

Student Learning Outcomes EMS 153 – Pharmacology Evidence

1. Briefly summarize the Student Learning Outcome assessed, and the method used to assess it.
The paramedic student will apply knowledge to analysis of specific problems. This SLO was measured by a written final examination question #65. The question was scenario driven giving the student a patient with multiple problems. The student was expected to use their understanding of pharmacology and physiology to assess and determine the most effective treatment for the patient. The patient presents to prehospital care advanced life support with an electrolyte disturbance as hypo-magnesium combined with other life threatening conditions. The student was expected to treat both the electrolyte imbalance and give primary antiarrhythmia medications following the American Heart Association emergency cardiac care guidelines for pulseless arrest algorithm.
2. Describe the kind of evidence that you collected to evaluate student learning as stated by the outcome. Is the data adequate for making observations and/or conclusions?
A total of twenty-four (24) students completed the test instrument, and twenty (20) successfully completed the measure as expected. Four (4) students did not correctly select the therapy as suggested by the emergency care guidelines. With further review of the distribution of the four students who were not successful on the measure there was no consistent distracter. The pass rate for this tool was eighty-three percent (83%). This measure has been revised since the last assessment cycle using medical director input. The medical director was in agreement that the revised item was a valid and reliable measure of the emergency cardiac care standards. Further in the discussions with the medical director that the combination of medical issues in the outcome instrument was a realistic and common occurrence in the prehospital setting. Given the revisions and the summative medical input the data and measure are effective for conclusions and other explorations.
3. Has all evidence been collected and documented? Are there any data missing or incomplete? Are there samples of evidence available?
All evidence has been collected and analyzed. There is no missing or incomplete data. Samples of the instrument can be located in the course file. A copy of this narrative has also been provided to the program director.
4. Looking at the results, how many students met or exceeded the stated outcome, based on the evidence present? What observations or explanations can you attribute this result to?
The data is included in the response to question 2. The changes in the outcome were appropriate and more accurately reflect the standards expected in the industry.
5. How many students performed below the stated outcome, based on the evidence present? What observations or explanations can you attribute this result to?

Four student (n=4) did not correctly answer the question. No significant information should be changed or modified as a result of this instrument.

6. Were there students who were not assessed? What was the reason(s) for students who were not assessed? Are the numbers of non-assessed students a significant factor in the overall success of the course or program being assessed?

One hundred (100%) percent of the students were assessed.

7. What overall observations do you have about the results? Are there significant patterns or trends in the data?

There need to be an additional measure to show any trending with this data. This testing cycle was an updated outcome based on the last assessment cycle. This measure had multiple sources of input and medical director summative review. The additional time added to the lesson on patients with multiple disease processes and the treatment heuristic and options within the emergency cardiac care guidelines improved the outcome more than thirty (30%) percent. Additionally, the increased lesson time dedicated to the stochastic patient in pharmacology appears to be helpful for the students. This addition needs to be tracked over time.

8. Based on your findings, what worked well in your course or program, as reflected by the data?

The students who demonstrated success on this measure showed that multiple physiologies can logically be treated according to the descriptive guidelines.

9. Based on your findings, what changes do you believe are necessary to improve student learning?

Continued additional time should be added to the lesson on patients with multiple disease processes and the treatment heuristic and options within the emergency cardiac care guidelines. Additionally, more lesson time can be dedicated to the stochastic patient in pharmacology. Assess the same measure during the Spring 2011 session and draw relationships between the two groups.

10. What kinds of learning evidence would help you make better, more precise observations? What would you change or modify in your assessment approach?

Repeat the test cycle during next program. Continue to strengthen the discussion of multiple influences on the patient and treatment heuristics.