PREHOSPITAL EVIDENCE BASED PRACTICE PROGRAM
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On behalf of the PEP Editorial Team
NAEMSP 2018

Conflict of Interest

• Jen Greene is the paid coordinator of PEP
• PEP is grateful for the financial and in-kind support from EHS (Nova Scotia Department of Health and Wellness) and the Dalhousie University Division of EMS

Objectives

• After this session you will be able to:
  ➢ Find best EMS evidence using the PEP website
  ➢ Understand the evidence grading and synthesis used in PEP
  ➢ Apply EMS best evidence to clinical questions arising in practice
Why use PEP?

You get pulled aside on your shift to talk about a recent case.....

• A cardiac arrest was worked in the field by advanced care paramedics
• They intubated the patient, using a bougie and laryngeal manipulation
• Your colleague was under the impression that out of hospital intubation is not supported by the evidence

I wonder if the evidence supports intubation for out of hospital cardiac arrest?
A call to arms

- TOP ISSUES IN EMS
  NAEMSP BOARD OF DIRECTORS
  Baltimore, Maryland 2001

  Science:
  - There is a lack of quality research addressing important EMS questions. The challenge is to generate evidence to identify effects of, improve, and understand the care provided by EMS.
Evidence matters...

- Do what works to make patients better
- Allocate limited financial resources
- Serve health care needs of diverse population/geography
- Paramedics emerging health profession with unique abilities to enhance system
  - Not all 9-1-1 calls require transport to ED

1997: PEP starts in Nova Scotia

Prehospital
Evidence-based
Practice Program

What is PEP?
Prehospital Evidence Based Practice Program

- Online, free access
- Literature pertaining to all EMS interventions (“North American”/paramedic based EMS)
- Continuously updated

A Vision for PEP

- PEP is an internationally recognized source for evidence based decision making in EMS
### Monthly literature searches

- Structured, systematic literature search in PubMed
- One clinical topic area per month

### Inclusion criteria

- Primary literature
- Formal systematic reviews
- Investigating any PEP intervention
  - Any clinical outcome
  - Any modern setting
  - Including simulation

### Exclusion criteria

- Animal studies
- Narrative reviews
- Editorials
- Expert opinion pieces
Critical appraisal

• Strength/quality of evidence
• Direction
• Primary outcome
• Setting
• Methods

Second party appraisal

• All studies are reviewed again by a senior appraisal team
• Senior team
  • Jan Jensen ACP
  • Dr. Judah Goldstein PCP
  • Janel Swain ACP
  • Dana Fidgen RN
  • Dr. Yves Leroux
  • Dr. Jolene Cook
  • Dr. Alix Carter
  • Jen Greene ACP

Referenced in Canadian EMS guidelines
International Users

1764 page views in month of November

PEP referenced internationally

Prehospital Evidence Based Practice Program

Knowledge to Practice
I wonder if the evidence supports intubation for out of hospital cardiac arrest?

How to use PEP

Search the Database
Table of Contents

The Matrix

The Primary Literature
Knowledge to Practice

Future direction

Stakeholder Engagement and End-user Feedback

PEP 2.0: Content upgrades

- Display primary and secondary outcomes
- Display study setting (e.g., North America, Australia, Franco-German...)

1/25/2018
PEP 2.0: Structure updates

- Appraisal to include indirectness and risk of bias
- Separate Patient-Oriented from Process outcomes

PEP 2.0: User interface updates

- GRADE appraisal of key PICO questions for each clinical complaint area, as requested by end users
- Searchable by certain data fields e.g., outcome=survival
- Mobile-friendly

EMS Key Points

- PEP is freely available to practitioners, decision makers, the public, to better understand the evidence that underpins EMS practice
- PEP uses 3-tier Level and Direction of evidence to score each article, and synthesize an overall summary of evidence for interventions
- Body of direct evidence guiding EMS practice is growing
  - Use it!
To find out more or get involved

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