Professional Development Committee
OEMS Office – 1041 Technology Park Dr, Glen Allen, Virginia
July 7, 2010
10:30 am

Members Present:	Members Absent:	Staff:	Others:
Larry Oliver – Chair	**Tom Jarman-excused**	Gary Brown	Jerry Andrews
Nick Klimenko		Michael Berg	
Stephen Rea		Dr. George Lindbeck	
Kathy Eubank		Warren Short	
Jeffrey Reynolds		Thomas Nevetral	
Dave Cullen		Greg Neiman	
Holly Frost		Chad Blosser	
Dr. Charles Lane			
Donna Hurst			

Topic/Subject	Discussion	Recommendations, Action/Follow-up; Responsible Person
I. Welcome	The meeting was called to order at 10:42 am	
II. Introductions	Introductions were not necessary.	
III. Approval of Agenda	The Committee reviewed the Agenda for today's meeting. (**Attached**)	**Motion by: Dave Cullen** **To accept the Agenda as modified.** **Seconded by: Dr. Charles Lane** **Unanimously Approved**
IV. Approval of Minutes	The Committee reviewed the minutes of the May 19, 2010 meeting (**ATTACHMENT: A**)	**Approved by unanimous consent with no changes**
V. Reports of Committee Members		
	a. Officer Reports – i. Larry Oliver - a. No Report b. Reports of Committee Members i. Medical Direction Committee (MDC) – Dr. Lane a. No Report c. Office of EMS i. Division of Educational Development-Warren Short.	

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Topic/Subject	Discussion	Recommendations, Action/Follow-up; Responsible Person
	a. Pay attention to the info coming from NREMT regarding testing. They are proposing some changes in the future. b. Portal – Out of close to 600 Instructor/Coordinators, only 59 have yet to log onto their portal. Course Approvals are no longer being mailed, so Coordinators will need to log in to receive their Course Documents. c. Test Statistics (**ATTACHMENT: B**) ii. ALS Training Specialist – Tom Nevetral a. NR has released information about their Pilot Practical Exam and is seeking enrollment of programs to participate. 1. Rumor out there was that the P practical may be composed of only 4 stations. Unlikely as the AEMT is supposed to be 7 stations. The new stations will be much more scenario based and less skill based. b. Next ALS-C Meeting is set for this Friday, July 9, 2010 in Roanoke. iii. BLS Training Specialist – Greg Neiman a. Instructor Institute 1. The last Institute was held in June in conjunction with the VAVRS Rescue College at Virginia Tech. 2. Had 7 full candidates, 2 Fire Instructors and 1 ALS-C who attended the Adult Education Component 3. 8 New Full Instructors and 1 Conditional. b. EMS Instructor Updates – 1. Continue to offer monthly Online Instructor/ALS-C Updates 2. Next in-person update will be at VAVRS Convention in VA Beach in September. 3. The schedule of Updates has been released for 2010 and can be found on the OEMS website here: http://www.vdh.virginia.gov/OEMS/Training/EMS_InstructorSchedule.htm iv. Funding and Accreditation – Chad Blosser 1. Funding a) EMS Contracts are delayed coming back from the Attorney General's Office b) Contracts are retroactive c) A date will be set to begin receiving Contracts. For the first 4 weeks they must be received via USPS, FEDEX, or UPS only. No hand deliveries will be accepted. 2. Accreditation a) Central Virginia Community College – Full Paramedic Program through CoAEMSP with no citations	

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Topic/Subject	Discussion	Recommendations, Action/Follow-up; Responsible Person
	b) Several Intermediate programs in initial or reaccreditation c) Scanners-CE scanners have been out in the field for about a year and a half. Regional Councils have received their scanners and are being distributed through their schedule. Training is ongoing. 175 of 600 instructors have been through the training so far. v. Other OEMS Information 1. Michael Berg a) Scott Winston is recovering from surgery and will be out of the Office for about 6 weeks 2. Regulations a) Work Session was held recently to go through Public Comments b) After completed, entire packet will go back to 3. Enforcement by Field Staff. a) Has been reinstated b) Have an established policy set up by the Health Commissioner to immediately suspend in severe cases. 4. CTS Error. Recently had an error at a CTS site that resulted in the wrong person receiving certification. This has been corrected and a review of CTS procedures is ongoing to prevent a reoccurrence. 5. Boy Scout Jamboree – After some back and forth, it was determined that we would not be certifying providers from out of state working at the Jamboree. Emergency Ops and the REMS council have a plan in place for this event.	
VI. Previous Business		
	a) Proposal to PDC Regarding Upgrade of EMT Instructor Certified at the EMT-B or Enhanced (**ATTACHMENT: C**) This item was reintroduced as the discussion was held after a quorum was lost in the May 19, 2010 meeting	**Motion by Dave Cullen** **PDC recommends that all Instructors/ ALS Coordinators must take the EMT-Instructor Pretest in order to gain eligibility for Education Coordinator Certification. If a person fails all 4 attempts they must wait 6 months before restarting the EC process (pretest, practical, Institute)** **Second by Steve Rea** **Vote: Unanimously Approved.**

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Topic/Subject	Discussion	Recommendations, Action/Follow-up; Responsible Person
	b) DED Guidance Document regarding gap in current educational curricula - Phoenix Document (**ATTACHMENT:D**)	**Motion by: Nick Klimenko** **To: Accept the Phoenix Document in it's entirety with the inclusion of the Intermediate Essential Knowledge Content inserted by OEMS Staff and input regarding vagal maneuvers inclusion into the Scope of Practice.** **Seconded by: Holly Frost** **Vote: Unanimously Approved**
VII. New Business	None	
VIII. Public Comment	None	
IX. Dates for 2009 Meetings	Next meeting set for October 6, 2010 10:30am at the OEMS Office, 1041 Technology Park Dr, Glen Allen, VA 23059	
X. Adjourn	Meeting adjourned at 14:07.	

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Professional Development Committee
Wednesday, May 19, 2010
OEMS Office – 1041 Technology Park Dr, Glen Allen, VA 23059
10:30 AM
Special Call Meeting Agenda

I. Welcome
II. Introductions
III. Approval of Agenda
IV. Approval of Minutes from April 7, 2010
V. Reports of Committee Members
a. Officer Reports
b. Reports of Committee Members
i. Medical Direction Committee - Dr. Charles Lane
ii. Others
c. Office of EMS
i. Division of Educational Development (DED)-Warren Short, OEMS
ii. ALS Training Specialist- Tom Nevetral, OEMS
iii. BLS Training Specialist-Greg Neiman, OEMS
iv. Funding and Accreditation-Chad Blosser, OEMS
v. Other OEMS Division Information

VI. New Business
a. Virginia EMS Education Standards Document sent back from EAB
b. Discuss EMS Education Coordinator Policy/Procedure
VII. Previous Business
a. DED Proposal regarding EMT-B/Enh Instructor Knowledge Gap
b. DED Phoenix Document
VIII. Public Comment
IX. Date for Next 2010 Meeting
X. Adjourn

Attachment: A to the July 7, 2010 PDC Minutes

Approved May 19, 2010 Minutes of the PDC

Professional Development Committee
OEMS Office – 1041 Technology Park Dr, Glen Allen, Virginia
May 19, 2010
10:30 am

Members Present:	Members Absent:	Staff:	Others:
Larry Oliver – Chair	**Dr. Charles Lane-excused**	Warren Short	Jerry Andrews
Nick Klimenko	**Donna Hurst-excused**	Thomas Nevetral	
Stephen Rea	**Tom Jarman-excused**	Greg Neiman	
Kathy Eubank		Chad Blosser	
Jeffrey Reynolds			
Dave Cullen			
Holly Frost			
		Dr. George Lindbeck-excused	

Topic/Subject	Discussion	Recommendations, Action/Follow-up; Responsible Person
I. Welcome	The meeting was called to order at 10:37 am	
II. Introductions	The Committee introduced themselves.	
III. Approval of Agenda	The Committee reviewed the Agenda for today's meeting. The committee chose to move New Business before Previous Business (**Attached**)	**Motion by: Dave Cullen** **To accept the Agenda as modified.** **Seconded by: Stephen Rea** **Unanimously Approved**
IV. Approval of Minutes	The Committee reviewed the minutes of the January 6, 2010 meeting (**ATTACHMENT: A**)	**Motion by: Stephen Rea** **To: Accept the minutes as presented.** **Second by: Dave Cullen** **Unanimously Approved**
V. Reports of Committee Members		
	a. Officer Reports – i. Larry Oliver - a. Advisory Board - both action items sent to EAB were tabled. Education Coordinator was sent to Reg & Policy. A couple of people didn't understand the strikethroughs in the VEMSES. Advisory Board requested a presentation	

Topic/Subject	Discussion	Recommendations, Action/Follow-up; Responsible Person
	about where this is and where it is going. One third of the Committee has changed so probably a good idea to remind everyone where we came from. Also, New Advisory Boards Bylaws were presented for review by the Board. PDC's name will change to Training and Certification Committee under the new structure. b. Reports of Committee Members i. Medical Direction Committee (MDC) – Greg Neiman for Dr. Lane a. Did not have a quorum at the last meeting so MDC only gave a cursory review of two items we sent to them. c. Office of EMS i. Division of Educational Development-Warren Short. a. No Report ii. ALS Training Specialist – Tom Nevetral a. No Report iii. BLS Training Specialist – Greg Neiman a. Resumption of EMT-Instructor Written Pretest – We have around a 28% pass rate on the new written.. b. New Practical Exam – On track. Have had some classes come in unprepared. Trauma continues to be the highest failed practical station. **(ATTACHMENT: B)** c. Instructor Institute- The next Institute is scheduled for June in conjunction with the VAVRS Rescue College at Virginia Tech. d. EMS Instructor Updates – 1. Next Online Update, Tuesday , June 1, 2010. Register NLT 5pm on 5/27/10. 2. The next in-person Update is scheduled for Saturday, June 12, 2010.Location TBA but we are hoping for Blacksburg at VAVRS Rescue College. If not, it will be here at 1041 Technology Park Dr. 3. The schedule of Updates has been released for 2010 and can be found on the OEMS website here: http://www.vdh.virginia.gov/OEMS/Training/EMS_InstructorSchedule.htm iv. Funding and Accreditation – Chad Blosser 1. Regional Councils bought scanners and distribution has begun. OEMS Training on them is ongoing. v. Other OEMS Information 1. Regulations a) Work Session June 8th, 2010 to go through Public Comments	

Topic/Subject	Discussion	Recommendations, Action/Follow-up; Responsible Person
	b) Expect a special interest group to hold up implementation 2. Variances a) All variances require a letter of support from the local government where the applicant lives. 3. Electronic Signatures a) New DEA Policy requires that all Electronic Signatures must be certified by a third party to ensure security requirements. b) Federal Drug Control Act will require us to continue to receive an actual signature for all invasive procedures. 4. Moratorium on enforcement by Field Staff. a) Currently only the Health Commissioner can enforce the rules and regulations. b) All enforcement cases must be compiled by the Office and sent up to the Health Commissioner for action.	
VI. New Business	a) Virginia EMS Education Standards (VEMSES) Document sent back from EAB (**ATTACHMENT: C**) i. Significant discussion centered on how many patients EMT Students should have contact with. b) Discuss Education Coordinator Policy/Procedure- The Office will be present at the next Reg and Policy Committee meeting to discuss this document.	**Motion by Steve Rea** **Second by: Dave Cullen** **To accept the revised VEMSES Document and forward to the EAB with a presentation at their next meeting.** **Unanimously Approved**
	With the departure of a number of Committee members, the Committee no longer had a quorum – the rest of the meeting continued as information only without formal business being conducted.	
VII. Previous Business		
	a) Proposal to PDC Regarding Upgrade of EMT Instructor Certified at the EMT-B or Enhanced (**ATTACHMENT: D**)	**Members of the PDC recommend that the Office Test all Instructors/ ALS Coordinators on the knowledge test and not just current EMT-B and EMT-E Instructors. Investigate the possibility if a person fails all 4**

Topic/Subject	Discussion	Recommendations, Action/Follow-up; Responsible Person
	b) DED Guidance Document regarding gap in current educational curricula Phoenix Document (**ATTACHMENT:E**)	**attempts they must wait 6 months before restarting the EC process (pretest, practical, Institute)** **Due to lack of quorum, this item was automatically tabled until the next meeting.**
VIII. Public Comment	None	
IX. Dates for 2009 Meetings	Next meeting set for July 7, 2010 10:30am at the OEMS Office, 1041 Technology Park Dr, Glen Allen, VA 23059	
X. Adjourn	Meeting adjourned at 14:30.	

