

**2009 PROTOCOL UPDATE SUMMARY
MARYLAND MEDICAL PROTOCOLS FOR EMS PROVIDERS**

PROTOCOL TITLE	PAGE #	LINE #	ORIGINAL	NEW INFORMATION
Cover Page			NEW	Effective July 1, 2009
To All Health Care Providers in the State of Maryland	iii		NEW	A new letter to providers has been inserted.
Table of Contents	v-x			Due to additions and revisions throughout the document, the table of contents has been revised.
General Information	1	I.A.		"CRT" provider level was deleted from the paragraphs.
GPC	27	II.D.4.a)(2)	Patients greater than 1 year but who have not reached their 8th birthday	The maximum age has been raised. The new text reads: Patients greater than 1 year but who have not reached their 12 th birthday
GPC	28	II.D.7.a)	Priority 1 - Critically ill or injured person requiring immediate attention; unstable patients with potentially life-threatening injury or illness.	The text in the definition has been changed. The new text reads: Priority 1 - Critically ill or injured person requiring immediate attention; unstable patients with life-threatening injury or illness.
GPC	28	II.D.7.b)	Priority 2 - Less serious condition, requiring emergency medical attention but not immediately endangering the patient's life.	The text in the definition has been changed. The new text reads: Priority 2 - Less serious condition yet potentially life-threatening injury or illness, requiring emergency medical attention but not immediately endangering the patient's life.
GPC	33	ALERT	ALL REQUESTS FOR SCENE HELICOPTER TRANSPORTS SHALL BE MADE THROUGH SYSCOM.	New text has been added to the ALERT. The new text reads: ALL REQUESTS FOR SCENE HELICOPTER TRANSPORTS SHALL BE MADE THROUGH SYSCOM. FOR TRAUMA DECISION TREE CATEGORY "C" OR "D," RECEIVING TRAUMA CENTER MEDICAL CONSULTATION REQUIRED WHEN CONSIDERING WHETHER HELICOPTER TRANSPORT IS OF CLINICAL BENEFIT.
GPC	34	II.J.	Transfer of Care/Rendezvous Providers will relay assessment findings and treatment provided to the individual (s) assuming responsibility for the patients (s).	This entire section contains new text.
Altered Mental Status: Seizures	37	B.3.e)		This section contains all new text. The administration of diazepam was replaced by midazolam.
Altered Mental Status: Seizures	38	ALERT	For a child actively seizing, administer rectal valium and reserve IO for life-threatening illness.	New text has been added. The new text reads: For a child actively seizing, administer midazolam IM and reserve IO for life-threatening illness.
Altered Mental Status: Seizures	38	B.3.L)		This section contains all new text. The administration of diazepam was replaced by midazolam.
Cardiac Emergencies: Cardiac Guidelines	44	III.F.1.e)		ET administration of medications is no longer an option for adult patients.
Universal Algorithm for Pediatric (Less than 8 years of age) Emergency Cardiac Care for BLS	47	III.4.		The parenthetical text has been changed. The new text reads: (Less than 12 years of age).
Universal Algorithm for Pediatric (Less than 8 years of age) Emergency Cardiac Care for BLS	48	III.5.		The parenthetical text has been changed. The new text reads: (Less than 12 years of age).
Cardiac Emergencies: Bradycardia	49	G.3.h)(2)	Consider Diazepam 2.5-10 mg slow IV	New text has been added. Diazepam was replaced by midazolam.
Cardiac Emergencies: Chest Pain/Acute Coronary Syndrome	58		NEW	A new ALERT has been added. The new text reads: Consult a pediatric base station for children (who have not reached their 15 th birthday) with chest pain with associated dysrhythmias, cardiac disease or blunt chest trauma
Cardiac Emergencies: Implanted Cardioverter Defibrillator (ICD) Malfunction	60-1 thru 60-2		NEW	Implanted Cardioverter Defibrillator (ICD) Malfunction is a new protocol.
Cardiac Emergencies: ST Elevation Myocardial Infarction [STEMI]	65	ALERT		A new ALERT has been added. The new text reads: Detection of right ventricular and posterior wall infarction is important, as approximately 40% of patients with inferior wall infarctions have right ventricular and/or posterior wall involvement, which predisposes them to more complications and increased mortality.

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Cardiac Emergencies: ST Elevation Myocardial Infarction [STEMI]	65	M.3.c)		New text has been added. The new text reads: If patient meets one of the above condition sets for STEMI inclusion criteria, the patient shall be transported to the closest Primary STEMI Center unless the transport time is more than 30 minutes greater than the transport time to the closest STEMI Transfer Center or Emergency Department.
