LESSONS LEARNED:
Statewide Implementation
of an Evidence-Based
Guideline
Report to NAEMSP
2017 Annual Meeting

Background
"...Convene a panel of
individuals with
multidisciplinary
expertise to develop
evidence-based model
prehospital care
protocols for the
treatment, triage, and
transport of patients,
including children."

NHTSA EBG Project Timeline
EBG Model Process Overview

NHTSA/EMSC Funded Projects

Statewide Implementation of an Evidence Based Guideline
Project Basics

- Competitive award to the National Association of State EMS Officials (NASEMSO) through NHTSA with supplemental funding provided by HRSA EMS for Children Program
- Project Team Leads:
  - Matthew Sholl, MD (co-PI)
  - Peter Taillac, MD (co-PI)
  - Kathleen Adelgais, MD (PEM Consultant)
  - Rachael Alter (NASEMSO Staff)
- PURPOSE: To support the use and further refinement of the National EBG Model Process by studying the implementation of a pain management EBG in five volunteer states with a variety of EMS organizational structures.

State Participants:
- Arizona, Idaho, Kansas, Tennessee, Wyoming

Guideline:
- Prehospital Protocol for the Management of Acute Traumatic Pain
- EBG Manuscript: Gauche-Hill, et al., EBG for Prehospital Analgesia in Trauma (PEC 2014)

Why Pain Management?

“The National EMS Research Strategic Plan
Michael K. Sayre, MD, Lewis White, MD, Leonard L. Burns, EMT-P, Brian D. Maki, MD, See the National EMS Research Strategic Plan Working Team.

Develop Strategies for Identification and Management of Pain
“Pain is a frequent symptom among patients accessing the EMS system. The recognition and management of pain in the EMS setting needs to be improved. Assessment tools designed to accurately identify and quantify pain are needed for all patients, including those with limited cognitive or language abilities”

Sayre et al, Prehospital Emergency Care, 2005
Why Pain Management? (cont’d)

Known Barriers

- Evidence there are disparities in the prehospital environment
- Fear of dosing mistakes = undertreating
- Need for medical direction approval before narcotics given to patients

EBG Solution

- Consistency
- Easy to remember dosing & use of pain scales
- Standing order to avoid calling medical direction

State Selection Criteria

- Authority for Mandated Protocols
  - Have it, but don’t exercise it
  - In Statute
  - None

- Mandatory vs Local Protocols/Guidelines
  - Mix of model guidelines and local only
  - 2 states were in the process of implementing model guidelines when the project started

- Current Pain Guideline?
  - Yes (n=2)

- All Allow Fentanyl
- Licensed EMS Agencies
  - <150 (n=2)
  - 151-250 (n=3)
- % Urban
  - 30% - 89%
- All Collecting NEMSIS 2
- Agencies Submitting Data & Total Runs Submitted
  - All above 75%
States with ALS Protocols

Project Accomplishments
- Developed Implementation, Dissemination, and Evaluation Toolkit
- Developed individual state implementation plans
  - Program Plan
  - Evaluation Roadmap
- Created online training/PPTs
  - For EMS Personnel (1 hour)
    - Pre- & post-tests
    - Simulation scenarios
    - Pain assessment/self-efficacy tools
    - Hospital ED staff (15 minutes)

Statewide Implementation of Toolkit Materials

1. Evidence-Based Guideline Information
   a. EBQ FAQs
   b. National EBQ Model Process
   c. GRADE Process
   d. EBQ & GRADE Resources
   e. Guideline
   f. Pain Scale
   g. Guideline Key Elements
   h. Guideline Data Elements
   i. Example of Pain Management Protocol

2. References
   a. Essential Articles
   b. Recommended Articles
   c. Supplemental Articles

3. Talking Points / FAQ

4. Implementing a Statewide Guideline – How To

5. Educational Resources

6. Evaluation Resources
   a. Evaluation Components
   b. Agency Adoption Assessment Tool
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State Status