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OEMS Office – 1041 Technology Park Dr, Glen Allen, VA 23059
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VI. New Business
a. Virginia EMS Education Standards Document sent back from EAB
b. Discuss EMS Education Coordinator Policy/Procedure
VII. Previous Business
a. DED Proposal regarding EMT-B/Enh Instructor Knowledge Gap
b. DED Phoenix Document
VIII. Public Comment
IX. Date for Next 2010 Meeting
X. Adjourn

Attachment: B to the July 7, 2010 PDC Minutes

State Exam Statistics

Virginia Tests Statistics

TEST_	COUNT	MAX(TEST_SCORE)	MIN(TEST_SCORE)	AVG(TEST_SCORE)	STDDEV(TEST_SCORE)
A0000	2125	99	0	83.925813	13.805346
A0107	342	96	47	82.251462	8.4725491
A0294	226	97	46	81.088496	7.7218967
A0394	258	96	57	82.423529	7.9040154
A0497	1	86	86	86	0
A0695	116	98	60	83.896552	7.7676915
A0697	1079	99	21	85.415042	7.7486944
A0706	385	97	45	82.005195	8.0496489
A0795	146	97	57	83.09589	8.4961076
A0797	1075	100	58	85.575843	7.7841581
A0806	355	98	43	80.935211	8.616026
A0896	11	93	78	85.272727	5.7808461
A0901	168	96	46	81.797619	8.1229766
A0990	210	97	49	83.138095	7.9757393
A1001	258	99	58	82.292969	8.8749543
A1090	282	97	34	83.41637	8.1753735
A1206	301	96	26	81.323333	9.9580452
A9999	708	0	0	0	0
B0000	21371	100	0	78.868282	20.859164
B0195	54	96	67	83.62963	6.4377902
B0406	12394	99	0	78.813262	8.9547609
B0506	5262	98	0	80.454061	8.4614035
B0592	1584	100	0	83.721728	10.026098
B0689	466	99	48	81.086022	10.186468
B0692	1628	100	43	83.555901	10.126406
B0794	1298	100	49	88.70216	7.4899693
B0797	3351	99	52	86.208946	7.25893
B0894	1288	100	30	88.804044	7.9380196
B0897	3463	99	40	86.292041	7.4574712
B0995	2073	100	0	88.508746	7.1024294
B1095	1958	100	27	88.776173	6.944378
B1190	1833	100	0	80.594475	10.839916
B1193	567	99	28	82.628774	9.6182853
B1293	637	99	0	82.173355	10.948232
B1797	275	99	55	85.653285	7.2384965
B1897	279	98	30	85.446043	7.924438
B7102	1560	100	51	86.178319	7.0555483
B7202	1462	100	33	86.241237	7.5026967
B7302	5696	100	24	86.792158	7.023356
B7402	5707	100	54	86.994556	6.8913022
B9204	21	96	69	83.333333	8.4931345
B9999	25456	0	0	0	0
J0000	1159	0	0	0	0
J0501	2629	100	0	86.003836	7.2921167
J0608	1071	99	48	85.314953	7.019741
J9999	2365				
I0000	2796				
I0603	307	94	47	76.562092	7.7968721
I9999	4896				
E0000	5948	100	78	89.95942	4.9421712
E0105	282	98	63	84.64539	5.8882049
E0194	920	98	76	89.480435	3.9274775
E0895	782	98	73	88.31114	4.7430642
E0990	708	99	77	90.751773	4.1747279
E9999	12637				
A=FR, B=EMT, J=Enh, I=Intermediate, E=Paramedic, F=Inst Recert, H=Inst Pretest					

TEST_	COUNT	MAX(TEST_SCORE)	MIN(TEST_SCORE)	AVG(TEST_SCORE)	STDDEV(TEST_SCORE)
F0000	181	99	0	85.45	7.7379054
F0195	1	92	92	92	0
F0406	156	99	83	93.089744	2.8542482
F0506	77	99	77	92.805195	3.652825
F0592	109	100	85	95.844037	2.909672
F0689	4	100	91	94.25	4.0311289
F0692	108	100	87	95.777778	2.6802613
F0794	93	100	91	97.010753	2.0242799
F0797	132	99	89	95.715385	2.0806775
F0894	89	100	91	97.05618	2.0963147
F0897	132	100	84	95.378788	2.3428641
F0995	120	99	86	95.533333	2.1141116
F1095	120	99	86	95.725	2.2527761
F1190	105	100	78	93.552381	3.6820274
F1193	48	99	84	95.145833	2.9606611
F1293	25	98	87	94.92	3.094619
F1797	10	98	93	96.555556	1.5092309
F1897	21	100	94	97.047619	1.6575944
F7102	30	97	89	93.448276	1.7440963
F7202	36	97	89	93.722222	1.8300837
F7302	65	97	87	93.4	2.1050534
F7402	74	96	87	93.756757	1.9501374
F9204	4	98	94	96.5	1.7320508
F9999	2132				
H0110	24	91	40	75.416667	13.609193
H0895	356	96	56	81.384831	7.5396189
H0995	371	95	53	85.097826	6.2805609
H1095	362	97	62	85.593923	6.8058364
H1195	354	96	56	82.429379	7.03869
A=FR, B=EMT, J=Enh, I=Intermediate, E=Paramedic, F=Inst Recert, H=Inst Pretest					

Test Statistics by Level

Tests 01-Sep-2005 -- 31-Aug-2009

	Written				Practical												
Level	Tests	Pass	Fail	% Fail	Tests	Pass	Fail	% Fail	Medical	Trauma	AED	Bleeding	Joint	Long Bone	Traction	KED	BackBoarding
A	1373	1282	91	7%	1443	1231	212	15%	2%	12%	2%						
B	16706	15165	1541	9%	18955	15171	3784	20%	2%	14%	6%						
									Medical	Trauma	ET	Dual Lumen	IV	Bolus			
J	2332	1903	429	18%	2913	2026	887	30%	10%	10%	7%	5%	4%	9%			
I	197	79	118	60%													
E	232	193	39	17%													
H	549	249	300	55%													
F	237	237	0	0%													

Tests 01-Sep-2009 -- 31-Aug-2010

	Written				Practical												
Level	Tests	Pass	Fail	% Fail	Tests	Pass	Fail	% Fail	Medical	Trauma	AED	Bleeding	Joint	Long Bone	Traction	KED	BackBoarding
A	373	326	47	13%	337	231	106	31%	0%	25%	1%	4%	3%	4%	0%	0%	0%
B	4327	3330	997	23%	4744	2895	1849	39%	17%	20%	2%	2%	2%	3%	3%	3%	3%
									Medical	Trauma	ET	Dual Lumen	IV	Bolus			
J	442	344	98	22%	523	361	162	31%	9%	12%	Not Tested	5%	7%	13%			
I	41	14	27	66%													
E	41	34	7	17%													
H	24	7	17	71%													
F	46	44	2	4%													

National Registry
vs
Virginia

National Registry EMT January 1, 2007 - July 7, 2010						
Attempted The Exam	**First Attempt Pass**	**Cumulative Pass Within 3 Attempts**	**Cumulative Pass Within 6 Attempts**	**Failed All 6 Attempts**	**Eligible For Retest**	**Did Not Complete Within 2 Years**
	66%	78%	79%	0%	12%	9%
232444	(154377 / 232444)	(181876 / 232444)	(183701 / 232444)	(204 / 232444)	(28728 / 232444)	(20004 / 232444)
Virginia Providers Testing National Registry EMT January 1, 2007 - July 7, 2010						
Attempted The Exam	**First Attempt Pass**	**Cumulative Pass Within 3 Attempts**	**Cumulative Pass Within 6 Attempts**	**Failed All 6 Attempts**	**Eligible For Retest**	**Did Not Complete Within 2 Years**
	77%	82%	83%	0%	8%	9%
580	(448 / 580)	(478 / 580)	(479 / 580)	(0 / 580)	(48 / 580)	(54 / 580)
National Registry I-99 January 1, 2007 - July 7, 2010						
Attempted The Exam	**First Attempt Pass**	**Cumulative Pass Within 3 Attempts**	**Cumulative Pass Within 6 Attempts**	**Failed All 6 Attempts**	**Eligible For Retest**	**Did Not Complete Within 2 Years**
	71%	85%	86%	0%	7%	6%
3429	(2440 / 3429)	(2923 / 3429)	(2965 / 3429)	(5 / 3429)	(237 / 3429)	(222 / 3429)
Virginia Providers Testing National Registry I-99 January 1, 2007 - July 7, 2010						
Attempted The Exam	**First Attempt Pass**	**Cumulative Pass Within 3 Attempts**	**Cumulative Pass Within 6 Attempts**	**Failed All 6 Attempts**	**Eligible For Retest**	**Did Not Complete Within 2 Years**
	75%	88%	88%	0%	6%	5%
1684	(1262 / 1684)	(1474 / 1684)	(1485 / 1684)	(3 / 1684)	(107 / 1684)	(89 / 1684)
National Registry Paramedic January 1, 2007 - July 7, 2010						
Attempted The Exam	**First Attempt Pass**	**Cumulative Pass Within 3 Attempts**	**Cumulative Pass Within 6 Attempts**	**Failed All 6 Attempts**	**Eligible For Retest**	**Did Not Complete Within 2 Years**
	67%	82%	85%	1%	8%	6%
34812	(23198 / 34812)	(28534 / 34812)	(29488 / 34812)	(263 / 34812)	(2849 / 34812)	(2240 / 34812)
Virginia Providers Testing National Registry Paramedic January 1, 2007 - July 7, 2010						
Attempted The Exam	**First Attempt Pass**	**Cumulative Pass Within 3 Attempts**	**Cumulative Pass Within 6 Attempts**	**Failed All 6 Attempts**	**Eligible For Retest**	**Did Not Complete Within 2 Years**
	74%	85%	87%	1%	7%	6%
1023	(757 / 1023)	(865 / 1023)	(889 / 1023)	(6 / 1023)	(69 / 1023)	(61 / 1023)

Attachment: C to the July 7, 2010 PDC Minutes

Proposal on Bridging EMT-B and EMT-E Instructors to new Education Standards

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Attachment: D to the July 7, 2010 PDC Minutes

Phoenix Document

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The Phoenix Document: An Evolution from NSC to The Virginia EMS Education Standards

Introduction:
EMS Instructors and Coordinators should use this document as a tool in conjunction with the specific *Instructor Guidelines* (IG) for the certification level(s) that are being instructed and the *Virginia Scope of Practice – Procedures & Formulary* to ensure that the required material/skills are appropriately covered by the instructor/coordinator.