Cardiac Emergencies: ST Elevation Myocardial Infarction [STEMI]	65	M.3.d)		New text has been added. The new text reads: When indicated and based on the EMS provider's report, the Base Station physician at the receiving Primary STEMI Center will activate its Cardiac Intervention Team.
Cardiac Emergencies: ST Elevation Myocardial Infarction [STEMI]	66	M.3.g)	NEW	New text has been added. The new text reads: Patient who presents with inferior wall MI, clear lung sounds, and hypotension (90 systolic) (40% of inferior wall MI have right ventricular infarction) should be given a fluid bolus of 250-500 mL of Lactated Ringers. For additional bolus, perform medical consult.
Adult Tachycardia Algorithm	70	Footnote (b)		New text has been added. Diazepam was replaced by midazolam.
Pediatric Supraventricular Tachycardia Algorithm	71	Footnote (d)		New text has been added. Diazepam was replaced by midazolam.
Pediatric Ventricular Tachycardia Algorithm	72	Footnote (c)		New text has been added. Diazepam was replaced by midazolam.
EMS DNR Flowchart	73	Number 6. Top box	6. Oral DNR Order from other on-site physician	New text has been added. The new text reads: Oral DNR Order from other on-site physician or nurse practitioner
Nausea and Vomiting	85-1		NEW	Nausea and Vomiting is a new protocol.
Non-Traumatic Shock: Hypoperfusion	87	Y.3.h)	Third and subsequent fluid boluses at 10 ml/kg IV/IO.	New text has been added. The new text reads: Third and subsequent fluid boluses at 20 mL/kg IV/IO.
Obstetrical/Gynecological Emergencies: Childbirth Algorithm	89	Footnote (d)	Go to Seizure Protocol: Medical Consult Diazepam.	New text has been added. Diazepam was replaced by midazolam.
Respiratory Distress: Asthma/COPD	106	II.3.		New text has been added and the outline re-lettered. The new text reads: h) Consider continuous positive airway pressure (CPAP) if patients continue to deteriorate in spite of above nebulized treatments. If available, continue inline nebulizations.
Respiratory Distress: Pulmonary Edema/Congestive Heart Failure	111	KK.3.c)		The following text was deleted from this line: (If optional protocol CPAP is available). CPAP is no longer an optional protocol.
Respiratory Distress: Pulmonary Edema/Congestive Heart Failure	112	KK.3.i)(3)		New text has been added. The High Dose NTG section contains new information.
Trauma Protocol: Burns	118	ALERT		New text has been added to the ALERT. The new text reads: CHILDREN WHO MEET BURN INCLUSIVE CRITERIA WHO HAVE NOT REACHED THEIR 15 TH BIRTHDAY SHOULD BE TRANSPORTED TO A PEDIATRIC BURN CENTER
Trauma Protocol: Burns	119	MM.3.k)	Third and subsequent fluid boluses at 10 ml/kg LR IV/IO.	New text has been added. The new text reads: Third and subsequent fluid boluses at 20 mL/kg LR IV/IO.
Trauma Protocol: Multiple/Severe Trauma	124		NEW	New text has been added and the outline re-lettered. The new text reads: d) Consider pelvic stabilization technique if indicated.
Trauma Decision Tree	132	TT.Category C-Yes box		New text has been added. The new text reads: Receiving Trauma Center Medical Consultation required when considering whether helicopter transport is of clinical benefit (Refer to II GPS I).
Trauma Decision Tree	132	TT.Category D-Yes box		New text has been added. The new text reads: Receiving Trauma Center Medical Consultation required when considering whether helicopter transport is of clinical benefit (Refer to II GPS I).

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Appendices	138			"CRT" provider level has been deleted from the glossary.
Appendices	138			EMT-A has been deleted from the glossary.
Appendices	141		NEW	Nurse Practitioner has been added to the glossary.
Appendices	142			"CRT" provider level has been deleted.
Procedures, Medical Devices, And Medications For EMS AND Commercial Services	144	Electrocardiogram: 12 lead		The text for EMTB was changed to PP.
Procedures, Medical Devices, And Medications For EMS AND Commercial Services	144			"CRT" provider level has been deleted from this chart.
Procedures, Medical Devices, And Medications For EMS AND Commercial Services	144	Airway Management CPAP		CPAP is no longer listed as Optional Supplemental Program (OSP) for ALS providers. CPAP is now listed as Standing Order (SO) for ALS providers.
