

REFERENCES

- Todd KH, Ducharme J, Choiniere M, et al: Pain in the emergency department: results of the pain and emergency medicine initiative (PEMI) multicenter study. *J Pain* 8: 460, 2007. [PMID: 17306626]
- Tainter CR: An evidence-based approach to traumatic pain management in the emergency department. *Emerg Med Pract* 14: 1, 2012. [PMID: 22916717]
- Gallagher RM: Physician variability in pain management: are the JCAHO standards enough? *Pain Med* 4: 1, 2003. [PMID: 12873272]
- O'Connor AB, Zwemer FL, Hays DP, Feng C: Outcomes after intravenous opioids in emergency patients: a prospective cohort analysis. *Acad Emerg Med* 16: 477, 2009. [PMID: 19426295]
- Bijur PE, Esses D, Chang AK, Gallagher EJ: Dosing and titration of intravenous opioid analgesics administered to ED patients in acute severe pain. *Am J Emerg Med* 30: 1241, 2012. [PMID: 21908134]
- Hwang U, Richardson LD, Harris B, Morrison RS: The quality of emergency department pain care for older adult patients. *J Am Geriatr Soc* 58: 2122, 2010. [PMID: 21054293]
- Heins A, Homel P, Safdar B, Todd K: Physician race/ethnicity predicts successful emergency department analgesia. *J Pain* 11: 692, 2010. [PMID: 20382572]
- Mills AM, Shofer FS, Boulis AK, Holena DN, Abbuhl SB: Racial disparity in analgesic treatment for ED patients with abdominal or back pain. *Am J Emerg Med* 29: 752, 2011. [PMID: 20825892]
- Platts-Mills TF, Hunold KM, Bortsov AV, et al: More educated emergency department patients are less likely to receive opioids for acute pain. *Pain* 153: 967, 2012. [PMID: 22386895]
- American College of Emergency Physicians: Optimizing the treatment of pain in patients with acute presentations. Policy statement. *Ann Emerg Med* 56: 77, 2010. [PMID: 20620657]
- Kelley NE, Tepper DE: Rescue therapy for acute migraine, part 1: triptans, dihydroergotamine, and magnesium. *Headache* 52: 114, 2012. [PMID: 22211870]
- Kelley NE, Tepper DE: Rescue therapy for acute migraine, part 2: neuroleptics, antihistamines, and others. *Headache* 52: 292, 2012. [PMID: 22309235]
- Friedman BW, Kapoor A, Friedman MS, Hochberg ML, Rowe BH: The relative efficacy of meperidine for the treatment of acute migraine: a meta-analysis of randomized controlled trials. *Ann Emerg Med* 52: 705, 2008. [PMID: 18632186]
- Kelley NE, Tepper DE: Rescue therapy for acute migraine, part 3: opioids, NSAIDs, steroids, and post-discharge medications. *Headache* 52: 467, 2012. [PMID: 22404708]
- Grubb BD: Peripheral and central mechanisms of pain. *Br J Anaesth* 81: 8, 1998. [PMID: 9771267]
- Lord B, Woollard M: The reliability of vital signs in estimating pain severity among adult patients treated by paramedics. *Emerg Med J* 28: 147, 2011. [PMID: 20926627]
- Bendall JC, Simpson PM, Middleton PM: Prehospital vital signs can predict pain severity: analysis using ordinal logistic regression. *Eur J Emerg Med* 18: 334, 2011. [PMID: 21407079]
- Bossart P, Fosnocht D, Swanson E: Changes in heart rate do not correlate with changes in pain intensity in emergency department patients. *J Emerg Med* 32: 19, 2007. [PMID: 17239728]
- Mohan H, Ryan J, Whelan B, Wakai A: The end of the line? The visual analogue scale and verbal numerical rating scale as pain assessment tools in the emergency department. *Emerg Med J* 27: 372, 2010. [PMID: 20442167]
- Khan K, Thom O, Rodda H, et al: Impact of pain location, organ system and treating speciality on timely delivery of analgesia in emergency departments. *Emerg Med Australas* 24: 64, 2012. [PMID: 22313562]
