

Statewide Implementation of an EBG Program Plan & Evaluation Roadmap

The program planning and evaluation activities listed for each of the three phases listed below are best practice recommendations and should increase the likelihood of *Prehospital Protocol for the Management of Acute Traumatic Pain* adoption and State's ability to measure its impact. However, in the case that implementation of all of these activities is not feasible for a State, we have developed a program planning checklist and an evaluation checklist. These two checklists contain the essential elements recommended for a minimum implementation of the *Guideline* in your State, and are provided in a separate document.

The *Prehospital Protocol for the Management of Acute Traumatic Pain* will be referred to as *Guideline* throughout this document.

STAGE 1: PLANNING & EARLY ADOPTION PHASE

I. Process Program Implementation Activities:

- A. Convene Management of Acute Traumatic Pain Guideline Steering Committee or identify pre-existing State Committee to serve in this role.
 - i. This Committee will be responsible for the oversight of the Guideline dissemination, training, and evaluation. The members will also serve as Champions for the adoption of the Guideline. Ideally the establishment of this Committee should be one of the initial activities.
 - ii. The following representatives should be considered for participation in the Steering Committee:
 - Adult pain management experts in the State (EMS providers, EMS Physicians, & emergency department (ED) Physicians)
 - Pediatric pain management experts in the State (EMS providers, EMS Physicians, & ED Physicians)
 - ED Charge Nurse
 - Pharmacist
 - Data managers from State and local level
 - Family and patient representatives
 - EMSC representatives
 - Training managers from State and local level
 - State Committee members
 - Other Guideline Adoption Key Stakeholders

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- iii. At the first meeting of this Committee the members should receive
 - 1) the Guideline,
 - 2) education on how the Guideline was developed,
 - 3) education on the need for prehospital pain management,
 - 4) education from a clinical expert on the clinical approach within the Guideline,
 - 5) the use of narcotics within the Guideline, and
 - 6) education regarding the need for a Statewide Prehospital Guideline.
- iv. This Committee should review the Guideline and compile their perception of the State's barriers and facilitators to Guideline adoption. They should develop a plan to address the barriers to Guideline adoption.
- v. This Committee should also solicit feedback on the Guideline from key stakeholders Statewide. This feedback should be solicited early and often. Ideally these key stakeholders should represent EMS providers, EMS Medical Directors, On-line Medical Direction Organizations, ED providers, EMS Committees, resisters to Guideline adoption, and individuals with influence in the EMS community. Once a feedback saturation point is reached, the Committee should identify common barriers and facilitators to Guideline adoption themes and develop an approach to address the main barriers to Guideline adoption. If the barriers indicate a need to revise the Guideline, the State should please communicate this to NASEMSO and then work in partnership with NASEMSO to update the Guideline accordingly. Wherever possible, the Committee should develop a plan to incorporate the facilitators to Guideline adoption in their Guideline Implementation Plan.
- vi. The Committee should disseminate the following pieces of information back to the key stakeholders:
 - Identified facilitators to Guideline adoption
 - Identified Guideline barriers
 - The plan to address the Guideline barriers
 - Clinical and non-clinical changes made to the Guideline and the reasons behind these changes,
 - The plan to incorporate the facilitators to Guideline adoption in the Guideline Rollout Plan.

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- B. Identify which EMS agencies will adopt the Guideline. Of the EMS Agencies resistant to adopting the Guideline work with them to identify reasons for resistance and work to resolve issues in order to ensure Guideline adoption.
- C. Ensure Data Points as recommended in the General Toolkit are included in State's EMS database and that EMS agencies are trained on the collection and documentation of these Data Points as part of Guideline Training. Identify any Data Points that will not be included and communicate these to NASEMSO team, in order to revise the State's Evaluation Plan accordingly.
- D. Develop Guideline Fact Sheet to be disseminated to key stakeholders, EMS agencies, and EDs.
- E. Identify outcome-oriented performance improvement measures associated with the Guideline for that the State to utilize. Ensure necessary data elements are being collected in order to evaluate such projects.
- F. Mandate adoption of the Guideline if within the State's operational scope.
- G. Seek support from EDs to support EMS providers' use of the off-line Guideline.
- H. Establish timeline for Training Phase; establish the Go Live Date for the Guideline.
- I. Identify Guideline education trainers (e.g. agency training officers)
- J. Disseminate Guideline per State and/or Agency policies & practices.

II. Process Evaluation:

- Was a Steering Committee convened, or a current State Committee tasked with the duties as recommended?
- Was a timeline for the Training Phase developed?
- Was a Go Live Date established for the Guideline?
- Were any Quality Improvement Projects identified (e.g. increased use of Fentanyl/morphine, increased documentation of pain scales, pain medication administration for specific conditions: fractures, burns, etc.)?
- Was the State EMS Office able to identify which EMS Agencies will adopt the Guideline?
- How will EMS providers be trained on the Guideline?
- Were barriers to Guideline Implementation identified and were strategies identified to address these barriers to Guideline Implementation Plan?

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- How were the program facilitators to adoption incorporated into the Guideline Implementation Plan?
- Were copies of the pain scales and Guideline disseminated to EMS providers statewide?
- Were the recommended Data Points incorporated into the State EMS database? Were EMS providers trained on the collection and documentation of these Data Points?
- Were any barriers related to ED Physician's support of off-line administration of narcotics identified? If so, what solutions were identified and developed to resolve these barriers?

