MANUALES

1. Y. Fernández Santervás, M. Mor Conejo, C. Constenla Villoslada. Tratamiento del dolor agudo I: Analgésicos sistémicos. En: Míguez Navarro MC, editor. Manejo del dolor y procedimientos de sedoanalgesia en Urgencias Pediátricas. 1ª Edición. Madrid: Ergon; 2018. P. 98-119.
2. J. Álvarez García, E. Burguete Archel, M. Ruiz Goikoetxea. Tratamiento del dolor agudo II: Analgésicos tópicos, coanalgésicos y coadyuvantes. En: Míguez Navarro MC, editor. Manejo del dolor y procedimientos de sedoanalgesia en Urgencias Pediátricas. 1ª Edición. Madrid: Ergon; 2018. P. 120-132.

   Comentario: ambos capítulos del manual de manejo realizado por el grupo de trabajo de analgesia y sedación de la Sociedad española de urgencias pediátricas. Tratan no solo el tratamiento sistémico del dolor, sino también la analgesia y anestesia tópica.

ARTICULOS EN REVISTAS CIENTIFICAS

1. **Título: Safety issues of pharmacological acute pain treatment in children**
   - **Autores:** Rodieux F, Piguet V, Desmeules J, Samer CF
   - **Revista:** Clin Pharmacol Ther 2019 Jan 16. doi: 10.1002/cpt.1358. [Epub ahead of print]
   - **Enlace a pubmed**: https://doi.org/10.1002/cpt.1358 Artículo no libre
   - **Abstract:** Acute nociceptive pain management in children is a major public health concern. Effective and safe pain treatment is essential, but safety data cannot be simply extrapolated from adults to children due to pharmacokinetic and pharmacodynamic specificities. In addition, the frequent absence of child-specific data, the difficulty to assess drug tolerability and the infants' inability to communicate properly and voluntarily report adverse drug reactions, make children more vulnerable to safety issues. Awareness of the possible toxicity of analgesics is important but should not lead to suboptimal dosing and underuse of analgesia. A better assessment and individualization of treatment should allow effective prescribing of analgesics in more secure conditions. This article aims to review the safety of acetaminophen, NSAIDs and opioids in children and the precautions that should be taken.

- **Comentario:** Artículo muy reciente realizado en un hospital suizo en el que se revisa en profundidad el paracetamol, los antiinflamatorios no esteroideos y los opioides y las precauciones que deben tomarse para administrarlos de forma segura. Al final del artículo hay unas tablas resúmenes muy interesantes de estos fármacos en las que se esquematiza las dosis, intervalos entre las mismas, dosis máximas, interacciones que pueden producirse cuando se administran de forma concomitante con otros fármacos y los efectos adversos más comunes.

2. **Título: Current concepts in management of pain in children in the emergency department**
   - **Autores:** Baruch S Krauss, Lorenzo Calligaris, Steven M Green, Egidio Barbi
   - **Revista:** Lancet. 2016 Jan 2; 387(10013):83-92.
   - **Enlace a pubmed**: https://www.ncbi.nlm.nih.gov/pubmed/26095580 Artículo no libre
   - **Abstract:** Pain is common in children presenting to emergency departments with episodic illnesses, acute injuries, and exacerbation of chronic disorders. We review recognition and assessment of pain in infants and children and discuss the manifestations of pain in children with chronic illness, recurrent pain syndromes, and cognitive impairment, including the difficulties of pain management in these patients. Non-pharmacological interventions, as adjuncts to pharmacological management for acute anxiety and pain, are described by age and development. We discuss the pharmacological management of acute pain and anxiety, reviewing invasive and non-invasive routes of administration, pharmacology, and adverse effects.
   - **Comentario:** Artículo de revisión, realizado en Boston (EEUU) en el que se realiza un enfoque integrado tanto farmacológico como de estrategias no farmacológicas llevadas a cabo paso a paso para el manejo del dolor. Se incide también en el tratamiento de la ansiedad que en ocasiones puede estar por encima del dolor. Se muestran tablas y esquemas con las dosis de fármacos sistémicos y locales, así como listados de estrategias no farmacológicas.
3. **Título: Management of acute pediatric pain in the emergency department**
   - **Autores:** Ruest S, Anderson A.
   - **Revista:** Curr Opin Pediatr 2016, 28(3):298–304.
   - **Enlace a pubmed**: https://www.ncbi.nlm.nih.gov/pubmed/26974975

- **Abstract:** This article provides a summary of recommendations for the multimodal and multidisciplinary approach to acute pediatric pain management and highlights recent research on this topic.

  RECENT FINDINGS: Recent literature has focused on updating recommendations for the use of various analgesics in the pediatric population. While codeine is no longer recommended due to increasing evidence of adverse effects, the more liberal use of intranasal fentanyl is now encouraged because of the ease of administration and rapid delivery. The evidence base for the use of ultrasound-guided regional nerve blocks by qualified providers in the acute pediatric pain setting continues to grow.

  SUMMARY: The pediatric emergency medicine provider should be able to assess pain and develop individualized pain plans by utilizing a range of nonpharmacologic and pharmacologic strategies. Knowledge of the most recent literature and changes in recommendations for various pain medications is essential.
- **Comentario:** Artículo de revisión, realizado en EEUU en el que se realiza un enfoque multidisciplinar del tratamiento del dolor en la era postcodeína. Se sugiere un enfoque multimodal individualizado para cada paciente para conseguir optimizar el manejo del dolor.

