**Appendix 2**

| **Excluded reference** | **Reason for exclusion** |
|---|---|
| Allison K, Porter K. Consensus on the pre-hospital approach to burns patient management. Injury 2004; 35: 734-8. | Ketamine not central in the text |
| Anonymous. Comments on the recommendations of the German Medical Society dated October 20, 2003 on the administration of analgesics by paramedics in emergency situations. Notarzt 2005; 21: 81-82. | Excluded due to language restrictions |
| Ansem RP, Hartman JA, Foudraine JF, van Loenen E, Rutten FL. [Analgetic ketamine feasible in ambulance emergency care]. Ned Tijdschr Geneeskd 1994; 138: 2301-4. | Excluded due to language restrictions |
| Ardeel E. Adverse effects following prehospital use of ketamine by paramedics. Acad Emerg Med 2012; 19: S269-S70. | Letter |
| Aries P, Montelescaut E, Pessey F, Danguy des Deserts M, Giacardi C. Pre-hospital emergency medicine: pain control. Lancet 2016; 387: 747. | Ketamine not central in the text |
| Arroyo-Novoa CM, Figueroa-Ramos MI, Miaskowski C, Padilla G, Paul SM, Rodriguez-Ortiz P, Stotts NA, Puntillo KA. Efficacy of small doses of ketamine with morphine to decrease procedural pain responses during open wound care. Clin J Pain 2011; 27: 561-6. | Patient population did not match the criteria |
| Barrett TW, Schriger DL. Move over morphine: Is ketamine an effective and safe alternative for treating acute pain? Answers to the September 2015 journal club. Ann Emerg Med 2016; 67: 289-94. | Setting did not match the criteria |
| Berg C. Out-of-hospital ketamine for pain, agitation, and airway intervention is safe and effective. Ann Emerg Med 2015; 66: S32. | Study design did not match the criteria |
| Bredmose PP, Grier G, Davies GE, Lockey DJ. Pre-hospital use of ketamine in paediatric trauma. Acta Anaesthesiol Scand 2009; 53: 543-5. | Patient population did not match the criteria |

| | |
|---|---|
| Bredmose PP, Lockey DJ, Grier G, Watts B, Davies G. Pre-hospital use of ketamine for analgesia and procedural sedation. EMJ 2009; 26: 62-4. | Study design did not match the criteria |
| Brokmann JC, Rossaint R, Hirsch F, Beckers SK, Czaplik M, Chowanetz M, Tamm M, Bergrath S. Analgesia by telemedically supported paramedics compared with physician-administered analgesia: A prospective, interventional, multicentre trial. Eur J Pain 2016; 20: 1176-84. | Ketamine not central in the text |
| Butler FK, Kotwal RS, Buckenmaier CC, 3rd, Edgar EP, O'Connor KC, Montgomery HR, Shackelford SA, Gandy JV, 3rd, Wedmore IS, Timby JW, Gross KR, Bailey JA. A triple-option analgesia plan for tactical combat casualty care: TCCC guidelines change 13-04. J Spec Oper Med 2014; 14: 13-25. | Study design did not match the criteria |
| Castle N, Naidoo R. Achieving prehospital analgesia. EMJ 2012; 29: 765-6. | Setting did not match the criteria |
| Castren M, Lindstrom V, Branzell JH, Niemi-Murola L. Prehospital personnel's attitudes to pain management. Scand J Pain 2015; 8: 17-22. | Study design did not match the criteria |
| Chesters A, Webb T. Ketamine for procedural sedation by a doctor-paramedic prehospital care team: a 4-year description of practice. Eur J Emerg Med 2015; 22: 401-6. | Patient population did not match the criteria |
| Corrigan M, Wilson SS, Hampton J. Safety and efficacy of intranasally administered medications in the emergency department and prehospital settings. Am J Health Syst Pharm 2015; 72: 1544-54. | Study design did not match the criteria |
| Domonoske B, Gunter R, Love J. Ketamine may increase the risk of PE in selected trauma patients. Crit Care Med 2014; 42: A1610. | Setting did not match the criteria |
| Domonoske B, Love J. Ketamine reduces the incidence of VTE in selected trauma patients. Crit Care Med 2013; 41: A55. | Setting did not match the criteria |
| Eidenbenz D, Taffe P, Hugli O, Albrecht E, Pasquier M. A two-year retrospective review of the determinants of pre-hospital analgesia administration by alpine helicopter | Study design did not match the criteria |

