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New Item on Pediatric Menu: Food Allergy

Rebecca Voelker

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chief of the division of pain medicine at the University of California-Davis and a former president of the academy, said that otherwise physicians may simply choose to prescribe short-acting opioids instead of long-acting or extended-release versions, even if a short-acting formulation is not the best option for the patient. That is exactly what happened, he said, when the state of California instituted a prescription monitoring program in which physicians were required to obtain triplicate prescription pads from law enforcement agencies to prescribe Schedule II (long-acting or sustained-release) opioids. He explained that many physicians substituted short-acting opioids rather than participate in the program. In turn, while abuse of Schedule II drugs decreased, abuse of the short-acting drug hydrocodone increased.

"We need to level the field for all these drugs, so all are equal when physicians are choosing one in the best interest of the patient," said Fishman.

Jenkins said during the briefing that the FDA has chosen to focus on the long-acting products because the agency has detected a strong safety signal for these products, particularly methadone. However, he agreed that immediate-release products also pose safety concerns, and that the agency had not yet decided whether the scope of the safety plan should be extended to include them.

The American Academy of Pain Medicine has also proposed the creation of a national program or a linked state prescription monitoring program to allow physicians and pharmacists to access up-to-date information on their patients' prescriptions. Such a

program could help prevent individuals from obtaining multiple opioid prescriptions from different clinicians.

While he believes that illegal use of prescription opioid drugs is largely driving the increase in opioid-associated deaths and injuries, Fishman, who also wrote the federation's opioid prescribing guide, said that a lack of physician education on proper use is contributing. He said such training should begin in medical school and extend to all licensed physicians, to ensure that patients have access to good pain management. One way to accomplish this might be to have state medical boards make such training a requirement for license renewal.

"Pain is the most common reason patients visit a doctor," Fishman said. "It's an essential part of what we do. At some point, we must say if you are going to be a doctor, you must treat pain." □

New Item on Pediatric Menu: Food Allergy

Rebecca Voelker

SEVERAL YEARS HAVE PASSED, BUT PEDIATRICIAN Ruchi Gupta, MD, MPH, still remembers a particular patient with severe eczema. Gupta prescribed high-dose steroid creams and, when the child's condition did not improve, she referred him to a dermatologist. Higher-dose steroid cream did not help. The mystery was solved when the child's mother mentioned that the eczema began to clear up when her son briefly stopped eating eggs.

"I sent him to an allergist," Gupta recalled. "He got tested and not only was he allergic to eggs, but to a number of other things that were probably in his diet."

Gupta, assistant professor of pediatrics at Northwestern University's Feinberg School of Medicine in Chicago, has since taken to heart parents' frustrations and physicians' misconceptions concerning food allergy in children. At a time when reports show that prevalence is increasing, Gupta and her col-

leagues have tried to pinpoint just how much pediatricians and family physicians really know about food allergies in their young patients.



Most physicians know that peanuts are among the 3 most common food allergens in children. Yet many feel they are not adequately trained to care for children with food allergies.

In a recently published survey, Gupta and her colleagues rated physicians' overall understanding of children's food allergies as fair (Gupta RS et al. *Pediatrics*. 2010;125[1]:126-132). The mixed-method survey recruited par-

ticipants from the American Medical Association Masterfile and from attendees at the 2008 Pediatric Academic Society's annual meeting.

The study included 407 pediatricians and family physicians who answered 46 items on a validated survey instrument (83% of participants were pediatricians). Survey items asked about diagnosis and treatment, symptoms, triggers, prevalence, stigma, quality of life, and policy issues.

Participants answered 61% of 39 true/false and multiple choice items correctly. For example, 80% knew that children who are allergic to eggs should not receive the flu vaccine, and 90% recognized that the number of food-allergic children in the United States is increasing. But only 24% knew that oral food challenges can be used to diagnose food allergies. Just 12% knew that chronic nasal problems are not a symptom of food allergy, which Gupta called "an interesting misconception."



Many physicians who were surveyed said they feel inadequately trained to care for patients with food allergy (78%), and that they are not comfortable interpreting laboratory tests used to diagnose food allergy (72%).

