URGENT CARING

A PEER-REVIEWED PUBLICATION

COLLEGE OF URGENT CARE MEDICINE

Empowering Clinicians, Enhancing Quality of Care

Published quarterly and includes editorials, case studies, best practices, images challenges, expert insights, tricks of the trade, Urgent Updates and more...

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A Message from CUCM President, Cesar Mora Jaramillo, MD, FAAFP, FCUCM

Dear Colleagues,

I hope you enjoyed the Urgent Care Convention in Las Vegas. The Urgent Care Association (UCA) and College of Urgent Care Medicine (CUCM) worked hard to deliver a high-quality experience for clinicians. This year was a success! I cannot wait for next year's convention in Dallas.

It is with great honor and humility that I address you as the newly elected President of CUCM. As we embark on this journey together, I am filled with a sense of excitement and responsibility for the path that lies ahead.

First and foremost, I want to express my sincere gratitude to Chris Chao MD for his outstanding leadership over the past two years. He has led the College to achieve significant milestones and made meaningful strides in advancing the specialty of Urgent Care, leaving the College in a strong position.

Additionally, I would like to extend heartfelt congratulations to the newly elected board officers: Lisa Bishop, DNP (Vice President); Erin Loo, PA-C (Secretary); and Patrick O'Malley, MD (Treasurer); and the newly elected board members: Joe Toscano, MD; Lindsey Fish, MD; Roger Hicks, MD; and Joshua Russell, MD. Your willingness to serve in this capacity demonstrates a deep commitment to our profession and a passion for advancing the specialty.

The Future of Urgent Care

As Urgent Care clinicians, we find ourselves at the forefront of healthcare, navigating unprecedented challenges while striving to deliver high-quality care.

Looking ahead, it is imperative that we continue to adapt and innovate to meet the evolving needs of our patients and communities. This means embracing technology to enhance access and efficiency, investing in ongoing education and training to maintain clinical excellence and advocating for policies that support the growth and sustainability of Urgent Care.

Furthermore, we must prioritize diversity, equity and inclusion within our profession. Healthcare disparities persist across racial, ethnic and socioeconomic lines, and Urgent Care has a responsibility to address these inequities. By fostering a culture of inclusivity and actively promoting

diversity in our workforce, we can better serve all patients and ensure that everyone receives the care they deserve.

Real progress requires collaboration, communication and collective action. I encourage each of you to actively engage with our initiatives, share your ideas and insights, and help shape the future of Urgent Care. The future of Urgent Care is bright, filled with opportunities to innovate, collaborate and make a positive impact on the health and well-being of our communities.

I am excited to embark on this journey with you, and I am confident that, by working together, we will achieve great things.

Thank you for your continued support, and I look forward to working with you in the years to come.

Sincerely,

Cesar Mora Jaramillo, MD FAAFP, FCUCM

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From the Editor-in-Chief

For the first time I am writing the editor's letter solo! As you have seen, Dr. Jaramillo has been elected President of the College, now requiring him to write the President's letter. Consequently, it is now my sole responsibility to write the editor's letter though he remains my co-editor-in-chief.

First of all, a hearty congratulations to Dr. Jaramillo. We are so excited to see the direction he will take the College. His passion for advancing the specialty of Urgent Care, health equity, education, as well as his leadership skills, should continue to drive the College forward over the next two years. Who knew the family medicine resident that joined us as a convention ambassador in exchange for free admittance would work his way up to President? I never had a doubt!

We are still reeling from all the great opportunities that were presented at the Urgent Care Convention in Las Vegas in April. We laughed along with the wonderful humor and humility provided by our first keynote speaker, TikTok sensation Dr. Glaucomfleken . We listened to the interesting and

informative lecture by the Speaker of the House of Delegates of the American Medical Association, Dr. Lisa Bohman Egbert. We held many informative clinical and practice management lectures and offered fantastic networking opportunities. We also celebrated several people who have provided outstanding service to the College. With great meetings focused on advancing the specialty of Urgent Care medicine, there was plenty of education on Accreditation and Quality Programs and more. We have reached a point where all our hard work in the College over the years has paid off, and we can feel the momentum moving forward. Next year promises to be even better, and the planning has already started. If you missed it this year, don't miss it next year in Dallas, May 2-7, 2025. It is an exciting time to be active in the College of Urgent Care Medicine and the Urgent Care Association.

This edition of Urgent Caring should not fail to disappoint. We have a best practices on ingested foreign bodies, along with a case report. Dr. Hicks, our resident expert on climate change and health, has written a great introduction to the concept. There is an article on hiring and retaining good clinicians, a review on cervical spine evaluation, and of course, our contributions from EB Medicine, UC Max and Hippo. Also, take a stab at the EKG challenge. We hope you enjoy this issue and take full advantage of the free CME. Who doesn't like free?

So, grab a cup of coffee, put your feet up and dive into this edition of Urgent Caring. We hope you enjoy reading it as much as we enjoyed putting it together for you. And have a happy and healthy summer. See you in the Fall!

Tracey Quail Davidoff, MD, FCUCM

Designation Statement

The Urgent Care Association (UCA) designates this enduring material activity for a maximum of *3 AMA PRA Category 1 Credit(s)™*. Physicians should claim credits only commensurate with the extent of their participation in the activity. Credits may be claimed for one year from the date of release of this issue.

Accreditation Statement

This activity has been planned and implemented in accordance with the accreditation requirement and policies of the Accreditation Council for Continuing Medical Education (ACCME) through Urgent Care Association and the College of Urgent Care Medicine. UCA is accredited by the ACCME to provide continuing medical education for physicians.

Financial Disclosures

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Editorial—Elements of Clinician Success in Urgent Care

Keith Waldrep, MD
Chief Medical Officer, Ambulatory Care, BayCare Urgent Care

Over the past 30-plus years as a physician leader in Urgent Care I have learned that one of the most important elements to ensure success of an Urgent Care practice is the relationship between the organization and the clinician. Are we both focused on the same goals? Is there clarity in our mutual expectations of each other? These must be aligned to ensure a healthy, long-term relationship.

We have found there are five key elements that create a good "fit" between the clinician and management. Discussing these elements upfront during the first interview makes it clear to the prospective employee what is expected of them and what they can expect from management. Fully disclosing expectations is key to ensuring the right person for the job. These broad expectations are as follows:

1. You must provide our patients with the best evidenced-based medical care possible. We must provide the best environment possible for you to interact with patients and render appropriate care.

Evidence-based medicine should account for approximately 80% of medical decision making. There is latitude for individuality, however. In the Urgent Care environment where there is a diverse population of clinicians who encounter established, recurrent patients over time, it is important that we are all somewhat aligned in our approach to medical care. For example, we once had a clinician who was convinced that every patient with even the most minor acute cough must have Gastroesophageal Reflux Disease (GERD), and they had the "evidence to prove it." Every patient they saw with the complaint of cough resulted in the prescription of an acid-reducing medication. This non-traditional approach led to frequent negative patient feedback and patient confusion when seen by a different clinician in the practice.

2. You must provide our patients with the best customer experience possible. We must commit to providing support staff that do likewise.

Market share is key to success. Urgent Care is a retail health service, and success is fundamentally determined by your online and community reputation. We encourage staff to treat every patient the way you would care for a beloved family member. If one clinician is consistently falling short, it will quickly poison your results as a group.

3. You must be able to work in a team environment. To this end, you must be able to have a good relationship with the entire team. We must also hire and support team members who can do the same.

A negative attitude is like cancer that will spread through an organization. Our long and often hectic days are much harder in unsupportive environments. All members of the staff from the front desk to the clinician are part of the team and if they are bumping heads on an ongoing basis, that can't be tolerated.

4. You must follow our processes while constructively working with us for continuous process improvement.

Standard work is essential to smoother operation. Clinicians must follow the standard protocols in place. The team can't be expected to "do it my way or else". For example, if a clinician demands rectal temperatures on all patients, staff cannot be expected to remember to do rectal temperatures consistently for only one clinician, and it is not feasible or necessary. Conversely, operations must seek and review input from those closest to the work and have a process by which the team can determine when changes should be made. Clinicians must always help us improve but should also "go with the flow" if the team determines that change is not necessary.

5. You must be able to see a reasonable volume of patients.

Urgent Care encounters are typically focused specifically on a single problem. If a clinician can't routinely see over two patients per hour, then they are probably not a good fit for Urgent

Care. Conversely, if a provider endeavors to see 5-6 patients per hour routinely, quality of care and patient experience metrics will likely suffer. Clinicians routinely expected to see this many patients per hour will experience job dissatisfaction and burnout and will likely seek alternative employment. Three patients per hour on average is a good benchmark. Management should commit to monitoring these numbers and provide an increased staffing model when necessary.

The secret to a stable, aligned and engaged clinician group is to start building the relationship during the interview process. Before making an offer, assure yourself of two things: You feel there is a high degree of certainty this provider is a "good fit" for the organization, and you equally feel you are a "good fit" for the provider. Discussing these five elements with all prospective clinicians upfront has helped us hire and maintain an outstanding group of clinicians, many of whom have been with us for more than 5-10 years. We strive for quality care for the community and, at the same time, job satisfaction for our clinicians. We strive to not only treat patients as beloved family members but to also treat our staff, including clinicians as family. In this way we ensure quality, satisfied staff with longevity.

Opinion—Urgent Care and the Climate Crisis: A Call to Action

Roger Hicks, MD, FCUCM

I live in a small town in the foothills of the Sierra Nevada in Northern California. It is a beautiful area, but, like many other places, we are experiencing more hot days, more forest fires and more days with poor air quality. When I opened my Urgent Care clinic, I never envisioned taking care of climate change refugees. But that is exactly what I did after the 2018 Camp Fire in the community of Paradise. Over 50,000 people fled so quickly, many did not have time to even grab their medicines. It burned down their homes, workplaces, doctors' offices and pharmacies and caused the emergency evacuation of their hospital. Many of you have taken care of climate change refugees at your clinics such as people displaced by fires, floods, tornados or hurricanes.

There is no doubt that climate change affects human health. It exacerbates heat-related illness; cardiac, respiratory, dermatologic and allergy conditions; food-borne diseases; the spread of vector-borne diseases; and mental health issues. Air pollution, whether from burning fossil fuels or forest fire smoke, is synergistic with heat and disproportionately affects children, pregnant women, people with lung or cardiac problems and those disadvantaged by social determinants of health.[1,2]

This means climate change and pollution have direct impacts on medical problems we see in Urgent Care medicine. Forced closures, power outages, and the inability of patients and personnel to get to healthcare facilities, profoundly affect our ability to deliver healthcare.[3]

We, as healthcare professionals, are trusted by people more than any other profession. We are also more aware of the specific health effects of climate change and pollution, and we are trusted by policymakers. I believe this gives us a special responsibility to inform the public and our leaders.
We are all seeing more air pollution, stronger storms and hotter days. Fortunately, we've also seen that a clean energy future, with cleaner air and water and healthier people, is possible. There is widespread and growing support for this transition, and there are communities around the country doing it. However, like the tobacco industry before it, the fossil fuel industry is undermining progress by deceiving the public about the side effects of its products. We are at a point where the negative impacts of burning more fossil fuels far outweigh the benefits.

This is not a fringe movement. Two-hundred health journals, including the *New England Journal of Medicine*, recently called on world leaders to take emergency action on climate change.[4,5] Our colleagues at ACEP have pledged to combat climate change through education, research, advocacy for public policy and reducing the carbon footprint of their own facilities.[6] The American Board of Pediatrics has a Maintenance of Certification module on climate, health and equity and is the first Board to offer such content.[7]

The solutions are not only environmental policies, but they are also public health policies. Government interventions that target fossil fuel emissions will not only have health benefits, but they can also save money by reducing health care costs.

It's time for the Urgent Care community to get involved. We can teach ourselves about the health effects of climate change at our conferences, and by educating ourselves, we can inform our patients and decision-makers and build support for climate solutions. We can lead by example, advocating for the decarbonization of our own clinics and healthcare facilities. And finally, as healthcare professionals and as an organization, we can directly lobby our government leaders for stronger healthcare policies.

Urgent Care made a huge impact during the pandemic, stepping up in ways others did not when a crisis was upon us. It's time to do this again in response to the climate crisis. We owe it to our patients. We owe it to ourselves.

References:

1. Perera, F. and Nadeau, K. Climate Change, Fossil-Fuel Pollution, and Children's Health. *N Engl J Med*. 2022; 386:2303-2314
2. Bekkar B, Pacheco S, Basu R. Association of Air Pollution and Heat Exposure With Preterm Birth, Low Birth Weight and Stillbirth in the US. *JAMA Network Open.* 2020;3(6):e208243.
3. Salas, R. The Climate Crisis and Clinical Practice. *N Engl J Med*. 2020; 382:589-591
4. Wise, J. Climate Crisis: Over 200 health journals urge world leaders to tackle "catastrophic harm". *BMJ* 2021; 374:n2177
5. Atwoli L, Baqui A, Benfield T, Bosurgi R, Godlee F, Hancocks S, et al. Call For Emergency Action to Limit Global Temperature Increase, Restore Biodiversity, and Protect Health. *N Engl J Med.* 2021; 385:1134-1137
6. https://www.acep.org/patient-care/policy-statements/impact-of-climate-change-on-public-health-and-implications-for-emergency-medicine
7. Patel L, Byron L, Maher, K. Integrating climate change education into board certification for pediatricians: A model for other specialties. *Journal of Climate Change and Health.* 2022, Volume 5,100093, ISSN 2667-2782

Case Study #1: Forced Inversion Foot Injury in a Young Adults: Metatarsal Proximal Avulsion Fracture

Cesar Mora Jaramillo, MD FAAFP FCUCM

Inversion foot /ankle injuries are very common chief complaints in Urgent Care**.** Location/type and acuity of fractures will determine management, return to play sports and/or specialist referral. Proximal fifth metatarsal fractures are important to recognize as failure to timely and appropriately manage can result in delayed union and complications.

Introduction

The fifth metatarsal is the most common fracture (68%) of all the metatarsal bones.[1] Avulsion tuberosity fractures can occur with acute inversion injuries when the foot is twisted inward (forefoot supination with plantar flexion), and a part of the bone is pulled off with the peroneus brevis tendon or plantar fascia.[1,2]

The location of the fracture will define the treatment plan and the prognosis. Timely recognition is crucial as a small difference in location or a delay in care can lead to a worse prognosis and sequelae. [3]

Misdiagnosis and delay in management may lead to delayed union, reinjury and chronic disability.[3] Treatment options range from conservative management to surgical intervention.

Case

The patient is a 21-year-old male who presents to Urgent Care with two days of right foot pain (mostly on the lateral area of the foot) after playing basketball. He reports a forced inversion that led to immediate pain and moderate edema. The patient did not continue playing after the injury and reports that bearing weight and any foot movement increases pain limiting his ability to walk. He denies erythema, warmth, foot numbness/weakness or skin color changes. He is not taking any medication for pain. He denies any pertinent past medical history or surgery of the affected foot. The patient denies any history of injury to the same foot.

