C. HEALTH CARE FACILITY CODES

Code	Health Care Facility Name
345	10th Street Medical Center, Ocean City, MD
346	26th Street Medical Center, Ocean City, MD
379	63rd Street Medical Center, Ocean City, MD
380	75th Street Medical Center, Ocean City, MD
347	93rd Street Medical Center, Ocean City, MD
409	126th Street Medical Center, Ocean City, MD
751	Alfred I. DuPont Hospital for Children (formerly Alfred I. DuPont Institute)
492	Alleghany General Hospital, Alleghany, PA (former facility code 422)
397	Altoona Rehabilitation Hospital
231	Andrew Rader Clinic, VA
221	Anne Arundel Medical Center (Base Station, Cardiac Intervention, Primary Stroke)
382	Anne Arundel Medical Park
550	Annie M. Warner Hospital
381	Atlantic General Hospital (Base Station, Primary Stroke)
590	Baltimore City Public Service Infirmary (former facility code 520)
222	Baltimore Washington Medical Center (Base Station, Cardiac Intervention, Primary Stroke)
350	Bayhealth Medical Center, Kent Hospital (formerly Kent General, Cardiac Intervention)
359	Bayhealth Medical Center, Milford Hospital (formerly Milford Memorial Hospital)
234	Beebe Medical Center Millville Center, DE
358	Beebe Medical Center Sussex County, DE
208	Bon Secours Hospital
353	Bowie Health Center
235	Brooke Lane Psychiatric Center
236	Brunswick Medical Center
553	Bryn Mawr Hospital
752	Bryn Mawr Rehabilitation Hospital
754	Bryn Mawr Rehabilitation Hospital at Maryland General
771	Calvert County Nursing Home Center
266	Calvert Memorial Hospital (Base Station, Primary Stroke)
554	Carlisle Regional Medical Center, PA
555	Carpenter's Clinic
219	Carroll Hospital Center (Base Station, Cardiac Intervention)
755	Central Industrial Medical Center
276	Chambersburg Hospital, PA
284	Charlestown Area Medical Center
241	Chemtrec Chemical Manufacturers Association Chemical Transportation Emergency Center, Washington, DC
296	Chester River Hospital Center (formerly Kent & Queen Anne's Hospital) (Base Station)
243	Chestnut Lodge Hospital
225	Children's Hospital & Center for Reconstructive Surgery - Baltimore, MD
756	Children's Hospital of Philadelphia, PA
317	Children's National Medical Center, DC (Neonatal, Pediatric Base Station, Pediatric Burn, Pediatric Trauma)
304	Christiana Care Health Systems, Christiana Hospital (Cardiac Intervention)

Code	Health Care Facility Name
299	Christiana Care Health Systems, Wilmington Hospital
341	City Hospital, Martinsburg, WV
291	Civista Medical Center (Base Station, Primary Stroke)
245	Columbia Hospital for Women Medical Center, Washington, DC
383	Columbia Medical Plan
757	Cooper Trauma Center, NJ
248	Crownsville State Hospital
252	Cullen Center
342	DC General Hospital (Neonatal)
293	Deer's Head State Hospital
556	Delaware Memorial Hospital, DE
256	DeWitt Army Hospital, VA
329	Doctor's Community Hospital (formerly Doctor's Hospital of P.G. Co.) (Base Station)
257	Dominion Hospital, VA
294	Dorchester General Hospital
310	Dover U.S. Air Force Clinic (formerly Dover U.S. Air Force Hospital)
302	DuPont Memorial Hospital
491	Eastern Neurological Rehabilitation Hospital (formerly facility code 421)
331	Eastern Shore State Hospital
557	Elizabethtown Children's Hospital
306	Ellsmere Veteran's Administration Hospital, DE
558	Emmitsburg Hospital
258	Finan Center
279	Fort Dietrick Medical Center
247	Fort Howard Veteran's Administration Hospital
522	Fort Washington Hospital
203	Franklin Square Hospital Center (Base Station, Cardiac Intervention, Primary Stroke)
239	Frederick Memorial Hospital (Base Station, Cardiac Intervention)
253	Freeman Hospital
286	Fulton County Medical Center, PA
322	Garrett County Memorial Hospital (Base Station)
580	Geisinger Medical Center, PA
335	George Washington University Hospital, DC
337	Georgetown University Hospital, DC
240	Gettysburg Hospital, PA
759	Gladys Spellman Nursing Center
226	Good Samaritan Hospital of Maryland (Base Station, Primary Stroke)
559	Grant Memorial Hospital
217	Greater Baltimore Medical Center (Base Station, Primary Stroke, Neonatal)
261	Greater Northeast Medical Center, DC (see also Northeast Georgetown #313)
316	Greater Southeast Community Hospital, DC
760	The Greenery
348	Groupe Memorial Hospital
263	Gundry Hospital
363	Hadley Memorial Hospital, DC
560	Hagerstown State Hospital
561	Hampshire Memorial Hospital, WV

Code	Health Care Facility Name
242	Hanover Hospital, PA
211	Harbor Hospital Center (Base Station, Primary Stroke)
220	Harford Memorial Hospital (Base Station, Primary Stroke)
562	Harryon State Hospital
399	Health South Chesapeake Rehabilitation Center (formerly Chesapeake Rehabilitation Hospital)
490	Health South Rehabilitation Hospital of Altoona (former facility code 420)
267	Highland State Health Facility Psychiatric Unit
244	Holy Cross Hospital (Base Station, Cardiac Intervention, Primary Stroke)
450	Hospice of Baltimore - Gilchrist Center - Baltimore, MD
268	HSC Pediatric Center, DC
223	Howard County General Hospital (Base Station, Cardiac Intervention, Primary Stroke)
270	Howard University Hospital, DC
230	Inova Alexandria Hospital, VA
340	Inova Fair Oaks Hospital, VA
305	Inova Fairfax Hospital, VA
326	Inova Loudoun Hospital, VA
287	Inova Mount Vernon Hospital, VA
349	Isle of Wight Medical Center
273	Jefferson Memorial Hospital, Arlington, VA
314	Jefferson Memorial Hospital, Ranson, WV
201	Johns Hopkins Bayview (Adult Burn, Adult Trauma, Base Station, Cardiac Intervention, Neonatal, Perinatal, Primary Stroke)
761	Johns Hopkins Comprehensive Geriatric Center
766	Johns Hopkins Bayview Medical Center Transitional Care Unit
204	Johns Hopkins Hospital (Adult Trauma, Base Station, Cardiac Intervention, Eye Trauma, Neonatal, Pediatric Base Station, Pediatric Burn, Pediatric Trauma, Perinatal, Primary Stroke)
706	Johns Hopkins Hospital Inpatient Rehabilitation Center
451	Joseph Richey Hospice - Joseph Richey House, Baltimore, MD
274	Kennedy-Krieger Institute (formerly John F. Kennedy Institute for Handicapped Children)
227	Kernan Hospital
277	Keswick Home for the Incurables of Baltimore City
262	Kimbrough Army Hospital
563	Kings Daughters Hospital, WV
259	Kirk Army Hospital
403	Lancaster General Hospital, PA
564	Lancaster Osteopathic Hospital, PA
352	Laurel Regional Hospital (formerly Greater Laurel Beltsville Hospital)
773	Laurel Regional Hospital–Rehabilitation
565	Leesburg Hospital, VA
278	Levindale Hebrew Geriatric Center & Hospital
209	Liberty Medical Center (formerly Provident Hospital)
205	Liberty Medical Center Psychiatric Center (formerly Lutheran Hospital)
255	Lincoln Memorial Hospital
354	Malcolm Grow U.S. Air Force Medical Center
280	Mary Washington Hospital, VA
206	Maryland General Hospital (Primary Stroke)