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Emergency Medical Responder (EMR)

See the Instructor Guidelines for the Emergency Medical Responder (129 pages) at: http://www.nhtsa.gov/staticfiles/DOT/NHTSA/ems/811077b.pdf

Knowledge and Skill Comparison

The order of content is not meant to imply the order of delivery.

a. Emergency Medical Responder: New Course Considerations

When planning and conducting a new EMR course, the Program Director or Course Coordinator must consider the following:

- Instructional resources
- Instructor qualifications
- Medical director oversight
- Review and verify integration of the clinical behavior/judgment section of the Education Standards, particularly related to lab and clinical and field activities.
- Include affective evaluation and professional behavior in student assessment
- Program effectiveness evaluation

b. Emergency Medical Responder: Skills

For a current First Responder (based on 1995 First Responder National Standard Curriculum) transitioning to Emergency Medical Responder (EMR), the following skills are no longer taught:

- Insertion of a nasopharyngeal airway
- Pressure points and elevation for hemorrhage control

For a current 1995 First Responder transitioning to 2009 Emergency Medical Responder, the following skills were optional in 1995 First Responder National Standard Curriculum with State approval, they are now required:

- Use of supplemental oxygen
- Use of nasal cannula

• Use of non-rebreather face mask
• Use of the automated external defibrillator (AED)

For a current 1995 First Responder transitioning to 2009 Emergency Medical Responder, the following skills are new:

• Use of a bag-valve-mask
• Use of an auto-injector (self or peer)
• Obtaining manual blood pressures
• Performing eye irrigation

c. Emergency Medical Responder: Content

Preparatory

• EMS Systems - there is more content about quality improvement here than in the First Responder curriculum; contains section on required affective/behavioral characteristics
• Research – extremely limited information, but new to this level
• EMS System Communication – addition of fundamental information about transferring patient care to incoming EMTs
• Therapeutic Communications – addition of fundamental information about improving communication with the patient
• Medical/Legal/Ethics – Health Insurance Portability and Accountability Act (HIPAA) did not exist when the First Responder curriculum was authored; includes a brief discussion on living wills, surrogate decision makers, and civil and criminal court cases; in the discussion on advanced directives, the reference to International Liaison Committee on Resuscitation (ILCOR) should have been removed.

Anatomy and Physiology

• Brief discussion on the life support chain focusing on oxygenation and perfusion

Medical Terminology

• This content is new to this level

Pathophysiology

• This content is new to this level but only focuses on respiratory dysfunction and shock

Life-Span Development

• Minimal new information at this level

Public Health

• Minimal new information at this level

Pharmacology

• Medication administration – discussion focuses on the use of an auto-injector for self-preservation or for use on one's peers (chemical attack)
• Emergency Medications – chemical antidote auto-injector only

Airway Management, Respiration, and Oxygenation

• Anatomy and Physiology – more detailed than in the previous First Responder curriculum, especially in the area of respiratory physiology. The increases in this

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area are related to enhanced skills in scope of practice and new evidence that demonstrates the important interrelationship between ventilation and circulation.
• Respiration - more detailed than in the previous First Responder curriculum
• Artificial Ventilation - more detailed than in the previous First Responder curriculum

Patient Assessment

• Scene Size-Up – no new information here but a re-emphasis on the need for scene safety for everyone present
• Primary Assessment - new terminology that more closely mimics other health care professionals
• History Taking - new terminology that more closely mimics other health care professionals; some content specific to geriatrics added
• Secondary Assessment - new terminology that more closely mimics other health care professionals; more thorough than in the previous curriculum; blood pressure assessment added to this level
• Reassessment - blood pressure reassessment added to this level

Medicine

• Medical Overview – re-use of the new assessment terminology
• Neurology – stroke discussion is new information at this level
• Abdominal and Gastrointestinal Disorders – minimal new information at this level
• Immunology - minimal new information at this level
• Infectious Diseases – two definitions added and a brief discussion about transmission routes
• Endocrine – a brief discussion about diabetes, more detailed than in the previous curriculum
• Psychiatric – includes new material, a brief discussion on the assessment for suicide risk
• Cardiovascular – deeper discussion on chest pain and heart attack
• Toxicology – new information at this level; discussion on the use of chemical antidote auto-injector
• Respiratory – deeper discussion on respiratory distress
• Genitourinary/Renal – discussion focuses on hemodialysis
• Gynecology – discussion focuses on vaginal bleeding
• Diseases of Eyes, Ears, Nose, and Throat – focuses on nosebleed

Shock and Resuscitation

• New section that combines the CPR information from the old curriculum with more detail and a discussion on the use of the AED; more detailed shock information

Trauma

• Overview – discussion on the Centers for Disease Control (CDC) Field Triage Decision Scheme: The National Trauma Triage Protocol
• Orthopedic Trauma - The terms fracture and dislocation appear here; they did not appear in the previous First Responder National Standard Curriculum
• Soft Tissue Trauma – brief discussion added about foreign bodies in the eye; assessment information added about the extent of burns.

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• Head, Facial, Neck, and Spine Trauma – elaboration on special management situations
• Special Considerations in Trauma – added discussion on the elderly and the pregnant patient
• Environmental – AEDs mentioned, brief discussion on submersions added
• Multi-system Trauma – new material at this level
Special Patient Populations
• Pregnant Patient – vaginal bleeding discussion added, the term Braxton Hicks did not appear in the previous First Responder National Standard Curriculum
• Pediatrics – pediatric assessment triangle included; discussion of shock in the pediatric patient in the previous curriculum, it was called circulatory failure
• Geriatrics – all new section for this level
• Patients with Special Challenges – elder abuse added

EMS Operations

• Principles of Safely Operating a Ground Ambulance - increased depth of discussion on the risks of emergency response and leaving the scene
• Incident Management – references the incident management system and the federal requirements for compliance
• Air Medical – new material at this level; patient transfer issues, interaction with flight personnel, scene safety, landing zone selection/prep
• Vehicle Extrication – added discussion on situational safety and the use of simple hand tools
• Hazardous Materials Awareness – references Hazardous Waste Operations and Emergency Response (HAZWOPER) standard
• Mass Casualty Incidents Due to Terrorism or Disaster – all new material at this level

Emergency Medical Technician (EMT)

See the Instructor Guidelines for Emergency Medical Technician (214 pages) at:
http://www.nhtsa.gov/staticfiles/DOT/NHTSA/ems/811077c.pdf

Knowledge and Skill Comparison

The order of content is not meant to imply the order of delivery.

a. Emergency Medical Technician: New Course Considerations

When planning and conducting a new EMT course, the Program Director or Course Coordinator must incorporate all considerations at the EMR levels plus,

• Student rotation through the emergency department
• ~~Ten~~ Ten Patient Assessments. A minimum of five patient assessments must be completed on live patients, and no more than five patient assessments on standardized programmed patients or advanced simulation mannequins [GSN1]
• ~~Field patient contacts~~
• Review and verify integration of the clinical behavior/judgment section of the Education Standards particularly related to lab and clinical and field activities.
• Include affective evaluation and professional behavior in student assessment

b. Emergency Medical Technician: Skills

For a current EMT-Basic (based on 1994 EMT-B National Standard Curriculum) transitioning to 2009 Emergency Medical Technician (EMT), the following skills are no longer taught:

- Insertion of nasogastric and orogastric tubes (Not in the 1994 EMT-B National Standard Curriculum but in the 2002 Advanced Airway supplement)
- Activated charcoal removed from formulary

For a current 1994 EMT-Basic transitioning to 2009 Emergency Medical Technician EMT, the following skills are new:

- Use of oxygen humidifiers
- Use of partial rebreather masks
- Use of simple face masks
- Use of Venturi masks
- Obtaining a pulse oximetry value
  - Determining blood glucose
- Use of automated transport ventilators
- Use of mechanical CPR devices (requires additional specialty training and device approval)
- Application of mechanical patient restraint (1994 EMT-B National Standard Curriculum contains an approach now deemed inappropriate~~ – i.e. forceful restraint in a prone position, with wrists & ankles tightly tied together ("hobbled") behind the back.~~)
- Assisting a patient with his/her prescribed medications, nebulized/aerosolized (1994 EMT-B National Standard Curriculum advocated assisting a patient with hand-held aerosol inhalers, but not administer nebulized medications to a patient)
- Administration of aspirin by mouth
- Use of an auto-injector (self or peer) (introduced at the EMR level).

c. Emergency Medical Technician: Content

Preparatory – EMS Systems

- EMS Systems – more detailed discussion on patient safety issues, decreasing medical errors, and required affective/behavioral characteristics
- Research – extremely limited information on evidence based decision making
- Workforce Safety and Wellness – emphasizes the difference between body substance isolation and personal protective equipment; brief discussion on bariatric issues, neonatal isolettes and medical restraint
- Documentation - Health Insurance Portability and Accountability Act (HIPAA) did not exist when the 1994 EMT-B National Standard Curriculum was authored
- Therapeutic Communications – more detailed information about improving communication with the patient

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• Medical/Legal/Ethics – Health Insurance Portability and Accountability Act (HIPAA) did not exist when the 1994 EMT-B National Standard Curriculum was authored; should include a state-specific discussion on privileged communication; includes a brief discussion on living wills, surrogate decision makers, and civil and criminal court cases; ethics

Anatomy and Physiology

• The respiratory information found in the 2000 Supplemental Airway and Ventilation Module should be added; more detailed discussion on the life support chain focusing on oxygenation, perfusion, and the cellular environment

Medical Terminology

• Minimal new content added to this level

Pathophysiology

• This content is new to this level but only focuses on respiratory and perfusion dysfunction along with shock

Life-Span Development

• New information at this level

Public Health

• New information at this level; related to EMS Agenda for the Future issues

Pharmacology

• Medication administration – added the five rights of medication administration
• Emergency Medications – aspirin added to this level

Airway Management, Respiration, and Oxygenation

• Anatomy and Physiology – much more detailed than in the previous 1994 EMT-B National Standard Curriculum
• Respiration - much more detailed than in the previous 1994 EMT-B National Standard Curriculum
• Artificial Ventilation - much more detailed than in the previous 1994 EMT-B National Standard Curriculum
Patient Assessment
• Scene Size-Up – no new information here but a re-emphasis on the need for scene safety for everyone present
• Primary Assessment - new terminology that more closely mimics other health care professionals
• History Taking - new terminology that more closely mimics other health care professionals
• Secondary Assessment - new terminology that more closely mimics other health care professionals; more thorough than in the previous curriculum
• Monitoring Devices – pulse oximetry added

Patient Assessment

• Scene Size-Up – no new information here but a re-emphasis on the need for scene safety for everyone present
• Primary Assessment - new terminology that more closely mimics other health care professionals
• History Taking - new terminology that more closely mimics other health care professionals
• Secondary Assessment - new terminology that more closely mimics other health care professionals; more thorough than in the previous curriculum
• Monitoring Devices –blood glucose monitoring, non-invasive blood gas and chemistry monitoring (e.g. capnography, pulse oximetry, etc.)

