Paramedic Education Program
Assessment Report
2011-2012

Introduction

The Paramedic Education Program was established in 1977 at Oregon Health & Science University. A collaborative program with Oregon Institute of Technology was initiated in 2001. The program offers an Associate of Applied Science degree in Paramedicine and is nationally accredited by the Committee on Accreditation of Educational Programs for the Emergency Medical Services Profession (CoAEMSP), a specialized accrediting body recognized by the Council for Higher Education Accreditation and/or the Secretary of the U.S. Department of Education. The program is administratively located at the Oregon Tech urban campus in Wilsonville and splits classroom facilities with OHSU and Oregon Tech.

Program Educational Purpose, Objectives, and Student Learning Outcomes

In March 2013, the department reviewed the following program purpose, objectives and outcomes.

OHSU-OIT Paramedic Education Program Purpose
The purpose of the Oregon Health & Science University/ Oregon Institute of Technology Paramedic Education Program is to educate pre-hospital care providers; to prepare EMS leaders of the future; and to enhance the delivery of health care in the out-of-hospital setting.

Educational Objectives
The educational objectives of the program are to prepare students to:

1. Demonstrate personal behaviors consistent with professional and employer expectations of an entry level Paramedic.
2. Demonstrate technical proficiency in all of the skills necessary to fulfill the role of an entry-level Paramedic.
3. Comprehend, apply, and evaluate information relative to the role of an entry-level Paramedic.

Learning Outcomes
The following learning outcomes will be evaluated and analyzed every year to allow for longitudinal data analysis of the program's effectiveness. Graduates of the program will demonstrate:

1. An ability to understand, interpret and apply EMS and general medical knowledge necessary to function in a healthcare setting.
2. An ability to perform a broad range of paramedic level EMS skills both difficult and routine.
3. An ability to conduct oneself in an ethical and professional manner and show proficiency in interpersonal relations and communication.

2012-13 Assessment Activities

The program faculty conducted formal assessment of three student learning outcomes during the 2011-2012 academic year. These learning outcomes have been mapped to the curriculum, as shown in Appendix A.

Student Learning Outcome #1: An ability to understand, interpret and apply EMS and general medical knowledge necessary to function in a healthcare setting.

Paramedic students are required to take both a comprehensive written and a comprehensive practical exam before they are granted a license to practice within an individual state. The data table below is the latest results from the 2012 class to complete the national written exam based on 27 test attempts:

Table 1: Comprehensive Written Paramedic Exam

Exam Section	Passing	Below Passing
Airway	26 (96%)	1 (4%)
Cardiology	23 (85%)	4 (15%)
Trauma	25 (93%)	2 (7%)
Medical	24 (89%)	3 (11%)
EMS Operations	22 (82%)	5 (18%)

Student Learning Outcome #2: An ability to perform a broad range of paramedic level EMS skills both difficult and routine.

The culmination of three terms of skills teaching concludes with a mock national skills exam. This skills exam is structured very similar to the national test the students will experience if they choose to become certified as paramedics. Below are the results from the 2012 class lab skills final assessment:

Table 2: Final Skills Exam

Exam Section	Passing (1st attempt)	Below Passing
Ventilation - Adult	28 (100%)	0
Ventilation - Pediatric	28 (100%)	0
IV Therapy	27 (96%)	1 (4%)
IO Infusion	28 (100%)	0
Static Cardiology	28 (100%)	0
Dynamic Cardiology	26 (93%)	2 (7%)
Trauma Assessment	26 (93%)	2 (7%)
Medical Assessment	26 (93%)	2 (7%)
BLS C-Spine Skill	28 (100%)	0

See Appendix A for and example of the NREMT skills evaluation instruments.

Student Learning Outcome #3: An ability to conduct oneself in a professional manner and show proficiency in interpersonal relations and communication.

During the professional year of paramedic training the students complete a number of "merit badge" courses that are required for employment (ACLS, PALS, PHTLS, etc.). Successfully passing these courses requires strong interpersonal relations and communications skills as they are conducted in dynamic team environments often under significant emotional stress. The scores below on table 3 represent the test performance rates of paramedic students on the written pre-test (before PALS training) and written post-test (after PALS training):

Table 3: PALS Test Performance

	Above 80%	Below 80%
Pre-training test	22 (79%)	6 (21%)
Post-training test	27 (97%)	1 (3%)

Summary of Assessment Results

While our application process for potential students continues to remain competitive with many more students applying than getting accepted, continued top scores on national and state certification exams (as well as merit badge course) and high scores on employer feedback, we continue to search for an efficient and accurate means to assess our programs performance.

Strengths

- Strong student performance across current limited assessment tools

Weaknesses

- Improved context; need to compare assessment results against both peer institutions as well as historical performance.
- Improved class integration so not to burden faculty members with additional assessment requirements above and beyond current class and accreditation requirements.
- Provide for more direct connection between assessment results and direct program changes.