Physical Exam

On exam the patient is well appearing and in no acute distress. Vital signs are normal. The patient walks without assistance, but severe antalgic gait is observed. Knee exam and lower distal leg exam are normal. The ankle has full range of motion, no edema or erythema. Foot exam showed intact skin

but ecchymosis. The right lateral, mid and forefoot were moderately edematous and tender with palpation with most discomfort over the proximal fifth metatarsal. His dorsal pedal and capillary refill were normal. Strength and sensation were normal. Foot range of motion is limited due to pain, worse with inversion.

Urgent Care Management

The Ottawa foot rule indicated an X-ray was required, with resultant demonstration of an acute fracture of the proximal tuberosity of the fifth metatarsal.

Figure 1. Avulsion Tuberosity Fracture of The Fifth Metatarsal

Figure 2. Avulsion Tuberosity Fracture of The Fifth Metatarsal

The patient was placed in a walking boot and provided crutches for comfort with instructions for early ambulation. Ice and elevation were recommended, and nonsteroidal anti-inflammatory drugs (NSAIDs) were prescribed for pain control. Follow up with PCP within one week was recommended.

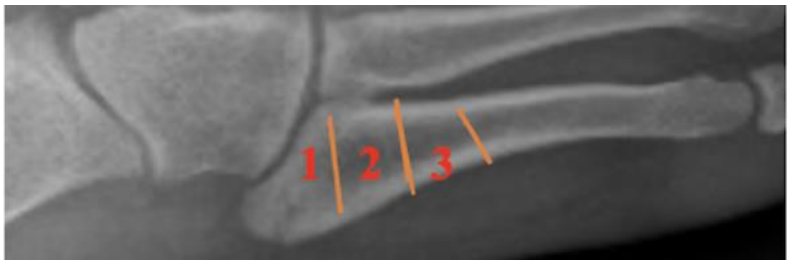
Diagnosis
Fifth metatarsal tuberosity avulsion fracture (Zone 1).

Discussion

The proximal fifth metatarsal consists of tuberosity, metaphysis (neck) and proximal diaphysis.[2] There are two arteries supplying this area: the metaphyseal artery and the nutrient artery. If the blood supply is disrupted, these vessels create a critical "avascular" zone at the metaphyseal-diaphyseal junction, [3,4] resulting in delayed union or nonunion. Failure to timely and adequately treat fractures in this area can increase the risk of undesirable complications and long-term sequelae. [3,5]

Proximal fifth metatarsal fractures can occur in three zones. Zone 1 (Tuberosity fracture), Zone 2 (Metaphysis – Diaphysis junction, known as Jone's fracture) and Zone 3 (Proximal diaphysis, known as Stress fracture). Fractures in Zone 1 represent 93% of the proximal fifth metatarsal fractures. [1,4,16]

Figure 3. Proximal fifth metatarsal fracture by zone



When evaluating musculoskeletal injuries, clinicians must obtain a detailed history which should include onset (acute vs chronic), quality, duration of symptoms, mechanism of injury, previous injury to the area and signs of compartment syndrome including severe/out of proportion pain, paresthesia, pallor, pulselessness and paralysis. [6,7]

Physical examination should include inspection, palpation (specifically any points with maximal tenderness), range of motion and neurovascular evaluation. Edema and ecchymosis might be present at the site of maximal tenderness. Additionally, clinicians must assess the distal fibula and soft tissue structures including ligaments and gait (patients could be able to walk but will complain of pain). [1,6]

The Ottawa foot rule is a tool used to identify injuries that require radiographic imaging.[6,8] Ottawa Ankle/Foot rule can reduce up to 30% of unnecessary radiographs. [8]

A foot X-ray (three views - anteroposterior, lateral and 45-degree oblique) [1,4,9] is required when there is pain in the midfoot zone and one of the following: 1) Bone tenderness at the base of the fifth metatarsal. 2) Bone tenderness at the navicular. 3) Inability to bear weight both immediately after injury and in the ED/UC for 4 steps. [4,9]

Other imaging modalities such as CT and MRI may be considered in specific situations such as delayed healing, nonunion, or when the clinician suspects stress fracture with a normal X-ray.[10]

Differential diagnosis for proximal fifth metatarsal pain

- Jones fracture
- Lisfranc injury
- Fifth metatarsal tuberosity avulsion fracture
- Stress Fracture
- Midfoot sprain

When a proximal fifth metatarsal fracture is difficult to categorize due to injury on borderline locations, clinicians must consider appropriate follow-up and possible reassessment. Fifth

proximal tuberosity fractures *do not* include the articular area between the fourth and fifth metatarsal. Clinical and radiographic evidence of Lisfranc injury requires timely, appropriate management as delay in treatment increases the risk of poor outcomes including post-traumatic arthritis. [5]

Treatment

Most Zone 1 injuries can be treated conservatively with rest, ice, elevation and/or soft compression bandage and pain control. Nondisplaced fractures can be managed with hard-soled shoe, walking boot or walking cast for comfort and discontinued when pain has resolved.[11,16] Early unrestricted weight bearing improves outcomes and early return to work.[16] Follow-up with PCP within one or two weeks is recommended, and patients should resume their usual daily activities as tolerated but should stop if/when pain returns.[16]

Surgical management is rarely indicated. Clinicians should refer patients to a specialist when displacement >3mm is present, and a referral should be considered for fractures with more than 1 or 2 mm of articular displacement (as the risk of secondary displacement can be as high as 45% and there is some concern for posttraumatic arthritis) when symptomatic nonunion or other associated fractures are present. [16]

Zone 2 fractures (Jones fracture) are managed with immobilization (posterior splint or walking boot) and non-weight bearing for 6-8 weeks.[11,12,16] Close follow-up with a specialist is recommended. Surgical intervention should be considered for high-performance athletes, displaced fractures or non-union. The risk of non-union should be discussed with patients as some might opt for surgical intervention (especially high-performance athletes or highly active patients).[1,10,16] Operative management can potentially minimize the risk of nonunion, allow earlier weight bearing and earlier return to sport. [10,16]

Zone 3 fractures (stress fractures) can be more complicated to manage. Initial therapy with conservative management consists of non-weight bearing and immobilization, but patients must be made aware of the risk of non-union. Immobilization might be prolonged and surgical intervention might minimize risk of delayed union or non-union.[1,11,12]

Emergent referrals should be placed for all open fractures and/or associated neurovascular deficit.

Table 1. Classification of Proximal Fifth Metatarsal Fractures

PROXIMAL FIFTH METATARSAL FRACTURES [1,4,5,6,9,10,13,16]					
ZONES	TYPE OF FRACTURE	KNOWN AS	MECHANISM OF INJURY	FACTS	TREATMENT
ZONE 1	Tuberosity avulsion	Pseudo-Jones fractures	Hindfoot gets forced into inversion during plantarflexion	If not signigically displaced or comminuted, these fractures uniformly heal well with a very low non union rate.	Symptomatic care in a hard-soled shoe, orthopedic shoe, walking boot/cast or bandage dressing. Early weigthbearing and return to work /sports as tolerated.
ZONE 2	Metaphysis – Diaphysis junction	Jone's Fracture	Adduction force to the foot with a lifted heel (ankle plantar flexed)	Involves the fourth and/or fifth metatarsal joints and have nonunion rates of 15 to 30%.	Referral to orthopedics. Non-weight-bearing cast immobilization or posterior splint for 6 to 8 weeks with a rate of successful union between 72% and 93%. High-performance athlete might need early surgical intervention.
ZONE 3	Proximal diaphysis	Stress Fracture	Repetitive microtrauma - mostly in younger athletes	There is an increased risk of delay or nonunion. Acute stress fractures might not be detected on xray, repeated imaging in 10 to 14 days might be recommended	Referral to orthopedics. Conservative management could be considered, but early surgical intervention might minimize risk delayed union or non-union

Conclusion

Proximal fractures of the fifth metatarsal are prevalent in Urgent Care. The mechanism of injury is mainly forced inversion with the ankle in plantar flexion. Limited blood supply of the meta-diaphyseal region of the fifth metatarsal increases the risk of poor healing and long-term complications if not treated properly. The Ottawa foot rule could serve as a tool to identify injuries that require radiographic imaging. The location of the fracture will determine management and prognosis. Zone 1 uncomplicated proximal fifth metatarsal fractures heal well with conservative management and treatment should continue until symptoms resolve. Zone 2 and 3 fractures require referral to specialist and close follow as these fractures have a higher risk of non-union and surgical management might be warranted. Emergency referrals should be placed for all open fractures and/or associated neurovascular deficit.

Ethics Statement and Patient Perspective

The patient consented to this case being presented for clinician education.

References

1. Bowes J, Buckley R. Fifth metatarsal fractures and current treatment. World J Orthop. 2016 Dec 18;7(12):793-800. doi: 10.5312/wjo.v7.i12.793. PMID: 28032031; PMCID: PMC5155254.
2. Theodorou DJ, Theodorou SJ, Kakitsubata Y, et al. Fractures of proximal portion of fifth metatarsal bone: anatomic and imaging evidence of a pathogenesis of avulsion of the plantar aponeurosis and the short peroneal muscle tendon. Radiology 2003; 226:857.
3. Smith JW, Arnoczky SP, Hersh A. The intraosseous blood supply of the fifth metatarsal: implications for proximal fracture healing. Foot Ankle 1992; 13:143.
4. Dameron TB Jr. Fractures and anatomical variations of the proximal portion of the fifth metatarsal. J Bone Joint Surg Am. 1975 Sep;57(6):788-92. PMID: 1099103.
5. Cheung CN, Lui TH. Proximal Fifth Metatarsal Fractures: Anatomy, Classification, Treatment and Complications. Arch Trauma Res. 2016 Jun 13;5(4):e33298. doi: 10.5812/atr.33298. PMID: 28144601; PMCID: PMC5251206.
6. Strayer SM, Reece SG, Petrizzi MJ. Fractures of the proximal fifth metatarsal. American Family Physician. May 1, 1999. Accessed May 20, 2023. https://www.aafp.org/pubs/afp/issues/1999/0501/p2516.html.
7. Torlincasi AM, Lopez RA, Waseem M. Acute Compartment Syndrome. [Updated 2023 Jan 16]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from:

https://www.ncbi.nlm.nih.gov/books/NBK448124/

8. Stiell IG, McKnight RD, Greenberg GH, McDowell I, Nair RC, Wells GA, et al. Implementation of the Ottawa ankle rules. JAMA 1994;271:827–32
9. Pao DG, Keats TE, Dussault RG. Avulsion fracture of the base of the fifth metatarsal not seen on conventional radiography of the foot: the need for an additional projection. AJR Am J Roentgenol 2000; 175:549.
10. Smidt KP, Massey P. 5th Metatarsal Fracture. [Updated 2022 Dec 13]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK544369/
11. Quill GE Jr. Fractures of the proximal fifth metatarsal. Orthop Clin North Am 1995; 26:353.
12. Nunley JA. Fractures of the base of the fifth metatarsal: the Jones fracture. Orthop Clin North Am 2001; 32:171.
13. Rosenberg GA, Sferra JJ. Treatment strategies for acute fractures and nonunions of the proximal fifth metatarsal. J Am Acad Orthop Surg 2000; 8:332-338.
14. Torlincasi AM, Lopez RA, Waseem M. Acute Compartment Syndrome. [Updated 2023 Jan 16]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK448124/
15. Strayer SM, Reece SG, Petrizzi MJ. Fractures of the proximal fifth metatarsal. American Family Physician. May 1, 1999. Accessed May 20, 2023. https://www.aafp.org/pubs/afp/issues/1999/0501/p2516.html.
16. Sarpong NO, Swindell HW, Trupia EP, Vosseller JT. Republication of "Metatarsal Fractures". Foot Ankle Orthop. 2023 Aug 6;8(3):24730114231193428. doi: 10.1177/24730114231193428. PMID: 37566699; PMCID: PMC10408340.

Case Study #2: A Unique Case of Pediatric Foreign Body Ingestion

Tracey Quail Davidoff, MD, FCUCM

Key Words: foreign body, ingestion, pediatric, gastric outlet obstruction

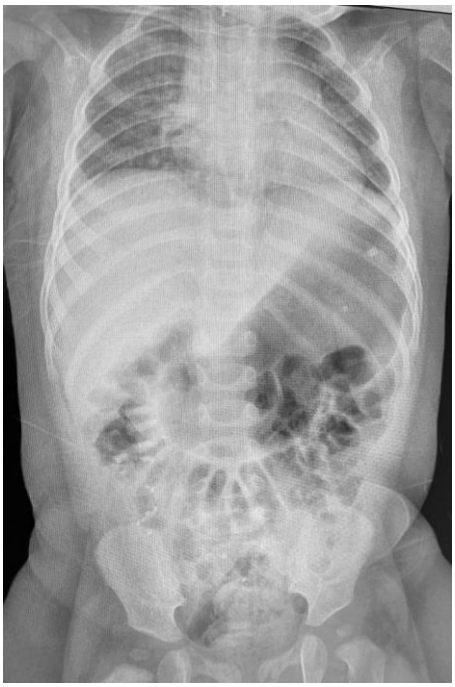
Abstract: A young pediatric patient presented to Urgent Care with her parent with the complaint of eczema, needing a prescription refill for triamcinolone cream. While in the clinic, it was noted by the clinician that the child had abdominal distention. The child subsequently vomited in the clinic with the vomitus containing many beads from a toy necklace. The child was sent to a pediatric emergency department where she ultimately was admitted and found to have a gastric outlet obstruction due to beads in the stomach. After treatment by a gastroenterologist, the child made a full recovery.

Introduction

Patients often present to Urgent Care for seemingly non-urgent and non-acute complaints such as medication refills. The clinician needs to be astute to other findings that may be present to recognize other conditions that may exist. Foreign body ingestions, especially parts of toys and coins, are commonly seen in the toddler population. Although most are benign and require only observation, further evaluation and treatment is occasionally required.

History

A 2.5-year-old female patient with no significant PMH presented to the Urgent Care center with Mom and an older brother for a medication refill for eczema. The mother points out a rash on the face and arms and states the child has been treated with triamcinolone cream in the past but has run out. Mom is requesting a refill. During the evaluation, the clinician notes that the child's abdomen appears distended, and the child subsequently vomits a combination of food, mucous, liquid and about 10 plastic beads that appear to be from a toy necklace. Upon questioning, the mother has no idea about the beads, but the older brother states that earlier in the day he was playing with them when the string broke and the beads spilled on the floor. The brother admits that the patient ate quite a few of them before losing interest.



Clinical findings

The child is awake and alert in no apparent distress. The vital signs are normal. The mucous membranes are moist. The airway is widely patented. The lungs are clear. The abdomen is mildly distended with normal bowel sounds. It is soft and non-tender. A mass cannot be felt. The child is active, engaged and does not appear ill in any way.

Assessment

An X-ray was done indicating multiple bead-like foreign bodies throughout the small intestine and a large amount in the stomach with dilation of the stomach noted. This was suspicious for a gastric outlet obstruction. As a simple flat plate was done and not an upright or lateral decubitus X-ray it could not be determined if an intestinal obstruction was present.

Therapeutic intervention

The child was made NPO. The pediatric hospital was contacted for recommendations and to accept the patient as a transfer. After discussion with a pediatric GI specialist, the patient was taken by ambulance to the pediatric hospital. No medications or treatment was recommended prior to transfer.

