COVID-19 and Finger Lacerations:
The last few clinical shifts that I have worked in urgent care have been interesting to say the least. COVID-19, for good reason, is on the top of everyone’s mind while seeing patients. My clinical shifts have been no exception. The question, however, that I kept asking myself during my urgent care shift was whether the way we practice medicine has completely changed now. From hereon, are we only going to see COVID-19 cases, or, will patients with other issues walk in to urgent care centers as well? Additionally, will our volumes continue to be low forever, or will they get back to the pre-COVID era (already feels like an era, right!!)? And then I got my answer…. multiple finger lacerations walked in during my single twelve hour shift. In a weird way, it was reassuring.

Quarantine measures have posed a dilemma for many patients. Should they still go to their nearest urgent care center to get care for their acute or worsening ongoing health issues that do not appear to be COVID related? Or, should they stay at home and “let is pass”? Many patients have avoided going to any medical facility because they are scared to be around other sick patients. Others want to visit their provider but the offices are closed. From a clinical perspective, the major concern is whether patients will unknowingly delay their own care that they need and end up in the emergency departments, which is not a good situation for any party involved.

The other aspect of this scenario is the provider side. Given that we all as providers have COVID-19 as our first differential diagnosis for anything that remotely looks, smells, or feels like COVID, will we miss other diagnoses? Patients still have heart attacks, pulmonary embolisms still walk in to urgent care centers, abdominal pain is still a diagnostic challenge in urgent care. And yes, patients are still cooking, or at least trying to cook food and in the process sustaining cuts on their fingers. All this is going on while we are fighting COVID-19.

As we move along in this new paradigm of COVID-19, we will need to remind ourselves and our patients that other medical problems have not gone away. COVID-19 is now another extremely important infection that we are all dealing with. Other medical issues, however, will continue to exist. We need to do a better job of reminding our patients that they should not delay care as it can be catastrophic. We need to do a much better job of designing our future operations in a way that facilitates patient care in a safe face-to-face environment. Telemedicine is a vital component of this. Some issues, however, require live interactions and intervention. We need to build those safe environments for our patients. Our volumes might be low right now, and they might not return to pre-COVID era numbers. We, however, need to keep focusing on the clinical aspect of what we do and be the best at it. Only then can we hope to be of value to our patients and communities. Only then can we show that urgent care is vital to taking care of patients.

And yes, none of the finger lacerations that I saw were transferred to the emergency room. They all got the care they needed and went home, safe and satisfied!!

Contact Dr. Jasmeet Bhogal: dr_jsbhogal@yahoo.com

EDITOR’S CORNER - Sean M McNeely, MD, FCUCM

The country is now starting to re-open and each state is blazing its own path. Uncertainty remains the flavor of the day. A few things can be said for certain. The world will never quite be the same. Patients still need us and will continue to do so for the foreseeable future. Telemedicine has become a technology that we can’t ignore. This entire episode still has left much uncertainty. The next few months will be both anxiety-provoking and full of challenges. The College was created to “inspire excellence and advance the specialty”, and our mission remains the same. Together, we will get through this.
Coronavirus COVID-19 Testing
Christopher Chao, MD, Treasurer CUCM

Testing for COVID-19 has been a hot topic lately, with widely conflicting “advice” circulating among government agencies, health care providers and the general media. Unfortunately, there is significant anxiety among the general populace, and patients are calling urgent care clinics asking about the availability of COVID testing. Testing availability varies by geographical location, as there are states where anyone can get tested, and other states where testing requires a provider order or patients need to meet specific clinical criteria before testing is performed.

Here are some key points with regards to COVID-19 testing
1) SARS-CoV-2 is the virus, and COVID-19 is the disease. Technically, you are not testing for COVID-19. You are testing for presence of the virus, SARS-CoV-2, or antibodies to SARS-CoV-2.
2) Current testing is performed under an emergency use authorization (EUA) issued by the FDA which grants the use of a product in times of a national emergency.
3) There are 2 types of testing available: a viral antigen detection test and an antibody detection test.
   a. Viral (antigen) detection tests utilize technology to detect the presence of SARS-CoV-2 virus, either through detection of RNA (NAAT/PCR) or viral capsid proteins.
   b. Antibody tests detect antibodies that the body produces in response to an infection. In COVID-19, the body will produce IgM and IgG antibodies against SARS-CoV-2 which may help fight off the infection.
4) While the manufacturers report test sensitivity from 80% to 99%, there is concern that the sensitivities of some tests may be overestimated. The higher the sensitivity, the more “accurate” the tests. If sensitivity is overestimated, there will be more false negatives than expected.