Code	Health Care Facility Name
281	Maryland Penitentiary Hospital
300	Maryland Poison Information Center at UMAB
285	Masonic Eastern Star Home, DC
566	McConnellsburg Hospital
332	McCready Memorial Hospital (Base Station)
339	McGuire Veteran's Administration Hospital, VA
398	Mechanicsburg Rehabilitation Hospital
774	Medlink, DC
404	Memorial Hospital, PA
567	Memorial Osteopathic Hospital, PA
207	Mercy Medical Center (Base Station, Neonatal, Perinatal, Primary Stroke)
389	Meritus Medical Center (formerly listed as Washington County Health System #289) (Adult Trauma, Base Station, Cardiac Intervention, Primary Stroke)
799	Meritus Medical Center, Comprehensive Inpatient Rehabilitation Services (formerly listed as Washington County Health System, Comprehensive Inpatient Rehabilitation Services #789)
499	Meritus Medical Center, Psychiatric Unit (formerly listed as Washington County Health System, Psychiatric Unit # 456)
798	Meritus Medical Center, Skilled Nursing Facility (formerly listed as Washington County Health System, Skilled Nursing Facility #764)
271	Monongalia General Hospital, WV
228	Montebello Center - Baltimore, MD
264	Montgomery General Hospital (Base Station, Primary Stroke)
292	Mount Washington Pediatric Hospital
400	Myersdale Medical Center, PA
351	Nanticoke Memorial Hospital
295	National Capital Poison Center, Washington, DC
334	National Hospital for Orthopedics & Rehabilitation, VA
308	National Institute of Mental Health
356	National Institutes of Health Clinical Center
355	National Naval Medical Center
307	Newark Emergency Center, Newark, DE
568	Newark Hospital, NJ
762	Newmedico Rehabilitation
753	Northampton-Accomac Memorial Hospital
313	Northeast Georgetown Medical Center (see also Greater Northeast # 261)
315	Northern Virginia Doctor's Hospital, VA
218	Northwest Hospital Center (Base Station)
309	NRH Regional Rehabilitation @ Irving Street, Washington, DC (formerly National Rehabilitation Hospital)
408	Peninsula Regional Medical Center (Adult Trauma, Base Station, Cardiac Intervention, Primary Stroke)
454	Peninsula Regional Medical Center, Transitional Care Unit
419	Penn State Children's Hospital, Hershey, PA
301	Penn State Milton Hershey Medical Center, PA
318	Perkins State Hospital
357	Perry Point Veteran's Administration Hospital
569	Pittsburgh Institute for Rehabilitation

Code	Health Care Facility Name
362	Pocomoke City Medical Center
361	Pocomoke Family Health Center
338	Police & Fire Clinic, Washington, DC
325	Potomac Hospital, VA
401	Potomac Valley Hospital, WV
232	Prince George's Hospital Center (Adult Trauma, Cardiac Intervention, Base Station, Neonatal)
344	Prince William Hospital, VA
288	Providence Hospital, DC
378	Psychiatric Institute of DC
364	Psychiatric Institute of Montgomery County
387	Queen Anne's Emergency Center
634	R Adams Cowley Shock Trauma Center (Adult Trauma, Base Station, Hyperbaric, Neurotrauma)
570	Reading Medical Center
571	Riverside Hospital, DE
311	Riverside Hospital, VA
365	Rosewood Center
461	Ruby Hospital Morgantown, WV
572	Sacred Heart Hospital, PA
573	Saint Agnes Burn Center, PA (formerly listed as a Delaware facility)
212	Saint Agnes Hospital (Base Station, Cardiac Intervention, Neonatal, Perinatal, Primary Stroke)
366	Saint Elizabeth's Hospital, Washington, DC
303	Saint Francis Hospital, WV
460	Saint Francis Hospital, Wilmington, DE
213	Saint Joseph Hospital, MD (Base Station, Cardiac Intervention, Primary Stroke)
405	Saint Joseph Hospital, PA
367	Saint Luke Institute
333	Saint Mary's Hospital (Base Station, Primary Stroke)
455	Salisbury Genesis Center
265	Shady Grove Adventist Hospital (Base Station, Cardiac Intervention, Primary Stroke)
368	Sheppard & Enoch Pratt Hospital
294	Shore Health Systems, Dorchester General Hospital (Base Station)
297	Shore Health Systems, Easton Memorial Hospital (Base Station, Primary Stroke)
324	Sibley Memorial Hospital, Washington, D.C.
750	Sinai Head Injury Rehabilitation Hospital
210	Sinai Hospital of Baltimore (Adult Trauma, Base Station, Cardiac Intervention, Neonatal, Perinatal, Primary Stroke)
770	Sinai Rehabilitation Hospital
772	Solomon's Nursing Home Center
360	Southern Chester County Medical Center, PA
343	Southern Maryland Hospital Center (Base Station, Cardiac Intervention, Primary Stroke)
369	Spring Grove State Hospital
406	Springfield State Hospital
370	Springwood Psychiatric Institute, VA
521	State Post Mortem Examiner's (Morgue)
452	Stella Maris Hospice - Dulaney Valley Road - Timonium, MD
453	Stella Maris Hospice at Mercy Medical Center - Baltimore, MD
249	Suburban Hospital Association (Adult Trauma, Base Station, Cardiac Intervention, Primary Stroke)

Code	Health Care Facility Name
763	Suburban Hospital, Inc., Skilled Nursing Facility
371	Tawes-Bland Bryant Nursing Center
574	Taylor Hospital, WV
312	Taylor Manor Hospital
372	TB Clinic
373	Tidewater Memorial Hospital, VA
254	University Specialty Hospital - formerly Deaton Hospital & Medical Center of Christ Lutheran Church
224	Upper Chesapeake Health System
374	U.S. Naval Medical Clinic, Annapolis
576	U.S. Public Health Hospital, MD
375	U.S. Soldier's and Airmen's Home, DC
298	Union Hospital of Cecil County (Base Station)
214	Union Memorial Hospital (Base Station, Cardiac Intervention, Hand/Upper Extremity, Primary Stroke)
215	University of Maryland Medical System (Base Station, Cardiac Intervention, Neonatal, Perinatal, Primary Stroke)
575	University of Pennsylvania Hospital
551	University of Pittsburgh Medical Center Bedford Memorial, PA
224	Upper Chesapeake Health System (Base Station, Cardiac Intervention, Primary Stroke)
407	Upper Shore Mental Health Center
246	Veteran's Administration Hospital - Baltimore, MD
577	Veteran's Administration Hospital - Wilmington, DE
376	Veteran's Administration Medical Center, DC
275	Veterans Affairs Medical Center, Martinsburg, VA (formerly Martinsburg V.A. Hospital and Newton T. Baker Hospital)
233	Virginia Hospital Center, VA
238	Walter P. Carter Center
250	Walter Reed Army Medical Center, DC
377	Walter Reed Hospital Annex
282	War Memorial Hospital, Berkeley Springs, WV
552	War Memorial Hospital, Berkeley Springs, WV
328	Washington Adventist Hospital (Base Station, Cardiac Intervention)
327	Washington Hospital Center, DC (Adult Trauma, Burn, Cardiac Intervention)
727	Washington Hospital Center, DC, Burn Center
269	Waynesboro Hospital, Waynesboro, PA
323	West Virginia University Hospital, WV
290	Western Maryland Center, MD
395	Western Maryland Regional Medical Center (Adult Trauma, Base Station, Cardiac Intervention, Primary Stroke)
776	Western Maryland Regional Medical Center, Psychiatric Unit
402	Western Pennsylvania University Hospital, PA
283	Winchester Medical Center
578	Woodrow Wilson Rehabilitation Center, VA
579	Yale - New Haven Hospital
272	York Hospital, PA
765	York Rehabilitation Hospital, PA
888	**Other Facility**