Procedures, Medical Devices, And Medications For EMS AND Commercial Services	144		NEW	Impedance Threshold Device (ITD) was added to the chart as OSP for all providers.
Procedures, Medical Devices, And Medications For EMS AND Commercial Services	144		NEW	Laryngeal Tube Airway (King LTS-D) was added to the chart as OSP for CRT-(I) and EMT-P.
Procedures, Medical Devices, And Medications For EMS AND Commercial Services	145			"CRT" provider level has been deleted from this chart.
Procedures, Medical Devices, And Medications For EMS AND Commercial Services	145		NEW	Pelvic Binder Device was added to the chart as PP for all providers.
Procedures, Medical Devices, And Medications For EMS AND Commercial Services	146		NEW	New text has been added. Ondansetron was added to the chart as "SO" for ALS providers.
Procedures, Medical Devices, And Medications For EMS AND Commercial Services	146			"CRT" provider level has been deleted from this chart.
Procedures, Medical Devices, And Medications For EMS AND Commercial Services	147			"CRT" provider level has been deleted from this chart.
EMS/DNR	150	E.4.a)		New text has been added. Nurse Practitioner was added to the text in this line.
EMS/DNR	151	E.5.a)(7)	Oral DNR Order from other on-site physician	New text has been added. Nurse Practitioner was added to the text in this line.
EMS/DNR	151	E.5.b)(6)	An oral request from someone other than a physician	New text has been added. Nurse Practitioner was added to the text in this line.
EMS/DNR	151	E.5.b)(7)	An oral order from an attending physician who is not on site	New text has been added. Nurse Practitioner was added to the text in this line.
EMS/DNR	157	E.11.g)(1)		New text has been added. Nurse Practitioner was added to the text in this line.
EMS/DNR	157	E.11.g)(2)		New text has been added. Nurse Practitioner was added to the text in this line.
EMS/DNR	157	E.11.g)(3)		New text has been added. Nurse Practitioner was added to the text in this line.
EMS/DNR	158	E.11.h)(2)(b)(i)		New text has been added. Nurse Practitioner was added to the text in this line.
EMS/DNR	158	E.11.h)(2)(c)		New text has been added. Nurse Practitioner was added to the text in this line.
EMS/DNR	158	E.11.h)(3)(c)(i)		New text has been added. Nurse Practitioner was added to the text in this line.
Airway Management: Continuous Positive Airway Pressure (CPAP)	170-1 thru 170-2	NEW	CPAP was an Optional Supplemental Program.	CPAP was moved to this section as a standing order. It is no longer an Optional Supplemental Program.

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Airway Management: Nasotracheal Intubation	173	H.5.e)(3)	Nasal intubation may require facilitation with sedation. When hypovolemia is unlikely, morphine, or valium, or a combination of both may be given by direct medical consultation to achieve mild sedation.	New text has been added. Midazolam has replaced valium. The new text reads: Nasal intubation may require facilitation with sedation. When hypovolemia is unlikely, morphine, or midazolam, or a combination of both may be given by direct medical consultation to achieve mild sedation.
Obstructed Airway Foreign Body Removal: Direct Laryngoscopy	175	H.7.a)		CRT has been deleted from this paragraph.
Obstructed Airway Foreign Body Removal: Direct Laryngoscopy	175	H.7.a)		New text was added to the parenthetical text in this paragraph. The new text reads: (.....applying the standard basic method of foreign body removal.....)
Obstructed Airway Foreign Body Removal: Direct Laryngoscopy	175	H.7.b)		The indications for this procedure were modified.
Electrical Therapy: Cardioversion	185	H.12.f)(2)	By medical consultation only, sedate by administering diazepam 2.5-10 mg slow IV push	New text has been added. The new text reads: (consult symbol) Administer midazolam 0.1 mg/kg in 2 mg increments slow IV push over one to two minutes per increment with maximum single dose 5 mg. (Reduce by 50% for patients 69 years or older.)
Electrical Therapy: Cardioversion	185	H.12.f)(3)		Pediatric dose for midazolam has been added. The new text reads: Administer midazolam 0.1 mg/kg in 2 mg increments slow IV push over one to two minutes per increment with maximum single dose 2 mg.
Electrical Therapy: Defibrillation	186	H.13.c)(1)(b)	Subsequent delivered energy monophasic 360 J or biphasic increasing joules setting	New text has been added. The new text reads: Subsequent delivered energy monophasic 360 J or biphasic increasing joules setting if device allows.
Electrical Therapy: External Transcutaneous Cardiac Pacing	188	H.14.b)(7)		Weight and medical consultation requirements were removed from this line.