Follow-up

The patient was admitted to the pediatric hospital with a diagnosis of foreign body ingestion. A CT scan was performed showing no evidence of obstruction in the intestine, but a large collection of

beads wedged in the gastric outlet. The patient underwent endoscopy to remove the beads, and after an uneventful recovery, was discharged the following day. The beads in the intestine were allowed to pass spontaneously in the stool. The patient was subsequently lost to follow-up.

Discussion

Foreign body ingestions in children are fairly common. Children 6 months to 3 years are at highest risk. The most ingested objects include coins, button batteries, toy parts, magnets, safety pins, screws, marbles, bones and food boluses. Fortunately, most will pass spontaneously; <10% require endoscopic removal, and <1% require surgical intervention.

Batteries, sharp objects and magnets are at the highest risk for complications. Button batteries are especially dangerous due to corrosive chemicals that discharge from the battery in digestive juices. This may cause mucosal burns and subsequent perforation. This is a medical emergency, and the battery(s) should be removed as soon as possible. Smooth objects, such as beads, as in this case, small toys, coins and food items generally do not cause problems and pass spontaneously through the rectum in several days.

The first narrow areas in the alimentary tract the object must pass are the aortic knob and the lower esophageal sphincter (LES). Sharp and pointy and larger objects such as quarters or larger coins may have trouble passing here. Objects that reach the stomach are generally asymptomatic unless they are large enough, or in this case a large enough quantity, to cause gastric outlet obstruction. This generally presents with vomiting which may be marked and is non-bilious. Abdominal distention may also occur. Patients with significant symptoms require endoscopy for removal.

Most objects that reach the intestines will pass spontaneously. Rarely items that have passed through the pylorus into the intestines may cause perforation or obstruction. Multiple magnets may cause obstruction and necrosis by attracting forces causing adhesion of the magnets in two separate parts of the bowel. Surgery may be required.

Plain X-rays should be performed on most patients to ascertain what the object is, if unknown, as well as where it is located. Advanced imaging such as ultrasound, CT scan and MRI are generally not required unless there is concern for perforation or obstruction.

Radiologic surveillance to note progression of the foreign body and inspection of stool to ensure passage is recommended in most cases. Objects that fail to progress or pass in 3-5 consecutive days should be referred to pediatric gastroenterology or surgery to monitor for potential surgical removal. If symptoms of pain, vomiting, constipation, fever or hematochezia occur, the patient should be urgently evaluated. Laxatives are not recommended.

Informed consent

Consent for publication of this case was not obtained as the patient was unable to be reached. The demographics and patient information were de-identified to ensure privacy.

References

1. Uyemura MC. Foreign body ingestion in children. Am Fam Physician. 2005 Jul 15;72(2):287-91. Erratum in: Am Fam Physician. 2006 Apr 15;73(8):1332. PMID: 16050452.
2. Yalçin S, Karnak I, Ciftci AO, Senocak ME, Tanyel FC, Büyükpamukçu N. Foreign body ingestion in children: an analysis of pediatric surgical practice. Pediatr Surg Int. 2007 Aug;23(8):755-61. doi: 10.1007/s00383-007-1958-y. Epub 2007 Jun 14. PMID: 17569061.
3. Lee JH, Lee JS, Kim MJ, Choe YH. Initial location determines spontaneous passage of foreign bodies from the gastrointestinal tract in children. Pediatr Emerg Care. 2011 Apr;27(4):284-9. doi: 10.1097/PEC.0b013e318213131a. PMID: 21490542.
4. Kramer RE, Lerner DG, Lin T, Manfredi M, Shah M, Stephen TC, Gibbons TE, Pall H, Sahn B, McOmber M, Zacur G, Friedlander J, Quiros AJ, Fishman DS, Mamula P; North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition Endoscopy Committee. Management of ingested foreign bodies in children: a clinical report of the NASPGHAN Endoscopy Committee. J Pediatr
5. Gastroenterol Nutr. 2015 Apr;60(4):562-74. doi: 10.1097/MPG.0000000000000729. PMID: 25611037.

URGENT CARING CME ELIGIBLE 2024

Tricks of the Trade

Did you know?.....

You can use Dermabond or any tissue adhesive glues as an alternative to sutures to repair nailbed injuries and to secure the nail in place. Studies have shown similar follow-up cosmetic and functional outcomes when using Dermabond.

1. Langlois J, Thevenin-Lemoine C, Rogier A, Elkaim M, Abelin-Genevois K, Vialle R. The use of 2-octylcyanoacrylate (Dermabond(®)) for the treatment of nail bed injuries in children: results of a prospective series of 30 patients. J Child Orthop. 2010 Feb;4(1):61-5. doi: 10.1007/s11832-009-0218-1. Epub 2009 Nov 13. PMID: 19911217;

CME ELIGIBLE

Part 2 of a Series - Vital Signs Are Vital: Heart Rate

Lindsey E. Fish MD

Introduction:

The heart rate vital sign is medical training 101, whether in medical school, allopathic or osteopathic, nurse practitioner school or physician assistant school, we all learn to find a pulse early in training. Normal adult heart rate is 60-100 beats per minute and in children we need to adjust for age, especially in infants and very young children. Heart rate is usually measured using the pulse oximeter or blood pressure cuff in an automated fashion. In recent history (and occasionally still today), the heart rate is calculated manually by finding a patient's pulse, palpating and counting, then multiplying if we didn't count for a minute (which we didn't). So, if we counted for 15 seconds, we multiplied the count by 4; if we counted for 20 seconds, we multiplied the count by 3; if we counted for 30 seconds, we multiplied the count by 2. It is straightforward, isn't it?

Despite knowing what a normal heart rate is, don't we all get complacent about the abnormal ones? For example, in adults, we quickly tell ourselves things such as "the heart rate of 105 is because the patient just rushed into clinic" or "the heart rate of 115 if from the fever of 102.0°F" or "the heart rate of 50 is because the patient is an athlete and exercises a lot." Sometimes in Urgent Care, the abnormal heart rate IS abnormal even if we "know" or assume an explanation. And we need to stop our mind from making rapid explanations and excuses without stopping and evaluating that a heart rate outside of normal is abnormal, especially when we don't have previous information on the patient! Premature closure by "explaining away" an abnormal heart rate could cause potential harm by missing an underlying medical problem or condition.

Case Report:

A 66-year-old man with a past medical history of diabetes mellitus and hypertension presents to Urgent Care complaining of bilateral ear pain. He reports that he has had two weeks of the pain and that he additionally is experiencing a buzzing sound in the right ear. The pain and buzzing have been constant without anything improving or worsening the symptoms. He does report some hearing loss in the right ear. No fever or chills, rhinorrhea, congestion, sore throat, chest pain, shortness of breath or cough. On the exam, vital signs are as follows: temperature 96.2°F, pulse 48, blood pressure

153/101, respiratory rate 16 and oxygen saturation 97%. Patient is well appearing and in no distress. Bilateral ear exams are normal with no sinus tenderness, clear oropharynx and no cervical lymphadenopathy.

This patient had a minimal concerning history, and his physical examination was completely normal except for one thing: his heart rate.

Heart rate can be slower than normal as was the case in this patient and bradycardia may result from many things. The differential of bradycardia is long and includes autonomic dysfunction, cardiomyopathy, infection, ischemia, medications and metabolic abnormalities.[1] The history provided by this patient did not point toward any of these etiologies for his bradycardia. As such, further evaluation was warranted, and an electrocardiogram was performed.

The EKG demonstrated normal sinus rhythm at 65 with anterolateral ST depressions and occasional premature ventricular contractions. Due to the concern for new ischemia, the patient was transferred to the emergency department where his high sensitivity troponin was 1,442. He was admitted to the hospital for non-ST elevation myocardial infarction. Cardiac catheterization demonstrated severe three vessel disease, and the patient ultimately underwent successful coronary artery bypass grafting.

Discussion:

While the case above demonstrates the significance of a low heart rate, a high heart rate is important as well. Patients get a "point" in many risk stratification score calculations for a high heart rate including Systemic Inflammatory Response Syndrome (SIRS) score, sepsis criteria, Pneumonia Severity Index (PSI) score and Pulmonary Embolism Rule-Out Criteria (PERC) score[2-4]. The differential diagnosis for tachycardia is extremely broad and includes things such as arrhythmias, myocarditis, acute coronary syndrome (ACS), pulmonary emboli, hypoxemia, hypoglycemia, dehydration/hypovolemia, sepsis, anemia, medication and stimulant use, alcohol and drug withdrawal, anxiety, pain and fever[5].

The Emergency Department literature has demonstrated that patients discharged from the ED with tachycardia have increased morbidity and mortality including death within seven days following discharge.[6] Published in the June issue of the *Journal of Urgent Care Medicine* is the first study examining tachycardia at discharge in the Urgent Care setting.[7] In this study, the authors examined a population of adult patients discharged from a single Urgent Care setting, which included over 100,000 visits with patients divided into a tachycardic and non-tachycardic group and examined the rate of return visits to an Urgent Care or emergency department and hospital admission within seven days following the Urgent Care visit.

Statistically significant differences were noted between the tachycardic and non-tachycardic groups for return visit to UC or ED (11.67% vs 8.5%, $p<0.0001$) and hospital admission rates (0.91% vs 0.38%, $p<0.0001$). This corresponded to 1.46 greater odds that tachycardic patients would have a return visit to the UC or ED within seven days of UC discharge compared to non-tachycardic patients. This corresponded to 2.86 greater odds that tachycardic patients would have a hospital admission within seven days of UC discharge compared to non-tachycardic patients.[7]

This finding is surprising as patients are sent home from Urgent Care with tachycardia frequently. There is usually an explanation of a cause such as fever, viral illness, influenza, COVID-19, strep throat, etc. even if not explicitly documented. But what if there is something more that is missed, something that may lead to a return visit or hospitalization within the next week?

Take Home Points:

Heart rate is a critical vital sign. Both bradycardia and tachycardia can indicate badness in a patient. Don't let yourself get complacent and miss this key indicator to a patient's status. Abnormal heart rates are usually flagged in the electronic health record, so stop when you see that cue and pause.

Heart rate can change throughout the course of a patient's visit and repeating it is always reasonable and takes very minimal time. Maybe the heart rate was high at initial presentation but has now improved thanks to administration of pain medication. Maybe the heart rate was normal at the initial presentation but has now increased as the patient's pain has increased. Maybe something else is going on entirely.

Make a differential for the abnormal heart rate. Make yourself stop and think it through. Don't prematurely close on a "diagnosis", and even if you have a reasonable explanation, take extra pause to make sure there isn't anything else you are missing. You could save a life.

References:

1. Sidhu, Sunjeet, and Joseph E. Marine. "Evaluating and managing bradycardia." *Trends in cardiovascular medicine* 30.5 (2020): 265-272.
2. Levy MM, Fink MP, Marshall JC, Abraham E, Angus D, Cook D, Cohen J, Opal SM, Vincent JL, Ramsay G; SCCM/ESICM/ACCP/ATS/SIS. 2001 SCCM/ESICM/ACCP/ATS/SIS International Sepsis Definitions Conference. Crit Care Med. 2003 Apr;31(4):1250-6. doi: 10.1097/01.CCM.0000050454.01978.3B. PMID: 12682500.
3. Anurag A, Preetam M. Validation of PSI/PORT, CURB-65 and SCAP scoring system in COVID-19 pneumonia for prediction of disease severity and 14-day mortality. Clin Respir J. 2021 May;15(5):467-471. doi: 10.1111/crj.13326. Epub 2021 Jan 23. PMID: 33417280.
4. Kline JA, Courtney DM, Kabrhel C, Moore CL, Smithline HA, Plewa MC, Richman PB, O'Neil BJ, Nordenholz K. Prospective multicenter evaluation of the pulmonary embolism rule-out criteria. J Thromb Haemost. 2008 May;6(5):772-80. doi: 10.1111/j.1538-7836.2008.02944.x. Epub 2008 Mar 3. PMID: 18318689.
5. Mayuga KA, Fedorowski A, Ricci F, et.al. Sinus Tachycardia: a Multidisciplinary Expert Focused Review. Circ Arrhythm Electrophysiol. 2022 Sep;15(9):e007960. doi: 10.1161/CIRCEP.121.007960. Epub 2022 Sep 8. PMID: 36074973; PMCID: PMC9523592.
6. Sklar, David P., et al. "Unanticipated death after discharge home from the emergency department." *Annals of emergency medicine* 49.6 (2007): 735-745.
7. Maia VRN, Loh R, Weinstock M, Fish LE. Return Visits and Hospitalization Rates of Adult Patients Discharged with Tachycardia After an Urgent Care Visit: A Retrospective Cohort Study. *J Urgent Care Med*. 2024; 18 (9):37-41.

Cervical Collars: Should They Be Used in Urgent Care Medicine?

Chris Chao, MD

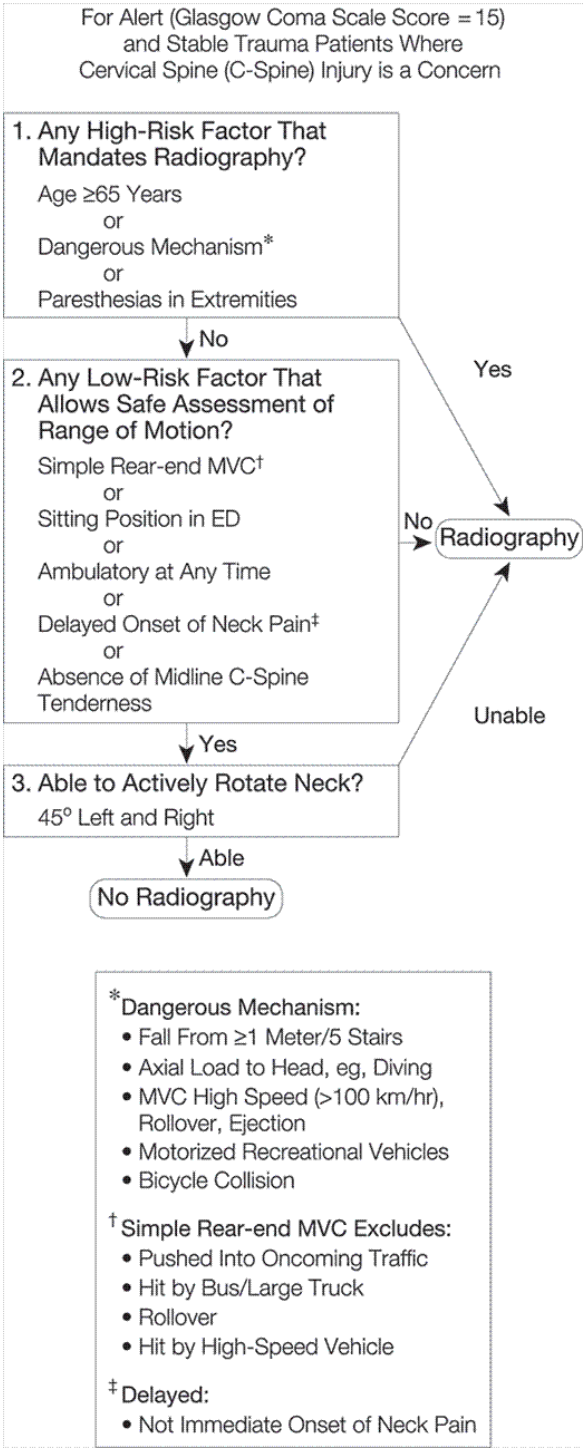
Patients present to Urgent Care following minor (or sometimes major) injuries including motor vehicle accidents or falls where they may have sustained a cervical spine injury (CSI). Although most of these are minor muscle strains or whiplash injuries, some patients may have signs and symptoms of a more serious injury that may require immobilization and evaluation with a CT scan in the emergency department. This article will review the proper evaluation of CSIs and potential pitfalls of cervical immobilization in the Urgent Care center.