D. MARYLAND TRAUMA AND SPECIALTY REFERRAL CENTERS

Trauma Centers

Primary Adult Resource Center

- R Adams Cowley Shock Trauma Center, University of Maryland Medical System, Baltimore

Level I Trauma Center

- Johns Hopkins Hospital Adult Trauma Center, Baltimore

Level II Trauma Centers

- Johns Hopkins Bayview Medical Center, Baltimore
- Prince George's Hospital Center, Cheverly
- Sinai Hospital of Baltimore
- Suburban Hospital, Bethesda

Level III Trauma Centers

- Meritus Medical Center, Hagerstown
- Peninsula Regional Medical Center, Salisbury
- Western Maryland Regional Medical Center, Cumberland

Specialty Referral Centers

Eye Trauma

- Wilmer Eye Institute's Eye Emergency Service/Johns Hopkins Hospital, Baltimore

Hand/Upper Extremity Trauma

- The Curtis National Hand Center for Treatment of the Hand and Upper Extremity/Union Memorial Hospital, Baltimore

Hyperbaric Medicine

- Hyperbaric Medicine Center/R Adams Cowley Shock Trauma Center/ University of Maryland Medical System, Baltimore

Neurotrauma (Head and Spinal Cord Injuries)

- Neurotrauma Center/R Adams Cowley Shock Trauma Center/ University of Maryland Medical System, Baltimore

Pediatric Trauma

- Pediatric Trauma Center/Johns Hopkins Children's Center, Baltimore
- Pediatric Trauma Center/Children's National Medical Center, Washington, DC

Burns

- Baltimore Regional Burn Center/Johns Hopkins Bayview Medical Center, Baltimore
- Burn Center/Washington Hospital Center, Washington, DC
- Pediatric Burn Center/Johns Hopkins Children's Center, Baltimore
- Pediatric Burn Center/Children's National Medical Center, Washington, DC

Specialty Referral Centers

Perinatal Referral Centers

- Anne Arundel Medical Center, Annapolis
- Franklin Square Hospital Center, Baltimore
- Greater Baltimore Medical Center, Towson
- Holy Cross Hospital, Silver Spring
- Howard County General Hospital, Columbia
- Johns Hopkins Bayview Medical Center, Baltimore
- Johns Hopkins Hospital, Baltimore
- Mercy Medical Center, Baltimore
- Prince George's Hospital Center, Cheverly
- St. Agnes Health Care, Baltimore
- St. Joseph Medical Center, Baltimore
- Shady Grove Adventist Hospital, Gaithersburg
- Sinai Hospital of Baltimore
- University of Maryland Medical System, Baltimore

Primary Stroke (NEW '11)

- Anne Arundel Medical Center, Annapolis
- Atlantic General Hospital, Berlin
- Baltimore-Washington Medical Center, Glen Burnie
- Calvert Memorial Hospital, Prince Frederick
- Civista Medical Center, La Plata
- Franklin Square Hospital Center, Baltimore
- Frederick Memorial Hospital, Frederick
- Good Samaritan Hospital, Baltimore
- Greater Baltimore Medical Center, Balltimore
- Harbor Hospital Center, Baltimore
- Harford Memorial Hospital, Havre De Grace
- Holy Cross Hospital, Silver Spring
- Howard County General Hospital, Columbia
- The Johns Hopkins Bayview Medical Center, Baltimore
- The Johns Hopkins Hospital, Baltimore
- Maryland General Hospital, Baltimore
- Memorial Hospital at Easton
- Mercy Hospital Center, Baltimore
- Meritus Medical Center, Hagerstown
- Montgomery General Hospital, Olney
- Northwest Hospital, Baltimore
- Peninsula Regional Medical Center, Salisbury
- Shady Grove Adventist Hospital, Gaithersburg

MARYLAND TRAUMA AND SPECIALTY REFERRAL CENTERS (Continued)

Primary Stroke (Continued)

- Sinai Hospital of Baltimore
- Southern Maryland Hospital, Clinton
- St. Agnes Hospital, Baltimore
- St. Joseph Medical Center, Baltimore
- St. Mary's Hospital, Leonardtown
- Suburban Hospital, Bethesda
- Union Hospital of Cecil County, Elkton
- Union Memorial Hospital, Baltimore
- University of Maryland Medical Center, Baltimore
- Upper Chesapeake Medical Center, Bel Air
- Western Maryland Regional Medical Center, Cumberland

Cardiac Intervention (NEW '11)

- Anne Arundel Medical Center, Annapolis
- Baltimore Washington Medical Center, Glen Burnie
- Bayhealth Medical Center-Kent General Hospital, Dover, DE
- Carroll Hospital Center, Westminster
- Christiana Hospital, Newark, DE
- Franklin Square Hospital Center, Baltimore
- Frederick Memorial Hospital. Frederick
- Holy Cross Hospital, Silver Spring
- Howard County General Hospital, Columbia
- Johns Hopkins Bayview Medical Center, Baltimore
- Johns Hopkins Hospital, Baltimore
- Meritus Medical Center, Hagerstown
- Peninsula Regional Medical Center, Salisbury
- Prince George's Hospital Center, Cheverly
- Shady Grove Adventist Hospital, Gaithersburg
- Sinai Hospital of Baltimore
- Southern Maryland Hospital, Clinton
- St. Agnes Hospital, Baltimore
- St. Joseph Medical Center, Baltimore
- Suburban Hospital, Bethesda
- Union Memorial Hospital, Baltimore
- University of Maryland Medical Center, Baltimore
- Upper Chesapeake Medical Center, Bel Air
- Washington Adventist Hospital, Takoma Park
- Washington Hospital Center, Washington, DC
- Western Maryland Regional Medical Center, Cumberland