Karl von Tiehl, MD, assistant clinical professor at Cincinnati Children's Hospital Medical Center in Ohio, agrees that misconceptions and a lack of awareness among physicians about food allergies in children are pervasive (von Tiehl was not involved in the study).

"The major problem is that we're playing catch-up," he said. "There has not been as large an emphasis on outpatient allergy training to future general practitioners, which results in the kind of statistics you see in [this] study." An understanding of pediatric food allergies, Gupta added, "is one thing that we didn't get in training."

At least two-thirds of physicians in the survey correctly identified eggs, milk, and peanuts as the 3 most common food allergens in children. But Gupta called it "surprising" that 84% of family physicians, who treat fewer children than pediatricians, knew that peanuts were among the top 3 compared with 76% of pediatricians. She noted that quite a few physicians surveyed thought shellfish were among the 3 most common food allergens in children. "That's the most common food allergy in adults, but not [as common] in children," she added.

In the meantime, federal researchers are trying to get a better handle on the prevalence of children's food allergies. Another recent study showed that over a 10-year period, food allergy in children increased by 18%, to 3.9% in 2007 from 3.3% in 1997 (Branum AM and Lukacs SL. *Pediatrics*. 2009;124[6]:1549-1555).

"Even if the increase does seem slight, it should be somewhat alarming that there is an increase at all," said lead author Amy Branum, MSPH, a health statistician with the US Centers for Disease Control and Prevention in Atlanta. "I can't think of any-

thing else—maybe obesity—that's comparable to that kind of increase that I've seen on a population basis in a while."

Gupta said recent estimates show that food allergies affect 4% to 6% of US children. But she suspects the prevalence is much higher. She and her colleagues are surveying 40 000 US households to try to determine a more exact prevalence figure as well as whether allergies reported have been diagnosed by a physician or detected by a parent. A preliminary analysis of 8000 households has shown a 15% prevalence, with 9% diagnosed by a physician and 6% detected by a parent.

"I think the numbers are going up, based on that preliminary work," she said.

But busy pediatricians cannot be expected to master all the intricacies of allergy and immunology. "They need a place to go, or a tool to help," Gupta noted. She is working to develop such a tool, consisting of a patient scenario followed by a series of questions. Gupta envisions it being used online or published in a professional journal for continuing medical education credit.

"[Food allergy] is an entity that we need to learn a little more about because it's new to have so many children who have it," she said. □

Hormone May Play Role in Triggering Panic Attacks

Bridget M. Kuehn

A HORMONE KNOWN TO PLAY AN important role in wakefulness may also be a key player in triggering panic attacks, according to results of recent animal and human studies.

An international team of scientists probing the molecular basis of panic disorder found elevated levels of the hormone, orexin, in the cerebrospinal fluid of humans with the disorder and discovered that blocking its effects in a rat model of the disorder inhibits physiological changes and behaviors associated with panic (Johnson PL et al. *Nat Med*. 2009;16[1]:111-115).

Injection of a sodium lactate solution can trigger fear and elevated heart rate and respiration in individuals with panic disorder, and such persons exhibit decreased γ -aminobutyric acid (GABA) activity in their brains. To probe the role of orexin in triggering panic attacks, the scientists used a rat model in which GABA is suppressed. These animals also develop behaviors and physiological changes indicative of panic when injected with sodium lactate and their symptoms are alleviated

by medications such as alprazolam, which are effective in humans with the condition.

The animals' paniclike behaviors seemed to increase as activity in orexin-producing neurons increases, but these behaviors were absent when the animals were treated with orexin antagonists. Additionally, panic-prone animals that are genetically altered to inhibit the production of orexin do not display such behaviors.

The researchers also evaluated orexin levels in cerebrospinal fluid samples taken from 53 unmedicated patients who presented with suicidal behavior. Orexin levels were much higher in patients who had symptoms of panic anxiety than in patients without such symptoms or in those with panic anxiety symptoms comorbid with major depressive disorder. Based on these findings, the authors suggest that orexin antagonists may be potential therapies for panic attacks.

The findings add to a growing body of literature on orexin. For example, other studies have suggested that orexin might be used to treat narcolepsy, while orexin antagonists might be useful to combat addiction or overeating. □