Of the antigen/viral detection tests, RT-PCR (reverse transcriptase Polymerase Chain Reaction) has the highest sensitivity. The drawback of the RT-PCR test is the run-time, which requires a minimum of several hours. The isothermal NAAT technique is used by the Abbott test, which provides results in 5-15 minutes, but there has been some recent concern about the sensitivity of the Abbott test. On May 8, 2020, a nucleocapsid protein antigen detection test manufactured by Quidel has received an EUA and delivers “real time” results.

Choosing the right test
A COVID-19 diagnostic test is the antigen detection test. The test is positive if the SARS-CoV-2 virus is detected either by detecting nucleic acid or viral proteins. The COVID-19 test is used in the clinical setting where a patient needs to be evaluated for an active COVID-19 infection. CDC also publishes a test-based strategy to determine when a patient with COVID-19 can return to work if they have a negative result of an FDA EUA COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least 2 consecutive respiratory specimens collected >24 hours apart. The COVID-19 test may also be used to screen for patients who have been exposed to COVID-19 and are either in the prodromal phase or asymptomatic carriers.

Because none of the tests are 100% sensitive, there is always the risk of a “false negative” result. Thus, clinical judgement and clinical correlation is critical to avoid giving a false sense of security. Also, studies have shown that SARS-CoV-2 may be detected for up to 30 days in patients; such detection of SARS-CoV-2 may occur after a patient has recovered, and the patient is no longer contagious.

The antibody test detects antibodies that the body produces to identify SARS-CoV-2 virus. Because antibodies take time to develop in response to infection, antibody detection cannot be used to determine active infection. While antibodies may be detected in a few days after initial infection, it may take days to weeks before antibodies are detectable. There is also no data on how long IgG or IgM antibodies persist or whether the presence of antibodies provides immunity.

Take home points
- Antibody tests should not be used as the sole basis to diagnose or exclude SARS-CoV-2 infection or to inform infection status.
- Antibodies may take several days to weeks to develop, so a negative test does not rule out active disease.
- Positive results may be due to past or present infection with non-SARS-CoV-2 coronavirus such as coronavirus HKU1, NL63, OC43, or 229E.
- Positive results do not indicate that a patient is immune or cannot be re-infected.

The bottom line: Be cautious in avoiding misinterpretation of the antibody test. If you are performing antibody tests, it is advised that you review the result with the patient to ensure that the patient understands the proper interpretation.

The following language may be used for patients and non-health care professionals to explain the role of SARS-CoV-2 antibody testing:
Recently, there has been much buzz in the media about a test that can “tell you if you have had COVID-19 infection.” The test that the media is referring to is called an antibody test. An antibody test is different from the COVID-19 test in that it detects antibodies that your body makes to identify the virus that causes COVID-19.
Unfortunately, interpretation of the test is not as simple as black or white. Antibodies are produced by the body to fight off infection. IgM antibodies are produced initially and IgG antibodies are produced later, which are often associated with long-term immunity. The commercial tests produced by LabCorp, Quest Laboratories, etc. are designed to detect antibodies including IgA, IgM and IgG that are specific to SARS-CoV-2 (the virus that causes COVID-19).

At this time, we do not know a lot about SARS-CoV-2, nor do we know the exact timing of antibody production or if antibody production conveys any immunity, short or long-term. Thus, a NEGATIVE test does not necessarily rule out a recent COVID-19 infection. It is possible that your body did not produce detectable antibodies, or the antibodies that your body produced have decreased (antibody production may decrease with time), or not enough time has elapsed since the initial infection that your body has produced sufficient antibodies.

Depending on quality of the test, a POSITIVE test does not indicate that you have had COVID-19. It is possible that antibodies against non-SARS-CoV-2 coronavirus or other viruses may cross-react with the test, causing a false positive result.

We also do not know whether IgG antibodies will provide any immunity against COVID-19 and whether it will provide protection against future infections. Therefore, even if your antibody test is POSITIVE, you are still encouraged to follow social distancing guidelines and good personal hygiene.