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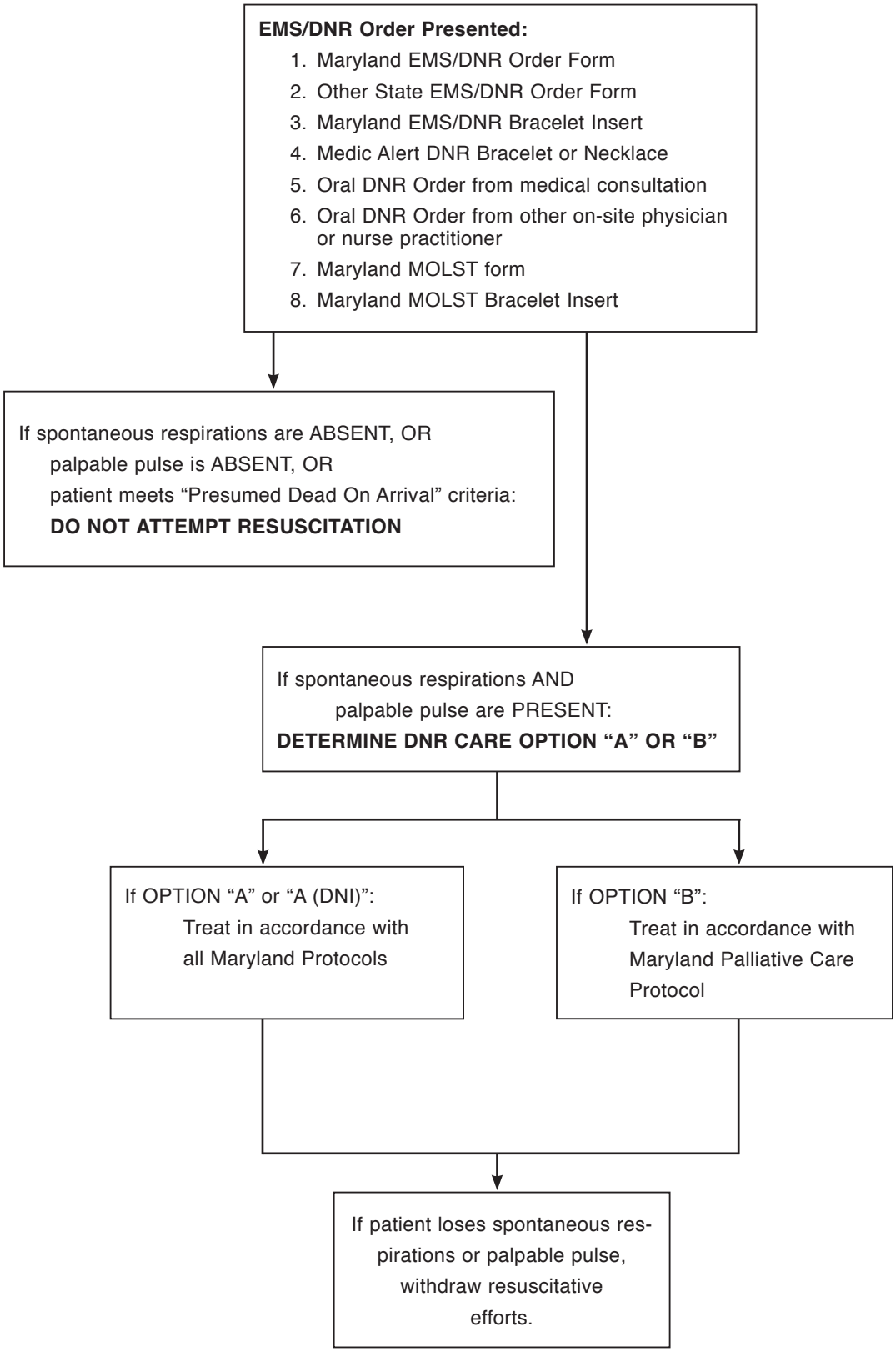
P. EMS DNR Flowchart Effective 07/01/11 (NEW '11)

(Reference DNR Appendix in this document for a thorough explanation.)



Q. ENVIRONMENTAL EMERGENCIES: COLD EMERGENCIES (FROSTBITE)

1. Initiate General Patient Care.

2. Presentation
   Exposure to cold environment (not necessarily outdoors). Frostbite usually affects the feet first followed by the hands, face, and/or ears. The skin initially appears reddened, then turns mottled, bluish, white and/or gray with continued freezing of the flesh. Pain persists during initial stages followed by numbness.

3. Treatment

   a) Remove patient from cold environment.

   b) Handle potential frostbitten areas gently.

   c) Cover lightly with gauze.

   d) Protect from further heat loss.

DO NOT RUB THE AFFECTED AREAS, AS THIS WILL CAUSE MORE DAMAGE TO THE FROZEN TISSUE.

   e) Initiate IV LR KVO, if appropriate.

   f) Administer morphine 0.1 mg/kg IV/IO titrated to effect at a rate of 2 mg/min to a maximum single dose of 20 mg. Repeat in 5-10 minutes after reassessment with 0.05 mg/kg titrated to effect at a rate of 2 mg/min to a maximum single dose of 10 mg. For IM, administer 0.1 mg/kg. (Paramedic may perform without consult.) **(NEW '11)**

D. NORMAL VITAL SIGNS AND APGAR CHART

Normal Vital Signs

AGE	ESTIMATED WEIGHT	HEART RATE	RESPIRATORY RATE	SYSTOLIC B/P
Premature	Less than 3 kg	160	Greater than 40	60
newborn	3.5 kg	130	40	70
3 mo.	6 kg	130	30	90
6 mo.	8 kg	130	30	90
1 yr.	10 kg	120	26	90
2 yrs.	12 kg	115	26	90
3 yrs.	15 kg	110	24	90
4 yrs.	17 kg	100	24	90
6 yrs.	20 kg	100	20	95
8 yrs.	25 kg	90	20	95
10 yrs.	35 kg	85	20	100
12 yrs.	40 kg	85	20	100
14 yrs.	50 kg	80	18	110
ADULT	Greater than 50 kg	80	18	120

APGAR Chart

SIGN	0	1	2
MUSCLE TONE (ACTIVITY)	LIMP	SOME FLEXION	ACTIVE, GOOD FLEXION
PULSE	ABSENT	LESS THAN 100/MIN	GREATER THAN 100/MIN
REFLEX IRRITABILITY* (GRIMACE)	NO RESPONSE	SOME GRIMACE OR AVOIDANCE	COUGH, CRY OR SNEEZE
COLOR (APPEARANCE)	BLUE, PALE	PINK BODY, BLUE HANDS/FEET	PINK
RESPIRATIONS	ABSENT	SLOW/IRREGULAR, INEFFECTIVE	CRYING, RHYTHMIC EFFECTIVE

**Nasal or Oral Suction Catheter Stimulus*

E. EMS/DNR

THE FOLLOWING SECTION IS ABSTRACTED FROM THE ORIGINAL MARYLAND EMERGENCY MEDICAL SERVICES DO NOT RESUSCITATE PROGRAM 2ND REVISION (07/01/98). THE PAGE (pg.) AND THE CHAPTER (ch.) NUMBER HAVE BEEN APPENDED TO THE FOLLOWING CHAPTER TITLES FOR EASY REFERENCE. BECAUSE THIS ABSTRACT IS CONDENSED FROM THE ORIGINAL DOCUMENT, SOME CHAPTER NUMBERS OR LETTERS WERE INTENTIONALLY LEFT OUT. PLEASE REFER TO THE ORIGINAL MARYLAND EMS/DNR DOCUMENT FOR FURTHER INFORMATION

AS OF JANUARY 1, 2002, A COPY OF THE MARYLAND EMS DNR ORDER FORM CAN BE ACCEPTED IN LIEU OF THE ORIGINAL.

AS OF OCTOBER 1, 2011, THE MARYLAND MOLST FORM CAN BE ACCEPTED IN LIEU OF THE MARYLAND EMS?DNR FORM

1. PREFACE EMS/DNR Order or MOLST forms, bracelets, and necklaces will recognize three patient options for care prior to arrest: (pg. 15 ch. A)
   a) **Option A** (ALS)—Maximal (Restorative) Care (with intubation) Before Arrest, then DNR **(NEW '11)**
   b) **Option A (DNI)**—Comprehensive Efforts to Prevent Arrest But Do Not Intubate, then DNR **(NEW '11)**
   c) **Option B** (BLS)—Limited (Palliative) Care Only Before Arrest, then DNR **(NEW '11)**

2. VALID EMS/DNR or MOLST BRACELET WITH INSERT or AUTHORIZED METAL EMBLEM HAS THE SAME EFFECT AS THE FORM. (pg. 17 ch. D)
   a) Typically only one EMS/DNR device is needed to initiate the EMS/DNR protocol.
   b) EMS providers should only request a second instrument (i.e., a bracelet when a form has already been presented) if there is reason to question the validity of the first produced notification device.

