



Statewide Implementation of an EBG: References

These are references relevant to this project. They include information regarding the evidence-based guideline development process, pain medication delivery and effectiveness in both the emergency department and in prehospital care, the safe use of narcotic analgesics for the treatment of traumatic pain, and pain scale usage.

The articles are divided them into "Essential" reading (those articles that we feel are most important for individuals involved in the training and use of this EBG to be familiar with), "Recommended" reading (those articles which act as a foundation for the understanding of prehospital pain management), and "Supplemental" reading (those articles that provide background and more in-depth information regarding this topic).

[Essential Articles](#)

[Recommended Articles](#)

[Prehospital Pain Management – Background Information](#)

[Evidence for the Need of Prehospital Pain Control](#)

[Barriers to Offering Pain Control](#)

[Safety of Narcotics in the Prehospital Environment](#)

[Evidence Behind the Intra-Nasal Route of Application](#)

[Evidence for the Use of Pain Scales in Adults and Pediatrics](#)

[Supplemental Articles](#)

[Evidenced-Based Guidelines in EMS](#)

[Evidence-Based Practice](#)

[Evidence for the Need of Prehospital Pain Control](#)

[Barriers to Offering Pain Control](#)

[Safety of Narcotics in the Prehospital Environment](#)

[Evidence Behind the Intra-Nasal Route of Application](#)

[Evidence for the Use of Pain Scales in Adults and Pediatrics](#)

[GRADE Process](#)

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Essential Articles

Brown, KM, Hirshon, JM, Alcorta R, et al. The Implementation and Evaluation of an Evidence-based Statewide Prehospital Pain Management Protocol Developed using the National Prehospital Evidence-based Guideline Model Process for Emergency Medical Services. *Prehosp Emerg Care*. 2014;18 No. Supplement 1:45-51.

[Full Article](#)

Hennes H, Kim MK, Pirrallo RG. Prehospital Pain Management: A Comparison of Providers' Perceptions and Practices. *Prehosp Emerg Care*. 2005 Jan-Mar;9(1):32-9.

[Abstract](#)

Lang ES, Spaite DW, Oliver ZJ, et al. A National Model for Developing, Implementing, and Evaluating Evidence-based Guidelines for Prehospital Care. *Acad Emerg Med*. 2012 Feb;19:201-209.

[Abstract](#) | [Full Article](#)

Recommended Articles

Prehospital Pain Management – Background Information

Alonso-Serra HM, Wesley K. Prehospital Pain Management. *Prehosp Emerg Care*. 2003 Oct-Dec;7(4):482-488.

[Full Article](#)

Evidence for the Need of Prehospital Pain Control

McManus JG Jr, Sallee DR Jr. Pain Management in the Prehospital Environment. *Emerg Med Clin North Am*. 2005 May;23(2):415-31.

[Abstract](#) | [Full Article](#)

Barriers to Offering Pain Control

Walsh B, Cone DC, Meyer EM, Larkin GL. Paramedic Attitudes Regarding Prehospital Analgesia. *Prehosp Emerg Care*. 2013 Jan-Mar;17(1):78-87.

[Abstract](#) | [Full Article](#)

Williams DM, Rindal KE, Cushman JT, Shah MN. Barriers to and Enablers for Prehospital Analgesia for Pediatric Patients. *Prehosp Emerg Care*. 2012 Oct-Dec;16(4):519-26.

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Safety of Narcotics in the Prehospital Environment

Kanowitz A, Dunn TM, Kanowitz EM, Dunn WW, Vanbuskirk K. Safety and Effectiveness of Fentanyl Administration for Prehospital Pain Management. *Prehosp Emerg Care*. 2006 Jan-Mar;10(1):1-7.

[Abstract](#) | [Full Article](#)

Evidence Behind the Intra-Nasal Route of Application

Karlsen AP, Pedersen DM, Trautner S, et al. Safety of Intranasal Fentanyl in the Out-of-Hospital Setting: A Prospective Observational Study. *Ann Emerg Med*. 2013 Nov 13. pii: S0196-0644(13)01544-8. doi: 10.1016/j.annemergmed.2013.10.025. [Epub ahead of print]

[Abstract](#)

Borland ML. Intranasal Fentanyl: A Novel Method of Analgesia Delivery in Children. Princess Margaret Hospital for Children, Western Australia.

