On Pediatric Orthopedic Pain, Constipation and Abdominal Pain, Nonurgent Visits to the ED, and Febrile Illness in the ED

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Each month, Dr. Nahum Kovalski reviews a handful of abstracts from, or relevant to, urgent care practices and practitioners. For the full reports, go to the source cited under each title.

Effectiveness of Oxycodone, Ibuprofen, or the Combination in the Initial Management of Orthopedic Injury-Related Pain in Children

Key point: Oxycodone, ibuprofen, and the combination all provide effective and similar analgesia for mild-to-moderate orthopedic injuries in children. Ibuprofen, alone, is a legitimate and effective choice.

Citation: Koller DM, Myers AB, Lorenz D, et al. *Pediatr Emerg Care*. 2007;23(9):627-633.

Orthopedic injuries comprise a majority of the indications for analgesia in the emergency department. Oxycodone and ibuprofen have demonstrated efficacy for this indication, but no studies have compared these drugs in children.

This prospective, randomized, double-blinded, clinical trial compared the effectiveness of oxycodone, ibuprofen, and the combination in children (age 6-18 years), with pain from a suspected orthopedic injury. Subjects were block-randomized to receive one of the three treatment regimens. Pain was assessed with the Faces Pain Scale (FPS) and Visual Analog Scale at baseline, post-immobilization, and at 30, 60, 90, and 120 minutes post-medication.

Although all three treatment groups demonstrated a decrease in the FPS score over time, there were no significant differences between the groups. Among the 66 total children enrolled in the three treatment groups, there were no statistically significant differences in demographics or injury characteristics. There were 28 subjects with fractures. Immobilization of the injury demonstrated a significant reduction in the FPS score. Subjects in the combination treatment group reported more adverse effects.

Oxycodone, ibuprofen, and the combination all provide effective analgesia for mild-to-moderate orthopedic injuries in children. Oxycodone or ibuprofen, alone, can be given, thereby avoiding the increase in adverse effects when given together. ■

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Constipation as Cause of Acute Abdominal Pain in Children

Key point: Constipation was the most common cause of acute abdominal pain in children.

Citation: Loening-Baucke V, Swidsinski A. *J Pediatr*. Available at: doi:10.1016/j.jpeds.2007.05.006.

The complete charts of 962 children ≥4 years old, who were seen for at least one health maintenance visit during a six-month period, were reviewed retrospectively for complaints and cause of acute abdominal pain.

The authors found that 9% of the 962 children had a visit for acute abdominal pain, with significantly more girls (12%) than boys (5%) having this complaint.

Acute and chronic constipation were the most frequent causes of acute abdominal pain, occurring in 48% of subjects. A surgical cause was present in 2% of subjects. The cause for the acute abdominal pain remained unknown in 19% of subjects. The authors did not find significant differences in diagnoses in the primary care clinics versus emergency department.

The authors conclude that constipation was the most common cause of acute abdominal pain in children. ■

ABSTRACTS IN URGENT CARE

Appropriateness of Children's Nonurgent Visits to Selected Michigan Emergency Departments

Key point: Half of all nonurgent ED visits were rated as high appropriateness.

Citation: Stanley R, Zimmerman J, Hashikawa C, et al. *Pediatr Emerg Care*. 2007;23(8):532-536.

At 13 Michigan emergency departments, interviews were conducted with parents of children aged 6 months to 18 years who were triaged by ED personnel as lowest acuity. Interviews explored chief complaint, reason for ED visit, insurance status, attempts to call for advice before coming to the ED, and usual primary care source. Investigators rated ED visit appropriateness as high, medium, or low based on characteristics of the complaint and parent care-seeking behaviors.

Of 422 completed interviews, 51% involved parents of Medicaid enrollees, and 43% involved parents of privately insured enrollees. One third of children presented with injuries. Overall, 50% of visits were rated as high appropriateness.

When injuries were excluded, 37% of visits were rated as high appropriateness. Thirty-eight percent of parents called for advice before coming to the ED; of those, 60% were told to go to the ED.

The most common parent-reported reason for going to the ED was reassurance (41%), followed by thinking the situation was an emergency (33%). Medicaid patients who could name a primary care physician, rather than a clinic only, were more likely to have ED visits rated as high appropriateness (54% vs. 38%, $P<0.05$). ■

Short-Term Outcomes of Pediatric Emergency Department Febrile Illnesses

Key point: After ED evaluation, 23.7% of young patients made a nonscheduled revisit to the primary medical doctor or ED.

Citation: Mistry R, Stevens M, Gorelick M. *Pediatr Emerg Care*. 23(9):617-623.

This was a prospective cohort study of children aged 28 days to 18 years presenting with fever (≥38° C) or chief complaint of fever who were evaluated and discharged to home from a tertiary care pediatric emergency department.

Enrollment occurred on randomly selected study days over one year. Caregivers were then contacted via telephone after seven to 10 days to assess outcomes, including days of fever, child and family activity impairments, and return to healthcare.

Follow-up was complete for 322 (72%) of 451 enrolled subjects. Mean age of subjects was 31.5 months.

The most common discharge diagnosis was undifferentiated febrile illness (20.5%).

Mean total duration of fever was 4.41 days; 38.9% remained febrile for five days or longer.

For children, impairments in each outcome (activity, oral intake, sleep, behavior) persisted longer than 2.5 days; over 14% of them remained impaired at follow-up in each outcome.

Children missed a mean of 2.63 days of daycare or school; 37.4% missed three days or longer. Primary caregivers missed 1.47 days of work or school; 10.5% missed five days or longer.

After ED evaluation, 23.7% made a nonscheduled revisit to the primary medical doctor or ED. ■