Clinical Pearls

Cesar Mora Jaramillo, MD

• *JAMA Neurology* published a retrospective case series study of 200 patients from Wuhan, China discussing findings related to SARS-CoV-2 virus and the presence of nervous system/skeletal muscle infection. About a third of patients had some neurologic manifestations: headache, dizziness, taste and/or smell impairment. Severe neurologic symptoms including acute cerebrovascular disease, conscious disturbance, and skeletal muscle injury were common in seriously ill patients.¹

• A systematic review and meta-analysis of 60 studies with regards to COVID-19 GI manifestations revealed a prevalence of 17% of severely ill patients and 12% in those with non-severe disease. Symptoms included anorexia (27%), followed by diarrhea (12%), nausea and vomiting (10%), and abdominal pain (9%). The overall concomitant viral RNA positivity rate of stool and respiratory samples was 48%. Studies that reported serial testing, about 70% tested positive for stool RNA after respiratory test had become negative.²

• Several skin manifestations have been reported as associated to novel coronavirus infection. Close to one-fifth of a group of patients with COVID-19 in a hospital in Northern Italy reported skin manifestations including urticaria, chickenpox-like vesicles and skin eruptions. The trunk was the most affected area. Skin manifestations did not correlate with severity of illness. The University of Nebraska Medical Center, Department of Dermatology using collected data based on descriptive studies that included small case series or case reports across the world reported livedo (net-like) pattern, cutaneous vasculitis patterns, petechial (dengue-like) in the setting of low platelets, acrosyndromes (appearance of pseudo-frostbite of the extremities), acro-ischemia lesions (in asymptomatic children and adolescents), digit ischemia (associated with development of antiphospholipid antibodies).³-⁴

• Past or current smokers with COVID-19 have double the risk for severe disease outcomes. Researchers examined 12 studies in a metaanalysis that included 9,000 COVID-19 patients. Roughly 18% of those with a history of smoking experienced disease progression, compared with 9% of never-smokers.⁵

• *Fleischner Society Guidelines* published an international panel of physicians’ consensus related to chest imaging in COVID-19 patients.⁶-⁷

1. Imaging findings consistent with COVID-19 can be used to triage patients when other testing is unavailable or unreliable (e.g., high rates of false negatives), or when results may be delayed by several hours or days.
2. Imaging is not recommended for asymptomatic or patients with mild features of COVID-19, unless they have a high likelihood of disease and risk factors for disease progression.
3. Imaging is recommended for patients with moderate to severe symptoms and for patients who experience respiratory status/symptoms worsening regardless of COVID-19 test results.
4. When access to CT is limited, chest radiography may be preferred for COVID-19 patients unless features of respiratory worsening warrant using CT.

Centers for Disease Control and Prevention (CDC) has now added new loss of taste or smell as a symptom of SARS-CoV-2. Of 200 adults in Italy with mild COVID-19 who were interviewed about a week after their nasopharyngeal and throat swabs were taken, nearly two thirds reported having a suddenly altered sense of taste or smell in the 2 weeks before being swabbed. Of these, about half reported altered sensation as moderate to severe. Taste or smell impairment was the only symptom in 3% overall. *JAMA* reports that only 1 study has evaluated the prevalence of smell and taste disturbance in hospitalized patients with COVID-19. The study reported an overall...
prevalence of 34% but without data on timing of onset in relation to other symptoms. Researchers conclude, “If these results are confirmed, consideration should be given to testing and self-isolation of patients with new onset of altered taste or smell during the COVID-19 pandemic.”8,9

In a sample of 1,200 patients with respiratory symptoms in California, 21% of nasopharyngeal swab specimens that tested positive for SARS-CoV-2 also tested positive for other respiratory pathogens, like rhinovirus/enterovirus and respiratory syncytial virus. Additionally, of those that tested positive for non-SARS-CoV-2 pathogens, 8% also tested positive for SARS-CoV-2. The researchers conclude, “The presence of a non–SARS-CoV-2 pathogen may not provide reassurance that a patient does not also have SARS-CoV-2.”10

REFERENCES:
2. Cheung KS et al. Gastrointestinal manifestations of SARS-CoV-2 infection and virus load in fecal samples from the Hong Kong cohort and systematic review and meta-analysis. Gastroenterology 2020 Apr 3; [e-pub]. (https://doi.org/10.1053/j.gastro.2020.03.065)

Tune in to the COVID-19 Listserv to stay apprised of this ever-changing situation

The COVID-19 Listserv was created as a result of the partnership between UCA and CUCM, with the goal of facilitating real-time communications among members during this rapidly-evolving situation. Listserv posts represent the opinion or best practices of the individual posting and need to be verified, but in the short time since its inception we have seen so many good posts we know you will benefit from following the communications. All members have been added to the COVID-19 Listserv, but if you have not begun to receive those communications, you can request to join the conversation by filling out a brief form on https://www.ucaoa.org/coronavirus
Target Audience
This CME activity is intended for medical professionals who practice medicine in the on-demand space including urgent care, retail medicine and other similar venues. These providers may include physicians, nurse practitioners, and physician assistants.