[Presentation](#)

Borland ML, Jacobs I, Geelhoed G. Intranasal Fentanyl Reduces Acute Pain in Children in the Emergency Department: A Safety and Efficacy Study. *Emerg Med (Fremantle)*. 2002 Sept;14(3):275-280.

[Abstract](#)

Evidence for the Use of Pain Scales in Adults and Pediatrics

Jennings PA, Cameron P, Bernard S. Measuring Acute Pain in the Prehospital Setting. *Emerg Med J*. 2009 Aug;26(8):552-5.

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Babl FE, Crellin D, Cheng J, et al. The Use of the Faces, Legs, Activity, Cry and Consolability Scale to Assess Procedural Pain and Distress in Young Children. *Pediatric Emergency Care*. 2012 Dec;28(12):1281-96

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Williamson A, Hoggart B. Pain: A Review of Three Commonly Used Pain Rating Scales. *J of Clin Nurs*. 2005 Aug;14(7):798-804.

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Supplemental Articles

Evidenced-Based Guidelines in EMS

Gausche-Hill M, Brown KM, Oliver ZJ, et al. An Evidence-based Guideline for Prehospital Analgesia in Trauma. *Prehosp Emerg Care*. 2014;18 No. Supplement 1:25-34.

[Abstract](#) | [Full Article](#)

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Shah M, Macias C, Dayan P, et al. An Evidence-based Guideline for Pediatric Prehospital Seizure Management Using GRADE Methodology. *Prehosp Emerg Care*. 2014;18 No. Supplement 1:15-24.

[Abstract](#) | [Full Article](#)

Thomas SH, Brown KM, Oliver ZJ, et al. An Evidence-based Guideline for the Air Medical Transportation of Prehospital Trauma Patients. *Prehosp Emerg Care*. 2014;18 No. Supplement 1:35-44.

[Abstract](#) | [Full Article](#)

[Wright, J. Evidence-Based Guidelines for Prehospital Practice: A Process Whose Time Has Come](#). *Prehosp Emerg Care*. 2014;18 No. Supplement 1:1-2.

[Full Article](#)

Evidence-Based Practice

Graham ID, Harrison MB, Brouwers M, Davies BL, Dunn S. Facilitating the Use of Evidence in Practice: Evaluating and Adapting Clinical Practice Guidelines for Local Use by Health Care Organizations. *J Obstet Gynecol Neonatal Nurs*. 2002 Sep-Oct;31(5):599-611.

[Abstract](#)

Grimshaw, JM, Eccles, MP. Is Evidence-Based Implementation of Evidence-Based Care Possible? *Med J Aust*. 2004;180(6):50.

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Lang ES, Spaitte DW, Oliver ZJ, et al. A National Model for Developing, Implementing, and Evaluating Evidence-based Guidelines for Prehospital Care. *Acad Emerg Med*. 2012 Feb;19:201-209.

[Abstract](#) | [Full Article](#)

Wright, J. Implementation of an Evidence-Based Guideline for Prehospital Pain Management. EMS Today, Washington, DC. 9 April 2013. Breakout Session.

[Presentation](#)

Evidence for the Need of Prehospital Pain Control

Fairbanks, RJ, Kolstee, KE, Martin, HA, et al. Prehospital Pain Management is not Adequate. *Prehosp Emerg Care*. 2007; 11(1):134.

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French, SC, Chan, SB, Ramaker J. Education on Prehospital Pain Management: A Follow-up Study. *West J of Emerg Med*. 2013 Mar;14(2):96-102.

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French SC, Salama NP, Baqai S, et al. Effects of an Educational Intervention on Prehospital Pain Management. *Prehosp Emerg Care*. 2006 Jan-Mar;10(1):71-6.