3. RECIPROCITY (pg. 19 ch. E)
   a) A standardized EMS/DNR Order from another state may be honored.
   b) Treat out-of-state EMS/DNR Orders as Option "B" EMS/DNR patients.
   c) See chart in "EMS/DNR Program" booklet for how other states will treat Maryland devices.

4. ORAL EMS/DNR ORDERS (pg. 19 ch. G)
   a) EMS providers may follow an oral EMS/DNR Order directly from a Maryland- licensed physician (MD or DO) or nurse practitioner that is physically present "on-site." EMS shall not accept orders from private physician attendings or nurse practitioner by telephone.
   b) EMS providers may follow an oral EMS/DNR Order from a Maryland-licensed physician "on-line" via the EMS Communications System (i.e. radio or telephone consult that is routed through a public service access point [PSAP] for audio recording).

5. ACCEPTABLE AND UNACCEPTABLE EMS/DNR ORDERS (pg. 19 ch. H)
   a) The following are acceptable for implementing the EMS/DNR protocol:
      (1) Original Maryland EMS/DNR Order Form

(2) Copy of the Maryland EMS/DNR Order Form
(3) Other State EMS/DNR Order Form
(4) Maryland EMS/DNR Bracelet Insert
(5) Medic Alert DNR Bracelet or Necklace
(6) Oral DNR Order from EMS System Medical Consultation
(7) Oral DNR Order from other on-site physician or nurse practitioner
(8) Maryland MOLST Form
(9) Maryland MOLST Bracelet

b) The following **are not** acceptable for implementing the EMS/DNR protocol:
(1) Advance directives without an EMS/DNR Order
(2) Facility specific DNR orders
(3) Notes in medical records
(4) Prescription pad orders
(5) DNR stickers
(6) An oral request from someone other than a physician or nurse practitioner
(7) An oral order from an attending physician or nurse practitioner who is not on site
(8) Any other device or instrument not listed above as acceptable.

6. VALIDITY OF EARLIER VERSIONS OF EMS/DNR ORDERS (pg. 22 ch. K)
a) Older versions of EMS/DNR Orders — i.e. initial version (1995 and first revision, 4/1/96) — **continue to be valid and need not be updated** unless the patient or authorized decision maker wishes to take advantage of new features available in the newer forms.
b) EMS providers should treat older versions of EMS/DNR order (pre 7/1/98) as "Option B (BLS) - Limited (Palliative) Care Only Before Arrest, Then DNR."

7. REVOCATION OF AN EMS/DNR ORDER (pg. 24 ch. M)
a) An EMS/DNR Order may be revoked at any time by:
(1) Physical cancellation or destruction of all EMS/DNR Order devices; or
(2) An oral statement by the patient made directly to emergency medical services personnel requesting only palliative care or resuscitation. If the patient revokes an EMS/DNR order orally, the EMS/DNR Order notification devices do not need to be destroyed. EMS providers should document thoroughly the circumstances of the revocation. An oral revocation by a patient is only good for the single response or transport for which it was issued.
b) An authorized decision-maker, other than the patient, cannot revoke an EMS/DNR Order **orally**. Because of the difficulty in identifying authorized decision makers in emergent situations, it is incumbent upon an authorized decision maker who has authority to revoke an EMS/DNR Order to either destroy or withhold all EMS/DNR Order devices, if they wish resuscitation for the patient.

c) Section 5-610 of the Health Care Decision Act (Health General Article, Annotated Code of Maryland) makes willful concealment, cancellation, defacement, obliteration, or damage of an advance directive (including EMS/DNR Orders), without the patient's or authorized decision maker's consent, a misdemeanor subject to a fine not exceeding $10,000, imprisonment not exceeding one year, or both.

8. ANTICIPATED LOCATIONS FOR EMS/DNR ORDER FORMS: (pg. 25 ch. N)
   EMS personnel shall be directed to look for an EMS/DNR Order in the following places:
   a) About a patient's wrist, hung from a necklace, or safety-pinned to a patient's clothing.
   b) At medical facilities, in the patient's chart.
   c) In residences and domicile facilities, by the bedside, behind the patient's bedroom door or on the refrigerator door.
   d) In schools and educational institutions, in the nurse's office, health room, or with the student's attendant caregiver/aide.
   e) Family or caregivers will be expected to retrieve the original EMS/DNR Order prior to the ambulance's arrival.

9. IDENTIFICATION OF PATIENT (pg. 25 ch. O)
   a) If the patient is able, the patient can self-identify during the initial assessment.
   b) If the patient is unable to communicate, then family, caregivers, or bystanders can identify the patient for EMS providers.
   c) If an EMS/DNR vinyl bracelet with insert or metal emblem (bracelet or necklace) is attached to a patient (on wrist, pendant from neck, pinned to clothing, etc.) the patient's identity can be reasonably assumed by EMS providers.
   d) If an EMS/DNR vinyl bracelet insert or metal emblem (bracelet or necklace) is found detached from the patient, EMS personnel must treat it as an EMS/DNR Order form and identify the subject of the EMS/DNR Order as the patient. A valid bracelet insert alone, without the vinyl bracelet, is a valid EMS/DNR Order so long as EMS providers confirm the patient's identity (pg. 17 ch. D).
   e) If EMS personnel are unable to ascertain with reasonable certainty, when required to do so, that the subject of the EMS/DNR Order is the patient, they may resuscitate the patient.

10. HEALTH PROVIDER/EMS PERSONNEL IMMUNITY (pg. 26 ch. R)
    a) General immunity provisions, such as Good Samaritan immunity for volunteers and sovereign immunity for government employees, may apply under specific circumstances.

b) In addition to other immunity that may be provided for in law, the Health Care Decisions Act provides the following specific immunity in cases involving the provision, withdrawal, or withholding of care which may be life-sustaining in nature:
   (1) EMS providers are not subject to criminal prosecution or civil liability or deemed to have engaged in unprofessional conduct as determined by the appropriate licensing, registering, or certifying authority as a result of **withholding or withdrawing** any health care **under authorization** obtained in accordance with the Health Care Decisions Act. See HG (5-609(a)(1).
   (2) EMS providers **providing, withholding, or withdrawing** treatment under authorization obtained under the Health Care Decisions Act do not incur liability arising out of any claim to the extent the claim is based on **lack of consent or authorization** for the action. See HG (5-609(a)(2).
   (3) EMS providers **providing** treatment because they reasonably believe that an EMS/DNR order, other than a bracelet, is not valid, do not incur liability arising out of any claim to the extent the claim is based on **lack of consent or authorization** for the action. See HG (5-608(d).

11. EMS/DNR MEDICAL PROTOCOLS (pg. 29 ch. T)
   a) DISPATCH
      (1) Option B EMS/DNR patients (7/98 version) or patients with older version EMS/DNR orders (pg. 22 ch K) only require a BLS response. Once the on scene BLS provider has determined the need for additional pain control, an ALS Rendezvous may be requested. Medevac requests are not appropriate for these patients.
      (2) Option A or A (DNI) EMS/DNR patients (7/98 version) who are not in arrest may require a range of responses from BLS through the highest echelon of response available. This will depend on the information available to dispatch and the service requested. The response complement in these cases will be dictated by local standard operating procedures (SOP). **(NEW '11)**
      (3) If a dispatch center is unclear whether the DNR order is an EMS/DNR order or is unclear about the pre-arrest patient care option selected (A, A (DNI), or B), the dispatch center shall dispatch the appropriate resources based on the information available. **(NEW '11)**
      (4) In the absence of knowledge to the contrary, information from medical professionals at a health care facility about the EMS/DNR status of a patient may be presumed to be reliable.

