ABSTRACTS IN URGENT CARE

- Lower A1c Targets for Type 2 Diabetes
- No More Redocumenting Student E/M Entries
- Overuse of Self-Prescribed Ibuprofen
- Excessive Fluoroquinolone Use
- Referring Patients with Presumed Cellulitis
- Curbing Childhood Obesity
- Clarifying Use of the mTBI Blood Test
- FDA Targets Opioid-Containing Meds for Children

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Each month the College of Urgent Care Medicine (CUCM) provides a handful of abstracts from or related to urgent care practices or practitioners. Glenn Harnett, MD leads this effort.

ACP Eases Up on A1c Ceiling for Patients with Type 2 Diabetes

Key point: The American College of Physicians suggests slightly higher hemoglobin A1c target levels for patients with type 2 diabetes.

Citation: Qaseem A, Wilt TJ, Kansagara D, et al. Hemoglobin A1c targets for glycemic control with pharmacologic therapy for nonpregnant adults with type 2 diabetes mellitus: a guidance statement update from the American College of Physicians. *Ann Intern Med*. March 6, 2018. [Epub ahead of print]

The American College of Physicians published new evidence-based guidelines for blood glucose control in the *Annals of Internal Medicine*. They suggest that for most patients with type 2 diabetes, clinicians should aim for a hemoglobin A1c level between 7% and 8%—slightly higher than their 2007 recommendation, which concluded that a level <7% should be the target. Reasoning for the less-intensive control of A1c levels included evidence that increasing target levels to between 7% and 8% does not increase the risk for death or macrovascular events such as myocardial infarction or stroke over a 5–10-year period. They also expressed concern that in some patients, attempts to lower A1c levels below 7% can lead to substantial harm, including an increased risk for hypoglycemic events. Jack Ende, MD, the president of the ACP, stated "The evidence shows that for most people with type 2 diabetes, achieving an A1c between 7% and 8% will best balance long-term benefits with harms such as low blood sugar, medication burden, and costs." He went on to say that "reducing drug interventions for patients with A1c levels persistently below 6.5% will reduce unnecessary medication harms, burdens, and costs without negatively impacting the risk of death, heart attacks, strokes, kidney failure, amputations, visual impairment, or painful neuropathy." ■

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CMS Does Away with Need to Redocument Student E/M Entries

Key point: Teaching physicians can now verify student documentation instead of redocumenting.

Citation: Centers for Medicare and Medicaid Services, Medicare Claims Processing Manual, Chapter 12, Section 100.1.1 (Revised, February 2, 2018). Available at: https://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/2018Downloads/R3971CP.pdf. Accessed March 12, 2018.

The Centers for Medicare & Medicaid Services has changed the Medicare Claims Processing Manual, Chapter 12, Section 100.1.1, to allow teaching physicians to verify, rather than redocument, student documentation of components of evaluation and management services in the medical record. However, the teaching physician still must verify in the medical record all student documentation or findings, including history, physical exam, and/or medical decision making. Teaching physicians still must personally perform or reperform physical exams and handle decision-making steps for an E/M service, but can now simply verify the students' documentation of them in the medical record. Prior CMS rulings required that teaching physicians both verify and

redocument notes on the physical exam and medical decisions. Jack Ende, MD, president of the American College of Physicians, stated that "Prior to the change, physicians were required to redocument most work performed by medical students—which is often very thorough and based on careful and supervised evaluation—rather than review, refer to, amend, and/or correct the student note." This new rule arises from CMS efforts to reduce documentation and bureaucratic burdens on physicians. The changes regarding medical students' documentation took effect March 5, 2018. ■

Patients May Be Harming Themselves by Overusing Ibuprofen

Key point: Many patients self-medicate with dangerously high levels of ibuprofen.

Citation: Kaufman DW, Kelly JP, Battista DR, et al. Exceeding the daily dosing limit of nonsteroidal anti-inflammatory drugs among ibuprofen users. *Pharmacoepidemiol Drug Saf*. 2018;27(3):322-331.

Ibuprofen is the second- or third-most commonly used drug in the U.S. after acetaminophen and the most commonly used non–aspirin NSAID. While NSAIDs are effective for their intended purposes, they also have considerable side effects which are generally dose-related and can be fatal, including major upper gastrointestinal bleeding and acute renal injury. A recent study published in *Pharmacoepidemiology & Drug Safety*, using online medication diaries from 1,326 people, revealed that almost 15% of adults taking ibuprofen (Motrin, Advil) or other NSAIDs like aspirin, naproxen (Aleve), celecoxib (Celebrex), meloxicam (Mobic), and diclofenac (Voltaren) exceeded the maximum recommended daily dose for these drugs. Personal characteristics associated with exceeding the daily limit (EDL) included male sex, ongoing pain, poor physical function, daily smoking, having the attitudes of "choosing my own dose" and not starting with the lowest dose, and poor knowledge of the recommended one-time and 24-hour doses. The authors suggested that the prevalence of EDL among NSAID users is nontrivial, and it is associated with potentially modifiable factors. Educating consumers about NSAIDs and their dosing directions could reduce excess dosing. ■

One Quarter of Fluoroquinolones Prescriptions May Be Beyond Guidelines

Key point: 25% of U.S. prescriptions for fluoroquinolones (FQ) are for conditions where they are not recommended first-line therapy or where no antibiotics should be prescribed.

