Promoting Quality Improvement Processes in EMS Systems

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EMS Systems in the U.S.: Varied and Complex

- There are over 21,000 licensed EMS agencies in the U.S.*
  - Urban / Rural
  - Paid / Volunteer
  - Fire / Public / Private / Hospital / Police
- Each has individual operational policies and protocols
- "Home grown" approach to EMS system development in the U.S. since the 1970’s
  - Each meets the unique needs of it’s community
  - Historical absence of national standards

*NHTSA: 2011 National EMS Assessment
Efforts at National Standards

- IOM: Emergency Medical Services: At the Crossroads
- NHTSA-OEMS: National Scope of Practice document
- HRSA-EMS for Children: Pediatric EMS standards
- NASEMSO: National Model EMS Clinical Guidelines
- NREMT: National EMT certification standards
- CoAEMSP: National paramedic training standard
- Development of EMS research base
  - Evidence-based field treatment guidelines
- EMS board certification for physicians
  - Engaged EMS medical directors
  - NAEMSP
As these national standards and guidelines are developed and disseminated, we must answer two questions:

1. Does the EMS agency perform according to the recommended guidelines?
2. Does the recommended guideline improve patient outcome?

- A NASEMSO NHTSA-OEMS supported project to:
  - Create a model process for the development of evidence-based EMS performance measures
  - Develop an initial group of performance measures for public comment, dissemination, and implementation

If we don’t measure, we can’t improve
Proposed EMS Cardiac Arrest Performance Measures

• Frequency of bystander chest compressions
• Frequency of dispatch-coached chest compressions
• Time from PSAP call to initial compressions
• Time to initial shock
• Average chest compression rate/depth
• Average compression fraction
• Average duration of peri-shock pause
• ROSC during EMS care
• Survival rate after cardiac arrest (total/witnessed)
• Discharge of survivors with CPC 1/2
Opportunities / Challenges

Opportunities

• Development of a “culture of excellence” in EMS
• Future published EBGs should be accompanied by recommended performance measures, using the model process developed by EMS Compass

Challenges

• Educating EMS agencies / state EMS offices on PI
  • What is it?
  • How do I do it?
• Incentivizing / requiring PI activities by EMS agencies / state EMS offices