When a patient presents with neck pain following an injury, it should be determined if imaging is required. Not all patients will require imaging. There are two well studied, evidence-based and commonly used methods to assess the patient with neck injury. Patients who do not meet criteria for imaging may be considered "clinically cleared" with no further diagnostic evaluation required. These include the NEXUS Cervical Spine Rule and the Canadian C-spine Rule (CCR). CCR may have better performance in the ED setting (Baratloo), which can be translated for UC purposes. Neither rule is appropriate for elderly, infants or patients with altered mental status, such as intoxication as the results are not reliable. See Figure 1 and 2.

Figure 1. NEXUS Cervical Spine Rule

- Radiography is not necessary if the patient satisfies ALL of the following low risk criteria:
- No midline cervical tenderness
- No focal neurologic deficits
- Normal alertness
- No intoxication
- No painful, distracting injuries
- Patients should be considered for imaging unless they meet ALL the above criteria. Sensitivity, 99.6%, Specificity, 13-46% (Hoffman)

Figure 2. Canadian C-spine Rule



Sensitivity: 99.4%, Specificity: 45.1%

From the original article: Stiell IG, Wells GA, Vandemheen KL, et al. The Canadian C-Spine Rule for Radiography in Alert and Stable Trauma Patients. *JAMA*. 2001;286(15):1841–1848.

If the patient cannot be clinically cleared by one of these methods, then imaging is indicated. Plain X-rays, standard 5-view cervical spine series, the traditional method of imaging, may miss up to 40-60% of fractures, especially non-displaced or minimally displaced fractures. A meta-analysis done by Holmes indicates that the sensitivity for plain radiographs is only 52%, whereas CT scan is 98%. (Holmes) For this reason, CT scan, despite the higher effective radiation dose, is now the imaging modality of choice for evaluation of the cervical spine in the trauma patient. (Parizel)

So, if the Urgent Care clinician evaluates a patient who fails the NEXUS or CCR and it is determined a CT scan is indicated, what is the safest, most comfortable way to get them the imaging they need? These patients should all be seen in an emergency department. They should be immobilized in some way that they cannot be further injured en route. Traditional methods would suggest immobilization in a rigid collar and board and transported by EMS to the emergency department.

A rigid cervical collar is designed to place the spine in anatomical alignment with the appropriate cervical lordosis. It should stop flexion, extension and rotation with the goal of preventing further movement, minimizing any further injury. The backboard provides stabilization of the thoracolumbar spine. Securing the patient with head blocks and straps, completes the package for transport. This has been standard protocol since the 1960s and supported by the American College of Surgeons Committee on Trauma since its inception in the 1970s, despite little evidence for its benefit or necessity.

There are numerous contradicting studies both supporting and refuting the various methods of immobilizing the cervical spine in the literature. (Sundstrom) Some authors believe, based on non-injured volunteers and cadaver studies, that rigid cervical collars do not in fact prevent motion of the cervical spine. (Hauswald, Braude) Unfortunately, there are no studies, nor are there likely to be studies done on patients with true cervical spine injuries for obvious reasons.

Spinal injuries that are not catastrophic at onset tend to be mechanically stable. (Hauswald 2012) Most patients with CSI's who are awake, and alert will maintain a stable neck position with muscle contractions that will self-protect their spinal cord. (Hauswald, Ong)

Improperly placed rigid cervical collars carry risk of injury, not just to the cervical spine but to other structures. Injury has been reported due to hyperflexion, hyperextension, compression of the airway, as well as the great vessels. Patients with ankylosing spondylitis and juvenile rheumatoid arthritis are also at risk for injury. Increased intracranial pressure may occur due to venous compression, which could be detrimental in patients with concomitant head injury. (Sundstrom)

Infrequent use in the ambulatory care environment, such as Urgent Care, significantly increases the risk of incorrect sizing and application of a rigid cervical collar, thereby increasing risk of injury. In addition, because of infrequent use, centers are unlikely to stock a full variety of sizes, making it

possible that the appropriate size will not be available when needed. Incorrect placement puts the patient at risk and may create a medicolegal issue for clinicians and staff. Also note that soft cervical collars do not provide any immobilization of the cervical spine and should not be used in any patient with a suspected CSI.

So, it is this author's opinion that if a patient is identified in the Urgent Care setting as having a potential CSI that needs further evaluation, it is prudent to have the patient remain in a position of comfort, or if appropriate, have in-line stabilization assisted and maintained by a staff member while awaiting EMS. As they are the experts in applying collars and immobilizing patients, it is best to allow them to do what they do best. Patients who refuse EMS should be adequately counseled of the dangers of their decision, including permanent paralysis and death and should sign out against medical advice.

Take home points:

- PLAIN X-RAYS DO NOT ADEQUATELY RULE OUT FRACTURES OF THE CERVICAL SPINE IN TRAUMA PATIENTS. CT scan is necessary if there is a high index of suspicion.
- Any patient with a suspected cervical spine fracture in Urgent Care should forgo plain X-rays and be sent to the emergency department by EMS for further evaluation and likely CT scan.
- It is difficult to correctly apply a hard collar in the Urgent Care setting due to infrequent use and likely inadequate supplies. For this reason, immobilization should be done manually, and collar application should be left to EMS.
- Patients who refuse EMS should be warned of the dangers and should sign out AMA.
- Soft collars do not provide adequate stabilization of the cervical spine and should not be used for acute injury.

REFERENCES

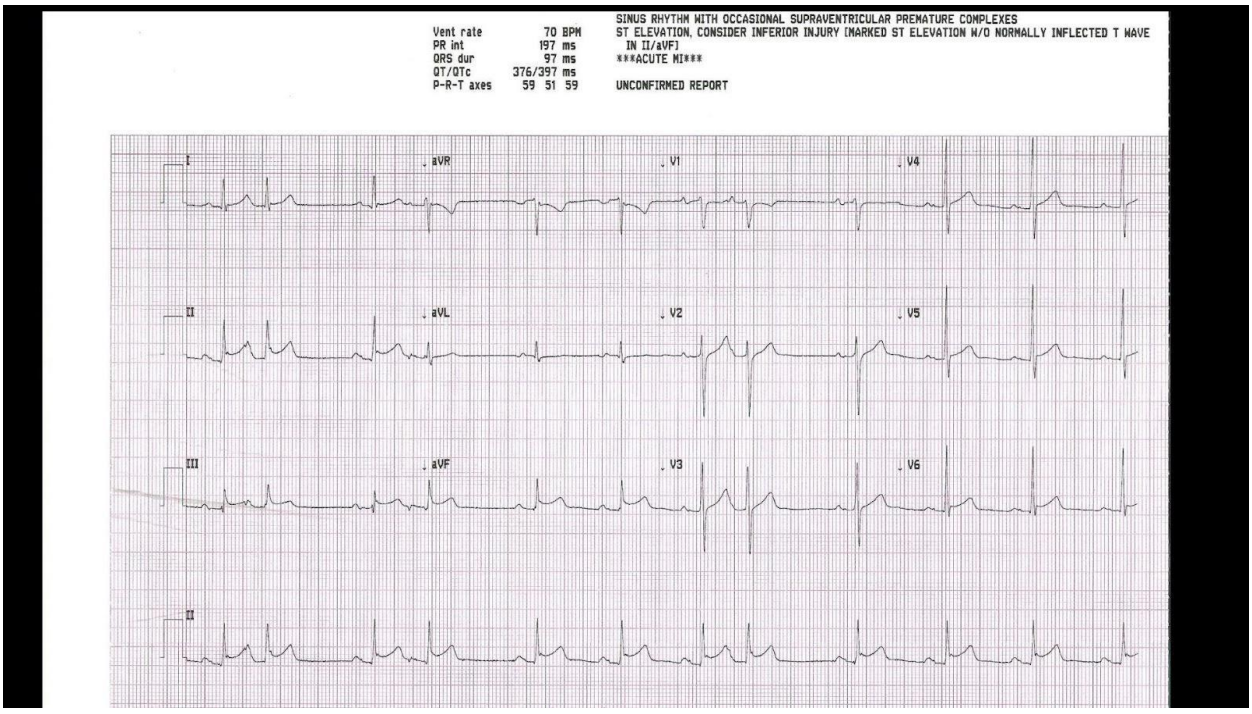
1. Baratloo A, Ahadzadeh K, et. al. NEXUS vs. Canadian C-Spine Rule (CCR) in Predicting Cervical Spine Injuries; a Systematic Review and Meta-analysis. Arch Acad Emerg Med. 2023 Sep 29;22(1):e66.
2. Hoffman JR, Wolfson AB, et. al. Selective cervical spine radiography in blunt trauma: methodology of the National Emergency X-Radiography Utilization Study (NEXUS). Ann Emerg Med. 1998 Oct;32(4):461-9.
3. Stiell IG, Wells GA, Vandemheen KL, et al. The Canadian C-Spine Rule for Radiography in Alert and Stable Trauma Patients. *JAMA.* 2001;286(15):1841–1848.
4. Holmes JF, Akkinepalli R, Computed Tomography Versus Plain Radiography to Screen for Cervical Spine Injury: A Meta-Analysis. J Trauma. 2005;58:902-905
5. Parizel PM, van der Zijden T, Gaudino S, Spaepen M, Voormolen MH, Venstermans C, De Belder F, van den Hauwe L, Van Goethem J. Trauma of the spine and spinal cord: imaging strategies. Eur Spine J. 2010 Mar;19 Suppl 1(Suppl 1): S8-17.
6. Sundstrøm T, Asbjørnsen H, Habiba S, Sunde GA, Wester K. Prehospital use of cervical collars in trauma patients: a critical review. J Neurotrauma. 2014 Mar 15;31(6):531-40.
7. Hauswald M, Ong G. et. al. Out of hospital spinal immobilization: its effect on neurologic injury. Acad Emerg Med. 1999, (5), 214-219.
8. Hauswald M. A reconceptualization of acute spinal care. Emerg Med Jour. 2012, (30),720-723.
9. Hauswald M, Braude D, Spinal immobilization in trauma patients is it really necessary? Curr Opin Crit Care, 2002, 8, 566-570.

EKG Challenge: Chest Pain Relieved with Ibuprofen

Jennifer Carlquist, PA-C, ER CAQ
Founder of Cardiology Made Easy
www.conqueringcardiology.com

A 65-year-old male presents to the Urgent Care with back pain that moved to his chest and shoulders. He took ibuprofen and his pain resolved. He denies recent febrile illness, cough or dyspnea. The patient stated he wanted to "get checked out," so he presented to get a "quick" EKG to make sure it was nothing serious. His past medical history is pertinent for atrial fibrillation, hyperlipidemia and hypertension. He has not had a recent stress test.

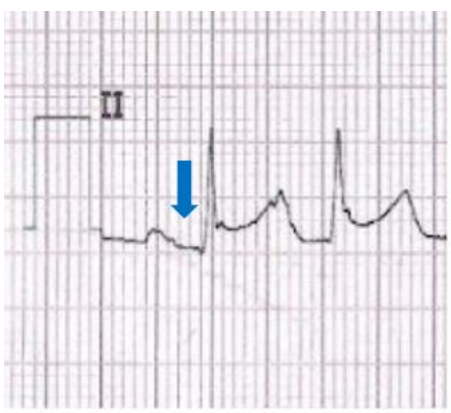
His vital signs were normal, and he was afebrile. His oxygen saturation was normal. His physical exam was unremarkable. His EKG is shown below:

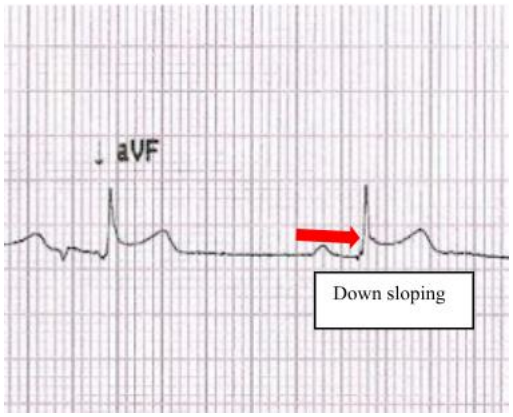


The question is, is this a STEMI?

There is definite ST elevation in two contiguous leads. But to meet STEMI criteria you must also have ST depression in two leads which is not seen here.

He also had PR segment depression in lead II (blue arrow) and "Spodick's sign" which is a down sloping of the TP line which is seen best here in lead II and AVF. (red arrow)





This is consistent with pericarditis which explains why the ibuprofen helped his pain. He did have an angiogram prior to hospital discharge, and it showed no occlusive disease.

Clinical Pearls

- Patients with pericarditis often complain of chest pain described as sharp and may be positional or radiated to the back. The pain may also be pleuritic and worsen with cough or deep breath. It may be relieved by NSAIDs.
- Physical findings of pericarditis may include none, fever, a cardiac rub, made worse by leaning forward, and when severe or complicated, signs of cardiac tamponade including jugular venous distention, pulsus paradoxus and hypotension.

EKG findings of acute pericarditis may include none, sinus tachycardia, global ST segment elevation that is typically concave up and not in a coronary artery distribution pattern, no reciprocal ST depression, ST depression in aortic valve replacement (AVR) and occasionally V1, PR depression and down sloping of the T-P segment known as Spodick's sign.

References:

1. Lazarou, E., Tsioufis, P., Vlachopoulos, C. *et al.* Acute Pericarditis: Update. *Curr Cardiol Rep* **24**, 905–913 (2022).
2. Chiabrando, J, Bonaventura, A, Vecchié, A. et al. Management of Acute and Recurrent Pericarditis: JACC State-of-the-Art Review. J Am Coll Cardiol. 2020 Jan, 75 (1) 76–92. https://doi.org/10.1016/j.jacc.2019.11.021

Best Practice from the College of Urgent Care Medicine:
Esophageal Foreign Body Ingestion

Best Practice Summary of the College of Urgent Care Medicine

Esophageal Foreign Body Ingestion

Date Reviewed	2/1/2024
Subject	Recognizing, Diagnosing and Managing Esophageal Foreign Body Ingestion in an Urgent Care Setting
Patient Population	Pediatric Population up to 21 years old
Rationale	Esophageal foreign body ingestion is commonly seen in Urgent Care centers. The history is not always known due to the patient's age or not witnessing what was actually swallowed. Such a challenge can be minimized with thorough history taking, proper physical examination, adequate utilization of diagnostic measures and a sound disposition plan.
Introduction	On average there are 100,000 foreign body ingestions reported annually in the United States. Up to 50% of children are asymptomatic and 98% of foreign body ingestions were accidental. Coin ingestion accounted for most of the objects ingested (61.7%). One of the main objectives of this discussion is to aid with the immediate and proper recognition of the ingested foreign body, which plays a critical role in the management and outcome of patients.
Evidence-based guideline with strength of evidence	According to the National Capital Poison Center and North American Society for Pediatric Gastroenterology, Hepatology & Nutrition (NASPGHAN) guidelines, obtaining a two-view X-ray in a timely manner has a significant impact on the urgency and treatment plan for ingested foreign bodies. Determining whether the foreign body ingested is a coin, battery, sharp object or magnet in a timely manner can significantly impact the outcome of a patient.