Actions

- Develop a list of peer institutions for comparison purposes.
- Standardize on a set of assessment metrics that can be reported on year over year for visibility of the effect of program changes.
- Improve the program's reporting capabilities to provide for in-line "dashboard" reporting on student progress throughout the year available for all program faculty and students so that mid-year visibility of assessment outcomes are understood allowing for course corrections or student corrections mid-stream.
- Synchronize and potentially automate accreditation reporting requirements with institutional reporting requirements for more efficient program administration.

Appendix A--Outcome # 2

National Registry of Emergency Medical Technicians
Advanced Level Practical Examination

BLEEDING CONTROL/SHOCK MANAGEMENT

Candidate: _____ **Examiner:** _____

Date: _____ **Signature:** _____

Time Start:_____

	Possible Points	Points Awarded
Takes or verbalizes body substance isolation precautions	1	
Applies direct pressure to the wound	1	
NOTE: The examiner must now inform the candidate that the wound continues to bleed.		
Applies tourniquet	1	
NOTE: The examiner must now inform the candidate that the patient is exhibiting signs and symptoms of hypoperfusion.		
Properly positions the patient	1	
Administers high concentration oxygen	1	
Initiates steps to prevent heat loss from the patient	1	
Indicates the need for immediate transportation	1	
Time End: _____ **TOTAL**	7	

CRITICAL CRITERIA

_____ Did not take or verbalize body substance isolation precautions
_____ Did not apply high concentration of oxygen
_____ Did not control hemorrhage using correct procedures in a timely manner
_____ Did not indicate the need for immediate transportation

You must factually document your rationale for checking any of the above critical items on the reverse side of this form.

p313/8-003k

National Registry of Emergency Medical Technicians
Advanced Level Psychomotor Examination

PATIENT ASSESSMENT - MEDICAL

Candidate:_____ **Examiner:**_____

Date:_____ **Signature:**_____

Scenario:_____

Actual Time Started: _____

	Possible Points	Points Awarded
Takes or verbalizes body substance isolation precautions	1	
SCENE SIZE-UP		
Determines the scene/situation is safe	1	
Determines the mechanism of injury/nature of illness	1	
Determines the number of patients	1	
Requests additional help if necessary	1	
Considers stabilization of spine	1	
PRIMARY SURVEY		
Verbalizes general impression of the patient	1	
Determines responsiveness/level of consciousness	1	
Determines chief complaint/apparent life-threats	1	
Assesses airway and breathing -Assessment (1 point) -Assures adequate ventilation (1 point) -Initiates appropriate oxygen therapy (1 point)	3	
Assesses circulation -Assesses/controls major bleeding (1 point) -Assesses skin [either skin color, temperature, or condition] (1 point) -Assesses pulse (1 point)	3	
Identifies priority patients/makes transport decision	1	
HISTORY TAKING AND SECONDARY ASSESSMENT		
History of present illness -Onset (1 point) -Severity (1 point) -Provocation (1 point) -Time (1 point) -Quality (1 point) -Clarifying questions of associated signs and symptoms as related to OPQRST (2 points) -Radiation (1 point)	8	
Past medical history -Allergies (1 point) -Past pertinent history (1 point) -Events leading to present illness (1 point) -Medications (1 point) -Last oral intake (1 point)	5	
Performs secondary assessment [assess affected body part/system or, if indicated, completes rapid assessment] -Cardiovascular -Neurological -Integumentary -Reproductive -Pulmonary -Musculoskeletal -GI/GU -Psychological/Social	5	
Vital signs -Pulse (1 point) -Respiratory rate and quality (1 point each) -Blood pressure (1 point) -AVPU (1 point)	5	
Diagnostics [must include application of ECG monitor for dyspnea and chest pain]	2	
States field impression of patient	1	
Verbalizes treatment plan for patient and calls for appropriate intervention(s)	1	
Transport decision re-evaluated	1	
REASSESSMENT		
Repeats primary survey	1	
Repeats vital signs	1	
Evaluates response to treatments	1	
Repeats secondary assessment regarding patient complaint or injuries	1	
Actual Time Ended: _____		
CRITICAL CRITERIA **TOTAL**	48	

_____ Failure to initiate or call for transport of the patient within 15 minute time limit
_____ Failure to take or verbalize body substance isolation precautions
_____ Failure to determine scene safety before approaching patient
_____ Failure to voice and ultimately provide appropriate oxygen therapy
_____ Failure to assess/provide adequate ventilation
_____ Failure to find or appropriately manage problems associated with airway, breathing, hemorrhage or shock [hypoperfusion]
_____ Failure to differentiate patient's need for immediate transportation versus continued assessment and treatment at the scene
_____ Does other detailed history or physical examination before assessing and treating threats to airway, breathing, and circulation
_____ Failure to determine the patient's primary problem
_____ Orders a dangerous or inappropriate intervention
_____ Failure to provide for spinal protection when indicated

You must factually document your rationale for checking any of the above critical items on the reverse side of this form.

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