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ASSESSMENT AND MANAGEMENT OF PAIN IN CHILDREN IN A&E – ARE WE GETTING IT RIGHT?

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Pain management is one of the most important components in patient care. The severity of the pain should be assessed effectively and weight based analgesia should be given. The BAEM Clinical Effectiveness Committee standard of analgesia for moderate & severe pain within 20 minutes of arrival in A&E should be applied to children in all A&E Departments.
Methodology: Retrospective study. 5 casualty cards with soft tissue injury and fractures in children under 16 were picked randomly everyday from Jan 2005. The assessment and management of pain was recorded in each case. A validated pain score tool – Alder Hey triage pain score was introduced in April 2005. 5 casualty cards were picked randomly everyday from May 2005. The assessment and management of pain in each case was recorded.
Results: There were 155 patients in each month. In January, none of the patients were assessed for the severity of their pain, 34 patients received analgesia of which 15 received weight based and 19 received age based analgesia.
In May, 84 patients were assessed for the severity of their pain with the Alder Hey triage pain score, 63 received weight based and 2 received age based analgesia. The rest had no pain.
Conclusion: The Alder Hey triage pain score should be introduced in A&E as it serves as an effective means of assessing pain in children of all age groups. Analgesia should be prescribed based on the weight of the children.

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BIOAVAILABILITY OF DEXKETOPROFEN TROMETAMOL GRANULES FOR ORAL SOLUTION: A NEW FORMULATION FOR THE TREATMENT OF ACUTE PAIN

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Background and Aim: Dexketoprofen trometamol, an aryl-propionic acid derivative, is a NSAID widely used for acute pain, available as immediate-release tablets (25 mg) and as a solution for intravenous and intramuscular administrations (2 ml/50 mg). Clinical studies demonstrated the rapid absorption of this compound correlating with a rapid onset of analgesia. A new formulation (granules for oral solution) was developed as a new choice for acute pain treatment. A bioavailability study was done to compare the new formulation (test) with the immediate-release tablet (reference).
Methods: a single dose, open label, randomized, crossover study with 24 male and female healthy subjects. Each volunteer received 25 mg oral dexketoprofen (test and reference formulations), with at least a 3-day wash-out. Blood samples were collected at baseline and at different times post-dosing. Plasma concentrations were determined by HPLC. Bioavailability in extent (AUC0-inf) and rate (Cmax and tmax) was compared.
Results: both formulations showed a similar extent of absorption (AUC0-inf: 3.97 vs 3.9 μg·h/ml; 90% CI: 0.96 to 1.05). Mean Cmax values did not show relevant differences (3.58 vs 2.98 μg/ml; 90% CI: 1.11–1.36). A faster absorption was obtained with the test formulation (median tmax: 0.25 h vs 0.50 h; 90% CI: 0.39–0.69 h).
Conclusion: the new granules formulation of dexketoprofen trometamol shows an extent of absorption and a mean peak plasma concentration similar to those of the standard immediate-release tablet, suggesting to be as effective as the reference one. The new formulation offers the potential to provide a fast onset of analgesia in acute pain.

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PHARMACODYNAMICS OF INTRAVENOUS TRAMADOL IN THE FIRST MONTHS OF LIFE

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Introduction: The aim of this study was to document pharmacodynamics of intravenous tramadol in neonates and young infants.
Methods: Prospective observational study in neonates and young infants in whom intravenous tramadol (loading dose 2 mg/kg over 30 minutes, followed by 5 mg/kg/day) was administered after surgery. Vital signs (blood pressure, heart rate) were prospectively registered during loading and maintaince dose administration. Data on respiratory weaning were recorded and the level of analgesia was prospectively evaluated using an methodology reported in literature [1]. Since this study focused on safety and tolerance, the administration of other analgesics was allowed.
Results: 21 neonates and young infants were included. Administration of the loading dose was not associated with changes in blood pressure or heart rate and a further progressive decrease in heart rate and blood pressure in the first 24 h after surgery was observed. Respiratory weaning (>40% decrease in ventilatory settings) was achieved in 84% of ventilated infants. Analgesia was effective (i.e. Leuven Neonatal Pain Scale <5) in 90% of cases, but likely in part based on additional analgesics administered (intravenous paracetamol, fentanyl).
Conclusions: Based on observations in 21 neonates, tramadol seems to be safe option to treat postoperative pain and respiratory weaning was feasible. Synergistic effects with paracetamol and/or efficacy-safety should be compared with other opioids in a randomized controlled approach.
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TOLERANCE AND EFFECTIVENESS OF OXYCODONE IN PATIENTS WITH MIXED LUMBAR PATHOLOGY PRESENTING INTOLERANCE TO OTHER OPIATES

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Backgrounds and Aims: Analyse the tolerance and effectiveness of oxycodone in patients who have showed intolerance to other opiate drugs.
Methods: 12 patients have been chosen. They have a clinical history of lumbalgia irradiated in limbs with mixed component. All of them have shown intolerance to two or more opiates. Visual analogic scale (VAS) showed important individual differences throughout the day according to the patient's activity. Thus, all the patients showed a maximum VAS equal or higher to 8 (average 8.91±0.79) and a minimum VAS of 6 or lower (average 4.25±1.81) before starting the treatment with oxycodone.
Results: 2 of the 12 patients showed side effects and had to quit the treatment. For the 10 patients that continued, doses were adapted according to circumstances and effects (Average dose 64 mg/day. After the establishing of the treatment VAS maximum average decreased to 5.4 (±1.26) and the minimum VAS average decreased to 2.8 (±1.47).
Conclusions: Oxycodone has happened to be an opiate generally tolerated by a group of patients with a history of intolerance to other opiates. Only 2 of the patients of the group (16.66%) did not tolerate oxycodone. Regarding the effectiveness, oxycodone has managed to lower the maximum and minimum VAS in every case. In the maximum VAS, there has been a change from 8.91 (±0.79) to 5.4 (±1.26) after the treatment with oxycodone. In the minimum VAS, there has been a change from a change from 4.25 (±1.81) to 2.8 (±1.47) after the treatment.