Discussion	**History and Physical Examination:** Foreign body ingestion can have a wide range of symptoms in which some patients can be asymptomatic while others can present with cough, choking, sore throat, drooling, dysphagia, gagging, wheezing, stridor, chest pain, neck swelling, aspiration pneumonia, pneumothorax, crepitus, pneumomediastinum, fever, vomiting, abdominal tenderness or bloody stool. **Will it pass?** Approximately 80%-90% of foreign bodies will pass spontaneously, 10%–20% require endoscopic removal, and 1% require surgical intervention. The most common site of impact is the upper esophageal sphincter. About 33% of the coins in the distal esophagus pass spontaneously into the stomach and most foreign bodies that reach the stomach usually pass spontaneously. **Diagnosis and localization** • A history of ingestion or a choking episode • Examination and imaging of the neck, chest and abdomen **Types of foreign body ingested:** **Button Batteries:** Obtaining a detailed history is key as well as recognizing symptoms and signs that are suggestive of tissue damage. Obtaining an X-ray with two views which would display “halo sign” (double-rim) and “step off” sign which are critical in distinguishing a button battery from a coin. X-ray with two views helps determine the orientation of the negative pole which tends to cause more tissue damage. Types of injuries include tracheoesophageal fistula (48%), esophageal perforation (23%), esophageal strictures (38%), vocal cord paralysis (10%), mediastinitis, pneumothorax and cardiac arrest. Honey administration has been proven to delay tissue damage by coating the battery and preventing the generation of hydroxide radicals. Honey should be given if the patient is 12 months or older, swallowed the battery in the past 12 hours, patient is able to swallow, and honey is available. Give 10 ml of honey by mouth every 10 minutes up to six doses. The administration of honey should not delay an ER transfer and the patient should be kept NPO after administering honey. Once battery is confirmed in the esophagus ensure immediate transfer by ambulance to the ER for emergent endoscopic removal of the battery within two hours to avoid or minimize the caustic injury from the high pH. **Magnets:** As always, adequate history taking is a crucial element in identifying the foreign body ingested and treatment plan. This is another

	scenario where obtaining two X-ray views is warranted as it aids with identifying whether there is a single or multiple magnets ingested. Ingestion of multiple magnets is a medical emergency. Endoscopic removal of magnets should be performed within 12 hours as there is a risk of mural entrapment which can lead to ischemia, necrosis, perforation and fistula. **Pointed Objects (Nails, Pins, Toothpicks):** Symptomatic ingestion can occur if the foreign body is lodged in the upper-mid esophagus. Most common site for intestinal perforation is the ileocecal region. Up to 50% can remain asymptomatic for weeks even in cases of intestinal perforation. Complications include extra-luminal migration, abscess, peritonitis, fistula formation and incarcerated umbilical hernia. The time since ingesting the foreign body, location, and type of foreign body all play a role in the management of such cases. Sharp objects in the esophagus warrant immediate endoscopic removal. **Coins and other blunt objects:** Coins are the most ingested objects among children in the U.S. and are associated with spontaneous clearance in approximately 30% of patients. Factors that affect the possibility of a coin or blunt object being lodged include the patient's age, coin size and location. Coins > 23.5 mm (approximately the size of a quarter) are more likely to become impacted. Obtaining an X-ray with two views (anterior posterior (AP) and lateral) plays a critical role in differentiating between coins and button batteries in which the latter has the classical "double halo" and "step off" signs. Ingested coins can cause esophageal injury or erosion of adjacent structures. Immediate removal of ingested foreign body is warranted in symptomatic patients, otherwise esophageal coins can be removed within 24 hours.
Summary	**Urgent Care Management and take-home points:** ● History…What was ingested? If history is inconclusive and patient is stable always obtain imaging. ● Remember to ask for co-ingestion and consider calling Poison Control. Reassess the patient multiple times and monitor for signs of respiratory distress. ● Always obtain AP and lateral X-ray views to help determine and differentiate which type of foreign body was ingested (battery vs coin). ● Magnets should also be removed immediately due to the risk of multiple magnets that appear as one on X-ray which runs the risk of mural entrapment. ● If a battery can be visualized inside the patient's mouth, attempt to remove it with forceps, suction and skin glue on a cotton swab.

	● Keep the patient NPO and transfer unstable patients immediately by ambulance. For continuity of care, sign out to ER and ensure the hospital has Pediatric GI, ENT or Pulmonology prior to transferring the patient.
References	National Capital Poison Center Button Battery Ingestion Triage and Treatment Guideline, National Capital Poison Center, 2018 Management of Ingested Foreign Bodies in Children: A Clinical Report of the NASPGHAN Endoscopy Committee, Kramer et al., 2015 Spontaneous passage of long, sharp gastrointestinal foreign body in a child Karthikeyan VS, Ansari MG, Suresh R, et al., BMJ Case Reports 2015 Management of ingested foreign bodies in children: a clinical report of the NASPGHAN Endoscopy Committee. Kramer RE, Journal of Pediatric Gastroenterology and Nutrition: April 2015 Ingested and Aspirated Foreign Bodies, S. Sarah Green. Pediatrics in Review, October 2015, Volume 36/Issue 10 Foreign-Body Ingestions of Young Children Treated in US Emergency Departments: 1995–2015; Danielle Orsagh-Yentis, Rebecca J. McAdams, Kristin J. Roberts, Lara B. McKenzie. Pediatrics, May 2019, Volume 143/Issue 5
Reviewers	Ahmed Elbedewy MD, MBA, CPE, DNBPAS, FAAP Medical Director, South Florida Region, TeamHealth

Coding Corner: Laceration Repair Documentation and Coding

Brad Laymon, RPA-C, CPC

The key to successfully coding laceration repairs is a thorough understanding of the criteria needed for documentation, knowing when to use a Modifier 25, and choosing the correct CPT code based on the following three variables:

1. **Repair Complexity**: simple, intermediate, complex.
2. **Wound Location:** Grouped into anatomical region and the complexity of repair (simple, intermediate, and complex).
3. **Wound length:** The final variable in wound documentation. The length(s) of the wound should be documented in centimeters, whether curved, angular, or stellate.

Modifier 25 is used with an E/M visit with a laceration repair procedure. It is defined as, "A significant, separately identifiable evaluation and management (E/M) service by the same physician or other qualified healthcare professional on the same day of the procedure or other service" (AMA CPT 2024). When to use this modifier can be confusing to the seasoned clinician. These following examples should clear the confusion on the proper use of when to use Modifier 25:

- A 63 y/o male new patient is seen for knee pain. The clinician performs an evaluation to include a history and examination. Radiographs of the knee are ordered and viewed by the clinician. The clinician diagnoses the patient with degenerative joint disease. An NSAID and physical therapy are prescribed. The risks/benefits of an injection are presented to the patient, and he gives consent for the procedure. The clinician does the injection at the time of the office visit. Because the E/M work of the office visit is greater than what is included in the procedure, the visit is considered separately reportable, thus an office visit and a procedure code can be coded. A modifier 25 would be attached to the office visit.
- A 22 y/o female presents to the Urgent Care clinic for a finger laceration. The clinician performs an evaluation to include a history and examination. The clinician decides sutures are required for the treatment of the laceration. This is a simple repair. Because the E/M work does not go above and beyond what is included in the procedure, an office visit code should not be coded. No modifier 25 is needed.
- A 57 y/o male new patient is seen for a fall with a scalp laceration. The clinician performs an evaluation to include a history and examination. The clinician performs a thorough examination to include neurological, cardiac and pulmonary systems. The clinician receives consent to repair the 4 cm laceration to the scalp. Because the E/M work of the office visit is greater than what is

included in the procedure, the visit is considered separately reportable, thus an office visit and a procedure code can be coded. A modifier 25 would be attached to the office visit.

Key Points

When multiple wounds are repaired, add together the lengths of those in the same classification and from all anatomic sites that are grouped together into the same code descriptor. Do not add lengths of repairs from different groupings of anatomic sites.

All laceration repair notes should include the repair complexity (simple, intermediate, complex), wound location and wound length. If these are not documented, you will not be able to use a procedure code.

Suture Removal

If you or a clinician in your Urgent Care clinics repaired a laceration with sutures, you can bill an office visit (usually a level two if no complications) to remove the sutures. I know some healthcare systems do not charge an office visit/copay if they put the sutures in, so please check with your coders/administration and follow your policy.

If you are removing sutures on a patient who had the sutures placed external to your healthcare system, you can charge an office visit (usually level two if no complications).

Suture removal could be a level three visit if there are complications. For example, you have a 66-year-old female patient who presents for suture removal, but the patient complains of more pain and redness. If you believe the wound is infected and prescribe an antibiotic, this will elevate the visit to a level three visit.

Do OTC Prescription Strength Medications Count as Prescription Drug Management?

This is a very controversial topic in the coding world. Please, consult with your healthcare systems coding/administration for their guidance on this topic. After reviewing multiple documents, it is my impression prescription strength OTC medications will count as prescription drug management IF you document a risk or benefit to the prescription strength medication. I have included a link to the American College of Emergency Physicians website with their guidelines on this topic. The overwhelming majority of professional coders would NOT count prescription strength OTC medications as prescription drug management, so please talk with your coders.

REFERENCES:

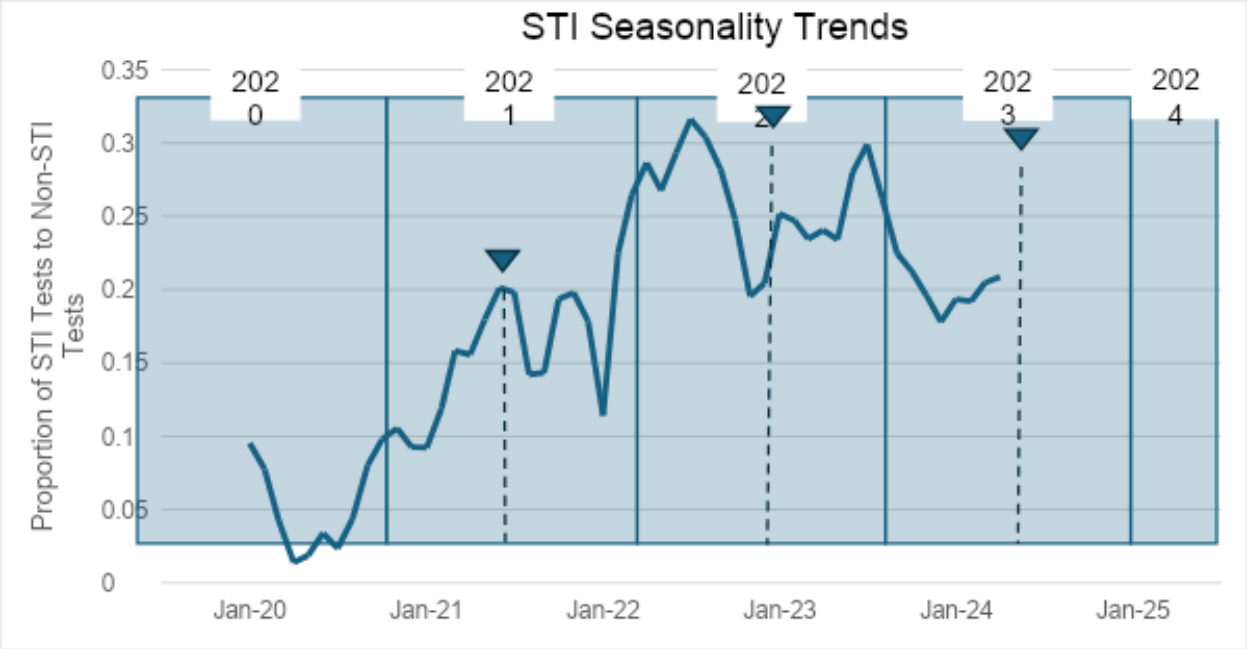
2023 emergency department evaluation and management guidelines. ACEP. Accessed May 18, 2024. https://www.acep.org/administration/reimbursement/reimbursement-faqs/2023-ed-em-guidelines-faqs.

STI Season: Understanding the Spring and Summer Surge in Healthcare Visits

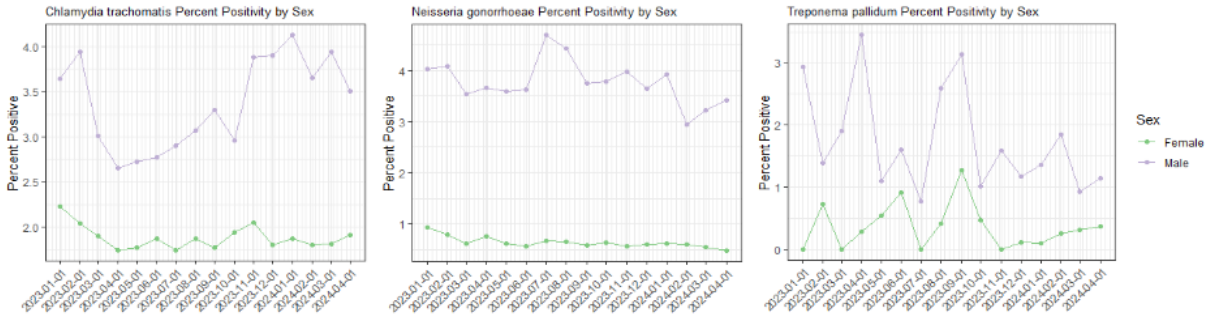
Azia Evans, PhD

When we discuss the seasonality of infections, respiratory infections often come to mind. These infections follow a predictable pattern of surges and low points throughout the year, influenced by seasonal weather patterns and individual behavior changes.[1] However, sexually transmitted infections (STIs), skin and soft tissue infections, and urinary tract infections are not typically associated with seasonal circulation patterns. Despite the absence of the same drivers of seasonal temperature and humidity, healthcare offices, particularly Urgent Care facilities, which are at the forefront of diagnosing and treating most acute outpatient infections, do observe seasonal variations in the number of office visits related to these infections.2

Data from 2017 published in the *Journal of Urgent Care Medicine* indicates that Urgent Care related visits for STIs increase throughout the spring and summer months, peaking in the early fall before dropping substantially as visits shift towards respiratory infections in the winter months. More recent data from HealthTrackRx, which looks at related laboratory tests ordered as a function of season, suggests that the proportion of STI tests compared to other infections begins to increase in the spring months, peaks in July, before decreasing throughout the fall and early winter months. This difference between 2017 and 2020-2023 is likely attributed to the changes in respiratory virus seasonality, as the last two years have shown late summer/early fall increases in both rhinovirus and COVID-19 rates. Shifting the balance of STI-related visits to respiratory visits earlier in the fall than what was seen pre-pandemic.



