Creating an Evidence-Based Medicine Case Study

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Introduction:

This presentation describes an evidence-based medicine case study that was added to an undergraduate “EMS Systems Design” course that is part of the EMS Management component of the Bachelor of Science in Health Science program.

EMS Systems Design

Students taking the semester-long on-line EHS 170 course are early to mid-career emergency service professionals completing their undergraduate degree. Averaging five years of field experience, this component introduces them to the concept of evidence-based medicine as well as the research resources available at the university.

The application assignment requires them to consider the evidence and apply it to a realistic situation by creating a policy document for the operating medical director.

Week 5: Introduction to EMS Research


Visit the following websites: NAEMSP National EMS Research Agenda, Society for Academic Emergency Medicine and National EMS for Children Data Analysis Center

Week 5 Discussion questions:

The 2006 Institute of Medicine research recommendations are different than the 2002 National Research Agenda. Does that mean that the National Research Agenda is no longer applicable?

Week 6: Introduction to Evidence-Based Medicine

Take Duke University Medical Center Library (4th edition 2004) online tutorial “Introduction to Evidence-Based Medicine”

Elizabeth Criss (2000) EMS Research: Obstacles of the Past, Opportunities in the Present, Models for the Future


Visit the following websites: UCLA Prehospital Care Research Forum, Evidence-Based Medicine Education Center of Excellence and The Centre for Health Evidence

Week 6 Discussion questions:

Assume that “evidence-based medicine” is just the scientific application applied to medical research. How does the scientific method differ from personal experiences?

Assume you are looking at two different treatments of cardiac arrest patients. Treatment A delivers 45% of cardiac arrest patients to the emergency department with restoration of spontaneous circulation (ROSC). Treatment B delivers 30% of cardiac arrest patients to the ED with ROSC. Of those patients delivered to the ED with ROSC, 70% of Treatment A patients die within 72 hours and 40% of Treatment B patients die within 72 hours. Assuming that you have a choice, which treatment would you select for your impending cardiac arrest?

Week 7: Applying Research to EMS Results


Mickey Eisenberg The C. J. Shanaberger Lecture: The Evolution of Prehospital Cardiac Care: 1966–2006 and Beyond Prehospital Emergency Care October-December 2006 10(4) 411-417

EBM Application Assignment: Breathless in Furrow County

Breathless in Furrow County. You are asked by the EMS operating medical director to provide a researched protocol on paramedic out-of-hospital intubation.

Paramedic ET performance. Excel spreadsheet of 59 Furrow County paramedic intubation performance

Out of Hospital Intubation: Where are We? January 2007 presentation by Dr. Wang at the National Association of EMS Physicians meeting. Based on his meta-survey.