- Chang AK, Bijur PE, Davitt M, Gallagher EJ: Randomized clinical trial comparing a patient-driven titration protocol of intravenous hydromorphone with traditional physician-driven management of emergency department patients with acute severe pain. *Ann Emerg Med* 54: 561, 2009. [PMID: 19560838]
- Chang AK, Bijur PE, Gallagher EJ: Randomized clinical trial comparing the safety and efficacy of a hydromorphone titration protocol to usual care in the management of adult emergency department patients with acute severe pain. *Ann Emerg Med* 58: 352, 2011. [PMID: 21507527]
- Marco CA, Kanitz W, Jolly M: Pain scores among emergency department (ED) patients: comparison by ED diagnosis. *J Emerg Med* 44: 46, 2013. [PMID: 22795472]
- Bijur PE, Chang AK, Esses D, Gallagher EJ: Identifying the minimum clinically significant difference in acute pain in the elderly. *Ann Emerg Med* 56: 517, 2010. [PMID: 20303199]
- Bijur PE, Chang AK, Esses D, Gallagher EJ: Problems with measurement of the minimum clinically significant difference in acute pain in elders. *Acad Emerg Med* 18: 135, 2011. [PMID: 21314771]
- Berthier F, Potel G, Leconte P, Touze MD, Baron D: Comparative study of methods of measuring acute pain intensity in an ED. *Am J Emerg Med* 16: 132, 1998. [PMID: 9517686]
- Keogh E, Denford S: Sex differences in perceptions of pain coping strategy usage. *Eur J Pain* 13: 629, 2009. [PMID: 18762439]
- Marco CA, Nagel J, Klink E, Baehren D: Factors associated with self-reported pain scores among ED patients. *Am J Emerg Med* 30: 331, 2012. [PMID: 21367555]
- Lee JS, Hobden E, Stiell IG, Wells GA: Clinically important change in the visual analog scale after adequate pain control. *Acad Emerg Med* 10: 1128, 2003.
- Tainter CR: An evidence-based approach to traumatic pain management in the emergency department. *Emerg Med Pract* 14: 1, 2012. [PMID: 22916717]
- Haines L, Dickman E, Ayvazyan S, et al: Ultrasound-guided fascia iliaca compartment block for hip fractures in the emergency department. *J Emerg Med* 43: 692, 2012. [PMID: 22494596]
- Herring AA, Stone MB, Frenkel O, et al: The ultrasound-guided superficial cervical plexus block for anesthesia and analgesia in emergency care settings. *Am J Emerg Med* 30: 1263, 2012. [PMID: 22030184]
- Bijur PE, Kenny MK, Gallagher EJ: Intravenous morphine at 0.1 mg/kg is not effective for controlling acute severe pain in the majority of patients. *Ann Emerg Med* 46: 362, 2005. [PMID: 16187470]
- Birnbaum A, Esses D, Bijur PE, Holden L, Gallagher EJ: Randomized double-blind placebo-controlled trial of two intravenous morphine dosages (0.10 mg/kg and 0.15 mg/kg) in emergency department patients with moderate to severe acute pain. *Ann Emerg Med* 49: 445, 2007. [PMID: 16978739]
- O'Connor AB, Zwemer FL, Hays DP, Feng C: Intravenous opioid dosing and outcomes in emergency patients: a prospective cohort analysis. *Am J Emerg Med* 28: 1041, 2010. [PMID: 20825766]
- Patanwala AE, Edwards CJ, Stolz L, Amini R, Desai A, Stolz U: Should morphine dosing be weight based for analgesia in the emergency department? *J Opioid Manag* 8: 51, 2012. [PMID: 22479885]
- Patanwala AE, Holmes KL, Erstad BL: Analgesic response to morphine in obese and morbidly obese patients in the emergency department. *Emerg Med J* 2013 Jan 12. [Epub ahead of print] [PMID: 23314209]
- Bijur PE, Esses D, Birnbaum A, Chang AK, Schechter C, Gallagher EJ: Response to morphine in male and female patients: analgesia and adverse events. *Clin J Pain* 24: 192, 2008. [PMID: 18287823]
- Miner JR, Moore J, Gray RO, Skinner L, Biros MH: Oral versus intravenous opioid dosing for the initial treatment of acute musculoskeletal pain in the emergency department. *Acad Emerg Med* 15: 1234, 2008. [PMID: 18945240]