Drivers of STI seasonality are largely attributed to changes in human behavior and an increase in transmission contact rates that tend to peak in the warmer months. Five-year trend data from the CDC shows that between 2018 and 2022, chlamydia cases have declined, while gonorrhea and syphilis cases have been consistently on the rise.3 However, when we look at one-year trend data, from 2021 to 2022, the directionality of the trends has started to flip, showing an increase in chlamydia cases, while gonorrhea cases have been on the decline.



Looking more recently at 2023-2024 (YTD) positivity trend data from HealthTrackRx, chlamydia and gonorrhea cases are both substantially higher than syphilis. Although chlamydia cases are showing some fluctuation and upward trend movement, gonorrhea cases have been on a gradual decline over the past year. Notably, for all three STIs, the incidence rate in males is substantially higher than in females.

While the incidence rate and the number of healthcare-related visits for STIs continue to rise overall, the importance of rapid diagnostics for identifying these infections is critical for effective pathogen-directed treatment and patient health. If left untreated, the complications associated with undiagnosed STIs are immense, including pelvic inflammatory disease in women, increased risk of HIV, and, in certain cases, cancer or infertility. In addition, the risk of congenital infections also highlights the need for rapid and effective diagnostics. Most recently, the CDC has noted that the number of congenital syphilis cases has been steadily on the rise over the last several years.4

Current guidance advises screening of chlamydia and gonorrhea in asymptomatic sexually active female patients under the age of 25 and men who fall under the category of high-risk sexual behavior.5 Screening for syphilis is only recommended in women and men who fall into the increased risk category. This is largely due to the low rates of syphilis seen over the past several decades. However, as syphilis cases continue to increase, this may also indicate a need for increased consideration of testing in patients who both present with symptoms and concerns of STI exposure.

Current STI diagnostics predominantly rely on some form of nucleic acid amplification testing (NAAT), such as a polymerase chain reaction (PCR). This is largely due to the increased sensitivity of these tests compared to culture and the challenges culturing both Chlamydia trachomatis and Neisseria gonorrhoeae present. In addition to improved accuracy of detection, these tests also often provide a faster time to result, leading to more effective treatment and reduced risk of spread.

STIs continue to rise, and as we head into the summer months, healthcare clinicians can expect to see an increase in office visits related to STI exposure. Due to the increased long-term risk to patients when STIs go undiagnosed, rapid diagnostic testing like PCR can help improve care by getting the patient treated with the correct therapy faster and reducing the risk of missed infections due to poor diagnostic performance or low sensitivity of non-molecular-based tests.

REFERENCES:

1. Moriyama, M., Hugentobler, W. J., & Iwasaki, A. (2020). *Annual Review of Virology Seasonality of Respiratory Viral Infections*. https://doi.org/10.1146/annurev-virology-012420
2. Seasonality of Sexually Transmitted Infections vs Normal Urgent Care Seasonality. January 31, 2017. Journal of Urgent Care Medicine. https://www.jucm.com/seasonality-sexually-transmitted-infections-vs-normal-urgent-care-seasonality/#:~:text=With%20urgent%20care's%20typical%20seasonality,%E2%80%9Ctypical%E2%80%9D%20urgent%20care%20volume.
3. Sexually Transmitted Infections Surveillance, 2022. Centers for Disease Control and Prevention. https://www.cdc.gov/std/statistics/2022/default.htm#:~:text=Overall%2C%20in%202022%2C%20more%20than,in%20the%20past%20five%20years.
4. Congenital Syphilis – CDC Fact Sheet. Centers for Disease Control and Prevention. https://www.cdc.gov/std/syphilis/stdfact-congenital-syphilis.htm
5. Sexually Transmitted Infections Treatment Guidelines, 2021: Screening Recommendations and Considerations Referenced in Treatment Guidelines and Original Sources. Centers for Disease Control and Prevention. https://www.cdc.gov/std/treatment-guidelines/screening-recommendations.htm

Insights: Organizations Driving Innovation in Urgent Care Education

Twenty Questions (and Answers) About Tuberculosis

Lindsey Fish, MD and Michael Weinstock, MD
UC MAX

1. What is the organism that causes TB?
- Caused by infection with *Mycobacterium Tuberculosis*

2. What is the difference between symptomatic and asymptomatic TB?
- If symptomatic, have active Tuberculosis Disease
- If asymptomatic, have Latent Tuberculosis Infection (LTBI)

3. We know this is a big killer worldwide, but how many cases occur in the U.S. per year?
- Is a leading cause of morbidity and mortality worldwide
- 8,331 cases in the U.S. in 2022Estimated 13 million cases of LTBI

4. Is TB in the US increasing or decreasing?
- Almost 27,000 cases in 1992 – it is decreasing overall
- But recently has been increasing in the U.S. over last few years since COVID-19

5. How does TB in the U.S. affect patients based on race/ethnicity?
- Asian = 36%
- Hispanic/Latino = 30%
- Black/African American = 20%
- White = 11%

6. Where can TB be present?
- Pulmonary TB
- Extrapulmonary TB (miliary, abdominal, meningeal, bony)

7. What symptoms may be present with *pulmonary TB*?
- Cough for three weeks or longer
- Chest pain
- Hemoptysis
- Weakness
- Fatigue
- Weight loss

- Decreased appetite
- Fever and/or chills
- Night sweats

8. What symptoms may be present with *extra-pulmonary TB*?

- Based on location

9. Which locations should be considered?

- Pleura
- Lymph nodes
- Meningeal
- Central Nervous System
- Pericardial
- Bone

10. What symptoms may be present with *latent TB*?

- Latent TB Infection
- Do not feel sick
- Do not have any symptoms
- Cannot spread TB to others

11. What are important infection measures to take in the UC?

- Prompt Detection of Infectious TB Patients
- Airborne Precautions
- Treatment of Patients with Suspected/Confirmed TB

12. What are airborne precautions specifically?

- Source Control – Put a Mask on the Patient
- Airborne Infection Isolation Room (Negative Airflow) – Private Room, Keep Door Closed
- Limit Healthcare Personnel Interaction
- Use Personal Protective Equipment (PPE) – Fit-testing NIOSH-approved N95 Mask
- Limit Transport and Movement of Patient
- Keep Room Closed (2 hours) if not negative airflow

13. Should all patients with suspected TB go to the ED?

- No
- If sick, they should go
- If not sick, should be isolated at home, diagnosis confirmed, and follow up on testing and contact public health

14. What is the TB skin test and how is it done?

- Injection of Tuberculin into the dermal skin layer
- Return 48-72 hours later for read

- Measure the area of induration (NOT erythema)
- Positive measurement = depends on risk/immunosuppression
- Negative measurement = depends on risk/immunosuppression
- If positive, additional tests needed to determine active TB disease or LTBI

15. What are the benefits and limitations of the TB skin test?

- Benefits: simple, cheap, okay for serial testing, many supportive studies
- Limitations: trained personnel, variability in reading, return visit, cross-reactivity, false negatives

16. How about the TB blood test?

Two tests available

- QuantiFERON-TB Gold In Tube (QFT-GIT)
- T-SPOT TB Test
    - If positive, additional tests needed to determine TB disease or LTBI

17. What are the benefits and limitations of the interferon gamma release assay (IGRA) test?

- Benefits: specific to *Mtb*, no cross reactivity with BCG vaccine, single visit
- Limitations: test cost, need for phlebotomy, some complicated interpretation for lab staff
- Preferred for Children < 5 years (likely will be younger) – TST
- Preferred for patients who have received the TB vaccine bacilli Calmette-Guérin (BCG) – TB Blood test
- Preferred for patients who will have difficulty returning for second visit – TB blood test

18. Which type of confirmatory testing for TB needs to be done after a positive skin test or blood test?

- History and physical, sputum, AFB

19. Which CXR findings are concerning for TB?

- Normal CXR most common, hilar adenopathy, effusion, consolidation, cavitary lesion

20. Can we reinforce the points with some case studies of active TB disease?

- 33 y/o man 10 days cough, fever and previous dx viral bronchitis. Denies other problems. He had immigrated from Venezuela 1 year ago. Viral testing negative. CXR showed a large LUL cavitary lesion.
- 47 y/o man with chest pain and a few days cough, immigrant from Peru 3 years previous. CXR showed RUL infiltrate with small area of cavitation.

References:

1. CDC TB Resource: https://www.cdc.gov/tb/statistics/default.htm
2. IDSA Practice Guideline for TB: https://www.idsociety.org/practice-guideline/diagnosis-of-tb-in-adults-and-children/#ExecutiveSummary
3. Ketata W, Rekik WK, Ayadi H, Kammoun S. Les tuberculoses extrapulmonaires [Extrapulmonary tuberculosis]. Rev Pneumol Clin. 2015 Apr-Jun;71(2-3):83-92. French. Doi: 10.1016/j.pneumo.2014.04.001. Epub 2014 Aug 15. PMID: 25131362.

4. CDC Airborne Precautions: Transmission-Based Precautions | Basics | Infection Control | CDC"
5. Tuberculosis Screening, Testing, and Treatment of U.S. Health Care Personnel: Recommendations from the National Tuberculosis Controllers Association and CDC, 2019 | MMWR

Lindsey E. Fish MD
Medical Director, Peña Urgent Care Clinic
Denver Health and Hospital
Associate Professor of Medicine, Division of General Internal Medicine
University of Colorado School of Medicine
Member, Board of Directors, College of Urgent Care Medicine

Michael B. Weinstock, MD
Emergency Medicine attending physician, Adena Health System
Director of Research, Adena Health System
Professor of Emergency Medicine, Adjunct, The Wexner Medical Center at The Ohio State University
Co-host UC MAX podcast
Emergency Medicine Reviews and Perspectives (EM RAP) podcast: Risk management section editor
Senior clinical editor, The Journal of Urgent Care Medicine (JUCM)
Medical Director, Ohio Dominican University Physician Assistant studies program
Author *Bouncebacks!* Series of books

Urgent Care's Role in Outbreak Response

By Sarah Warren, PA-C
Hippo Education

Have you ever wondered if that fourth case of acute diarrhea and vomiting that you saw during your last shift in Urgent Care may be related to the others? Have you ever seen a kid with a rash, and the thought of measles crossed your mind?

As Urgent Care clinicians, we are strategically positioned to be the first point of contact for patients with acute illnesses. We are often the first to notice surprising trends in similar patient complaints or the first to see a patient with a communicable disease.

With the hustle and bustle of a busy Urgent Care shift, it can be easy to forget about the bigger picture. Keeping public health at the forefront of our minds and forging a solid relationship with our local health department can help manage outbreaks before they begin and is without a doubt in the best interest of our patients.

How can Urgent Care clinicians promote public health?

Know what diseases are reportable in your state

Reportable disease requirements vary from state to state in terms of what diseases are reportable and the timeframes in which reporting must occur. There is a lot of overlap across states nationally, but there are also differences. Front-line clinicians must familiarize themselves with the reporting requirements of the state where they practice.

Report suspected communicable diseases before confirmatory testing returns

Some communicable diseases like measles, monkeypox and even food poisoning are so highly contagious that notifying the health department of a suspected case *before* confirming the diagnosis can save lives. Prompt notification of a possible case allows the health department to get a head start with contact tracing and protecting those at high risk who may have been exposed. The head start also gives them time to strategize the next steps once the illness is confirmed, aids in preparing control measures containing the outbreak and can save lives.

Be aware of health alerts in your state

One of the easiest things we can do to monitor public health as Urgent Care clinicians is to stay abreast of emerging health alerts in our area. The CDC's' Health Alert Network (HAN) is a messaging system that informs public health practitioners, clinicians and public health laboratories of health alerts, advisories and updates. Timely recognition of emerging illnesses in your area allows you to recognize the signs and symptoms in your patients and leads to faster care and improved outcomes and more effective response efforts.

Register here to receive HAN alerts and you can be one of the first to know the next time there is a local salmonella outbreak.

Evidence-Based Management of Angioedema in Urgent Care

EB Medicine

Urgent Care Evaluation

Initial Management and Stabilization

The initial management of angioedema includes obtaining an immediate assessment of airway patency, followed by a full set of vital signs and a quick heart and lung examination. Serial

assessments at 10-15-minute intervals can be frequency-adjusted based on condition and stability. The fundamental clinical decision at each assessment is determining if there is a need for emergency medical services (EMS) activation. Because intubation of an edematous trachea is challenging, the threshold for epinephrine and EMS transfer should be low. Patients should be placed in a room that is near the nurse or clinician station where they can be observed. Ideally and if possible, one-to-one observation should be provided until it is clear the patient is not deteriorating.

Airway Assessment

Assessment of airway patency is critical. Voice changes, hoarseness, stridor and dyspnea are red flags of airway compromise.[1] Urgent Care clinicians should have a low threshold for emergent transfer to the ED for any signs of airway obstruction. Front desk staff who are not medically trained should be educated on symptoms of a potential emergency that should be reported to medical staff immediately.

Because most Urgent Care centers are not equipped to secure advanced airways, early administration of epinephrine and activation of EMS is prudent. Patients awaiting EMS should be placed on a monitor with continuous pulse oximetry and supplemental oxygen, and IV access should be obtained. The patient should be maintained in a position of comfort under constant observation until EMS arrival. Should the airway become compromised, a nasal or oral airway may offer little benefit. Bag-mask ventilation has been shown to worsen airway edema.

Several small studies have attempted to risk-stratify adult patients for airway involvement in angioedema based on various criteria. Ishoo et al. performed a single-center retrospective chart review of 80 adult patients with 93 episodes of angioedema over an 11-year period, who presented to the ED for treatment. The patients in the study were categorized based on the anatomic location of the angioedema. In the study, none of the Stage I or Stage II patients (with symptoms including facial, lip, and soft palate edema) required airway intervention or intensive care unit (ICU) admission. Most of the Stage III patients and all of the Stage IV patients required ICU stays, with 7% of Stage III patients and 24% of Stage IV patients eventually requiring airway intervention.[1] In 2021, a retrospective chart review by Dass et al evaluated a modified form of the Ishoo staging as a method of predicting the need for admission or airway intervention; this larger study also found that patients with edema localized to the lips alone did not have an increased risk for intubation. However, 8.6% of Stage II patients and 16% of Stage III patients required intubation, making these 2 categories the most problematic for safely determining a disposition.[2] Caution should be used in the interpretation of these studies. In each case, the patients were admitted by the ED. Although not specifically stated, ED observation time is usually 4-6 hours. Staging can change rapidly, and without adequate duration of stability, a patient cannot be safely risk stratified.

It is reasonable to consider discharge home (with appropriate precautions) for patients with stable or regressing Stage I angioedema of at least four hours' duration. The disposition of stable or regressing Stage II angioedema is the most problematic and will be dictated by clinical judgment. Factors to consider include medical comorbidity, distance from the hospital, reliable observation by a family member, and the level of risk that the patient is willing to accept. These data cannot be

extrapolated to pediatric patients, as children have smaller airways and are at higher risk for airway compromise.