Medicine

• Medical Overview – re-use of the new assessment terminology; with focus on medical patient
• Neurology – in the previous curriculum, most of the neurological conditions were bundled together into altered mental status. This new section requires a greater assessment and differentiation; stroke is a rapidly changing area. Local standards and various national organizations should serve as a resource for currently accepted assessment and treatment
• Abdominal and Gastrointestinal Disorders – minimal new content added to this level
• Immunology - the term anaphylaxis did not appear in the 1994 EMT-B National Standard Curriculum; some geriatric information added
• Infectious Diseases – this section should include updated infectious disease information, for example methicillin-resistant Staphylococcus aureus (MRSA) and Acquired Immune Deficiency Syndrome (AIDS) update; should include a discussion on cleaning and sterilizing equipment and decontaminating the ambulance
• Endocrine – increased emphasis on pathophysiology and acknowledgement of the increasing prevalence and incidence of diabetes in the community
• Psychiatric – includes new material on excited delirium; the 1994 EMT-B National Standard Curriculum has incorrect and dangerous information about the use of restraint and should no longer be presented (i.e. "hog-tied" or hobble technique)
• Cardiovascular – increased emphasis on anatomy, physiology and pathophysiology; increased emphasis on specific cardiovascular emergencies, addition of aspirin information for acute coronary syndrome
• Toxicology – poison control information included; addition of drugs of abuse
• Respiratory – more in-depth evaluation of a patient with respiratory problems.
• Hematology – brief discussion of sickle cell disease
• Genitourinary/Renal – more detailed discussion of this organ system
• Gynecology – includes brief discussion of sexually transmitted diseases and pelvic inflammatory disease

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• Non-Traumatic Musculoskeletal Disorders – new information at this level

Shock and Resuscitation

• This shock content was moved from trauma to emphasize the fact that it occurs in contexts other than trauma; the cardiac arrest information was moved from cardiology for

the same reason; brief discussion on devices to assist circulation, although subject to local protocol; shock should be taught in a more comprehensive context rather than simply as a consequence of bleeding

Trauma

• Overview – discussion on the Centers for Disease Control (CDC) Field Triage Decision Scheme: The National Trauma Triage Protocol; assessment focuses on trauma patient; the term fracture was placed back into the vocabulary

• Chest Trauma – more detailed discussion

• Abdominal Trauma – more detailed discussion

• Orthopedic Trauma - the term fracture was placed back into the vocabulary

• Head, Facial, Neck, and Spine Trauma – more detail about neck, eye, oral and brain injuries; emphasizes the harm of hyperventilation in most circumstances

• Nervous System Trauma - the old curriculum was separated into soft tissue and injuries to the head and spine; more detail on brain anatomy; emphasizes the harm of hyperventilation; references the Brain Trauma Foundation; increased emphasis on neurological assessment

• Special Considerations in Trauma – added discussion on the elderly, pediatrics, the pregnant patient, the cognitively impaired

• Environmental – more in depth discussion on submersion, bites, envenomations, diving injuries (subject to local protocols) and radiation exposure

• Multi-system Trauma – new material at this level; includes discussion of kinematics and blast injury

Special Patient Populations

• Pregnant Patient – more detailed discussion on complications of pregnancy; uses the terms preeclampsia, eclampsia and premature rupture of membranes (which do not require a lengthy discussion)

• Pediatrics – this section is more detailed than in the previous version

• Geriatrics – all new section for this level

• Patients with Special Challenges – elder abuse, homelessness, poverty, bariatric, more technology dependant, hospice, sensory deficit, homecare, and developmental disabilities added

EMS Operations

• Principles of Safely Operating a Ground Ambulance - increased depth of discussion on the risks of emergency response and leaving the scene

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• Incident Management – references the incident management system and the federal requirements for compliance
• Multiple Casualty Incidents – references Centers for Disease Control (CDC) Field Triage Decision Scheme: The National Trauma Triage Protocol
• Air Medical – all material at this level represents the same depth and breadth as at the EMR level
• Vehicle Extrication – all material at this level represents the same depth and breadth as the EMR level
• Hazardous Materials Awareness – all material at this level represents the same depth and breadth as the EMR level
• Mass Casualty Incidents Due to Terrorism or Disaster – all material at this level represents the same depth and breadth as the EMR level.

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Advanced Emergency Medical Technician (AEMT)

See the Instructor Guidelines for the Advanced EMT (151 pages) at:
http://www.nhtsa.gov/staticfiles/DOT/NHTSA/ems/811077d.pdf

Knowledge and Skill Comparison

The order of content is not meant to imply the order of delivery.

a. Advanced Emergency Medical Technician: New Course Considerations

When planning and conducting a new AEMT course, the Program Director or Course Coordinator must incorporate all considerations at the EMR and EMT levels plus,

- Clinical skills
- Field experience as a team leader
- Review and verify integration of the clinical behavior/judgment section of Education Standards, particularly related to lab and clinical and field activities.
- Include affective evaluation and professional behavior in student assessment

b. Advanced Emergency Medical Technician: Skills

c. Advanced Emergency Medical Technician: Content

Preparatory – EMS Systems

- EMS Systems – more detailed discussion on patient safety issues, strategies to decrease medical errors
- Research – extremely limited information on evidence based decision making
- Workforce Safety and Wellness – emphasizes the difference between body substance isolation and personal protective equipment; brief discussion on bariatric issues, neonatal isolettes and medical restraint
- Documentation - the Health Insurance Portability and Accountability Act (HIPAA) did not exist when either of the EMT-Intermediate curricula was authored
- Therapeutic Communications – more detailed information about improving communication with the patient
- Medical/Legal/Ethics – the Health Insurance Portability and Accountability Act (HIPAA) did not exist when the EMT-Intermediate curriculum was authored; should include a state-specific discussion on privileged communication; includes a brief discussion on living wills, surrogate decision makers, and civil and criminal court cases; ethics

Anatomy and Physiology

- More detailed discussion than in the previous version

Medical Terminology

- Although not detailed, this content is new to this level

Pathophysiology

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• This content is new to this level but only focuses on respiratory and perfusion dysfunction along with shock

Life-Span Development

• New information at this level

Public Health

• New information at this level; related to EMS Agenda for the Future issues

Pharmacology

• Principles of Pharmacology – new information at this level
• Medication Administration – added the five rights of medication administration; more detailed information
• Emergency Medications – specific list of medications

Airway Management, Respiration, and Oxygenation

• Anatomy and Physiology – much more detailed than in the previous EMT-Intermediate curriculum
• Artificial Ventilation - much more detailed than in the previous EMT-Intermediate curriculum
• Respiration - much more detailed minimal new content added to this level in the previous EMT-Intermediate curriculum

Patient Assessment

• Scene Size-Up – no new information here but a re-emphasis on the need for scene safety for everyone present
• Primary Assessment - new terminology that more closely mimics other health care professionals
• History Taking - new terminology that more closely mimics other health care professionals
• Secondary Assessment - new terminology that more closely mimics other health care professionals; more thorough than in the previous curriculum
• Monitoring Devices – ~~blood glucose monitoring and blood chemistry analysis added to this level~~blood glucose monitoring, non-invasive blood gas and chemistry monitoring (e.g. capnography, pulse oximetry, etc.)

Medicine

• Medical Overview – re-use of the new assessment terminology
• Abdominal and Gastrointestinal Disorders – minimal new content added to this level
• Immunology – all new information
• Infectious Diseases – this section should include updated infectious disease information, for example methicillin-resistant Staphylococcus aureus, hepatitis, and Acquired Immune Deficiency Syndrome update; should include a discussion on cleaning and sterilizing equipment and decontaminating the ambulance
• Endocrine – increased emphasis on pathophysiology and acknowledgement of the increasing prevalence and incidence of diabetes in the community
• Psychiatric – includes new material on excited delirium

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• Cardiovascular – increased emphasis on anatomy, physiology and pathophysiology; increased emphasis on specific cardiovascular emergencies
• Toxicology – all new information
• Respiratory – more in-depth evaluation of a patient with respiratory problems.
• Hematology – brief discussion in sickle cell disease
• Genitourinary/Renal – more detailed discussion of this organ system
• Gynecology – includes brief discussion of sexually transmitted diseases and pelvic inflammatory disease
• Non-Traumatic Musculoskeletal Disorders – new information at this level

Shock and Resuscitation

• This shock content was moved from trauma to emphasize the fact that it can happen in a context other than trauma; the cardiac arrest/ cardiovascular emergencies information was moved from an optional module at the Intermediate-99 level; brief discussion on devices to assist circulation, although subject to local protocol; shock should be taught in a more comprehensive context rather than simply as a consequence of bleeding

Trauma

• Overview – all material at this level represents the same depth and breadth as at the EMT level
• Bleeding – more detailed discussion
• Chest Trauma – more detailed discussion
• Abdominal Trauma – more detailed discussion
• Orthopedic Trauma - more detailed discussion
• Head, Facial, Neck, and Spine Trauma – more detail about neck eye, oral and brain injuries; emphasizes the harm of over ventilation in most situations
• Nervous System Trauma - more detail on brain anatomy; emphasizes the harm of hyperventilation; references the Brain Trauma Foundation; increased emphasis on neurological assessment
• Special Considerations in Trauma – all section new or increased emphasis
• Environmental – all material at this level represents the same depth and breadth as at the EMT level
• Multi-system Trauma – new material at this level; includes discussion of kinematics and blast injury

Special Patient Populations

• Pregnant Patient – more detailed discussion on complications of pregnancy; uses the terms preeclampsia, eclampsia and premature rupture of membranes which do not require a lengthy discussion
• Pediatrics – this section is much more detailed than in the previous version

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• Geriatrics – all new section for this level
• Patients with Special Challenges – elder abuse, homelessness, poverty, bariatric, more technology dependant, hospice, sensory deficit, homecare, and developmental disabilities added

EMS Operations

• Principles of Safely Operating a Ground Ambulance - all material at this level represent the same depth and breadth as at the EMT level
• Incident Management – all material at this level represents the same depth and breadth as at the EMT level
• Multiple Casualty Incidents – all material at this level represents the same depth and breadth as at the EMT level
• Air Medical – all material at this level represents the same depth and breadth as at the EMT level
• Vehicle Extrication – all material at this level represents the same depth and breadth as at the EMT level
• Hazardous Materials Awareness – all material at this level represents the same depth and breadth as at the EMT level
• Mass Casualty Incidents Due to Terrorism or Disaster – all material at this level represents the same depth and breadth as at the EMT level

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Intermediate

Knowledge and Skill Comparison

The order of content is not meant to imply the order of delivery.

a. Intermediate: New Course Considerations

When planning and conducting a new Intermediate course, the Program Director or Course Coordinator must incorporate all considerations at the EMR, EMT, and AEMT levels plus,