- One state did not implement the Pain Management Protocol
  - Instead, developed state-based guideline
- One state did disseminate, but not implement the guideline
- Three states disseminated and implemented the guideline
  - Across the entire state
  - Within regions of the state
  - Within services
Preliminary Findings - Barriers

- General Barriers
  - Need speedier release of EBGs and updates on a timely basis (perception that EBG is ‘out of date’)
  - Potential push back:
    - “Doses are too small”
    - “Hesitant to use opioids due to restocking”
    - Local feeling that current state protocol more ‘expansive’
  - Concern for state and federal regulatory issues surrounding scheduled medications

- Dissemination Barriers
  - Delays between project announcement and project execution
  - EBG should be more inclusive of basic/intermediate levels

Preliminary Findings - Barriers

- Education Barriers
  - Creation of a training at a national level may not be beneficial to states who want a more “local touch”
  - Issues with state IT has caused delays in training implementation

- Implementation barriers
  - Difficult in states with no “local champion”
  - Difficulties in states without prior process of guideline release or practice with a process for dissemination
  - Difficult to track successes of educational programs
  - Difficult for states to measure metrics of interest to the project team

Preliminary Findings - Enablers

- General Enablers
  - Strong local champion/advocate

- Dissemination/Education Enablers
  - Mechanisms for communication & messaging with EMS services at the local/regional level
  - Pre-existent Learning Management System (LMS) at the state level

- Implementation Enablers
  - Pre-existing state-based guidelines - including model guidelines
  - Use of implementation “tool-kit”
Recommendation #1 - Develop state model or mandatory guidelines

- States with existing model guidelines (2) appeared to have easier time with both dissemination and implementation.
- Why is this?
  - Is it easier for local medical directors to adopt these protocols?
  - Are local services more aware due to history of model guidelines?
  - Does the history of model guidelines within a state or region facilitate conversation?

Recommendation #2 - Establish protocol dissemination and implementation champions

- Benefit of project champions are well described in the literature
- Essential elements include
  - Ability to foster change - based on legislated authority or respect within the system in question
  - Consensus building
  - Able to encourage evolution amongst wide variety of health care providers
- NOT ENOUGH to have champions at the state-level
- Need champions throughout the EMS system - regional/sub-regional/local service

Recommendation #3 - Improve/facilitate the evidence based guideline development process

- EBG release delay lead to frustration amongst participating states and in one case lead to a state building and adopting their own guideline
- Concern regarding time required to develop an EBG
- The EBG for Management of Pain in Trauma was one of the first EBG’s created
- With subsequent practice developing EBG’s, process has been facilitated and much shorter in duration
Recommendation #4 - Consider learning management systems as one element of the dissemination and implementation strategy

- Prior experience suggest learning management systems can assist with dissemination and implementation of guidelines
- Based on NASEMSO survey of State Medical Directors/Directors
- Must be "user friendly" with easy interface for users
- Allows learners to offer feedback or post questions
- Must be functional in areas with poor internet connectivity
- Must be functional for the state.
  - Easy to post material
  - Easy to track participants’ program completion/success

Recommendation #5 - Consider using a toolkit for the dissemination and implementation process

- State's uniformly thought the tool kit was helpful
- Pre-Hospital Guidelines Consortium adopting the format of the Toolkit to assist in future EBG dissemination and implementation
- Toolkit content can be found at www.NASEMSO.org - under projects

Recommendation 6 - Develop systems, coordinated with the implementation project, that are able to track EBG implementation

- One key to success is the ability to measure progress
- Each state encountered difficulty measuring key project metrics
  - Use of pain scales
  - Delivery of pain medications
  - Reassessment of pain
- Without the ability to measure progress, left with only anecdote
- Along with data - need to find means to receive feedback from guideline “end-users” as a means to discover their impressions
Is This Experience Only Important to State EMS Officials?

- Disseminating and implementing pre-hospital guidelines at the state-level may be the most difficult.
- Many of the lessons of this project have direct impact on regional/sub-regional/local service protocol development.
- Champions
- Learning Management systems
- Toolkits
- Measure and share success

Questions?

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