Anaphylaxis

If there are signs of anaphylaxis, epinephrine should be administered without delay with an initial dose of 0.3 to 0.5 mL (0.3-0.5 mg) of the 1 mg/mL concentration given via the intramuscular (IM) route into the anterolateral aspect of the thigh. This can be repeated every 5-20 minutes, up to 3 doses.[3,4,5] The dose for children (<30 kg) is 0.01 mg/kg (maximum 0.3 mg) of the 1 mg/mL concentration.37 Historically, outpatient clinicians have been hesitant to administer epinephrine, which has resulted in underutilization. Due to the risk of rebound anaphylaxis, ED referral is indicated after epinephrine injection. In an ED setting, an acute tryptase level would be obtained, but this is not typically done in the Urgent Care setting and should not delay transfer of care.

History

Once a patient is determined to be stable (or has been stabilized), it is important to obtain a detailed history directed at identifying potential causes, similar events in the past and clinical progression of those prior episodes. The patient should be questioned about recent exposures (e.g., insect bites or stings), changes in diet, unusual ingestions, or symptoms of viral infection.

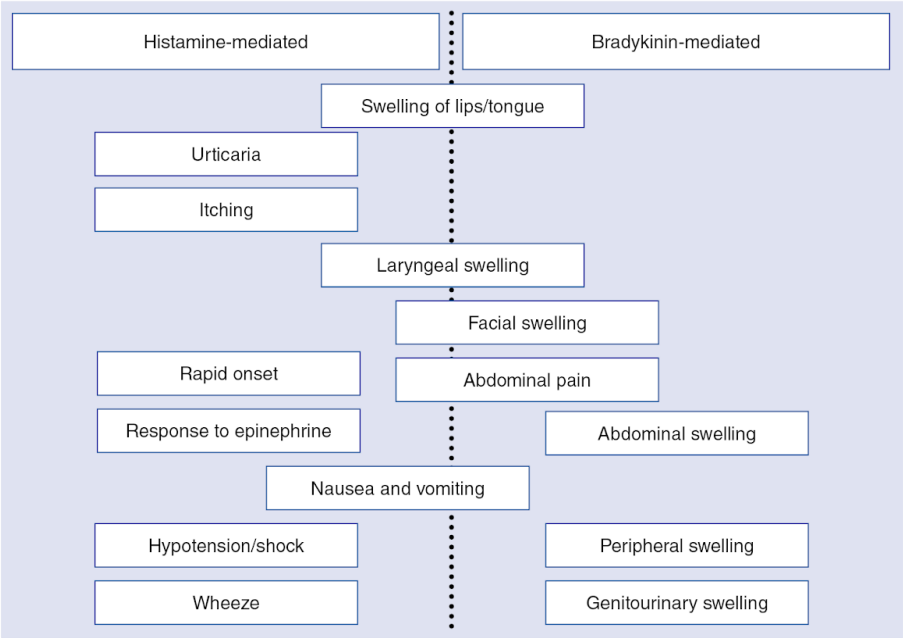
Knowing the time of onset and progression of symptoms is useful in assessing stability. Histamine-mediated angioedema can occur quickly, often in <1 hour, whereas HAE and AAE symptoms usually have a slower, progressive onset and frequently develop over several hours.12 Histamine-mediated angioedema typically resolves within 24-37 hours without intervention, whereas untreated HAE and AAE will often have a more protracted course, typically lasting upwards of 48-72 hours and occasionally lasting up to five days.[6] Regardless of the timeline, Urgent Care clinicians should remain aware that destabilization can occur at any point.

While reviewing medications, particular attention should be given to NSAIDs, ACEIs, ARBs, estrogen-containing products or any recent changes in dosage or route of administration.[7] Ask specifically about any herbal or other supplements the patient may be using. To elicit whether there is a hereditary component to angioedema, a family history should also be obtained.

Physical Examination

The physical examination must be performed, repeated and documented carefully as the findings and the progression of symptoms will directly affect the disposition of the patient. Findings that might indicate the presence of laryngeal edema include changes in phonation, hoarseness, stridor, inability to control secretions or worsening dyspnea.[8] Following the initial assessment, a more detailed examination should be performed with special attention given to the gastrointestinal system, as well as inspection for cutaneous edema, urticaria or rashes. See **Figure 4** for clinical features that can help to distinguish histamine-mediated angioedema and bradykinin-mediated angioedema.

Figure 4. Distinguishing Histamine-Mediated Angioedema and Bradykinin-Mediated Angioedema



Risk Management Pitfalls in Management of Angioedema in Urgent Care

1. **"I thought all angioedema cases are a form of allergic reaction and should be treated as such."** While 40% to 70% of angioedema presentations are histamine-mediated, it is important to recognize other potential causes such HAE, AAE and ACEI-induced angioedema, which are related to excess bradykinin and will not respond to typical therapies used for allergic reactions.
2. **"The patient had only mild lip swelling with no other symptoms, so I sent him home."** It is reasonable to discharge patients home if their swelling is mild, has been stable or regressing for at least four hours. Be sure to educate the patient that respiratory/airway symptoms can develop up to hours later. Make sure patients know to call 911 or go to the ED at the earliest signs of respiratory symptoms.
3. **"It couldn't be ACEI-induced angioedema, because that only happens when the patient starts taking the medication."** It is possible to develop ACEI-induced angioedema even after taking the medication for several years.[17] While most cases occur within weeks of initiation, ACEIs should always be considered in patients presenting with first-time angioedema. It is prudent to have the patient stop taking the ACEI immediately and find a suitable replacement medication for management of hypertension.

4. **"I thought epinephrine was indicated only for allergic reactions and not for angioedema."** All causes of angioedema should be considered when initiating treatment, but allergic and immunologic reactions very frequently cause angioedema. Epinephrine should be considered as a therapeutic option, along with antihistamines, if acute idiopathic urticaria or an allergic etiology is likely.
5. **"I didn't know that patients whose angioedema resolved in the Urgent Care needed further workup."** Given the risk for recurrence, all patients should be instructed to follow up with their primary care clinician, even in the case of identifiable allergic triggers. In patients for whom no obvious trigger is identified, C4 levels could be ordered from the Urgent Care clinic or checked by the primary care clinician.
6. **"The patient was older, so I thought it was very unlikely to be hereditary angioedema (HAE)."** While most patients present within the first few decades of life with exacerbations of their HAE, approximately 20% to 25% of patients develop genetic defects that result in delayed presentations. Particularly if the patient has recurrent episodes, HAE should be considered.
7. **"I wasn't aware that angioedema affects the gastrointestinal tract."** Although rare, submucosal involvement of the gastrointestinal tract has been reported, especially in patients with HAE. This is often not considered as a potential source, so these patients may get repeated radiologic evaluations and even surgical procedures that are not necessary. If identified, the patients can be treated with properly targeted therapy and have improvement/resolution of their symptoms.

References

1. Ishoo E, Shah UK, Grillone GA, et al. Predicting airway risk in angioedema: staging system based on presentation. *Otolaryngol Head Neck Surg*. 1999;121(3):263-268. (Retrospective chart review; 93 patients)
2. Dass C, Mahaffa M, Dang E, et al. Evaluation of staging criteria for disposition and airway intervention in emergency department angioedema patients. *Acute Med Surg*. 2021;8(1):e704. (Retrospective chart review; 320 patients)
3. Long BJ, Koyfman A, Gottlieb M. Evaluation and management of angioedema in the emergency department. *West J Emerg Med*. 2019;20(4):587-600. (Review)
4. Krishnaswamy G. Critical care management of the patient with anaphylaxis: a concise definitive review. *Crit Care Med*. 2021;49(5):838-857. (Review)
5. Simons FE. Anaphylaxis. *J Allergy Clin Immunol*. 2010;125(2 Suppl 2):S161-181. (Chapter)
6. Bernstein JA, Cremonesi P, Hoffmann TK, et al. Angioedema in the emergency department: a practical guide to differential diagnosis and management. *Int J Emerg Med*. 2017;10(1):15. (Review) DOI: 10.1186/s12245-017-0141-z
7. Gompel A, Fain O, Boccon-Gibod I, et al. Exogenous hormones and hereditary angioedema. *Int Immunopharmacol*. 2020;78:106080. (Review)
8. Christiansen SC, Zuraw BL. Hereditary angioedema: management of laryngeal attacks. *Am J Rhinol Allergy*. 2011;25(6):379-382. (Review)

Electrical Injuries: Management of Low-Voltage Shocks and Burns in Urgent Care

Special Populations

Pregnant Patients

Emergent obstetric consultation and fetal heart rate monitoring are required for high-voltage electrical injury or lightning strike in pregnant patients. Patients whose pregnancies are >20 weeks estimated gestational age require particular attention and evaluation in an ED for stabilization of the patient and obstetrical consultation. Several reports note pregnancy loss after severe electrical injuries or lightning strike.[1]

Electrical Control Device Injuries

Electrical control device (ECD) weapons, commonly known by the brand name of TASER, fire and deliver two barbed projectiles into the human body. **(See Figure 5.)** These devices are typically carried and used by law enforcement to stop individuals. The initial shock varies, but typically carries 50,000 volts and delivers multiple shocks.[2] There are case reports of ventricular fibrillation and traumatic injuries from the metal barbs.[3] However, "taser-induced" arrhythmias may more likely be caused by underlying structural cardiac disease in the individual patient.[4] Most ECD injuries are a direct traumatic effect from the ECD and indirect trauma from falls.[2] Injuries are typically minor, although fractures have been reported. Patients should be approached as standard assault patients. An ECG must be obtained to assess for arrhythmia, along with monitoring with telemetry for 4-6 hours. Have a low threshold for transfer to the ED if any mild persistent symptoms arise.

References

1. Fatovich DM. Electric shock in pregnancy. *J Emerg Med*. 1993;11(2):175-177. (Retrospective cohort; 15 patients)
2. Haileyesus T, Annest JL, Mercy JA. Non-fatal conductive energy device-related injuries treated in US emergency departments, 2005-2008. *Inj Prev*. 2011;17(2):127-130. (Retrospective study; 75,000 patients per year) DOI:
3. Le Blanc-Louvry I, Gricourt C, Touré E, et al. A brain penetration after Taser injury: controversies regarding Taser gun safety. *Forensic Sci Int*. 2012;221(1-3):e7-e11. (Case report; 1 patient)
4. Kroll MW, Lakkireddy DR, Stone JR, et al. TASER electronic control devices and cardiac arrests: coincidental or causal? *Circulation*. 2014;129(1):93-100. (Response article)

KidBits: Electrical Injury in the Pediatric Population

KidBits Contributors: Amanda Robinson, PA-C; Pediatric Physician Assistant, Northern Atlantic, PM Pediatric Care; Ramsey Jaber, MD, MS; Bayonne Medical Center, Bayonne, NJ

Pediatric electrical injuries present a unique challenge in the Urgent Care setting due to the limited resources available. A prompt and comprehensive evaluation is required to determine whether the patient is safe to be managed in the Urgent Care setting or will require emergent transfer to a higher level of care.

Urgent Care Triage and Diagnosis

Estimating the voltage level involved in the injury may help the Urgent Care clinician with management decisions. Children most commonly acquire electrical injuries from electrical outlets, exposed electrical wires or appliances near water sources. One case series found that in a group of 144 children with electrical injury, 63% of the injuries in children aged <12 years were from electrical cords, while 15% were from electrical outlets.[1]

All pediatric patients who present for possible electrical injury require, at minimum, a comprehensive physical examination including full neurological and musculoskeletal examinations, as well as a 12-lead electrocardiogram (ECG) to rule out arrhythmia and urinalysis to rule out myoglobinuria. The examination must specifically include ruling out a ruptured/injured tympanic membrane[2] as well as any oral commissure burns,[3] which are injuries caused by a flowing current with the potential to result in serious complications. Oral commissure burns usually have the appearance of gray-to-white charring on the inside of the lips or smoke in the airway. These burns are typically due to the child biting or chewing on an electrical cord. Oral commissure burns are at risk for substantial bleeding from the labial artery; this can occur up to two weeks following injury.

Treatment

If a child arrives in the Urgent Care clinic unresponsive or with altered mental status, emergency medical services should be called immediately, and the patient should be stabilized using the advanced life support measures available at the clinic. For patients who do not meet criteria for transportation to the emergency department (ED), treatment is generally symptomatic. Minor superficial burns should receive analgesia and basic wound care with topical antibiotics. Prophylactic systemic antibiotics are generally not indicated. Consider tetanus vaccination if needed.

Discharge Planning

Pediatric patients who experienced a household electrical shock and do not meet criteria for ED evaluation (i.e., asymptomatic, no injuries, no loss of consciousness, and normal or unchanged ECG) can be discharged home with strict guidelines for return and reasons to seek emergency medical care.[4] Patients with minor oral commissure burns with no active hemorrhage can be discharged with parent education on the risk for hemorrhage, strict return precautions, and

instruction for otolaryngology or plastic surgery follow-up in 2-3 days. ED transfer is recommended for oral commissure burns with active bleeding and/or moderate to severe tissue involvement, or if the patient meets any other criteria for emergent transfer.

Parents or caregivers should be educated on electrical safety precautions to prevent possible future harm to the child. Suggestions to parents should include using outlet covers, regularly checking wires for wear and tear, using wire organizers and ensuring that dangerous electrical areas are inaccessible to young children.

KidBits References

1. Rabban JT, Blair JA, Rosen CL, et al. Mechanisms of pediatric electrical injury: new implications for product safety and injury prevention. *Arch Pediatr Adolesc Med.* 1997;151(7):696–700. (Case series; 102 patients)
2. Ozkiris M. Unilateral sensorineural hearing loss and facial nerve paralysis associated with low-voltage electrical shock. *Ear Nose Throat J.* 2014;93(2):62-66. (Case report; 1 patient)
3. Hoffman KA, Trigger CC. Pediatric oral commissure burn. *Clin Pract Cases Emerg Med.* 2017;1(1):59-60. (Case report; 1 patient)
4. Fatovich DM, Lee KY. Household electric shocks: who should be monitored? *Med J Aust.* 1991;155(5):301-303. (Retrospective and literature review; 20 patients)

Urgent Updates: June, Weeks 1 and 2

General Urgent Care Medicine Highlights

Clotrimazole-Betamethasone Dipropionate Prescribing for Nonfungal Skin Conditions
Consistent with prior studies, clotrimazole-betamethasone prescriptions were more frequently associated with non-dermatologist visits, potentially reflecting the lack of awareness that it contains a high-potency corticosteroid and poses potential harms associated with indiscriminate use, including adverse effects and resistance selection pressure. For confirmed fungal skin infections, instead of prescribing clotrimazole-betamethasone, physicians may consider prescribing antifungal monotherapy, which can help decrease inflammation and associated pruritus. **Full Access:** JAMA

Researchers Are Working on A New mRNA Vaccine – This Time for Bird Flu
University of Pennsylvania researchers have started work on an experimental mRNA vaccine for avian flu that could be developed rapidly. In addition to the potential human threat, H5N1 represents a danger to both the livestock and poultry industries. The vaccine that researchers are working on could help manage the outbreak of the virus. **Full Access:** Penn Medicine

Therapies to Decrease Severe Respiratory Syncytial Virus Illness
Respiratory syncytial virus (RSV) commonly causes acute lower respiratory tract infections (LRTIs), particularly in children younger than 2 years. RSV infections are usually mild in healthy children and adults, but may be severe in premature infants, children with congenital heart disease or chronic

lung disease, adults aged 65 years or older, and immunocompromised individuals. RSV prevention in infants and children occurs through passive immunity either by provision of monoclonal antibodies (mABs) or by maternal RSV vaccination during pregnancy. **Full Access:** JAMA

Red Flag Signs and Symptoms for Patients with Early-Onset Colorectal Cancer (EOCRC) - A Systematic Review and Meta-Analysis

In this systematic review and meta-analysis including 81 studies and more than 24.9 million patients, nearly half of individuals with EOCRC presented with hematochezia and abdominal pain and one-quarter presented with altered bowel habits. Delays in diagnosis of 4-6 months from time of initial presentation were common. These findings underscore the need to identify concerning signs and symptoms for EOCRC and complete timely diagnostic workup for individuals without an alternative diagnosis or sign or symptom resolution. **Full Access:** JAMA

Heat Waves Associated with Increased Risk of Preterm Birth in The U.S.

