A pediatrics professor at the University of Alberta has found that children in emergency departments across Canada are likely being undertreated for pain.

Samina Ali, an associate professor of pediatrics with the Faculty of Medicine & Dentistry, is the lead author of a study based on survey
results from 139 pediatric emergency physicians. The survey posed questions related to pediatric pain management policies and procedures. The study is featured on the front cover of the September 2014 issue of the Canadian Journal of Emergency Medicine.

"Sixty per cent of urinary catheterizations, half of venipunctures (IV insertions), a tenth of lumbar punctures (spinal tap) and a very small amount of suturing, or stitching, are done without treatment," Ali says.

The study showed that topical anesthetics were commonly used for spinal tap and stitching. Oral glucose, which is proven to minimize pain in infants, was the least used, with a 12 per cent reported use for urinary catheterization, a 14 per cent use in IV insertions, a 29 per cent use in spinal taps and a six per cent use in stitching.

According to the study, pain is well managed for more painful ailments. Only four per cent of physicians reported using no anesthesia for ear infections. Surgical abdomen-related pain and femur fractures were largely treated with opioid drugs, with 78 per cent and 96 per cent reported use, respectively.

In addition to pharmaceutical methods of management, the study evaluated the use of non-drug methods of managing pain for infants. The survey revealed that physicians' educational and training background influences their likelihood to use certain methods of pain management and distraction.

Physicians trained in emergency medicine were less likely than pediatrics-trained doctors to use a pacifier and glucose to manage pain in the emergency department. Female physicians were more likely to use breastfeeding as a means to distract the child. Older physicians and physicians with more experience were more likely to use swaddling techniques to soothe an infant.
"I can certainly believe that if you do pediatrics for five years continuously, you'll get exposed to pacifier and glucose use more than if the first five years of your training was heavily based in adult medicine, where cardiac arrest or heart attacks are seen more frequently and are a priority," Ali says.

In the survey, physicians reported that they felt education could be improved through interactive knowledge translation tools to help them become more familiar with proper use of pharmacologic and non-pharmacologic pain management and distraction methods.

Commonly reported perceived barriers to effective pain management included education issues relating to use of anesthetics in children (36.3 per cent), staffing or human resources issues (31.4 per cent) and lack of access to medications (15.7 per cent). Lack of time or disruption of emergency department flow was the most commonly perceived barrier, with 55 per cent of physicians reporting it in their responses.

"If you're not cognizant of flow and you keep every patient for seven hours in a room, you will back up the waiting room down out the road, down the street and around the corner. Flow is always an issue," Ali says. "To me, however, flow is not an acceptable reason not to treat children's pain. We just have to think about how we design [flow management]."

Ali says one way pain treatment can be improved without negatively affecting flow is if triage nurses apply topical anesthetics to pediatric patients who appear dehydrated. Anesthetic creams that soothe pain associated with IV insertion take about 30 minutes to take effect and, if the child is not administered an IV, there is no danger connected to use of the cream.

Ali also encourages parents to advocate for their children and ask physicians whether anything can be done to make their children more
comfortable or help them cope with the pain. "It is first and foremost our duty as parents [of children in the emergency department] to advocate for our child. I would hope that our health-care providers would be open to receiving that."

**More information:** "Reported practice variation in pediatric pain management: a survey of Canadian pediatric emergency physicians" *CJEM* 2014;16(5):352-360. [www.cjem-online.ca/v16/n5/p352](http://www.cjem-online.ca/v16/n5/p352)

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