- Reference Virginia Office of EMS Accreditation of EMS Programs Standards and Guidelines
- Review and verify integration of the clinical behavior/judgment section of the Education Standards, particularly related to lab and clinical and field activities.
- Include affective evaluation and professional behavior in student assessment.

b. Intermediate: Skills

EMT-Intermediate

~~For a current 1999 EMT-Intermediate (based on 1999 EMT-Intermediate National Standard Curriculum), the following skills are no longer taught:~~

- ~~Pressure points and elevation for hemorrhage control~~
- ~~Umbilical vein access~~
- ~~Urinary catheterization~~

For a current 1999 EMT-Intermediate, the following skills are now taught in the 2009 EMR, 2009 EMT or 2009 AEMT and are to be considered new:

- Self or peer use of an auto-injector (introduced at the EMR level)
- Use of mechanical CPR devices (introduced at EMT level)

For a current 1999 EMT- Intermediate, the following skills may be~~are~~ new:

- Use of BiPAP/CPAP
- Waveform capnography

~~Monitoring and management of a chest tube~~

- ~~Performing a percutaneous cricothyrotomy (not a surgical airway)~~
- Interpretation and monitoring of end-tidal carbon dioxide (including waveform capnography)
- ~~Nasotracheal intubation~~
- Use of therapeutic positive end-expiratory pressure (PEEP)
- Multi-lead ECG interpretation
- Performing electrical synchronized cardioversion
- Performing carotid massage
- Central line monitoring
- Initiation of intraosseous (IO) infusion in all patients (previously used IOs on children only)
- Initiation and maintenance of intravenous medication drips

• Intranasal medication administration
• Nasogastric medication administration
• Oral medication administration
• Eye irrigation with the Morgan® lens
~~• Initiation and monitoring of thrombolytic medication~~
• Obtaining venous blood samples
• Blood chemistry analysis (this includes the psychomotor skills involved with collection of blood for analysis [point of care testing] and the cognitive material necessary to understand the implications of the results)
~~• Assist in the insertion of a chest tube~~
• Accessing indwelling catheters and implanted central IV ports

c. Intermediate: Content

Preparatory – EMS Systems

• EMS Systems – more detailed discussion on patient safety issues
• Research – the section is primarily focused on evidence based decisions and how to interpret research; the section on conducting research is gone.
• Workforce Safety and Wellness – the 1999~~8~~ EMT-Intermediate National Standard Curriculum mentioned CISM. The new standards does not use that term instead focusing more on stress management issues.
• Documentation - Health Insurance Portability and Accountability Act (HIPAA) did not exist when the 1999~~8~~ EMT-Intermediate National Standard Curriculum was authored
• Therapeutic Communications – increased depth of cultural competence issues.
• Medical/Legal/Ethics – Health Insurance Portability and Accountability Act (HIPAA) did not exist when the 1999~~8~~ EMT-Intermediate National Standard Curriculum was authored; increased depth of discussion regarding advance directives; the term "end-of-life" was not previously used; there is an increased emphasis on end of life issues; increased depth and breadth on ethics

Anatomy and Physiology

• The current recommendation calls for more comprehensive coverage of A&P than provided in the previous 1999~~8~~ EMT-Intermediate National Standard Curriculum. Programs should evaluate their current A&P program to see how much upgrade they need to reach a comprehensive and complex understanding, especially in the cardiovascular, respiratory, and neurological systems.

Pathophysiology

• The current recommendation calls for more comprehensive coverage of pathophysiology than provided in the previous ~~1998~~1999 EMT-Intermediate National Standard Curriculum. Programs should evaluate their current pathophysiology program to see how much upgrade they need to reach a comprehensive and complex understanding, especially in the cardiovascular, respiratory, and neurological systems.

Public Health

• Consistent with the EMS Agenda for the Future, there is a greater emphasis on public health issues

Pharmacology

• Principles of Pharmacology – programs should evaluate their current pharmacology program to see how much upgrade they need to reach a comprehensive and complex understanding

• Medication Administration – programs should evaluate their current pharmacology program to see how much upgrade they need to reach a comprehensive and complex understanding

• Emergency Medications – In the ~~1998~~1999 EMT-Intermediate National Standard Curriculum, there was no list of medications; the list below represents medications commonly used in numerous Virginia EMS systems and is a minimum list that all Intermediates should know. This list may become dated quickly.

Airway Management, Respiration, and Oxygenation

• Confusion exists about the differences between oxygenation, ventilation, and respiration. The Education Standards were organized to attempt to highlight the differences between the concepts. There is a greater emphasis on ventilation and respirations and the importance of artificial ventilation. Research suggests that EMS can make a difference in this area.

Patient Assessment

• Scene Size-Up – no new information here but a re-emphasis on the need for scene safety for everyone present

• Primary Assessment - new terminology that more closely mimics other health care professionals

• History Taking - new terminology that more closely mimics other health care professionals

• Secondary Assessment - new terminology that more closely mimics other health care professionals; more thorough than in the previous curriculum

• Monitoring Devices – includes capnography, non-invasive blood gas and chemistry monitoring (e.g. capnography, pulse oximetry, etc.)~~chemistry analysis, arterial blood gas interpretation~~

• Reassessment - new terminology that more closely mimics other health care professionals; more thorough than in the previous curriculum

Medicine

• Medical Overview – re-use of the new assessment terminology; emphasis on pathophysiologic basis; updated destination decisions for some medical conditions such as stroke and acute coronary syndrome,

• Neurological Disorders - the term "demyelinating" was not used in the ~~1998~~1999 EMT-Intermediate National Standard Curriculum; more detailed information on stroke assessment and management

• Abdominal and Gastrointestinal Disorders – in the ~~1998~~1999 EMT-Intermediate National Standard Curriculum, the topic was

gastroenterology; new section on mesenteric ischemia, rectal foreign body obstructions and rectal abscess

• Immunology – the term anaphylactoid is used here; that term was not used in the ~~1998~~1999 EMT-Intermediate National Standard Curriculum; transplant related problems ~~and collagen vascular disease added~~

• Infectious Diseases – refocused with more of an emergency medicine flavor; drug-resistant bacteria discussed

• Endocrine Disorders - added long term effects of diabetes and how the disease impacts other conditions

• Psychiatric – includes new material on excited delirium; other psychiatric conditions are re-categorized with an increase in depth and breadth

• Cardiovascular – increased emphasis on anatomy, physiology and pathophysiology; acute coronary syndrome, 12-lead interpretation; updated information on heart failure

• Toxicology - includes section on over-the-counter medication toxicology

• Respiratory – more in-depth evaluation of a patient with respiratory problems.

• Hematology – reorganized with added section on blood transfusion reactions

• Genitourinary/Renal - urinary catheter management (not insertion)

• Non-Traumatic Musculoskeletal Disorders – added section on disorders of the spine, joint abnormalities, muscles abnormalities, and overuse syndromes

• Diseases of the Eye, Ears, Nose and Throat - new section emphasizing major eye, ear, nose, and throat disease

Shock and Resuscitation

• Reorganized for emphasis, more pathophysiology

Trauma

• Overview – discussion on the Centers for Disease Control (CDC) Field Triage Decision Scheme: The National Trauma Triage Protocol and trauma scoring

• Bleeding – increased emphasis on pathophysiology

• Chest Trauma – more detailed discussion, added section on **commotio cordis**

• Abdominal Trauma – increased emphasis on pathophysiology

• Orthopedic Trauma - greater emphasis on pathophysiology

• Soft Tissue Trauma - added section on high pressure injection

• Head, Facial, Neck, and Spine Trauma – grouped these conditions separately from neurological trauma

• Nervous System Trauma - added section on **cauda equina syndrome**

• Special Considerations in Trauma – more detailed discussion concerning pregnancy, pediatric, elderly, cognitively impaired

• Environmental – increased emphasis on pathophysiology

• Multi-system Trauma – more detailed discussion; critical thinking skills emphasized, blast injuries

Special Patient Populations

- Pregnant Patient – added section on **hyperemesis gravidarum**
- Pediatrics – more detailed discussion
- Geriatrics – added section on **Herpes zoster**
- Patients with Special Challenges – added section on **bariatrics**

EMS Operations

- Principles of Safely Operating a Ground Ambulance - all material at this level represents the same depth and breadth as at the EMT level
- Incident Management – references the incident management system and the federal requirements for compliance
- Multiple Casualty Incidents – all material at this level represents the same depth and breadth as at the EMT level
- Air Medical – updated material at this level concerning risks/needs/advantages of air transport
- Vehicle Extrication – all material at this level represents the same depth and breadth as at the EMT level
- Hazardous Materials Awareness – all material at this level represents the same depth and breadth as at the EMT level
- Mass Casualty Incidents Due to Terrorism or Disaster – all material at this level represents the same depth and breadth as at the EMT level

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Paramedic

See the Instructor Guidelines for the Paramedic (387 pages) at:
http://www.nhtsa.gov/staticfiles/DOT/NHTSA/ems/811077e.pdf

Knowledge and Skill Comparison

The order of content is not meant to imply the order of delivery.

a. Paramedic: New Course Considerations

When planning and conducting a new Paramedic course, the Program Director or Course Coordinator must incorporate all considerations at the EMR, EMT, and AEMT levels plus,

- Reference Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP) Standards and Guidelines
- Review and verify integration of the clinical behavior/judgment section of the Education Standards, particularly related to lab and clinical and field activities.
- Include affective evaluation and professional behavior in student assessment.

b. Paramedic: Skills

1999 EMT-Intermediate

For a current 1999 EMT-Intermediate (based on 1999 EMT-I National Standard Curriculum) transitioning to 2009 Paramedic, the following skills are no longer taught:

- Pressure points and elevation for hemorrhage control

For a current 1999 EMT- Intermediate ~~transitioning~~ bridging to Paramedic, the following skills may be new:

- Use of BiPAP/CPAP
- Monitoring and management of a chest tube
- Performing a percutaneous cricothyrotomy (not a surgical airway)
- Interpretation and monitoring of end-tidal carbon dioxide (including waveform capnography)
- Nasotracheal intubation
- Use of therapeutic positive end-expiratory pressure (PEEP)
- Multi-lead ECG interpretation
- Performing electrical synchronized cardioversion
- Performing carotid massage
- Central line monitoring
- Initiation of intraosseous (IO) infusion in all patients (previously used IOs on children only)
- Initiation and maintenance of intravenous medication drips
- Intranasal medication administration
- Nasogastric medication administration
- Oral medication administration
- Eye irrigation with the Morgan® lens
- Initiation and monitoring of thrombolytic medication

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• Obtaining venous blood samples
• Blood chemistry analysis (this includes the psychomotor skills involved with collection of blood for analysis [point of care testing] and the cognitive material necessary to understand the implications of the results)
• Assist in the insertion of a chest tube
• Accessing indwelling catheters and implanted central IV ports

~~1998~~1999 EMT-Paramedic
For a current ~~1998~~1999 EMT-Paramedic (based on ~~1998~~1999 EMT-P National Standard Curriculum) transitioning to 2009 Paramedic, the following skills are no longer taught:
• Pressure points and elevation for hemorrhage control
• Umbilical vein access
• Urinary catheterization