Citation: Kabbani S, Hersh AL, Shapiro DJ, et al. Opportunities to improve fluoroquinolone prescribing in the United States for adult ambulatory care visits. *Clin Infect Dis*. January 24, 2018. [Epub ahead of print]

Fluoroquinolones are the third-most commonly prescribed outpatient antibiotic class in the United States in adults, with an estimated 115 prescriptions per 1,000 persons annually. In 2016, the Food and Drug Administration updated the 2008 black box warning to highlight serious side effects associated with systemic FQ use, including damage to tendons, muscles, joints, nerves, and the central nervous system. The warning advises healthcare providers to not use FQs when the potential risks outweigh the benefits, specifically in conditions such as acute bronchitis where antibiotics are not typically required, and acute sinusitis and uncomplicated urinary tract infections for which other effective antibiotic treatment options exist. The authors accessed the QuintilesIMS™ Xponent database to report the number of outpatient FQ prescriptions dispensed in 2014. This database represents 100% of outpatient prescription activity for retail pharmacies, projected from data collected from over 90% of retail pharmacies in the U.S. In 2014, 31.5 million FQ prescriptions were dispensed; visits for genitourinary, respiratory, skin, and gastrointestinal conditions accounted for most FQ prescriptions. An estimated 7.9 million FQ prescriptions were for conditions where no antibiotics should be prescribed, or for which FQ are not first-line recommended therapy, which include acute bronchitis, acute sinusitis, and uncomplicated urinary tract infections, conditions recently highlighted in the FDA warning. Viral upper respiratory tract infections and bronchitis, for which no antibiotics should be prescribed, led to an estimated 1.6 million FQ prescriptions (5.1% of total). Sinusitis and uncomplicated urinary tract infections, for which FQ are not first-line recommended therapy, accounted for an estimated 6.3 million FQ prescriptions (19.9% of total). The authors concluded that with the threats to patient safety and rising rates of antibiotic resistance, FQs should not be prescribed for conditions where alternative effective therapies are recommended. Antibiotic stewardship efforts should target inappropriate FQ prescribing in adults, specifically for acute respiratory tract infections for which no antibiotics are needed, and for ambulatory infections for which FQ are not recommended first-line therapy. ■

Derm Referrals for Presumed Cellulitis Can Lower Cost, Improve Outcomes

Key point: Early dermatology consults for patients with presumed cellulitis are cost effective and improve patient outcomes.

Citation: Li DG, Xia FD, Khosravi H, et al. Outcomes of early dermatology consultation for inpatients diagnosed with cellulitis. *JAMA Dermatol*. February 16, 2018. [Epub ahead of print]

Many inflammatory skin conditions mimic cellulitis (pseudocellulitis) and are treated with antibiotics and/or hospitalization, leading to unnecessary patient morbidity and substantial

healthcare spending. This prospective cohort study published in *JAMA Dermatology* enrolled patients with presumed diagnosis of cellulitis in the emergency department, in the ED observation unit, or within 24 hours of admission to an inpatient unit of a large urban teaching hospital between February and September 2017. The objective was to evaluate the impact of early dermatology consultation on clinical and economic outcomes associated with misdiagnosed cellulitis. Of 116 patients (54.3% women; 78.4% non-Hispanic white; mean age, 58.4 years), 33.6% were diagnosed with pseudo-cellulitis by dermatologists. The dermatology team recommended antibiotic discontinuation in 28 of 34 patients (82.4%), and antibiotics were stopped in 26 of 28 cases (92.9%). The dermatologists also recommended discharge from planned observation or inpatient admission in 20 of 39 patients with pseudo-cellulitis (51.3%). Extrapolating the impact of dermatology consultation for presumed cellulitis nationally, the researchers estimated 97,000 to 256,000 avoided hospitalization days, 34,000 to 91,000 patients avoiding unnecessary antibiotic exposure, and $80 million to $210 million in net cost savings annually. Scalability to the urgent care environment would, of course, present operational challenges that could affect cost benefits in our clinical setting. ■

Urgent Care Providers: Be Vigilant for Obese Children

Key point: Childhood obesity rates continue to rise, especially in some demographic groups.

