)		0.17 mg (1.7 mL)
Calcium Chloride 10% IV/IO (100 mg/mL)		170 mg (1.7 mL)
EPINEPHrine IV/IO (1 mg/10 mL)		0.09 mg (0.9 mL)
Lidocaine 2% IV/IO (20 mg/mL)		8.5 mg (0.43 mL)
Magnesium Sulfate IV/IO	(40 mg/mL)	425 mg (10.6 mL)
	(80 mg/mL)	425 mg (5.3 mL)
Sodium Bicarbonate IV/IO	4.2%	8.5 mEq (17 mL)
	8.4%	N/A

CARDIOVERSION/DEFIBRILLATION		
Synchronized Cardioversion	1st Dose	13 Joules
	2nd Dose	26 Joules
1st Defibrillation		26 Joules
2nd Defibrillation		52 Joules
3rd Defibrillation		78 Joules

*May not be included in Organizer System(s).

Nasal Airway Size - Tip of Nose to Earlobe

Oral Airway Size - Corner of Mouth to Earlobe

FLUIDS/BLOOD PRODUCTS	
Fluid Bolus 0.9 NS or LR (IV/IO)	170 mL
Blood Products (IV/IO)	85 mL
Maintenance Fluids (IV/IO)	
0.9 NS with appropriate potassium chloride (KCl) and dextrose	34 mL/hour

EQUIPMENT	
AIRWAY MANAGEMENT	
ETT Suction Catheter	6 – 8 French
Laryngeal Mask Airway*	1.5
i-gel Airway*	1.5
King Airway*	1
Laryngoscope Blade	1
Nasal Airway*	14 French
Oral Airway	50 mm
Oral ETT*	4.0 uncuffed or 3.5 cuffed
Oral ETT Secured at Teeth/Gumline	10.5 – 12 cm
OTHER	
Chest Tube or Smaller Pigtail Catheter*	10 – 14 French
Foley Urinary Catheter*	6 – 8 French
Intraosseous (IO)	15 Gauge
NG/OG Tube	6 – 8 French
Peripheral IV	22 – 24 Gauge

8 kg | 9 kg

Airlife, the manufacturer, is still doing an internal assessment to determine the exact plan of action of how to handle the 2025 tapes that have already been sent. The decision on how to proceed with the tapes in the field will be based on the review from their internal quality team and clinical consultants. Armstrong will be drafting a letter to those who have purchased the new Broselow Tape pending details from Airlife.

It is recommended for any agency using the Broselow Pediatric Emergency Tape, 2025 edition to remove the tapes from clinical use. The current Maine EMS prehospital protocol has references on:

- Pediatric Equipment Sizes on Pink 10 by weight and color coding
- Pediatric Vital Sizes on Pink 8 by age and weight
- Pediatric Cardiac Arrest Medication Dosages on Red 21

Note – A Broselow Tape is NOT a required piece of equipment (and doses listed in the tape may vary from Maine EMS approved protocols), *however* a length/weight based tape **IS** required by Maine EMS rules on all non-transporting, transporting, and air agencies at every licensure and permitted level (Maine EMS Rules Chapter 17 §5 Fluids & Medications, Page 17-7 https://www.maine.gov/ems/sites/maine.gov.ems/files/inline-files/Maine-EMS-Rules-Effective-20250226.pdf). There are many different manufacturers and products that meet this requirement, and Maine EMS does not endorse one product over another.

Please contact the Maine EMS for Children program for any assistance at maine.ems@maine.gov or 207-626-3867