| | |
|---|---|
| emergency medical physicians to patients with isolated limb injury. Anaesthesia 2016; 71: 779-87. | |
| Ellerton J, Paal P, Brugger H. Prehospital use of ketamine in mountain rescue. EMJ 2009; 26: 760-1. | Letter |
| Fisher AD, Rippee B, Shehan H, Conklin C, Mabry RL. Prehospital analgesia with ketamine for combat wounds: a case series. J Spec Oper Med 2014; 14: 11-7. | Study design did not match the criteria |
| Galinski M, Hoffman L, Bregeaud D, Kamboua M, Ageron FX, Rouanet C, Hubert JC, Istria J, Ruscev M, Tazarourte K, Pevirieri F, Lapostolle F, Adnet F. Procedural sedation and analgesia in trauma patients in an out-of-hospital emergency setting: A prospective multicenter observational study. Prehosp Emerg Care 2018; 22: 497-505. | Patient population did not match the criteria |
| Gausche-Hill M, Brown KM, Oliver ZJ, Sasson C, Dayan PS, Eschmann NM, Weik TS, Lawner BJ, Sahni R, Falck-Ytter Y, Wright JL, Todd K, Lang ES. An evidence-based guideline for prehospital analgesia in trauma. Prehosp Emerg Care; 18 25-34. | Study design did not match the criteria |
| Green SM, Roback MG, Krauss B, Brown L, McGlone RG, Agrawal D, McKee M, Weiss M, Pitetti RD, Hostetler MA, Wathen JE, Treston G, Garcia Pena BM, Gerber AC, Losek JD. Predictors of emesis and recovery agitation with emergency department ketamine sedation: an individual-patient data meta-analysis of 8,282 children. Ann Emerg Med 2009; 54: 171-80. | Patient population did not match the criteria |
| Guldner GT, Petinaux B, Clemens P, Foster S, Antoine S. Ketamine for procedural sedation and analgesia by nonanesthesiologists in the field: a review for military health care providers. Mil Med 2006; 171: 484-90. | Patient population did not match the criteria |
| Gurnani A, Sharma PK, Rautela RS, Bhattacharya A Analgesia for acute musculoskeletal trauma: low-dose subcutaneous infusion of ketamine. Anaesth Intensive Care 1996; 24: 32-6 | Patient population did not match the criteria |
| Henderson L. Special K for special situations. A review of ketamine for prehospital use. JEMS 2016; 41: 58-60. | Study design did not match the criteria |

| | |
|---|---|
| Hossfeld B, Holstrater S, Bernhard M, Lampl L, Helm M, Kulla M. Prehospital analgesia in adults. Anasthesiol Intensivmed Notfallmed Schmerzther 2016; 51: 84-96. | Excluded due to language restrictions |
| Iqbal M, Spaight PA, Siriwardena AN. Patients' and emergency clinicians' perceptions of improving pre-hospital pain management: A qualitative study. EMJ 2013; 30: e18. | Ketamine not central in the text |
| Jansen A, Boyle M. Prehospital pain relief, where are we now? A review of the literature. Australas J Paramed 2014; 11: 20. | Ketamine not central in the text |
| Jennings PA, Cameron P, Bernard S. Ketamine as an analgesic in the pre-hospital setting: a systematic review. Acta Anaesthesiol Scand 2011; 55: 638-43. | Study design did not match the criteria |
| Jennings PA, Cameron P, Bernard S. Determinants of clinically important pain severity reduction in the prehospital setting. EMJ 2012; 29: 333-34. | Ketamine not central in the text |
| Jennings PA, Cameron P, Bernard S, Walker T, Jolley D, Fitzgerald M, Masci K. Long-term pain prevalence and health-related quality of life outcomes for patients enrolled in a ketamine versus morphine for prehospital traumatic pain randomised controlled trial. EMJ 2014; 31: 840-43. | Setting did not match the criteria |
| Jennings PA, Cameron P, Bernard SA, Walker T, Fitzgerald M, Masci K. Ketamine is superior to morphine alone for the management of traumatic pain in the prehospital setting: A randomised controlled trial. Emerg Med Australas 2012; 24: 19. | Letter |
| Johansson J, Sjoberg J, Nordgren M, Sandstrom E, Sjoberg F, Zetterstrom H. Prehospital analgesia using nasal administration of S-ketamine--a case series. Scand J Trauma Resusc Emerg Med 2013; 21: 38. | Study design did not match the criteria |
| Kovar JL, Gleisberg GR, Ardeel ER, Basnawi A, Escott MEA. Hemodynamic changes in patients receiving ketamine sedation by emergency medical services. Acad Emerg Med 2012; 19: S87. | Study design did not match the criteria |