- Patanwala AE, DUBY J, Waters D, Erstad BL: Opioid conversions in acute care. *Ann Pharmacother* 41: 255, 2007. [PMID: 17299011]
- Latta KS, Ginsberg B, Barkin RL: Meperidine: a critical review. *Am J Ther* 9: 53, 2002. [PMID: 11782820]
- Edwards JE, McQuay HJ, Moore RA: Single dose dihydrocodeine for acute postoperative pain. *Cochrane Database Syst Rev* CD002760, 2000. [PMID: 11034754]
- Ly BT, Thornton SL, Buono C, Stone JA, Wu AH: False-positive urine phenylclidine immunoassay screen result caused by interference by tramadol and its metabolites. *Ann Emerg Med* 59:545, 2012. [PMID: 21924518]
- Lvovschi V, Aubrun F, Bonnet P, et al: Intravenous morphine titration to treat severe pain in the ED. *Am J Emerg Med* 26: 676, 2008. [PMID: 18606320]
- Bradshaw M, Sen A: Use of a prophylactic antiemetic with morphine in acute pain: randomised controlled trial. *Emerg Med J* 23: 210, 2006. [PMID: 16498159]
- Remington-Hobbs J, Petts G, Harris T: Emergency department management of undifferentiated abdominal pain with hyoscine butylbromide and paracetamol: a randomized controlled trial. *Emerg Med J* 29: 989, 2012. [PMID: 22307926]
- Schjerning Olsen AM, Fosbol EL, Lindhardt S, et al: Duration of treatment and non-steroidal anti-inflammatory drugs and impact on risk of death and recurrent myocardial infarction in patients with prior myocardial infarction: a nationwide cohort study. *Circulation* 123: 2226, 2011. [PMID 21555710]
- Grimaldi-Bensouda L, Rossignol M, Danchin N, et al: Risk of ST versus non-ST elevation myocardial infarction associated with non-steroidal anti-inflammatory drugs. *Heart* 97: 1834, 2011. [PMID: 21880652]
- Farooq M, Haq I, Qureshi AS: Cardiovascular risks of COX inhibition: current perspectives. *Expert Opin Pharmacother* 9: 1311, 2008. [PMID: 18473706]
- McGettigan P, Henry D: Cardiovascular risk with non-steroidal anti-inflammatory drugs: systematic review of population-based controlled observational studies. *PLoS Med* 8: e1001098, 2011. [PMID: 21980265]
- Mitchell AC, Fallon MT: A single infusion of intravenous ketamine improves pain relief in patients with critical limb ischaemia: results of a double blind randomised controlled trial. *Pain* 97: 275, 2002. [PMID: 12044624]
- Lester L, Braude DA, Niles C, Crandall CS: Low-dose ketamine for analgesia in the ED: a retrospective case series. *Am J Emerg Med* 28: 820, 2010. [PMID: 20837262]
- Jennings PA, Cameron P, Bernard S, et al: Morphine and ketamine is superior to morphine alone for out-of-hospital trauma analgesia: a randomized controlled trial. *Ann Emerg Med* 59: 497, 2012. [PMID: 22243959]
- Ducasse JL, Siksik G, Durand-Bechu M, et al: Nitrous oxide for early analgesia in the emergency setting: a randomized, double-blind multicenter prehospital trial. *Acad Emerg Med* 20: 178, 2013. [PMID: 23406077]
- Rowbotham M, Harden N, Stacey B, Bernstein P, Magnus-Miller L: Gabapentin for the treatment of postherpetic neuralgia: a randomized controlled trial. *JAMA* 280: 1837, 1998. [PMID: 9846778]
- Tassone DM, Boyce E, Guyer J, Nuzum D: Pregabalin: a novel gamma-aminobutyric acid analogue in the treatment of neuropathic pain, partial-onset seizures, and anxiety disorders. *Clin Ther* 29: 26, 2007. [PMID: 17379045]
- Argoff CE: Topical analgesics in the management of acute and chronic pain. *Mayo Clin Proc* 88: 195, 2013. [PMID: 23374622]
- <http://www.fda.gov/Drugs/DrugSafety/ucm318858.htm> (Food and Drug Administration: FDA Drug Safety Communication.) Accessed April 4, 2013.