Electrical Therapy: External Transcutaneous Cardiac Pacing	188	ALERT		A new alert has been added. The new text reads: CONTINUE CHEST COMPRESSIONS FOR PEDIATRIC PATIENTS WHO REMAIN POORLY PERFUSED DESPITE PACEMAKER CAPTURE.
Electrical Therapy: External Transcutaneous Cardiac Pacing	188	H.14.c)	Start at a pacemaker heart rate of 80 beats per minute and the milliamperes (m.a.) as low as possible and gradual increase m.a. until palpable pulse confirmed capture or 200 m.a.	The text in the dosage has been changed. The new text reads: Start pacemaker at age appropriate heart rate: Infant (less than 1 year): 120 beats per minute Child (1 year to 12 years): 100 beats per minute Adult (greater than 12 years): 80 beats per minute Start milliamperes (m.a.) as low as possible and gradually increase m.a. until palpable pulse confirm capture or 200 m.a.
Electrical Therapy: External Transcutaneous Cardiac Pacing	188	H.14.e)(1)	OR Diazepam 2.5-10 mg slow IV/IO push with medical consult.	New text has been added. Diazepam was replaced by midazolam.
Intraosseous Infusion	194-195			This protocol has been modified. New text has been added throughout the protocol and outline relettered.
Physical and Chemical Restraints	202	ALERT		New text has been added to the first ALERT in this protocol.
Physical and Chemical Restraints	203	H.22.c)(2)		Haldol dosing and age requirements have changed in the chemical restraint procedure. Midazolam was added to this section The outline format has been changed.
ALS Pharmacology	223			Diazepam protocol has been modified.

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ALS Pharmacology	234		NEW	New text was added to this section. The new text reads: (3) Haloperidol has been known to cause torsades de pointes ventricular tachycardia. Once the patient has been medicated place the patient on a cardiac monitor and monitor for dysrhythmias.
ALS Pharmacology	235	J.18.g)		Haldol dosing and age requirements have changed in this protocol.
ALS Pharmacology	236	J.19.g)(3)(d)	Third and subsequent fluid boluses at 10 ml/kg LR IV/IO.	New text has been added. The new text reads: Third and subsequent fluid boluses at 20 mL/kg LR IV/IO.
ALS Pharmacology	239 thru 239-2		NEW	Midazolam is a new protocol.
ALS Pharmacology	242	J.23.b)(2)	Intramuscular and endotracheal results in a slower onset of action.	This text has been revised. Adult patients no longer receive medications via ET tube. The new text reads: Intramuscular and pediatric/neonatal endotracheal administration results in a slower onset of action.
ALS Pharmacology	242	J.23.g)(1)		Adult ET dose was removed from this line.
ALS Pharmacology	242	J.23.g)(2)	ET dose: 0.02 - 0.25 mg/kg	Pediatric ET dose contained a typographical error. The starting dose of 0.02 was corrected. The new text reads: ET dose: 0.2 - 0.25 mg/kg.
ALS Pharmacology	243-1	J.24.g)(2)		New text has been added. High dose NTG was added to this section.
ALS Pharmacology	244-1		NEW	Ondansetron is a new protocol.
Pilot Program	268-10		NEW	The Pelvic Stabilization Binder Device is a new protocol.
Optional Supplemental Program	269			Optional Supplemental Program: Cyanide Poisoning (originally page 322) was moved to page 269 to replace CPAP in the outline of the Optional Protocol section. CPAP is now a Standing Order on page 170-1
Optional Supplemental Program	274-1 thru 274-2		NEW	Impedance Threshold Device is a new protocol.
Optional Supplemental Program	274-3		NEW	Laryngeal Tube Airway Device is a new protocol.
Optional Supplemental Program	275 thru 278	Title	Administration of Mark I kits	The title was modified to align with the table of contents. The new text reads: Mark I Kits.
Optional Supplemental Program	277	V.R.5.b)		New text has been added. Certified First Responder was added to this line.
Optional Supplemental Program	277	V.R.5.b)		New text has been added. Midazolam 5 mg was added to this section.
Optional Supplemental Program	278	V.R.5.e)(3)	Seizures should be treated with Diazepam as indicated in protocol	Diazepam was replaced by midazolam. The new text reads: Seizures should be treated with midazolam as indicated in protocol
Optional Supplemental Program	278	V.R.5.e)(4)		New text has been added. Midazolam was added to this line.
Optional Supplemental Program	322		NEW	Maryland Vaccination & Testing Program is a new protocol.