| | |
|---|---|
| Lovrincevic M, Kotob F, Santarosa J. Pain management in the trauma setting. Semin Anesth Perioper Med Pain 2005; 24: 34-40. | Setting did not match the criteria |
| Madeira F, Ferreira P, Lapa T, Tavares E. Prehospital pain management: Do we have to learn more about it? Eur J Anaesthesiol 2013; 30: 203-04. | Ketamine not central in the text |
| Marland S, Ellerton J, Andolfatto G, Strapazzon G, Thomassen O, Brandner B, Weatherall A, Paal P. Ketamine: Use in anesthesia. CNS Neurosci Ther 2013; 19: 381-89. | Setting did not match the criteria |
| McKay WP. Intravenous analgesia for out-of-hospital traumatic pain in adults: ketamine gives a greater reduction in pain than morphine but causes more adverse effects. Evid Based Nurs 2013; 16: 58-9. | Letter |
| McQueen C, Crombie N, Cormack S, Wheaton S. Prehospital use of ketamine for analgesia and procedural sedation by critical care paramedics in the UK: A note of caution? EMJ 2014; 31: 1029. | Letter |
| Moy R, Wright C. Ketamine for military prehospital analgesia and sedation in combat casualties. J R Army Med Corps 2018; 164: 436-37. | Study design did not match the criteria |
| Moy RJ, Le Clerc S. Ketamine in prehospital analgesia and anaesthesia. Trends Anaesth Crit Care 2011; 1: 243-45. | Study design did not match the criteria |
| Petz LN, Tyner S, Barnard E, Ervin A, Mora A, Clifford J, Fowler M, Bebarta VS. Prehospital and en route analgesic use in the combat setting: a prospectively designed, multicenter, observational study. Mil Med 2015; 180: 14-18. | Study design did not match the criteria |
| Porter K. Ketamine in prehospital care. EMJ 2004; 21: 351-4. | Study design did not match the criteria |
| Radvansky BM, Puri S, Sifonios AN, Eloy JD, Le V. Ketamine-a narrative review of its uses in medicine. Am J Ther 2016; 23: e1414-e26. | Study design did not match the criteria |
| Schauer SG, Mora AG, Maddry JK, Bebarta VS. Multicenter, prospective study of prehospital administration of analgesia in | Study design did not match the criteria |

| | |
|---|---|
| the U.S. combat theater of Afghanistan. Prehosp Emerg Care 2017; 21: 744-49. | |
| Schonenberg M, Reichwald U, Domes G, Badke A, Hautzinger M. Effects of peritraumatic ketamine medication on early and sustained posttraumatic stress symptoms in moderately injured accident victims. Psychopharmacology (Berl) 2005; 182: 420-5. | Study design did not match the criteria |
| Scott S, Paul B. UK and Victorian, Acute pain guidelines compared. Australas J Paramed 2013; 10: 32. | Letter |
| Steel A, Wharton R, Bates A, French J, Lewis S, Mackenzie R. Ketamine use in prehospital critical care. EMJ 2008; 25: 618-19. | Letter |
| Svenson JE, Abernathy MK. Ketamine for prehospital use: new look at an old drug. Am J Emerg Med 2007; 25: 977-80. | Patient population did not match the criteria |
| Wedmore IS, Butler FK. Battlefield analgesia in tactical combat casualty care. Wilderness Environ Med 2017; 28: S109-S16. | Study design did not match the criteria |
| Wood PR. Ketamine: Prehospital and in-hospital use. Trauma 2003; 5: 137-40. | Study design did not match the criteria |
| Zhang M, Cowan T, Smiles JP, Morgan M, Armstrong J, Goswami C, Sewell C. Prehospital analgesic choice in injured patients does not impact on rates of vomiting: Experience from a New South Wales primary retrieval service. Emerg Med Australas 2017; 30: 406-11. | Study design did not match the criteria |