EMS/DNR (Continued)

b) PERFORM LIMITED PATIENT ASSESSMENT
Vital signs:
(1) Check for absence of a palpable pulse.
(2) Check for absence of spontaneous respirations in an unresponsive patient.
(3) Check for a valid EMS/DNR Order or MOLST form, vinyl bracelet insert worn either on the wrist, as a necklace, or pinned to clothing, or for a metal emblem (bracelet or necklace).

c) RESUSCITATE/DO NOT RESUSCITATE CRITERIA
(1) If an EMS /DNR Order is not present, revoked, or otherwise void, the EMS provider shall treat and, if necessary, transport the patient.
(2) If an EMS/DNR Order is not present, but the EMS provider believes that resuscitation or further resuscitation is futile, they may contact on-line medical direction to consult regarding "physician-directed termination of unsuccessful non-traumatic resuscitation in the field."
(3) If a valid EMS/DNR order is found and the patient is in cardiac or respiratory arrest, no resuscitative measures shall be initiated.
(4) If the patient is conscious and able to communicate that he/she revokes the EMS/DNR orally directly to EMS providers, EMS providers shall treat and, if necessary, transport the patient.
(5) If the EMS/DNR patient (Option A, A (DNI), or B) arrests, withhold or withdraw further resuscitation and provide support to the family and caregivers. Consider notifying appropriate personnel. **(NEW '11)**

d) **OPTION A** – MAXIMAL (RESTORATIVE) CARE PROTOCOL
(1) When Option A - "Maximal (Restorative) Care (with intubation) Before Arrest, then DNR" is selected on an EMS/DNR Order or MOLST form, the patient shall receive the full scope of restorative interventions permissible under the Maryland EMS Medical Protocols (including Continuous Positive Airway Pressure (CPAP), cardiac monitoring, synchronized cardioversion for pulse-**present** ventricular or supraventricular tachycardia, cardiac pacing for pulse-**present** symptomatic bradycardia, insertion of IVs, and drug therapy), in an attempt to forestall cardiac or respiratory arrest. **(NEW '11)**
(2) This option was requested primarily by long-term care facilities for their patients who are on DNR orders for potentially prolonged periods of time. Many of these patients are less concerned about palliation of pain and more concerned about the quality of life after a stroke or heart attack. The primary medical conditions seen in the field necessitating this option have been the desire to administer Lasix for pulmonary edema, dextrose for diabetic emergencies, and epinephrine for anaphylactic reactions in patients who, upon arrest, are not to be resuscitated.

(3) If, despite these efforts, the patient becomes pulseless or stops breathing spontaneously, EMS providers shall then withhold or withdraw cardiopulmonary resuscitation including, but not limited to, no CPR, no cardiac pacing, no defibrillation, withdrawal of active ventilatory assistance upon cardiac arrest, and withholding or withdrawal of drug therapy (i.e., chemical resuscitation).

e) **OPTION A (DNI)** – COMPREHENSIVE EFFORTS TO PREVENT ARREST BUT DO NOT INTUBATE, THEN DNR **(NEW '11)**
   (1) Option A (DNI) is exactly the same as Option A which may include limited ventilatory support by CPAP or BiPAP, but Do Not Intubate.
   (2) Therefore, inappropriate care for "Option A (DNI) – Comprehensive Efforts to Prevent Arrest but Do Not Intubate, then DNR" would be nasal or oral intubation.

IF MAXIMAL CARE IS SELECTED AND THE PATIENT'S CONDITION REQUIRES ALS, AN ALS UNIT SHOULD BE REQUESTED IF FEASIBLE GIVEN THE LOCATION OF THE INCIDENT RELATIVE TO THE NEAREST APPROPRIATE FACILITY AND THE AVAILABILITY OF AN ALS UNIT, AND ITS ABILITY TO ARRIVE OR RENDEZVOUS IN A MEDICALLY APPROPRIATE PERIOD OF TIME.

f) **OPTION B** – PALLIATIVE CARE PROTOCOL
   (1) Supportive Care for Control of Signs and Symptoms
      (a) Respiratory distress
         (i) Open the airway using non-invasive means (e.g., chin lift, jaw thrust, finger sweep, nasopharyngeal airway, oropharyngeal airway, and Heimlich maneuver, **but** no laryngoscopy, no Magill forceps, no cricothyroidotomy, and no tracheostomy).
         (ii) Administer O_2 as follows:
            a. If the patient is not on a ventilator and would benefit from oxygen therapy, provide passive oxygen via nasal cannula or non-rebreather mask (but no positive pressure oxygen via ambu bag, demand valve, or ventilator).
            b. If the patient is found on an outpatient ventilator and is not in cardiac arrest, maintain ventilatory support during transport to the hospital.
            c. If the patient is found on an outpatient ventilator and is in cardiac arrest, contact on- line medical direction to consult about disconnecting the ventilator.
         (iii) Maintain an open airway by non-invasive means (e.g., chin lift, jaw thrust, finger sweep, nasopharyngeal airway, oropharyngeal airway, and Heimlich maneuver, but no laryngoscope, no Magill forceps, no cricothyroidotomy, and no tracheostomy).
         (iv) Suction as necessary.
         (v) Position for comfort.

(b) External bleeding
  (i) Standard treatment (direct pressure with dressing, tourniquet).
  (ii) No IVs.
(c) Immobilize fractures using skills and devices that minimize pain.
(d) Uncontrolled pain or other symptoms (e.g., severe nausea)
  (i) Allow patient, family, or health care providers (other than the prehospital provider) to administer patient's prescribed medications. Such health care providers administering medication will not have to accompany the patient to the hospital.
  (ii) Patient controlled analgesia (PCA) systems for pain medication delivery and other patient-controlled medication (PCM) systems shall be left in place in DNR patients and monitored to the extent possible according to the provider's level of certification or licensure.
  (iii) For the patient with significant pain and/or pain with a prolonged transport, morphine may be administered.
(e) Existing IV lines may be in place and if so, shall be monitored to the extent possible according to the provider's level of certification and licensure.

(2) Inappropriate Care for a Palliative Care Patient
(a) Cardiac monitoring, including 12-lead EKG, pacing, cardioversion, and defibrillation
(b) Initiation of IV therapy (except when directed by online physician for morphine administration for pain control as in 1 (d) (iii)
(c) EMS-Initiated Medications (except oxygen and morphine administration for pain control as in 1 (d) (iii)
(d) CPR
(e) Intubation (alternative airway device, endotracheal, nasotracheal, or gastric tube)
(f) Active ventilatory assistance, unless on an outpatient ventilator (pg. 32 ch. 5)

g) TRANSPORT
(1) Upon request of the patient, family, or caregivers and in lieu of transport to a hospital-based emergency department, EMS providers may transport Option B EMS/DNR patients who require transportation for pain control or symptom management or respite care to a specified inpatient hospice facility.
(2) A current list of those facilities is available from the MIEMSS Program Development Office (410) 706-4367 (4DNR). The receiving status of a particular facility can be ascertained from EMRC (24 hours a day) by EMS radio, EMSTEL, or red phone, or by calling 1 (800) 492-3805.