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Barriers to Offering Pain Control

Jones, GE, Machen I. Prehospital Pain Management: The Paramedics' Perspective. *Accid Emerg Nurs*. 2003 Jul;11(3):166-72.

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Safety of Narcotics in the Prehospital Environment

Bendall JC, Simpson PM, Middleton PM. Effectiveness of Prehospital Morphine, Fentanyl, and Methoxyflurane in Pediatric Patients. *Prehosp Emerg Care*. 2011 Apr-Jun;15(2):158-65.

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Evidence Behind the Intra-Nasal Route of Application

Borland ML, Jacobs I, Geelhoed G. Intranasal Fentanyl Reduces Acute Pain in Children in the Emergency Department: A Safety and Efficacy Study. *Emerg Med (Fremantle)*. 2002 Sep;14(3):275-80.

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Saunders M, Adelgais K, Nelson D. Use of Intranasal Fentanyl for the Relief of Pediatric Orthopedic Trauma Pain. *Acad Emerg Med*. 2010 Nov;17(11):1155-61.

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Evidence for the Use of Pain Scales in Adults and Pediatrics

Bijur PE, Silver W, Gallagher EJ. Reliability of the Visual Analog Scale for Measurement of Acute Pain. *Acad Emerg Med*. 2001 Dec;8(12):1153-7.

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Bullock B, Tenenbein M. Validation of 2 Pain Scales for use in the Pediatric Emergency Department. *Pediatrics*. 2002 Sep;110(3):e33.

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Fosnocht DE, Chapman CR, Swanson ER, Donaldson GW. Correlation of Change in Visual Analog Scale with Pain Relief in the ED. *Am J Emerg Med*. 2005 Jan;23(1):55-9.

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Garra G, Singer AJ, Taira BR, et al. Validation of the Wong-Baker FACES Pain Rating Scale in Pediatric Emergency Department Patients. *Acad Emerg Med*. 2010 Jan;17(1):50-4.

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Holdgate A, Asha S, Craig J, Thompson J. Comparison of a Verbal Numeric Rating Scale with the Visual Analogue Scale for the Measurement of Acute Pain. *Emerg Med (Fremantle)*. 2003 Oct-Dec;15(5-6):441-6.

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Lord BA, Parsell B. Measurement of Pain in the Prehospital Setting Using a Visual Analogue Scale. *Prehosp Disaster Med*. 2003 Oct-Dec;18(4):353-8.

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McLean SA, Domeier RM, DeVore HK, et al. The Feasibility of Pain Assessment in the Prehospital Setting. *Prehosp Emerg Care*. 2004 Apr-Jun;8(2):155-61.

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Powell CV, Kelly AM, Williams A. Determining the Minimum Clinically Significant Difference in Visual Analog Pain Score for Children. *Ann Emerg Med*. 2001 Jan;37(1):28-31.

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Stinson JN, Kavanagh T, Yamada J, Gill N, Stevens B. Systematic Review of the Psychometric Properties, Interpretability and Feasibility of Self-Report Pain Intensity Measures for Use in Clinical Trials in Children and Adolescents. *Pain*. 2006 Nov;125(1-2):143-57. Epub 2006 Jun 13.

[Abstract](#)

Todd, KH. Pain Assessment Instruments for Use in the Emergency Department. *Emerg Med Clin North Am*. 2005 May;23(2):285-95.

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GRADE Process

Atkins D, Best D, Briss PA, et al. Grading Quality of Evidence and Strength of Recommendations. *BMJ*. 2004 Jun 19;328(7454):1290.

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Shah M, Macias C, Dayan P, et al. An Evidence-based Guideline for Pediatric Prehospital Seizure Management Using GRADE Methodology. *Prehosp Emerg Care*. 2014;18 No. Supplement 1:15-24.

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The Statewide Implementation of a Prehospital Care Guideline Project is funded by a Cooperative Agreement through the U.S. Department of Transportation, National Highway Traffic Safety Administration, Office of Emergency Medical Services, Cooperative Agreement Number DTNH22-12-H-00386 with supplemental funding from the Emergency Medical Services for Children Program (Health Resources and Services Administration).