4. **Título**: **When to Pick the Nose: Out-of-Hospital and Emergency Department Intranasal Administration of Medications**
   - **Autores:** Megan A. Rech, PharmD, MS*; Brian Barbas, MD; Whitney Chaney, PharmD, BCPS; Elizabeth Greenhalgh, PharmD, BCPS; Charles Turck, PharmD, BCPS
   - **Revista:** Ann Emerg Med. 2017;70:203-211
   - **Enlace a pubmed**: http://dx.doi.org/10.1016/j.annemergmed.2017.02.015
   - **Abstract:** The intranasal route for medication administration is increasingly popular in the emergency department and out-of-hospital setting because such administration is simple and fast, and can be used for patients without intravenous access and in situations in which obtaining an intravenous line is difficult or time intensive (eg, for patients who are seizing or combative). Several small studies (mostly pediatric) have shown midazolam to be effective for procedural sedation, anxiolysis, and seizures. Intranasal fentanyl demonstrates both safety and efficacy for the management of acute pain. The intranasal route appears to be an effective alternative for naloxone in opioid

overdose. The literature is less clear on roles for intranasal ketamine and dexmedetomidine. [.]

- **Comentario**: Artículo que realiza una puesta al día de la vía intranasal tan utilizada en los servicios de urgencias de pediatría y los sistemas extrahospitalarios en la actualidad. Revisa las ventajas, inconvenientes, medicaciones disponibles y dosis.

5. **Título: REVIEW OF INTRANASALLY ADMINISTERED MEDICATIONS FOR USE IN THE EMERGENCY DEPARTMENT**
   - **Autores:** Abby M. Bailey, PHARMD,* Regan A. Baum, PHARMD,* Karolyn Horn, PHARMD,* Tameka Lewis, PHARMD,† Kate Morizio, PHARMD,* Amy Schultz, PHARMD,† Kyle Weant, PHARMD,‡ and Stephanie N. Justice, PHARMD§
   - **Revista:** The Journal of Emergency Medicine, Vol. 53, No. 1, pp. 38–48, 2017 2017
   - **Enlace a pubmed**: http://dx.doi.org/10.1016/j.jemermed.2017.01.020
   - **Abstract:** Background: Intranasal (IN) medication delivery is a viable alternative to other routes of administration, including intravenous (IV) and intramuscular (IM) administration. The IN route bypasses the risk of needlestick injuries and alleviates the emotional trauma that may arise from the insertion of an IV catheter. Objective: This review aims to evaluate published literature on medications administered via the IN route that are applicable to practice in emergency medicine. Discussion: The nasal mucosa is highly vascularized, and the olfactory tissues provide a direct conduit to the central nervous system, bypass firstpass metabolism, and lead to an onset of action similar to IV drug administration. This route of administration has also been shown to decrease delays in drug administration, which can have a profound impact in a variety of emergent scenarios, such as seizures, acutely agitated or combative patients, and trauma management. IN administration of midazolam, lorazepam, flumazenil, dexmedetomidine, ketamine, fentanyl, hydromorphone, butorphanol, naloxone, insulin, and haloperidol has been shown to be a safe, effective alternative to IM or IV administration. As the use of IN medications becomes a more common route of administration in the emergency department setting, and in prehospital and outpatient settings, it is increasingly important for providers to become more familiar with the nuances of this novel route of medication delivery. Conclusions: IN administration of the reviewed medications has been shown to be a safe and effective alternative to IM or IV administration. Use of IN is becoming more commonplace in the emergency department setting and in prehospital settings.

- **Comentario**: Artículo de revisión, realizado en EEUU, analiza múltiples artículos sobre la utilización de la vía intranasal en urgencias, siendo los sedantes, hipnóticos y analgésicos el conjunto de fármacos más utilizados en la actualidad. Da una idea general de todos los fármacos que se pueden utilizar por esta vía tan útil en las urgencias de pediatría.

OTROS TÍTULOS DE INTERÉS NO COMENTADOS:

1. Greta M Palmer. **Pain management in the acute care setting: Update and debates.** Journal of Paediatrics and Child Health 52 (2016) 213–220
2. Bailey B, Trottier E. **Managing Pediatric Pain in the Emergency Department**. Pediatr Drugs. DOI 10.1007/s40272-016-0181-5
3. Thomas S. **Management of Pain in the Emergency Department**. ISRN Emergency Medicine. Volume 2013. http://dx.doi.org/10.1155/2013/583132
4. Tobias J. **Acute Pain Management in Infants and Children—Part 1: Pain Pathways, Pain Assessment, and Outpatient Pain Management.** PEDIATRIC ANNALS • Vol. 43, No. 7, 2014. doi:10.3928/00904481-20140619-10
5. Tobias J. **Acute Pain Management in Infants and Children—Part 2: Intravenous Opioids, ntravenous Nonsteroidal Anti-Inflammatory Drugs, and Managing Adverse Effects**. PEDIATRIC ANNALS • Vol. 43, No. 7, 2014. doi:10.3928/00904481-20140619-11
6. F.Wickham Kraemer. John B. Rose. **Pharmacologic Management of Acute Pediatric Pain.** Anesthesiology Clin 27 (2009) 241–268. doi:10.1016/j.anclin.2009.07.002
7. Aarti Gaglani, Toni Gross. **Pediatric Pain Management**. Emerg Med Clin N Am 36 (2018) 323–334. https://doi.org/10.1016/j.emc.2017.12.002