For a current ~~1998~~1999 EMT-Paramedic (based on ~~1998~~1999 EMT-P National Standard Curriculum) transitioning to 2009 Paramedic, the following skills may be new:
• Use of BiPAP/CPAP
• Waveform capnography
• Monitoring and management of a chest tube
• Assist in the insertion of a chest tube
• Performing a percutaneous cricothyrotomy
• Accessing indwelling catheters and implanted central IV ports
• Central line monitoring
• Initiation of intraosseous infusion in all patients (previously used IOs on children only)
• Intranasal medication administration (~~1998~~1999 Paramedic limited to intranasal decongestants)
• Eye irrigation with the Morgan® lens
• Initiation and monitoring of thrombolytic medication
• Blood chemistry analysis (includes psychomotor skills involved with collection of blood for analysis [point of care testing] and the cognitive material necessary to understand implications of results).

c. Paramedic: Content

Preparatory – EMS Systems
• EMS Systems – more detailed discussion on patient safety issues
• Research – the section is primarily focused on evidence based decisions and how to interpret research; the section on conducting research is gone.
• Workforce Safety and Wellness – the ~~1998~~1999 EMT-P National Standard Curriculum mentioned CISM. The new standards does not use that term instead focusing more on stress management issues.
• Documentation - Health Insurance Portability and Accountability Act (HIPAA) did not exist when the ~~1998~~1999 EMT-P National Standard Curriculum was authored

• Therapeutic Communications – increased depth of cultural competence issues.
• Medical/Legal/Ethics – Health Insurance Portability and Accountability Act (HIPAA) did not exist when the ~~1998~~1999 EMT-P National Standard Curriculum was authored; increased depth of discussion regarding advance directives; the term "end-of-life" was not previously used; there is an increased emphasis on end of life issues; increased depth and breadth on ethics

Anatomy and Physiology

• The current recommendation calls for more comprehensive coverage of A&P than provided in the previous ~~1998~~1999 EMT-P National Standard Curriculum. Programs should evaluate their current A&P program to see how much upgrade they need to reach a comprehensive and complex understanding, especially in the cardiovascular, respiratory, and neurological systems.

Pathophysiology

• The current recommendation calls for more comprehensive coverage of pathophysiology than provided in the previous ~~1998~~1999 EMT-P National Standard Curriculum. Programs should evaluate their current pathophysiology program to see how much upgrade they need to reach a comprehensive and complex understanding, especially in the cardiovascular, respiratory, and neurological systems.

Public Health

• Consistent with the EMS Agenda for the Future, there is a greater emphasis on public health issues

Pharmacology

• Principles of Pharmacology – programs should evaluate their current pharmacology program to see how much upgrade they need to reach a comprehensive and complex understanding
• Medication Administration – programs should evaluate their current pharmacology program to see how much upgrade they need to reach a comprehensive and complex understanding
• Emergency Medications – In the ~~1998~~1999 EMT-P National Standard Curriculum, there was no list of medications; the list in the IGs represents medications commonly used in numerous EMS systems and is a minimum list that all paramedics should know. States and programs are encouraged to add to the list, but should not delete. This list may become dated quickly.

Airway Management, Respiration, and Oxygenation

• Confusion exists about the differences between oxygenation, ventilation, and respiration. The Education Standards were organized to attempt to highlight the differences between the concepts. There is a greater emphasis on ventilation and respirations and the importance of artificial ventilation. Research suggests that EMS can make a difference in this area.

Patient Assessment

• Scene Size-Up – no new information here but a re-emphasis on the need for scene safety for everyone present
• Primary Assessment - new terminology that more closely mimics other health care professionals
• History Taking - new terminology that more closely mimics other health care professionals
• Secondary Assessment - new terminology that more closely mimics other health care professionals; more thorough than in the previous curriculum
• Monitoring Devices – includes capnography, chemistry analysis, arterial blood gas interpretation
• Reassessment - new terminology that more closely mimics other health care professionals; more thorough than in the previous curriculum

Medicine

• Medical Overview – re-use of the new assessment terminology; emphasis on pathophysiologic basis; updated destination decisions for some medical conditions such as stroke and acute coronary syndrome,
• Neurological Disorders - the term "demyelinating" was not used in the ~~1998~~1999 EMT-P National Standard Curriculum; more detailed information on stroke assessment and management
• Abdominal and Gastrointestinal Disorders – in the ~~1998~~1999 EMT-P National Standard Curriculum, the topic was gastroenterology; new section on mesenteric ischemia, rectal foreign body obstructions and rectal abscess
• Immunology – the term anaphylactoid is used here; that term was not used in the ~~1998~~1999 EMT-P National Standard Curriculum; transplant related problems and collagen vascular disease added
• Infectious Diseases – refocused with more of an emergency medicine flavor; drug-resistant bacteria discussed
• Endocrine Disorders - added long term effects of diabetes and how the disease impacts other conditions
• Psychiatric – includes new material on excited delirium; other psychiatric conditions are re-categorized with an increase in depth and breadth
• Cardiovascular – increased emphasis on anatomy, physiology and pathophysiology; acute coronary syndrome, 12-lead interpretation; updated information on heart failure
• Toxicology - includes section on over-the-counter medication toxicology
• Respiratory – more in-depth evaluation of a patient with respiratory problems.
• Hematology – reorganized with added section on blood transfusion reactions
• Genitourinary/Renal - urinary catheter management (not insertion)
• Non-Traumatic Musculoskeletal Disorders – added section on disorders of the spine, joint abnormalities, muscles abnormalities, and overuse syndromes

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• Diseases of the Eye, Ears, Nose and Throat - new section emphasizing major eye, ear, nose, and throat disease

Shock and Resuscitation

• Reorganized for emphasis, more pathophysiology

Trauma

• Overview – discussion on the Centers for Disease Control (CDC) Field Triage Decision Scheme: The National Trauma Triage Protocol and trauma scoring
• Bleeding – increased emphasis on pathophysiology
• Chest Trauma – more detailed discussion, added section on commotio cordis
• Abdominal Trauma – increased emphasis on pathophysiology
• Orthopedic Trauma - greater emphasis on pathophysiology
• Soft Tissue Trauma - added section on high pressure injection
• Head, Facial, Neck, and Spine Trauma – grouped these conditions separately from neurological trauma
• Nervous System Trauma - added section on cauda equina syndrome
• Special Considerations in Trauma – more detailed discussion concerning pregnancy, pediatric, elderly, cognitively impaired
• Environmental – increased emphasis on pathophysiology
• Multi-system Trauma – more detailed discussion; critical thinking skills emphasized, blast injuries

Special Patient Populations

• Pregnant Patient – added section on hyperemesis gravidarum
• Pediatrics – more detailed discussion
• Geriatrics – added section on Herpes zoster
• Patients with Special Challenges – added section on bariatrics

EMS Operations

• Principles of Safely Operating a Ground Ambulance - all material at this level represents the same depth and breadth as at the EMT level
• Incident Management – references the incident management system and the federal requirements for compliance
• Multiple Casualty Incidents – all material at this level represents the same depth and breadth as at the EMT level
• Air Medical – updated material at this level concerning risks/needs/advantages of air transport
• Vehicle Extrication – all material at this level represents the same depth and breadth as at the EMT level
• Hazardous Materials Awareness – all material at this level represents the same depth and breadth as at the EMT level
• Mass Casualty Incidents Due to Terrorism or Disaster – all material at this level represents the same depth and breadth as at the EMT level

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Essential Knowledge Content

Emergency Medical Responder (EMR)

This section identifies the knowledge content considered essential for transitioning currently certified First Responders (trained under the 1995 First Responder National Standard Curricula) to function as Emergency Medical Responders once the Education Standards are implemented. Individual states may determine whether this essential content should be delivered in the form of continuing education classes or a formal transitioning program.

Section - Content

- Pathophysiology
- Respiratory compromise; shock
- Airway Management, Respiration, and Oxygenation: Anatomy and Physiology
- Airway anatomy; airway assessment; techniques of assuring an open airway; age-related variation in airway anatomy
- Airway Management, Respiration, and Oxygenation: Respiration
- Anatomy of the respiratory system; physiology of respiration; pathophysiology of respiration; assessment of respiratory status; respiratory management; supplemental oxygen therapy; age-related respiratory variation
- Airway Management, Respiration, and Oxygenation: Artificial Ventilation
- Assessment of ventilation status; oxygenation; ventilation management (adequate, inadequate, apneic); differentiating normal from positive pressure ventilation; age-related ventilation variation
- Patient Assessment: All sections
- Orientation to the new terminology
- Patient Assessment: Secondary Assessment
- Blood pressure assessment and interpretation
- Shock and Resuscitation
- Use of the automatic external defibrillator
- Trauma: Overview
- Become familiar with the Centers for Disease Control (CDC) Field Triage Decision Scheme: The National Trauma Triage Protocol

Emergency Medical Technician (EMT)

This section identifies the knowledge content considered essential for transitioning currently certified Emergency Medical Technician - Basic (trained under the 1994 EMT-B National Standard Curricula) to function as Emergency Medical Technicians once the Education Standards are implemented. Individual states may determine whether this essential content should be delivered in the form of continuing education classes or a formal transitioning program.

Section - Content

- Preparatory: EMS Systems

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- Patient safety; high risk activities; how errors happen; preventing errors, including medication administration safety ("rights" of drug administration)
- Preparatory: Research
- Importance of evidence-based decision making process
- Preparatory: Therapeutic Communication
- Contains section on required affective/behavioral characteristics
- Preparatory: Medical, Legal, and Ethics
- Morals, ethics and ethical conflicts
- Anatomy and Physiology; Pathophysiology
- Fundamental elements of the life support chain, including oxygenation, perfusion, and the cellular environment; composition of ambient air, airway patency; respiratory compromise; ventilation/perfusion mismatch; perfusion and shock, blood volume; myocardial effectiveness; microcirculation; blood pressure; alterations in cellular metabolism
- Airway Management, Respiration, and Oxygenation: All sections
- Airway anatomy; airway assessment; techniques of assuring an open airway; age-related variation in airway anatomy; anatomy of the respiratory system; physiology of respiration; pathophysiology of respiration; assessment of respiratory status; respiratory management; supplemental oxygen therapy; age-related respiratory variation; assessment of ventilation status; oxygenation; ventilation management (adequate, inadequate, apneic); differentiating normal from positive pressure ventilation; age-related ventilation variation
- Patient Assessment: All sections
- Orientation to the new terminology (may be covered in a handout)
- Patient Assessment: Monitoring Devices
- Pulse oximetry
- Medicine: Neurology
- Stroke/TIA; stroke alert criteria
- Medicine: Abdominal and Gastrointestinal Disorders
- Anatomy; assessment; management; gastrointestinal bleeding, peritonitis, ulcerative disease, age-related variations
- Medicine: Infectious Disease - Updated information on methicillin resistant Staphylococcus aureus (MRSA), human immunodeficiency virus (HIV); cleaning and disinfecting ambulance equipment; decontaminating ambulance
- Medicine: Endocrine Disorders
- Diabetes update
- Medicine: Psychiatric
- Excited delirium; medical/legal considerations; use of medical restraint
- Medicine: Cardiovascular
- Anatomy; physiology; pathophysiology; assessment; management; acute coronary syndrome; hypertensive emergencies; cardiogenic shock; aspirin administration;
- Medicine: Respiratory
- Anatomy; assessment; management; specific respiratory conditions; metered-dose inhalers; small volume nebulizers; age-related variations
- Medicine: Hematology

