SPECIAL REPORT

Recognizing Pain in the ED is a Painful Process Itself

By Ruth SoRelle, MPH

Pain propels tens of millions of Americans to seek relief in the nation's emergency departments each year. Some scream, some moan, some suffer silently, but the sad fact is that pain is still being untreated or undertreated, even after numerous articles and admonitions to physicians that they need to do better.

For patients, the immediate agony can have long-lasting effects. Children who have a painful experience in the emergency department often become averse to seeking care later. Adults, influenced by past experiences with pain, resist going to the doctor and the emergency department. Addressing the pain imperative has become the focus of a dedicated group of researchers worldwide who are seeking ways to alert their brethren and the public of the need to take care of patients' pain as well their other ailments.

In fact, one group of Swiss investigators who recently published a study on the effect of pain treatment guidelines in the emergency department recommend considering pain a fifth vital sign for incoming patients.

Many reasons separate the patient's need for pain relief from the physician's recognition of that need. The patient's pain is real and constant, yet the physician must not only recognize how much pain the patient is suffering but also seek a cause for the pain. Too often, that search for its origin obscures the immediate need to relieve that overwhelming symptom.

This occurs in the elderly, the middle aged, the young, and even and especially children. Despite efforts to remind physicians and nurses of pain as a problem in need of treatment, it remains undertreated and understudied, said experts in the field. The situation is better, most of them said, but it is far from acceptable.

Knox Todd, MD, MPH, the director of the Pain and Emergency Medicine Institute in the department of emergency medicine at Beth Israel Medical Center and Albert Einstein College of Medicine in New York City, said there has been progress, though. "In the past 10 years, we have gone from formally assessing pain 20 percent of the time to 90 to 95 percent of the time. Part of that is because of requirements by the Joint Commission (formerly known as the Joint Commission on the Accreditation of Health Care Organizations)."

A survey by the National Center for Health Statistics also indicates that patients who received prescriptions for analgesia in the emergency department increased 18 percent from 1997 to 2001. "There is definitely something going on with treatment. Whether we are achieving the outcomes we want is hard to know," he said.

Dr. Todd is currently analyzing follow-up data on patients with recurring pain who have been to the emergency department in the past two years, hoping to assess the effectiveness of pain management patients received there. In 2004, he said, the American College of Emergency Physicians developed general principles regarding pain care that physicians should adopt. "Patients should get rapid treatment for pain. Diagnostic imaging should not stand in the way of treating pain," he said. "There was nothing very pointed or specific."

Swiss Guidelines

A recent study by Swiss researchers in the *Annals of Emergency Medicine* (2007 Apr 17; [Epub ahead of print]), however, found that specific guidelines for pain management improved the way

patients were treated in the emergency department. "What the Swiss group did was to make it specific and look at dosing and adverse events as well as pain intensity changes in the emergency department," said Dr. Todd. "All of this is important. If you pay attention to pain and you have physicians and nurses on board, you can achieve a change."

> One study recommended 1 g acetaminophen/ NSAID for a pain score under 4 or that plus 0.1 mg/kg IV morphine for a pain score of 4 or more

The genesis of that study was a medical student, who "was appalled by the suffering of patients in our ED," wrote Isabelle Decosterd, MD, and Olivier Hugli, MD, of the University Hospital Center and University of Lausanne in Switzerland in an email interview. Their study assessed two groups of patients between April and July 2003. The first group of 249 underwent treatment considered standard of care at the hospital. A second group of 192 were assessed for pain and treated after the hospital staff was given guidelines for recognizing and quantifying pain, treating it with the appropriate drugs, and then reassessing the patients' pain levels every 15 minutes. Recommended drugs included morphine, acetaminophen, and nonsteroidal anti-inflammatory medications.

The guidelines were fairly specific and based on the frequent reassessment of pain to determine if the treatment was working. The researchers recommended giving 1 g of acetaminophen or NSAID by the most appropriate means if the patient's score on the visual analogue or numerical pain scale was less than 4. If the score was greater than or equal to 4, they recommended giving 1 g of acetaminophen or NSAID plus 0.1 mg/kg of intravenous morphine. They set up a separate branch of the guidelines specifically for headaches. The guidelines were distributed to physicians and nurses within the emergency department along with lectures on evaluating and treating acute pain.

Drs. Descosterod and Hugli emphasized that the pain scale — either visual analogue or numerical — was the fifth vital sign in the encounter between patient and triage nurse. They found that physicians and nurses were more likely to document the presence of pain after pain guidelines were instituted. Before the guidelines, only 40 percent of patients received analgesia, but 63 percent did after. The use of morphine increased from 10 percent of patients to 27 percent with a concomitant increase in dosage. The visual analogue score for pain demonstrated a reduction that went along with improved patient satisfaction.

Physician Autonomy

Guidelines often raise hackles among physicians, and the Swiss researchers said Europeans are no different from their U.S. counterparts. "The physicians' autonomy is fine as long as the result is state-of-the-art treatment for the patient. But as we showed in our study, the patients received less than optimal care, and they are the ones in pain. In our local experiences, guidelines and evidence-based medicine are better accepted in our teaching university hospital at the residents' level," they said.

"The guidelines allow the physician to be aware of the patients' pain and help the physician to feel secure in delivering analgesics (especially in the case of opioids)," they wrote. "Furthermore with our work (all medical specialties involved in our ED were consulted for the elaboration of guidelines), we provided a unique consensual approach for pain management."