STAGE 2: TRAINING PHASE

I. Impact Program Implementation Activities:

- A. Pilot test EMS Guideline Training. Work with training attendees to identify any problems with training and resolve problems. Revise training as appropriate.
- B. Pilot test ED Training. Work with training attendees to identify any problems with training and resolve problems. Revise training as appropriate.
- C. Verify with Nursing & Physician Boards if CECBEMS accepted for ED Physicians & Nurses.
- D. Conduct Guideline Train-the-Trainer Sessions.
- E. Post EMS Training on State LMS System and on applicable State, Regional, and local websites.
- F. Post ED Guideline Training on State LMS System and on applicable State, Regional, and local websites.
- G. Disseminate Guideline Training information to EMS Agencies.
- H. Conduct Guideline training for EMS Agencies.
- I. Disseminate Training information to hospital EDs.
- J. Conduct Guideline Training for hospital EDs.
- K. Disseminate Guideline Training information to out-of-state transfer hospital EDs.
- L. Conduct Guideline Training for hospital EDs or provide access to on-line training.

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- M. Disseminate laminated/electronic copies of the Guideline to EMS and ED providers.
- N. Allow 3-9 months for training on the Guideline before Go Live Date for EMS agencies.
- O. Prior to Go Live Date, pilot test Guideline adoption with 3-5 EMS agencies for a one-month period. Conduct data analysis for outcome evaluation areas to identify any remaining barriers to Guideline implementation, or run report data documentation. Revise as appropriate to address identified barriers.
 - i. When choosing agencies for the pilot, consider annual volume of pediatric patients and annual volume of trauma.

II. Impact Evaluation:

- A. Did EMS Providers completing the Guideline Training have an increase in their:
 - a. knowledge scores from pre- to post-test?
 - b. skills test scores from pre- to post-test?
 - c. toddler pain management self-efficacy scores from pre- to post-test?
 - d. child pain management self-efficacy scores from pre- to post-test?
 - e. adult pain management self-efficacy scores from pre- to post-test?
- B. What percent of the State's EMT providers completed the Guideline Training?
- C. What percent of the State's Paramedics/ALS providers completed the Guideline Training?
- D. Was the Guideline pilot tested to evaluate completeness of run report data for the Data Points?

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STAGE 3: GUIDELINE ADOPTION & IMPLEMENTATION PHASE

I. Outcome Program Implementation Activities:

- A. Go Live Date is reached and EMS Agencies begin to use the Guideline. Data Points should be measured from this date forward.
- B. Conduct monthly data analysis on Key Elements to identify any Guideline barriers. Revise Guideline Implementation Plan and training as appropriate to address barriers.
- C. Launch NASEMSO's Real Time Guideline Feedback portal and identify common themes in feedback. Feedback will be kept anonymous and portal will function in a "submit your feedback" capacity rather than like a blog. Develop plan to resolve any issues that arise.

II. Outcome Evaluation

A. Clinical Indicators Evaluation Questions:

- For EMS Agencies adopting the Guideline, was there an increase in:
 - the documentation of pain scores for adult patients with acute trauma?
 - the documentation of pain scores for pediatric patients with acute trauma?
 - the utilization of either Morphine or Fentanyl to manage pain in adult patients with acute trauma?
 - the utilization of either Morphine or Fentanyl to manage pain in pediatric patients with acute trauma?
- For EMS Agencies adopting the Guideline with a transport time longer than 10 minutes, was there an increase in the reassessment of pain in:
 - adult patients with acute trauma?
 - pediatric patients with acute trauma?
- For EMS Agencies adopting the Guideline with a transport time longer than 10 minutes and continued moderate to severe pain scores, was there an increase in the re-dosing of either Morphine or Fentanyl in:
 - adult patients with acute trauma?
 - pediatric patients with acute trauma?

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B. Geographical Indicators Evaluation Questions:

- Was there a difference in any of the above clinical indicators between rural and urban EMS agencies?
- Was there a difference in any of the above clinical indicators between EMS agencies whose receiving hospital was a designated trauma facility and EMS agencies whose receiving hospital was not a designated trauma facility?

C. Facilitators to Guideline Adoption Evaluation Questions:

- What percent of the State's EMS agencies adopted the Guideline?
- Was there a difference in any of the above clinical indicators between EMS agencies whose on-line medical direction provider/ organization/hospital supported the off-line use of the Guideline and EMS agencies whose on-line medical direction provider/organization/hospital did not support the off-line use of the Guideline?

D. NASEMSO Facilitators (Between States) to Guideline Adoption Evaluation Questions:

- Was there a difference in any of the above pediatric clinical indicators between States with a State Pediatric/EMS for Children Medical Director and States without a State Pediatric/EMS for Children Medical Director?
- Was there a difference in any of the above clinical indicators between States with an EMS Medical Director and States without an EMS Medical Director?
- Was there a difference in any of the above clinical indicators between States with an LMS System and States without an LMS system?
- Was there a difference in any of the above clinical indicators between States making the Guideline adoption mandatory and States making the Guideline adoption voluntary?