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- Sickle cell disease
- Medicine: Genitourinary/Renal
- Anatomy, physiology, pathophysiology; dialysis emergencies
- Shock and Resuscitation
- General shock; reasons for shock; mechanism of shock
- Trauma: Overview
- Become familiar with the Centers for Disease Control (CDC) Field Triage Decision Scheme: The National Trauma Triage Protocol
- Trauma: Chest Trauma
- Incidence; anatomy; physiology; pathophysiology; blunt or open trauma
- Trauma: Abdominal and Genitourinary Trauma
- Incidence; anatomy; physiology; specific injuries; assessment; management
- Trauma: Head, Facial, Neck, and Spine Trauma
- Assessment and management of neck, eye, dental; laryngeal injuries
- Trauma: Nervous System Trauma
- Traumatic brain injuries
- Trauma: Special Considerations in Trauma
- Trauma in pregnancy, elderly, and cognitively impaired
- Special Patient Populations: Obstetrics
- Complications of pregnancy
- EMS Operations: Principles of Safely Operating a Ground Ambulance
- Safety issues during transport
- EMS Operations: Incident Management
- Incident management system
- EMS Operations: Hazardous Materials Awareness
- Hazardous Waste Operations and
- Emergency Response (HAZWOPER) First Responder Awareness Level
- EMS Operations: Mass Casualty Incidents Due to Terrorism and Disaster
- Roles and responsibilities at the scene;

Advanced Emergency Medical Technician (AEMT)

This section identifies the knowledge content considered essential for transitioning currently certified Emergency Medical Technicians to function as Advanced Emergency Medical Technicians once the Education Standards are implemented. Individual states may determine whether this essential content should be delivered in the form of continuing education classes or a formal transitioning program.

Section - Content

- Preparatory: EMS Systems
- Patient safety; high risk activities; how errors happen; preventing errors, including medication administration safety ("rights" of drug administration)
- Preparatory: Research

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- Importance of evidence-based decision making process
- Preparatory: Therapeutic Communication
- Contains section on required affective/behavioral characteristics
- Preparatory: Medical, Legal, and Ethics
- Morals, ethics and ethical conflicts
- Anatomy and Physiology; Pathophysiology
    - Fundamental elements of the life support chain including oxygenation, perfusion, and the cellular environment; composition of ambient air; airway patency; respiratory compromise; ventilation/perfusion mismatch; perfusion and shock, blood volume; myocardial effectiveness; microcirculation; blood pressure; alterations in cellular metabolism
- Airway Management, Respiration, and Oxygenation: All sections
- Airway anatomy; airway assessment; techniques of assuring an open airway; age-related variation in airway anatomy; anatomy of the respiratory system; physiology of respiration; pathophysiology of respiration; assessment of respiratory status; respiratory management; supplemental oxygen therapy; age-related respiratory variation; assessment of ventilation status; oxygenation; ventilation management (adequate, inadequate, apneic); differentiating normal from positive pressure ventilation; age-related ventilation variation
- Patient Assessment: All sections
- Orientation to the new terminology (may be covered in a handout)
- Patient Assessment: Monitoring Devices
- Pulse oximetry
- Medicine: Neurology
    - Stroke/TIA; stroke alert criteria
- Medicine: Abdominal and Gastrointestinal Disorders
    - Anatomy; assessment; management; gastrointestinal bleeding, peritonitis, ulcerative disease, age-related variations
- Medicine: Infectious Disease
    - Updated information on methicillin resistant Staphylococcus aureus (MRSA); human immunodeficiency virus (HIV); cleaning and disinfecting ambulance equipment; decontaminating ambulances
- Medicine: Endocrine Disorders
    - Diabetes update
- Medicine: Psychiatric
    - Agitated delirium; medical/legal considerations; use of medical restraint
- Medicine: Cardiovascular
    - Anatomy; physiology; pathophysiology; assessment; management; acute coronary syndrome; hypertensive emergencies; cardiogenic shock; aspirin administration
- Medicine: Respiratory
    - Anatomy; assessment; management; specific respiratory conditions; metered-dose inhalers; small volume nebulizers; ager-related variations
- Medicine: Hematology
    - Sickle cell disease
- Medicine: Genitourinary/Renal

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- Anatomy; physiology; pathophysiology; dialysis emergencies
- Shock and Resuscitation
  - General shock; reasons for shock; mechanism of shock
- Trauma: Overview
  - Become familiar with the Centers for Disease Control (CDC) Field Triage Decision Scheme: The National Trauma Triage Protocol
- Trauma: Chest Trauma
  - Incidence; anatomy; physiology; pathophysiology; blunt or open trauma
- Trauma: Abdominal and Genitourinary Trauma
  - Incidence; anatomy; physiology; specific injuries; assessment; management
- Trauma: Head, Facial, Neck, and Spine Trauma
  - Assessment and management of neck, eye, dental; laryngeal injuries
- Trauma: Nervous System Trauma
  - Traumatic brain injuries
- Trauma: Special Considerations in Trauma
  - Trauma in pregnancy, elderly, and cognitively impaired
- Special Patient Populations: Obstetrics
  - Complications of pregnancy
- EMS Operations: Principles of Safely Operating a Ground Ambulance
  - Safety issues during transport
- EMS Operations: Incident Management
  - Incident management system
- EMS Operations: Hazardous Materials Awareness
  - Hazardous Waste Operations and
  - Emergency Response (HAZWOPER) First Responder Awareness Level
- EMS Operations: Mass Casualty Incidents Due to Terrorism and Disaster
  - Roles and responsibilities at the scene

Intermediate

Paramedic

This section identifies the knowledge content considered essential for transitioning currently certified EMT – Paramedics (trained under the ~~1998~~1999 EMT-P National Standard Curricula) to function as Paramedics once the Education Standards are implemented. Individual states may determine whether this essential content should be delivered in the form of continuing education classes or a formal transitioning program.

Section - Content

- Preparatory: EMS Systems
- More detailed discussion on patient safety issues
- Preparatory: Documentation
- Health Insurance Portability and Accountability Act (HIPAA)
- Preparatory: Medical/Legal/Ethics
- Health Insurance Portability and Accountability Act (HIPAA); advance directives and end-of-life issues

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- Anatomy and Physiology
- Review--greater depth and breadth in cardiovascular, respiratory, and neurological systems
- Pathophysiology
- Review--greater depth and breadth in cardiovascular, respiratory, and neurological systems
- Pharmacology: Medication Administration
- Medication review related to the state scope of practice; accessing indwelling catheters and implanted ports, intraosseous in all patients, intranasal and nasogastric administration of medications, thrombolytics
- Airway Management, Respiration, and Oxygenation - Greater emphasis on ventilation and respirations and the importance of artificial ventilation. BiPAP/CPAP; percutaneous cricothyrotomy
- Patient Assessment
- New terminology, history taking, monitoring devices including waveform capnography, chemistry analysis; arterial blood gas interpretation
- Medicine: Overview
- New terminology, ACLS update, specialty care such as STEMI and stroke
- Medicine: Infectious Diseases
- Drug-resistant bacteria, other emerging diseases
- Medicine: Psychiatric
- Excited delirium
- Medicine: Cardiovascular
- Acute coronary syndrome, 12-lead ECG interpretation, updated information on heart failure
- Shock and Resuscitation
- Increased pathophysiology, central line monitoring
- Trauma: Overview
- Centers for Disease Control (CDC) Field Triage Decision Scheme: The National Trauma Triage Protocol and trauma scoring
- Trauma: General
- Increased emphasis on pathophysiology plus commotio cordis, cauda equina syndromes, high pressure injection, blast injuries; critical thinking skills in trauma
- Trauma: Chest
- Monitoring and management of a chest tube
- Trauma: Head, Facial, Neck, and Spine Trauma
- Use of Morgan® lens
- EMS Operations: Principles of Safely Operating a Ground Ambulance
- Safety issues during transport
- EMS Operations: Incident Management
- Incident management system
- EMS Operations: Hazardous Materials Awareness
- Hazardous Waste Operations and
- Emergency Response (HAZWOPER) First Responder Awareness Level

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- EMS Operations: Air Medical
- Risks, needs, advantages of air transport
- EMS Operations: Mass Casualty Incidents Due to Terrorism and Disaster
- Roles and responsibilities at the scene

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Appendix A: Common Drug List

The drugs listed in this appendix MUST be covered as an educational minimum as indicated by the level of certification being instructed.

DRUG	EMR	EMT	AEMT	I	P
OXYGEN	●	●	●	●	●
ORAL GLUCOSE		●	●	●	●
EPI PEN		●	●	●	●
NITRO (Patient Assist)		●	●	●	●
INHALED BRONCHODILATORS		●	●	●	●
NITROUS OXIDE			●	●	●
ALBUTEROL			●	●	●
ATROPINE				●	●
DEXTROSE 50%			●	●	●
DIPHENHYDRAMINE				●	●
EPINEPHRINE 1:10,000				●	●
FUROSEMIDE				●	●
GLUCAGON			●	●	●
MAGNESIUM SULFATE				●	●
NALOXONE			●	●	●
NITROGLYCERIN TABS/SPRAY/PASTE			●	●	●
ADENOSINE				●	●
DIAZEPAM				●	●
EPINEPHRINE 1:1,000			●	●	●
MORPHINE				●	●
AMIODARONE				●	●
ASPIRIN		●	●	●	●
IPRATROPIUM					●
MIDAZOLAM					●
LIDOCAINE				●	●
DOPAMINE				●	●
THIAMINE				●	●
ACTIVATED CHARCOAL					●
AMYL NITRITE					●
FENTANYL					●
OXYTOCIN					●
PROMETHAZINE					●
LORAZEPAM					●
DILTIAZEM					●

Appendix B: Virginia Scope of Practice – Procedures & Formulary

The Virginia Scope of Practice demonstrates the "practice maximum" for each certification level established by the Virginia Office of EMS. Please utilize this document when instructing EMS programs.

Virginia Office of Emergency Medical Services
Scope of Practice - Procedures for EMS Personnel

This SOP represents ***practice maximums***.

PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
Specific tasks in this document shall refer to the Virginia Education Standards.							
AIRWAY TECHNIQUES							
Airway Adjuncts							
	Oropharyngeal Airway		●	●	●	●	●
	Nasopharyngeal Airway		●	●	●	●	●
Airway Maneuvers							
	Head tilt jaw thrust		●	●	●	●	●
	Jaw thrust		●	●	●	●	●
	Chin lift		●	●	●	●	●
	Cricoid Pressure		●	●	●	●	●
	Management of existing Tracheostomy			●	●	●	●
Alternate Airway Devices							
	Non Visualized Airway Devices	Supraglottic		●	●	●	●
Cricothyrotomy							
	Needle						●
	Surgical						●
Obstructed Airway Clearance							
	Manual		●	●	●	●	●
	Visualize Upper-airway				●	●	●
Intubation							
	Nasotracheal						●
	Orotracheal - Over age 12					●	●
	Pharmacological facilitation with paralytic	Adult Neuromuscular Blockade					●
	Pharmacological facilitation without paralytic						●
	Confirmation procedures			●	●	●	●
	Pediatric Orotracheal						●
	Pediatric paralytics						●
	Pediatric sedation						●
**** Endotracheal intubation is prohibited for all levels except Intermediate and Paramedic**							

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Use of medication not listed which is indicated by medical control and/or the operational medical director due to the use of a weapon of mass destruction is exempt from this list.