Citation: Skinner AC, Ravanbakht SN, Skelton JA, et al. Prevalence of obesity and severe obesity in U.S. children, 1999-2016. *Pediatrics*. February 26, 2018. [Epub ahead of print]

This paper published in *Pediatrics* reviewed data from 1999 to 2016, garnered from the National Health and Nutrition Examination Survey (NHANES). Results revealed that white and Asian American children have significantly lower rates of obesity than African-American children, Hispanic children, or children of other races. In 2015–16, 35% of all U.S. youth were overweight or obese, compared with 1999–2000, when this figure was 29%. The prevalence of females aged 16 to 19 who were overweight or obese also grew, from 36% in 2013–14 to 48% in 2015–16. The prevalence of overweight and obesity among Hispanic females also increased from 32% to 46% in the 17-year data collection period. The rates did not increase significantly for white and African-American females. In children aged 2 to 5, the prevalence of class I obesity (BMI ≥95th percentile) increased from 9% in 2013–14 to 14% in 2015–16. Commentator David Ludwig, MD referred to a recent study in the *New England Journal of Medicine* that predicted more than 50% of today's 2-year-olds will be obese by age 35. He also noted that "If current rates have not yet plateaued, as suggested in the NHANES 2015 and 2016 survey data, then even this bleak projection may underestimate the magnitude of the problem." The authors commented that despite recent public health efforts to combat childhood obesity, more resources are clearly necessary. They also stated that the obesity epidemic is becoming endemic, and the resultant decline in Americans' health is occurring without impactful policy at the national level.

FDA: Blood Test Good for Evaluating Need for Head CT, Not Diagnosing Concussion

Key point: There is confusion regarding FDA-approved blood test to evaluate need for head CT in adult patients with mild traumatic brain injury.

Citation: Federal Drug Administration. (2018, February 14). *FDA authorizes marketing of first blood test to aid in the evaluation of concussion in adults*. Press release. Available at: https://www.fda.gov/newsevents/newsroom/pressannouncements/ucm596531.htm. Accessed March 12, 2018.

The FDA approved a blood test that could help physicians determine the need for head CT in adult patients suspected of having mTBI. However, the widely reported FDA news release regarding the benefits of the test was misinterpreted by many who believed it was approved as a concussion diagnosis tool. The headline of the release, *FDA Authorizes Marketing of First Blood Test to Aid in the Evaluation of Concussion in Adults*, contributed to the confusion, as did subsequent stories that reported on it. The prospective device validation study cited in the approval involved 1,947 individual blood samples from adults suspected of having mTBI. Called the Brain Trauma Indicator (BTI), the device measures levels of two proteins, ubiquitin C-terminal hydrolase and glial fibrillary acidic protein, which are released from the brain into blood within 20 minutes of a head injury. The test results are typically available within 3 to 4 hours. The BTI was able to predict the presence of intracranial lesions on CT 97.5% of the time, and those who did not have intracranial lesions on a CT scan 99.6% of the time. This may help doctors determine whether a patient may need a CT scan to detect possible intracranial bleed or injury after a head injury. The FDA stated that providers could incorporate this test into the standard of care for patients, alleviating the need for a CT scan in at least one-third of adult patients who are suspected of having mTBI. However, Dr. James P. MacDonald, a physician and sports medicine specialist at Nationwide Children's Hospital in Ohio, cautioned that "this new test does not diagnose concussion. It cannot 'detect' concussions." He also stated that the new device doesn't rule out concussions, either. "What it does do is help a doctor determine whether a patient may need computed tomography scans after a head injury to see if an 'intracranial lesion' may be visible," he said. Of note, the test was not studied nor approved for use in children. ■

Upcoming Label Changes Will Limit Opioid Cough and Cold Medicines for Children

Key point: Prescription opioid cough and cold medicines no longer indicated for children.

Citation: Federal Drug Administration. *FDA acts to protect kids from serious risks of opioid ingredients contained in some prescription cough and cold products by revising labeling to limit pediatric use.* [Press release] Available at: https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm592109.htm. Accessed March 12, 2018.

The FDA announced that it is requiring safety labeling changes to limit the use of prescription opioid cough and cold medicines containing codeine or hydrocodone in children <18-years-old because the serious risks of these medicines outweigh their potential benefits in this population. The FDA held an expert roundtable and convened a meeting of its Pediatric Advisory Committee to look at all the risks associated with the use of codeine- or hydrocodone-containing cough and cold products in these patients. Experts indicated that although some pediatric cough symptoms do require treatment, cough due to a cold or upper respiratory infection typically does not. Moreover, the risks of using prescription opioid cough products in children of all ages generally outweigh the potential benefits. After safety labeling changes are made, these products will no longer be indicated for use to treat cough in any pediatric population and will be labeled for use only in adults aged ≥18 years. Labeling for the medications is also being updated with additional safety information for adults—including an expanded Boxed Warning, the FDA's most prominent warning—notifying about the risks of misuse, abuse, addiction, overdose and death, and slowed or difficult breathing that can result from exposure to codeine or hydrocodone. The FDA instructed parents to also read the labels of over-the-counter cough and cold medicines because codeine is still being sold without a prescription in some states. ■

"The serious risks of opioid cough and cold medicines outweigh their potential benefits in pediatric patients."