A new investigation confirmed the link to early deliveries at a massive scale, in a large cohort study capturing over half of the births that occurred in the U.S. between 1993 and 2017. In this cohort study, preterm and early-term birth rates increased after heat waves, particularly among socioeconomically disadvantaged subgroups. Extreme heat events have implications for perinatal health and may be exacerbated by worsening climate. Full Access: JAMA

A Stratified Approach for Managing Patients with Low Back Pain in Primary Care (SPLIT Program): A Before-and-After Study

Over the cohort study period of six months, patients in the SPLIT program showed significantly greater improvements in back-related disability, perceived effect of treatment, and health-related quality of life compared with usual care group. **Full Access:** Annals of Family Medicine

Anti-TSLP Therapy Reduces Inflammation in Moderate to Severe Asthma

Patients with asthma saw a 23% reduction in FeNO with treatment. Most adverse events were mild, with no serious events. Three patients across both study groups developed anti-drug antibodies. Tezepelumab is the first and only biologic that has demonstrated efficacy for a broad population of patients with severe asthma across phenotypes and irrespective of biomarker levels including bronchial epithelial cells, allergic status and fractional exhaled nitric oxide. **Full Access:** Helio

Tattoos as a Risk Factor for Malignant Lymphoma: A Population-Based Case–Control Study

In this case–control study researchers identified all incident cases of malignant lymphoma diagnosed between 2007 and 2017 in individuals aged 20–60 years. The risk of lymphoma was highest in individuals with less than two years between their first tattoo and the index year. The risk decreased with intermediate exposure duration (three to ten years) but increased again in individuals who received their first tattoo ≥11 years before the index year. We found no evidence of increasing risk with a larger area of total tattooed body surface. The risk associated with tattoo exposure seemed to be highest for diffuse large B-cell lymphoma and follicular lymphoma. **Full Access:** The Lancet

Urgent Updates in Pediatric Research

Ivan Koay, MBChB, MRCS, FRNZCUC, MD
Urgent Care Physician and Medical Lead Kings College Hospital Urgent Treatment Centre, London, United Kingdom
Convenor Ireland and UK Faculty of the Royal New Zealand College of Urgent Care

Are Chest X-rays Necessary for Pneumonia Workup in Febrile Infants

This study was a secondary analysis of data from a prospective observational study of febrile infants aged ≤60 days presenting to 18 EDs in the Pediatric Emergency Care Applied Research Network (PECARN). The authors found of the 2,612 infants enrolled, 568 (21.7%) had CXRs performed. Possible and definite pneumonias were present in 6% and 3.3% patients, with signs of respiratory distress occurring substantially more frequently in these patients. A higher proportion of infants with pneumonias had influenza or RSV detected. No infant with radiographic pneumonia had bacteremia. In addition, more than half of infants without pneumonia had viruses detected. While RSV was the most prevalent virus in those with pneumonias, rhinovirus was the most detected viral pathogen in infants without pneumonias.

Comments: This study reinforces the concept of viral pathogen illness in infants. This study was ED based, which limits its generalizability. As Urgent Care clinicians, this study highlights that less is more approach, which is also part of choosing wisely recommendations.

Source: Florin TA, Ramilo O, Banks RK, et al. Emerg Med J 2024;41:13–19. Radiographic pneumonia in young febrile infants presenting to the emergency department: secondary analysis of a prospective cohort study

Topical Anesthesia for Pediatric Lacerations

Lacerations are common in pediatric injuries that present to Urgent Care centers. This was a quality improvement project looking at early placement of topical local anesthesia (EMLA) on pediatric lacerations to facilitate wound closure. Plan, Do, Study, Act (PDSA) cycles were employed to get physician engagement and buy-in. The aim was to reach the goal of applying topical anesthetics to at least 60% of eligible patients. The authors used 3 PDSA cycles to achieve and sustain their goal.

Comment: This was a well-presented study looking at ways to improve the quality of care provided. The authors noted physician buy-in as the main barrier to their work. Their robust methodology is something that is useful to replicate in an Urgent Care setting particularly when looking at implementing quality improvement projects.

Source: Faris N, Mesto M, Mrad S, et. al. Applying Topical Anesthetic on Pediatric Lacerations in the Emergency Department: A Quality Improvement Project Pediatr Emer Care 2024;40: 175–179

Shorter Antibiotic Course for UTIs

Current guidelines recommend a 7-to-14-day course of antibiotics for pediatric UTIs with 10days being standard practice. This multicenter, parallel-group, randomized, controlled trial looked at the feasibility of a 5-day course of antibiotics being non-inferior to present standard practice. The primary endpoint was UTI recurrence within 30 days of treatment and secondary end point was clinical recovery at the end of treatment.

The results showed a 5-day treatment with oral amoxicillin-clavulanic acid of an acute episode of febrile UTI, was non-inferior to standard 10-day course in terms of clinical cure rates, recurrence of infection within 30 days from the end of therapy, adverse events and development of antibiotic resistance.

Comments: The parents participating in the study were not blinded to the randomization process. The endpoints of recurrence of infection and clinical recovery from illness were both self-reported by the parents participating in the study. Recruitment for the study was also hampered by the COVID-19 pandemic, and it is uncertain how the pandemic impacted on the study population.

Source: Montini G, Tessitore A, Console K, et al. Short Oral Antibiotic Therapy for Pediatric Febrile Urinary Tract Infections: A Randomized Trial. Pediatrics. 2024;153(1): e2023062598

Symptoms of Post-concussion in Early Childhood Concussion

This was a prospective study conducted in 4 tertiary, urban, pediatric hospitals in Canada and the U.S. The authors found that children with early childhood concussion had more post-concussion symptoms (PCS) acutely and at 10 days and 1 month after injury. Physical PCS remained significantly elevated in the concussion group even after 3 months from their injury, and included headache, nausea, balance difficulties, fatigue and drowsiness, sleep disturbances, vision difficulties and sensitivity to noise. Physical symptoms were highest at the ED and then progressively diminished over time. Cognitive (e.g., attention and concentration) and behavioral symptoms (e.g., irritability, comfort-seeking) may only become apparent to caregivers over time and in the day-to-day environment. Using an observational PCS inventory that provides caregivers with guidance as to what manifestations and behaviors can be expected was helpful in identifying symptoms.

The study has limited generalizability due to its hospital setting, where patients attending may have more severe symptoms and parental concern. Most children with minor symptoms may more likely be presenting to UC, which provides an opportunity for us to study this cohort for comparison.

Source: Dupont D, Tang K, Beaudoin C, et. al. Post-concussive Symptoms After Early Childhood Concussion JAMA Network Open. 2024;7(3): e243182. doi:10.1001/jamanetworkopen.2024.3182

Spotlight on our Members

Lisa Bishop, DNP, MHA, FCUCM, has been recognized as Louisiana's awardee for the prestigious 2024 AANP State Award of Excellence. Lisa was recently elected as Vice President of the CUCM Board of Directors. According to the AANP website, the award was established in 1991 "to recognize outstanding clinical quality" and to "honor NPs for the lifesaving care they provide to patients."

Lisa brings over 25 years of clinical and leadership expertise to her role as Vice President of Training and Clinical Development at Premier Health Consultants. Her responsibilities encompass designing comprehensive programs, both annual and ongoing, to bolster the professional capabilities of staff members. She coordinates student clinical placement, designs and implements workflows for optimal patient throughput and modifies the staffing model to meet state specific scope of practice regulations. She is a seasoned healthcare consultant with a passion for driving transformative change in the Urgent Care industry. Lisa specializes in developing innovative strategies and solutions that address the unique challenges faced by healthcare organizations. She plays a pivotal role in facilitating seamless transitions during new partnerships, acquisitions or mergers, ensuring adherence to stringent accreditation standards. Lisa will be recognized and receive her award at the AANP annual convention.

Cause for Applause Q2 2024

The College of Urgent Care Medicine has much to celebrate this quarter. We will begin with CUCM members who were award recipients at this year's Urgent Care Convention Foundation Celebration.

J.D. Zipkin, MD, MA, FAAP, FACP was recognized as the ***2024 Joseph Toscano, MD, FCUCM Inspiring Excellence Award.***

Dr. J.D. Zipkin is a distinguished double board-certified Internist and Pediatrician specializing in Urgent Care medicine. His early career focused on computer science and systems analysis. Leveraging this diverse academic background, Dr. Zipkin embarked on a transformative "CIO to CMO" journey. He now blends his expertise in technology with healthcare management to meaningfully drive evidence based clinical quality and behavior outcomes at scale across large multi-site organizations. Dr. Zipkin has played a pivotal role in representing the field on the national stage. He has chaired the UCA's Antibiotic Stewardship committee, serves on the Board of Trustees for the Urgent Care Foundation and has previously earned the national UCA Quality and Safety Award. Recognized as a national expert in Urgent Care clinical quality, Dr. Zipkin has been sought after by the CDC to co-present at prestigious national Infectious Diseases conferences on multiple occasions. Dr. Zipkin is committed to elevating Urgent Care medicine to unprecedented heights.

Jasmeet Singh Bhogal, MD, MBA, FCUCM was recognized as the ***2024 Sean McNeeley, MD, FCUCM Advancing the Specialty Award.***

Dr. Jasmeet Bhogal was honored to receive the 2024 Sean McNeeley Advancing the Specialty Award in recognition of his contributions to the specialty of Urgent Care Medicine. With a passion for shaping the future of Urgent Care as a specialty, he has dedicated 14-plus years to making a positive impact and pushing the boundaries of Urgent Care medicine as a specialty. Dr. Bhogal has served as the President for the College of Urgent Care Medicine. He currently serves as the Chair of the Graduate Fellowship Committee as well as the Chair of the Clinical Response Committee for the College. He is the Medical Director and oversees the APP Graduate Fellowship Program for MedStar Health Urgent Care in the DMV area. A practicing clinician and an educator at heart, throughout his career, Dr. Bhogal has worked towards raising the standards of clinical practice for patients who seek care in an Urgent Care setting. At the core is a commitment to develop and inspire the next generation of Urgent Care clinicians and clinical leaders that will help shape the Urgent Care clinical practice of the future. The future of Urgent Care is only as good as the skills and mindset clinicians and clinical leaders who will impact patient care. Dr. Bhogal expresses sincere gratitude to everyone who has helped shaped his Urgent Care path since his residency. This award serves as motivation to continue pushing the boundaries and making a lasting impact in Urgent Care medicine. Jasmeet Bhogal is honored and humbled to join the esteemed ranks of previous recipients who have also made significant contributions to Urgent Care medicine. This recognition only fuels his determination to contribute further and inspire others.

Additionally, a 2023 recipient of the FCUCM designation, **Graig Straus, DNP, APRN, FCUCM** was awarded the ***2024 Humanitarian Award.*** Graig serves as the President and Founder of Rockland Urgent Care Family Health NP, P.C. Since its opening in September 2015, he has expanded his practice to multiple sites in New York State. For the past seven years, Graig has been actively involved in a multi-national medical mission to Uman, Ukraine, where he serves as the American Liaison to the Uman Emergency Clinic. During his time in Ukraine, Graig not only cares for the local community but also for the thousands of people gathering for religious pilgrimages. He has been present during critical events such as the measles outbreak, COVID-19 outbreak and even now during the ongoing war. Additionally, while on his missions, he participates in ongoing emergency training with the local community to ensure they are well equipped with the latest knowledge in emergency medical care. When Graig is not overseeing his Urgent Care facilities or contributing to missions in Ukraine, he dedicates time to volunteering in his local community. With over 25 years in emergency services, he serves as an EMT/Ex-Captain of the Spring Hill Community Ambulance Corps and as a Medical Officer/Engineer with the Monsey Fire Department.

Michael Kim, DO, FCUCM, was a 2024 recipient of the ***Rising Star*** award. Dr. Kim is a board-certified family physician practicing Urgent Care medicine since 2018. He is an Associate Medical Director at Northwell Health's Go Health Urgent Care. He was instrumental in attaining UCA accreditation for Go Health's first Fellowship Program and is the fellowship director. In addition, he is the director for all GME program rotations for medical residents, PA and NP students at Go Health. He is the Urgent Care Track Lead for Northwell Health's Department of Family Medicine, through which family medicine residents have the opportunity over 2 years to learn and experience Urgent Care medicine. He has served as the Lead Clinical Analyst, leading a clinical team of chart reviewers to perform internal chart audits for the New York market, which currently has over 60 centers.

Welcome CUCM's Newest Fellow

And finally, we would like to welcome the following new fellow of the College of Urgent Care Medicine. Fellows represent the best of us who work every day to provide the highest quality of medicine and advance the specialty of Urgent Care Medicine. The following clinician applied and earned the distinction of Fellow in the College of Urgent Care Medicine since our last announcement in March 2024.

John Alanson (Lance) Fudickar, PA-C, FCUCM

Do you want to be recognized? Requirements to become a fellow include actively practicing as a physician, PA or NP with a solid foundation in Urgent Care and being an active member of CUCM for at least one year. Further requirements can be found here. Those who achieve fellowship status will be entitled to use the initials FCUCM for as long as they remain members of the College.

Twenty Questions About Tuberculosis was brought to you by EM Rap and UC Max

Case Reporting in Urgent Care Medicine was brought to you by Hippo Education
For more about integrating UC clinicians and public health officers and hearing some inspiring stories of clinicians who identified outbreaks and saved lives, listen to this month's Urgent Care RAP podcast, Outbreak Response.

Evidence-Based Response Management of Angioedema in Urgent Care, Electrical Injuries, and Kidbits Electrical Injuries in the Pediatric Population were brought to you by EB Medicine.

Angioedema Management: Excerpted from: Johnson L. Evidence-based management of angioedema in Urgent Care. *Evidence-Based Urgent Care*. 2024 May;3(5):1-21. Reprinted with permission of EB Medicine.

Electrical Injuries: Excerpted from: Morrison NJ, Olympia R. Electrical injuries: management of low-voltage shocks and burns in Urgent Care. *Evidence-Based Urgent Care*. 2024 April;3(4):1-18. Reprinted with permission of EB Medicine.

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