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This SOP represents ***practice maximums***.

PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
Oxygen Delivery Systems							
	Nasal Cannula		●	●	●	●	●
	Venturi Mask			●	●	●	●
	Simple Face Mask		●	●	●	●	●
	Partial Rebreather Face Mask			●	●	●	●
	Non-rebreather Face Mask		●	●	●	●	●
	Face Tent			●	●	●	●
	Tracheal Cuff			●	●	●	●
	Oxygen Hood					●	●
	O2 Powered Flow restricted device			●	●	●	●
	Humidification			●	●	●	●
Suction							
	Manually Operated		●	●	●	●	●
	Mechanically Operated		●	●	●	●	●
	Pharyngeal		●	●	●	●	●
	Bronchial-Tracheal			●	●	●	●
	Oral Suctioning		●	●	●	●	●
	Naso-pharyngeal Suctioning			●	●	●	●
	Endotracheal Suctioning			●	●	●	●
	Meconium Aspiration Neonate with ET						●
Ventilation – assisted / mechanical							
	Mouth to Mask		●	●	●	●	●
	Mouth to Mask with O2		●	●	●	●	●
	Bag-Valve-Mask Adult		●	●	●	●	●
	Bag-Valve-Mask with supplemental O2 Adult		●	●	●	●	●
	Bag-Valve-Mask with supplemental O2 and reservoir Adult		●	●	●	●	●
	Bag-Valve-Mask Pediatric		●	●	●	●	●

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PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
	Bag-Valve-Mask with supplemental O2 Pediatric		●	●	●	●	●
	Bag-Valve-Mask with supplemental O2 and reservoir Pediatric		●	●	●	●	●
	Bag-Valve-Mask neonate/infant		●	●	●	●	●
	Bag-Valve-Mask with supplemental O2 Neonate/Infant		●	●	●	●	●
	Bag-Valve-Mask with supplemental O2 and reservoir Neonate/Infant		●	●	●	●	●
	Noninvasive positive pressure vent.			●	●	●	●
	Jet insuflation						●
	Mechanical Ventilator (Manual/Automated Transport Ventilator)				●	●	●
Anesthesia (Local)						●	●
Pain Control & Sedation							
	Self Administered inhaled analgesics			●	●	●	●
	Pharmacological (non-inhaled)				●	●	●
Blood and Component Therapy Administration						●	●
Diagnostic Procedures							
	Blood chemistry analysis			●	●	●	●
	Capnography			●	●	●	●
	Pulmonary function measurement				●	●	●
	Pulse Oximetry			●	●	●	●
	Ultrasonography						●
Genital/Urinary							
	Bladder catheterization						
	Foley catheter						●

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Use of medication not listed which is indicated by medical control and/or the operational medical director due to the use of a weapon of mass destruction is exempt from this list.

This SOP represents ***practice maximums***.

PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
Head and Neck							
	ICP Monitor						●
	Control of epistaxis		●	●	●	●	●
	Tooth replacement		●	●	●	●	●
Hemodynamic Techniques							
	Arterial catheter maintenance						●
	Central venous maintenance				●	●	●
	Access indwelling port					●	●
	Intraosseous access & infusion				●	●	●
	Peripheral venous access and maintenance				●	●	●
	Umbilical Catheter Insertion/Management						●
	Cutdown						●
	Monitoring Existing IVs			●	●	●	●
	Mechanical IV Pumps				●	●	●
Hemodynamic Monitoring							
	ECG acquisition		●	●	●	●	●
	ECG Interpretation					●	●
	Invasive Hemodynamic Monitoring						●
Obstetrics							
	Delivery of newborn		●	●	●	●	●
Other Techniques							
	Vital Signs		●	●	●	●	●
	Bleeding control		●	●	●	●	●
	Foreign body removal						●
	Incision/Drainage						●
	Intravenous therapy				●	●	●
	Medication administration			●	●	●	●
	Nasogastric tube			●	●	●	●
	Orogastric tube			●	●	●	●

"Investigational medications and procedures which have been reviewed and approved by an Institutional Review Board (IRB) will be considered to be approved by the Medical Direction Committee solely within the context of the approved study. Investigators involved in IRB approved research are asked to present their study plans to the MDC for informational purposes so that the committee can maintain an awareness of on-going pre-hospital research in the Commonwealth. Those who desire to conduct non-IRB reviewed pilot projects, demonstration projects, or research are asked to present those proposals to the MDC prior to their implementation for review and approval by the MDC."

Use of medication not listed which is indicated by medical control and/or the operational medical director due to the use of a weapon of mass destruction is exempt from this list.

This SOP represents ***practice maximums***.

PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
	Pericardiocentesis						●
	Pleural decompression					●	●
	Patient restraint physical			●	●	●	●
	Patient restraint chemical					●	●
	Sexual assault victim management			●	●	●	●
	Trephination of nails						●
	Wound closure techniques					●	●
	Wound management		●	●	●	●	●
	Pressure Bag for High altitude						●
	Treat and Release			●	●	●	●
Resuscitation							
	Cardiopulmonary resuscitation (CPR) (all ages)		●	●	●	●	●
	Cardiac pacing					●	●
	Defibrillation/Cardioversion	AED	●	●	●	●	●
	Post resuscitative care			●	●	●	●
Skeletal Procedures							
	Care of the amputated part		●	●	●	●	●
	Fracture/Dislocation immobilization techniques		●	●	●	●	●
	Fracture/Dislocation reduction techniques						●
	Spine immobilization techniques		●	●	●	●	●
Thoracic							
	Thoracostomy (refer to "Other Techniques")						●
Body Substance Isolation / PPE			●	●	●	●	●
Lifting and moving techniques			●	●	●	●	●

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Use of medication not listed which is indicated by medical control and/or the operational medical director due to the use of a weapon of mass destruction is exempt from this list.

This SOP represents ***practice maximums***.

PROCEDURE	SKILL	PROCEDURE SUBTYPE	EMR	EMT	AEMT	I	P
Gastro-Intestinal Techniques							
	Management of non-displaced gastrostomy tube						●
Ophthalmological							
	Morgan Lenses			●	●	●	●
	Corneal Exam with fluorescein					●	●
	Ocular irrigation		●	●	●	●	●

"Investigational medications and procedures which have been reviewed and approved by an Institutional Review Board (IRB) will be considered to be approved by the Medical Direction Committee solely within the context of the approved study. Investigators involved in IRB approved research are asked to present their study plans to the MDC for informational purposes so that the committee can maintain an awareness of on-going pre-hospital research in the Commonwealth. Those who desire to conduct non-IRB reviewed pilot projects, demonstration projects, or research are asked to present those proposals to the MDC prior to their implementation for review and approval by the MDC."

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Virginia Office of Emergency Medical Services
Scope of Practice - Formulary for EMS Personnel

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CATEGORY		EMR	EMT	AEMT	I	P
Analgesics						
	Acetaminophen		●	●	●	●
	Nonsteroidal anti-inflammatory		●	●	●	●
	Opiates and related narcotics			●	●	●
Anesthetics						
	Otic			●	●	●
	General - initiate					●
	General - maintenance				●	●
	Ocular			●	●	●
	Inhaled-self administered		●	●	●	●
	Local			●	●	●
Anticonvulsants				●	●	●
Glucose Altering Agents						
	Glucose Elevating Agents					
	po/pr		●	●	●	●
	im		●	●	●	●
	iv			●	●	●
	Glucose Lowering Agents				●	●
Antidotes						
	Anticholinergic Antagonists				●	●
	Anticholenesterase Antagonists	●	●	●	●	●
	Benzodiazepine Antagonists					
	Narcotic Antagonists		●	●	●	●
	Nondepolarizing Muscle Relaxant Antagonist					
	Beta/Calcium Channel Blocker Antidote				●	●
	Tricyclic Antidepressant Overdose				●	●
	Cyanide Antidote				●	●
	Cholinesterase Reactivator	●	●	●	●	●
Antihistamines & Combinations				●	●	●
Biologicals						
	Immune Serums				●	●
	Antibiotics		●	●	●	●

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CATEGORY		EMR	EMT	AEMT	I	P
Blood/Blood products						
	Initiate					●
	Maintain				●	●
Blood Modifiers						
	Anticoagulants				●	●
	Antiplatelet Agents		●	●	●	●
	Hemostatic Agents		●	●	●	●
	Thrombolytics					●
Cardiovascular Agents						
	Alpha Adrenergic Blockers				●	●
	Adrenergic Stimulants				●	●
	Antiarrhythmics				●	●
	Beta Adrenergic Blockers				●	●
	Calcium Channel Blockers				●	●
	Diuretics				●	●
	Inotropic Agents				●	●
	Vasodilatory Agents		●	●	●	●
	Vasopressors				●	●
Central Nervous System	Antipsychotic				●	●
Dietary Supplements/Electrolyt	Vitamins					
	Minerals - start at a health care facility	See section: Intravenous Fluids				
	Salts - start at a health care facility					
	Electrolytes Solutions - start at a health care facility					
	Hypertonic Saline				●	●
Gas						
	Oxygen	●	●	●	●	●
	Heliox					●
Gastrointestinal						
	Antacids					
	OTC			●	●	●

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CATEGORY		EMR	EMT	AEMT	I	P
	Antidiarrheals		●	●	●	●
	Antiemetics		●	●	●	●
	H2 Blockers		●	●	●	●
Hormones	Steroids			●	●	●
Intravenous Fluids	isotonic			●	●	●
	hypotonic			●	●	●
	hypertonic				●	●
	M = Maintenance I = Initiate					
	Normal Saline Solutions (NSS - 0.9%)		M	I/M	I/M	I/M
	with Multi=vitamins		M	M	M	M
	with Thiamine		M	M	M	M
	Lactated Ringers		M	I/M	I/M	I/M
	with Multi=vitamins		M	M	M	M
	with Thiamine		M	M	M	M
	D5 1/2 NSS (0.45%)		M	I/M	I/M	I/M
	with Multi=vitamins		M	M	M	M
	with Thiamine		M	M	M	M
	D5 1/4 NSS (0.25%)		M	I/M	I/M	I/M
	with Multi=vitamins		M	M	M	M
	with Thiamine		M	M	M	M
	D5 1/3 NSS (0.33%)		M	I/M	I/M	I/M
	with Multi=vitamins		M	M	M	M
	with Thiamine		M	M	M	M
	1/2 NSS		M	I/M	I/M	I/M
	with Multi=vitamins		M	M	M	M
	with Thiamine		M	M	M	M
	1/3 NSS		M	I/M	I/M	I/M
	with Multi=vitamins		M	M	M	M
	with Thiamine		M	M	M	M
	1/4 NSS		M	I/M	I/M	I/M
	with Multi=vitamins		M	M	M	M
	with Thiamine		M	M	M	M
	D5LR		M	I/M	I/M	I/M
	with Multi=vitamins		M	M	M	M
	with Thiamine		M	M	M	M
Neuromuscular Blockers						●
Respiratory	Anticholinergics		●	●	●	●
	Sympathomimetics		●	●	●	●
M = Maintenance						
I = Initiate						

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