58. Evans E, Turley N, Robinson N, Clancy M: Randomised controlled trial of patient controlled analgesia compared with nurse delivered in an emergency department. *Emerg Med J* 22: 25, 2005. [PMID: 15611537]
59. Birnbaum A, Schechter C, Tufaro V, Touger R, Gallagher EJ, Bijur P: Efficacy of patient-controlled analgesia for patients with acute abdominal pain in the emergency department: a randomized trial. *Acad Emerg Med* 19: 370, 2012. [PMID: 22506940]
60. Rahman NH, DeSilva T: The effectiveness of patient controlled analgesia in the treatment of acute traumatic pain in the emergency department: a randomized controlled trial. *Eur J Emerg Med* 19: 241, 2012. [PMID: 21968714]
61. Kazak Bengisun Z, Aysu Salviz E, Darcin K, Suer H, Ates Y: Intraarticular levobupivacaine or bupivacaine administration decreases pain scores and provides a better recovery after total knee arthroplasty. *J Anesth* 24: 694, 2010. [PMID: 20571832]
62. Liu W, Cong R, Li X, Wu Y, Wu H: Reduced opioid consumption and improved early rehabilitation with local and intraarticular cocktail analgesic injection in total hip arthroplasty: a randomized controlled clinical trial. *Pain Med* 12: 387, 2011. [PMID: 21266004]
63. Hosseini H, Abrisham SM, Jomeh H, Kermani-Alghoraishi M, Ghahramani R, Mozayan MR: The comparison of intraarticular morphine-bupivacaine and tramadol-bupivacaine in postoperative analgesia after arthroscopic anterior cruciate ligament reconstruction. *Knee Surg Sports Traumatol Arthrosc* 20: 1839, 2012. [PMID: 22113223]
64. Paech MJ, Bloor M, Schug SA: New formulation of fentanyl for acute pain management. *Drugs Today (Barc)* 48: P119, 2012. [PMID: 22384452]
65. Jalili M, Fathi M, Moradi-Lakeh M, Zehtabchi S: Sublingual buprenorphine in acute pain management: a double-blind randomized clinical trial. *Ann Emerg Med* 59: 276, 2012. [PMID: 22115823]
66. Chang AK, Bijur PE, Lupow JB, Gallagher EJ: Randomized clinical trial of efficacy and safety of a single 2-mg intravenous dose of hydromorphone versus usual care in the management of acute pain. *Acad Emerg Med* 20: 1285, 2013. [PMID: 234406078]
67. Hwang U, Platts-Mills TF: Acute pain management in older adults in the emergency department. *Clin Geriatr Med* 29: 151, 2013. [PMID: 23177605]
68. Chang AK, Bijur PE, Baccellieri A, Gallagher EJ: Efficacy and safety profile of a single dose of hydromorphone compared with morphine in older adults with acute, severe pain: a prospective, randomized, double-blind clinical trial. *Am J Geriatr Pharmacother* 7: 1, 2009. [PMID: 19281935]
69. Huxtable CA, Roberts LJ, Somogyi AA, MacIntyre PE: Acute pain management in opioid-tolerant patients: a growing challenge. *Anaesth Intensive Care* 39: 804, 2011. [PMID: 21970125]
70. Juurlink DN, Dhalla IA: Dependence and addiction during chronic opioid therapy. *J Med Toxicol* 8: 393, 2012. [PMID: 23073725]
71. Juurlink DN, Dhalla IA, Nelson LS: Improving opioid prescribing. The New York City recommendations. *JAMA* 309: 879, 2013. [PMID: 23462783]
72. Fosnocht DE, Swanson ER, Barton ED: Changing attitudes about pain and pain control in emergency medicine. *Emerg Med Clin North Am* 23: 297, 2005. [PMID: 15829384]
73. Gorchynski J, Kelly K: Analgesia and addiction in emergency department patients with acute pain exacerbations. *Cal J Emerg Med* 6: 3, 2005. [PMID: 20847859]
74. McHale PM, LoVecchio F: Narcotic analgesia in the acute abdomen—a review of prospective trials. *Eur J Emerg Med* 8: 131, 2001. [PMID: 11436909]
75. Thomas SH, Silen W: Effect on diagnostic efficiency of analgesia for undifferentiated abdominal pain. *Br J Surg* 90: 5, 2003. [PMID: 12520567]
76. Thomas SH, Silen W, Cheema F, et al: Effects of morphine analgesia on diagnostic accuracy in emergency department patients with abdominal pain: a prospective, randomized trial. *J Am Coll Surg* 196: 18, 2003. [PMID: 12517545]
77. Gallagher EJ, Esses D, Lee C, Lahn M, Bijur PE: Randomized clinical trial of morphine in acute abdominal pain. *Ann Emerg Med* 48: 150, 2006. [PMID: 16953529]
78. Silen W: *Cope's Early Diagnosis of the Acute Abdomen*, 20th ed. New York: Oxford University Press, 2000: 5.
79. Johnston CC, Gagnon AJ, Pepler CJ, Bourgault P: Pain in the emergency department with one-week follow-up of pain resolution. *Pain Res Manag* 10: 67, 2005. [PMID: 15915247]
80. Friedman BW, O'Mahony S, Mulvey L, et al: One-week and 3-month outcomes after an emergency department visit for undifferentiated musculoskeletal low back pain. *Ann Emerg Med* 59: 128, 2012. [PMID: 22265130]
81. Chapman CR, Fosnocht D, Donaldson GW: Resolution of acute pain following discharge from the emergency department: the acute pain trajectory. *J Pain* 13: 235, 2012. [PMID: 22285610]

USEFUL WEB RESOURCE

Pain Free ED—<http://www.painfree-ed.com/>