Measuring a patient's pain when he comes into the emergency department is important, they wrote in their email. "The main message is that pain intensity has to be measured with a standardized instrument (the first step is to recognize the problem) and re-evaluated later to optimize the treatment. No physician could be accused, for instance, of masking the symptoms of an acute abdominal pathology, or deliver a contraindicated drug related to the surgical pathology, as surgeons helped with the generation of the guideline."

The reasons that pain was underestimated before the guidelines vary, the researchers wrote. "We are not different from any emergency center and the same reasons can be incriminated: lack of pain assessment, underestimation of pain by the care providers, lack of knowledge in pain management, fear of delivering opioids, fear of masking the symptoms of acute and life-threatening processes."

The researchers found their guidelines did not significantly shorten the time between when a patient entered the ED and when he received pain medications. The researchers noted that door-to-analgesia time was as important as the door-to-needle time in the case of acute MI. They said the time could be reduced by minimizing ED crowding and by starting pain medications in the waiting room, which could be problematic for opioids (surveillance of treated patients, training triage nurses, for instance). Pain also could be included as a high priority on the triage scale, allowing those patients to be admitted immediately.

Comprehensive Approach

Dr. Todd said recognizing pain is an "empathy issue." He noted that minority physicians with enough patient encounters have better outcomes with patients in pain. The correlation was not related to the ethnicity of the patient or the analgesic prescribed but with being a minority physician, something he intends to evaluate further.

"We just completed a national survey of people with recurring pain who have been to the emergency department in the past two years," he said, adding that they hope to use the analysis to determine how the experience of pain in the emergency department affects patients later.

"Mandating that you take a pain score in the triage doesn't translate into a benefit for the patient necessarily," said Donald Yealy, MD, a professor and the vice chairman of emergency medicine at the University of Pittsburgh School of Medicine. "It requires more of a comprehensive effort. The European approach suggests that improving pain management will require a more multidisciplinary and comprehensive approach."

While the past 10 years have seen improvement in the field, the question is how far do physicians need to go? "Yes, there's been an improvement, even in teaching medical students and residents," Dr. Yealy said. "But there are still a lot of people who do not deliver adequate pain management, in part because of a lack of knowledge or understanding."

> A NCHS survey found that patients who received prescriptions for analgesia in the ED increased 18% from 1997 to 2001

"There is a social difference between patients and physicians that is a barrier at times. There are simple operational differences. How do you deliver pain treatment efficiently in an emergency department? And it is more than just any one of those."

The current concern about the abuse of prescription drugs may have some validity, he said, but it can be a barrier to good pain treatment in the emergency department. "Both patients and physicians are aware of this. It is easy to alter your behavior because of these stories, but for the average person, abuse is not a concern," Dr. Yealy said.

Adequate treatment of pain in children is another issue, he said. Physicians clearly don't want to deny relief to children, he said, but many lack an understanding of how to deliver it. "Health care professionals are risk averse," Dr. Yealy said. "They may misperceive the risks of providing analgesia in children, [but] they fail to understand the risks of not providing it. A child who undergoes a painful procedure or poorly treated pain remembers that particular event for the rest of his life. It affects how he seeks health care further down the stream."

Pain Management

More invasive procedures such as fracture reductions in children are receiving more aggressive pain management, said Kelly Young, MD, an associate professor of clinical medicine at the David Geffen School of Medicine at the University of California Los Angeles and a member of the emergency medicine faculty at Harbor-UCLA Medical Center in Torrance. "We've made headway," she said, although gaps remain for minor procedures such as inserting intravenous lines or venipuncture.

"Physicians might think of this as a nursing initiative, but it takes a physician to champion it and to task nurses to use a topical anesthetic," she said. "The physician may even want to put it on himself."

Some people might think of a venipuncture as something minor, she said, but "there's no [good] reason to ask children to buck up, and it's not a great argument. If children have a bad experience with these easy procedures, then as subsequent procedures get worse, you turn them into adults with chronic pain syndromes or as patients who don't seek care until the last minute. That's not good for care overall."

Changing attitudes in this area will require a change in culture, she said. That was demonstrated in a recent study Dr. Young did with Rishi Bhargava, MD, at Loma Linda (CA) University Medical Center, published recently in *Academic Emergency Medicine*. (2007;14[5]:479. Epub 2007 Mar 15.) They surveyed directors of U.S. emergency departments with pediatric emergency medicine fellowships, asking them to choose the most commonly used pain or sedation management for one of five scenarios: facial laceration repair, cranial computer tomography in a toddler, closed fracture reduction, neonatal lumbar puncture, and intravenous catheter insertion. Representatives of 38 programs responded. Topical anesthetics were most commonly used for facial laceration and ketamine sedation for fracture reduction. More than half said they would not sedate a toddler undergoing cranial computed tomography, and only 38 percent said they would use a drug to manage the pain of an intravenous catheter insertion. Nearly three-quarters said they would use either topical or injected anesthetic for neonatal lumbar puncture.

"Some places accept not using anything for a lumbar puncture in an infant," she said. "That's old teaching. It might take a physician champion to get pain management started. They may need to work in a multidisciplinary way with child life and nursing to address the issue."

Dr. Yealy said changes in physician training will help. "At Pitt, we give pain management lectures to preclinical students. The average medical students learn from someone one to three years above them in training. We try to make our point early." But he acknowledged that there's no magic bullet to changing attitudes about treating pain. "Slow and steady wins the race," he said.

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