(3) The State EMS Board may authorize additional facilities under 6.2.2 or 6.2.4 (pp. 35-36), if recognized in the future by DHMH in accordance with 42 CFR 418.98 and 42 CFR 418.100. EMS jurisdictions and commercial ambulance services will be notified by MIEMSS of any facilities that become eligible and elect to receive patients by ambulance, become ineligible, or elect to discontinue their participation.

(4) Take a copy of EMS/DNR Order or MOLST form, vinyl bracelet with insert, or metal emblem (bracelet or necklace) to the hospital with the patient. If returning the patient from a previous transport, be sure to request a copy of the EMS/DNR Order form, vinyl bracelet with insert, or metal emblem (bracelet or necklace) from the staff (see pg. 20 ch H2 and the "EMS/DNR Order Retrieval Strategies" on pg. 58 of the EMS/DNR program booklet).

h) COMMUNICATIONS

(1) Consultation requirements for Option A EMS/DNR patients shall be dictated by the Maryland EMS Medical Protocols in accordance with the patient's medical needs. EMS providers shall notify the hospital of the patient's EMS/DNR status (i.e., Option A) and the identity of patient's physician or nurse practitioner.

(2) No consultation is required for the Option B EMS/DNR patients. The receiving hospital or inpatient hospice facility should be notified to expect the patient and prepare accordingly. Also make the hospital or inpatient facility aware of the patient's EMS/DNR status (i.e., Option B) and the identity of the patient's physician or nurse practitioner.

(3) If there is misunderstanding with family members or others present at the scene or if there are other concerns about following the EMS/DNR Order and the patient's condition permits, contact the physician or nurse practitioner signing the order, or the patient's hospice program, or on-line medical direction for assistance.

i) DOCUMENTATION

(1) If possible, make or retain a copy of the EMS/DNR Order or MOLST form and attach it to the official copy of the call runsheet that is kept by the EMS service. **Having a copy of the EMS/DNR Order or MOLST form can significantly reduce documentation requirements.** Encourage sending facilities to provide you with a copy of the EMS/DNR order or MOLST form, in addition to an original of the order, with the patient's transfer documents.

EMS/DNR (Continued)

(2) If the EMS/DNR protocol is initiated:
  (a) Document, in the narrative section:
    (i) Who gave you the EMS/DNR Order or MOLST form (as an applicable person physically providing the written order, name of on- site physician or nurse practitioner, or name of on-line medical direction physician) or
    (ii) Where the EMS/DNR Order or MOLST form was found;
  (b) Document the EMS/DNR order number, the effective date of the order, the name of the patient, the patient's date of birth, and the name of the physician or nurse practitioner signing the order;
  (c) Document the time the EMS/DNR protocol was initiated;
  (d) Document any care rendered;
  (e) If the patient arrests while under your care, document the time the patient lost spontaneous respirations or palpable pulse, if able to determine, and
  (f) If the patient arrests while under your care, document the chain of custody until the body is out of custody of EMS.

(3) If resuscitation protocols are initiated, document:
  (a) Care rendered as per normal practice;
  (b) The reason the EMS/DNR protocol was not initiated, if relevant (e.g., unable to find EMS/DNR Order, EMS/DNR is not or does not appear to be valid, patient request, etc.);
  (c) If resuscitation was started because there was reasonable doubt as to the validity of an EMS/DNR Order;
    (i) The EMS/DNR Order number, the effective date of the order, the name of the patient, the patient's date of birth, and the name of the physician or nurse practitioner signing the order; and
    (ii) Who gave you the EMS/DNR or where the EMS/DNR Order or MOLST form was found.

(4) Transfer any EMS/DNR Order or MOLST form to the appropriate authorities (e.g., to hospital or in-patient hospice personnel of the facility where the patient was transferred or, if the patient is deceased, to the physician/police/medical examiner). If possible at the receiving facility, and if not already done, make a copy of the EMS/DNR Order or MOLST form.

DO NOT RETAIN an original EMS/DNR Order or MOLST form.

(5) If a copy of the EMS/DNR Order or MOLST form is available to EMS providers, it shall be attached to the official copy of the call runsheet that is retained by the EMS service.
(6) A vinyl bracelet with insert or metal emblem (bracelet or necklace) shall be left where found on the patient. Bracelets or metal emblems shall not be removed without the permission of the patient or the patient's authorized decision maker and when possible, shall be returned with the patient to the sending facility (see pg.16 ch. C of the EMS/DNR Program booklet).

j) PATIENT DISPOSITION IF NOT TRANSPORTED
If the EMS/DNR Protocol is implemented and the patient is not transported because the patient arrested at the response site, EMS personnel shall:
(1) Follow local operational procedures for handling deceased patients **(see "How to Best Tell the Worst News" on pp.105-106 of the EMS/DNR program booklet);**
(2) Do **not** remove an EMS/DNR vinyl bracelet or metal emblem (bracelet or necklace) from the deceased patient;
(3) Law enforcement personnel or a representative of the medical examiner's office needs to be notified only in the case of sudden or unanticipated death which occurs:
(a) By violence
(b) By suicide
(c) As a result of an accident
(d) Suddenly, if the deceased was in apparent good health, or
(e) In any suspicious or unusual manner.

F. PRESUMED DEAD ON ARRIVAL (PDOA)

NOTE: IF ANY DOUBT EXISTS, INITIATE RESUSCITATION AND TRANSPORT.

1. PURPOSE

This protocol is designed to assist the provider with the presumption of death in the prehospital setting.

2. INDICATIONS

Presumption of death in the field (without initiation of resuscitation) should be considered only in the following instances:

a) Decapitation
b) Decomposition
c) Rigor mortis
d) Pulseless, apneic patient in multiple casualty situation where system resources are required for stabilization of living patients
e) Pulseless, apneic patient with injury not compatible with life (with the exception of an obviously pregnant female where resuscitation attempts should be initiated and the patient transported to the nearest appropriate facility)

3. CONTRAINDICATIONS

a) Certain special circumstances may result in exception to this protocol.
b) Obtain medical direction at time of the occurrence when:
   (1) Patient is too large to extricate.
   (2) Significant physical environmental barriers exist.

4. PRECAUTIONS

a) Death cannot be judged in the hypothermic patient, who may be asystolic, apneic, and stiff but still survive. Transport for rewarming in all instances.
b) All children who do not meet criteria above should be transported to the Emergency Department. DO NOT SPECULATE OR PREDICT THE OUTCOME (GOOD OR BAD) TO THE RELATIVES! The grief of pediatric death is best managed at the hospital; moreover, the possibility of child abuse can best be evaluated there.
c) Do not attempt to guess future outcomes based on the appearance of the patient (e.g., shotgun blast to face of suicide victim). Failure to act because of mistaken notions of outcome will result in a self-fulfilling prophecy.
d) Do not allow attempted suicide to prejudice the decision to resuscitate. Despite the seriousness of the event, psychiatric patient(s) may, after therapy, resume the desire to live. It is inappropriate to agree with the patient that death would be preferable, and therefore fail to act.

U. Transport of ACUTE Ventilated Inter-Facility Patients

1. PURPOSE

To define the indications for use of a mechanical ventilator by a Paramedic for the acute ventilated patient

a) The level of care required for the inter-facility transport of the **"acute ventilated inter-facility patient"** is beyond the routine training curriculum for a paramedic; this type of patient must be transported by a higher level health care provider who is credentialed, educated, and competent in dealing with the ventilator and the ventilated patient. **or**

b) When a critical interfacility transfer is needed and a credentialed, educated, and competent higher level health care provider is **genuinely unavailable**, a credentialed, educated, and competent paramedic (through a MIEMSS approved training program) may attend the ventilator and the ventilated patient with the addition of a second ALS provider or advanced airway trained health care provider when determined appropriate by the sending/referring physician.