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

CME Objectives
1. Provide updates on the diagnosis and treatment of clinical conditions commonly managed by on-demand providers
2. Alert on-demand providers to potential unusual cases that may present to them
3. Utilize tips and tricks to improve patient care in the on-demand space

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) though the joint providership of the Urgent Care Association and the College of Urgent Care Medicine. UCA is accredited by the ACCME to provide continuing medical education for physicians.

CME Credit Instructions
Once you have read the article, please log into your UCA profile. Once you are logged in go to Manage My Account -> My Library. Now you will be logged into the UCA Online Education Library.

Go to Course Catalog -> Clinical -> Urgent Caring CME. Click on the Urgent Caring edition for this month. You will need to score 60% on the Quiz and complete the Survey to obtain credit.

Your certificate will show up under My Library -> Credits.

Please email education@ucaoa.org with questions.

CUCM CME Planning Committee
Jasmeet Bhogal, MD
Reports no financial interest relevant to this newsletter

Tracey Davidoff, MD, FCUCM
Reports no financial interest relevant to this newsletter

Sean M. McNeeley, MD, FCUCM
Reports no financial interest relevant to this newsletter

Joseph Toscano, MD
Reports no financial interest relevant to this newsletter

Authors
Jasmeet Bhogal, MD
Reports no financial interest relevant to this newsletter

Christopher Chao, MD
Reports no financial interest relevant to this newsletter

Cesar Mora Jaramillo, MD
Reports no financial interest relevant to this newsletter

Sean M. McNeeley, MD, FCUCM
Reports no financial interest relevant to this newsletter

Disclaimer
Medical practice and knowledge is constantly evolving and changing. This information is peer reviewed but should not be your only source. Providers of care should use discretion when applying knowledge to any individual patient.
CME Questions*:

1. Fleischener Society Guidelines suggest chest imaging for?
   a. Asymptomatic patients with close contact exposure to COVID-19 patients.
   b. Chest x-ray imaging is preferred over computed tomography of the chest for COVID-19 patients as first line.
   c. Imaging is recommended for patients with moderate to severe symptoms and for patients who experience respiratory status/symptoms worsening regardless of COVID-19 test results.
   d. Imaging should be considered only with confirmed COVID-19 patients.

2. Which of the following was not a concern related to how Coronavirus has changed urgent care?
   a. Missing other diagnoses when COVID is emphasized
   b. Increased volumes
   c. Patients’ fear causing them to stay home
   d. Overuse of the emergency room

3. Which of the following is true about antibody testing?
   a. IgG antibodies appear first.
   b. Antibodies may take days to develop
   c. These tests are best used for diagnosis
   d. They have no role in assuring immunity

4. Which is true about antigen tests?
   a. They test for the body’s response to the virus
   b. They turn positive first
   c. Sensitivity and specificity are known and certain
   d. They stay positive for life

Answers to last month’s questions

1. All of the following statements about proximal fibula fractures are true EXCEPT?
   a. Improperly treated displaced fractures may result in an abnormal gait
   b. The fibula is a weight-bearing bone
   c. Over-icing the proximal fibula may result in damage to the peroneal nerve
   d. Transverse fractures of the fibula are usually caused by a twisting motion
   e. Patients with non-displaced transverse fibular fractures can weight bear with crutches if tolerated by the patient

2. What is the percent of children with severe COVID 19 disease?
   a. 2%
   b. 5%
   c. 9%
   d. 12%

3. Which of the following are TRUE regarding shoulder dislocations?
   a. Posterior dislocations are easily reduced using the Cunningham or Park technique
   b. They represent about 80% of all dislocations seen in emergency departments
   c. Conscious sedation is easily performed in the urgent care setting
   d. Once the dislocation is reduced, no further treatment is required
   e. The Park or fulcrum technique uses the provider’s fist to act as a fulcrum to push the humeral head back into the glenoid fossa

4. How many priming pumps are recommended for albuterol metered dose inhalers
   a. One
   b. Two
   c. Three
   d. Four
The College of Urgent Care Medicine (CUCM), formally known as the Urgent Care College of Physicians (UCCOP), was founded by physicians from the Urgent Care Association (UCA) to provide a clinician voice for the specialty. CUCM and UCA continue to work closely to advance the clinical practice of urgent care medicine. In 2016 the UCCOP board voted to include physician assistants and nurse practitioners as members. Thus in early 2017 the decision to change our name was made.

**Mission Statement**
We are urgent care clinicians inspiring excellence in patient care and advancing the specialty through education, advocacy, and research.