2. INDICATIONS

ACUTE VENTILATED PATIENTS for the interfacility transport are defined as:

a) Intubated **or**

b) Tracheostomy patient when the reason for transport is:

(1) For increased level of care from a hospital, **or**

(2) To continue the same level of care in an acute care setting, **or**

(3) The new tracheostomy patient within the last 4 days **(NEW '11)**

3. VENTILATOR STANDARDS

a) ACUTE VENTILATOR DEVICE STANDARDS

(1) The ventilator that the service is to use for the acute ventilated patient should be able to match the existing ventilator settings. The following minimum device features (including circuit) must be present for this category of patient:

(a) Set rate of ventilations
(b) Adjust delivered Tidal Volume
(c) Adjustable Inspiratory and Expiratory ratios (I:E ratio)
(d) Positive End-Expiratory Pressure (PEEP)
(e) Peak airway pressure gauge
(f) Continuous Expiratory Volume measurement (Required)
(g) Modes
(i) Assist Control (AC)
(ii) Synchronized Intermittent Mandatory Ventilation (SIMV)
(iii) Controlled Mechanical Ventilation (CMV)

(h) Alarms
(i) Peak airway pressure
(ii) Disconnect

(2) Strongly recommended options are:
(a) Blend percentage oxygen
(b) Adjustable Pressure Support Settings **(NEW '11)**

(3) Must perform periodic maintenance (including calibration) meeting the manufacturer's specifications

b) ACUTE VENTILATOR USAGE

(1) A ventilator maintained by the ambulance service or health care facility must be specifically designed for transport use and capable of providing the required settings.

(2) Continuous pulse oximeter and continuous capnography monitoring equipment must be used on all acute ventilated inter-facility patients.

(3) Tracheal suctioning kits/catheters must be available.

(4) A tracheotomy replacement tube the same size and one size smaller shall be transported with the patient ventilated through a tracheotomy. (The endotracheal tube equivalent may be substituted.)

4. POTENTIAL ADVERSE EFFECTS

a) Pneumothorax
b) Barotrauma
c) Hypoxemia
d) Hyperventilation
e) Hypoventilation
f) Extubation of endotracheal or tracheostomy tube

5. PRECAUTIONS

If any problems arise with mechanical ventilation, the patient shall be disconnected from the ventilator and manually ventilated.

6. OPTIONAL PROGRAM REQUIREMENTS

a) A special "Ventilated Patient" report form will be completed for each mechanically ventilated patient and will include vital signs, pulse oximeter readings, and lung sounds (recorded a minimum of every 5 minutes), and documentation of any of the following;
(1) cardiac arrest during transport,
(2) dislodgment of tracheotomy or endotracheal tube,
(3) equipment failure (with FDA report),
(4) discontinuance of ventilator and conversion to BVM,
(5) deterioration of patient and
(6) the upgrading of patient care to critical care.

b) The Optional Program will require a training program which meets or exceeds the "Acute Ventilated Inter-Facility Patient" curriculum and be approved by the operational program medical director with skills validation. A copy of the training program shall be reviewed and be approved or disapproved by MIEMSS.

V. Optional Program Transport of CHRONIC and SCENE Ventilated Patients

1. PURPOSE

To define the indications for use of a mechanical ventilator:

a) Chronic ventilated patient
The level of care required for the inter-facility transport of **"chronic ventilated patients"** is within the scope of practice of a paramedic who has been credentialed, is competent, and received adequate training specific to the patient's condition and the equipment necessary to provide care. Exception: A CRT-I or EMT-B may transport a chronically ventilated patient who is going for routine medical care and has in attendance a patient provided attendant who can manage the patient's own ventilator.

b) Patient ventilated at the scene of an emergency
The level of care required for the transport of a ventilated patient from the **"scene of an emergency"** is within the scope of practice of a paramedic who has been credentialed, is competent, and received adequate training specific to the patient's condition and the equipment to provide care.

2. INDICATIONS

a) CHRONIC VENTILATED PATIENTS are defined as:

(1) Have an established tracheostomy and ventilator settings that have no changes within 24 hours or changes reflecting improvement in the patient **(NEW '11) and**

(2) Point of origin or destination is:
- (a) Long-term care facility,
- (b) Home,
- (c) Outpatient setting,
- (d) Hospital; **and**

(3) Reason for transport is:
- (a) Return from or transport to a scheduled appointment, **or**
- (b) For extended care, **or**
- (c) For emergency treatment (but not complication of airway or respiratory distress); **and**

(4) Ventilator settings are:
- (a) Positive End-Expiratory Pressure (PEEP) less than 10 **(NEW '11)**,
- (b) Peak pressures less than 30, and
- (c) No changes in the ventilator settings are required during the transport.

b) SCENE OF AN EMERGENCY – Out of Hospital

(1) Point of origin is at the scene of an out-of-hospital emergency

(2) A EMT-P may utilize mechanical ventilation once the patient is intubated.

(3) Reason for mechanical ventilation is respiratory arrest or when the patient is intubated and not bucking the ventilator

(4) Once the patient is on a ventilator, a second provider (EMT-B or higher) is required to assist with patient care.

(5) Destination – closest appropriate hospital

(6) Contraindicated in children 8 years of age or less.

3. VENTILATOR STANDARDS

a) CHRONIC VENTILATOR DEVICE STANDARDS

(1) The ventilator that the service is to use for the acute or chronically ventilated patient should be able to match the existing ventilator settings. The following minimum device features (including circuit) must be present for this category of patient:
   (a) Set rate of ventilations
   (b) Adjust delivered Tidal Volume
   (c) Adjustable Inspiratory and Expiratory ratios (I:E ratio)
   (d) Positive End-Expiratory Pressure (PEEP)
   (e) Peak airway pressure gauge
   (f) Modes
      (i) Assist Control (AC)
      (ii) Synchronized Intermittent Mandatory Ventilation (SIMV)
      (iii) Controlled Mechanical Ventilation (CMV)
   (g) Alarms
      (i) Peak airway pressure
      (ii) Disconnect

(2) Strongly recommended options are:
   (a) Continuous Expiratory volume measurement
   (b) Blend percentage oxygen
   (c) Adjustable Pressure Support Settings **(NEW '11)**

(3) Must perform periodic maintenance (including calibration) meeting the manufacturer's specifications

b) CHRONIC VENTILATOR USAGE

(1) Ventilator used is:
   (a) The patient's own ventilator intended for home/transport use and have the patient, home-care provider or staff member from the health care facility manage the ventilator, **or**
   (b) A ventilator maintained by the ambulance service or health care facility specifically designed for transport use and capable of providing the required settings. If the patient's ventilator is the same as the company ventilator, the paramedic may manage the ventilator without the home-care provider accompanying patient. Exception: A CRT-I or EMT-B may transport a chronically ventilated patient who is going for routine medical care and has in attendance a patient provided attendant who can manage the patient's own ventilator.

(2) Monitoring equipment must include pulse oximeter (provided by family or service)

(3) Tracheal suctioning kits/catheters must be available

(4) A tracheotomy replacement tube the same size and one size smaller shall be transported with the patient ventilated through a tracheotomy. (The endotracheal tube equivalent may be substituted.)