



## ABSTRACTS IN URGENT CARE

- COVID-19: The Long View
- Quarantine Duration in Suspected COVID-19
- Bedside Ultrasound Use with COVID-19

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- Fluoroquinolones and Arrhythmia
- Isopropyl Alcohol and Nausea Relief
- Patient Preferences Re: the ED vs Urgent Care

### The Nuts and Bolts of COVID-19

**Key Points:** Most patients with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes COVID-19, experience mild URI symptoms; however, the virus tends to cause disproportionately severe illness in older and chronically ill adults. Treatment is only supportive, although clinical trials of several antiviral agents are ongoing. Social isolation and proper hygiene practices remain our best hope for containment and limiting global health impact.

**Citation:** Cascella M, Rajnik M, Cuomo A, et al. Features, evaluation and treatment Coronavirus (COVID-19). 2020 Mar 8. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. <http://www.ncbi.nlm.nih.gov/books/NBK554776/>

**Relevance:** Urgent care clinicians need to become expert on all things related to COVID-19, as there will be many patients with symptoms and/or concerns about this virus for the foreseeable future. Additionally, a robust and current understanding of the science of the virus and epidemic is important to protect ourselves and loved ones.

**Study Summary:** This review article covers all aspects of the SARS-CoV-2 virus and the COVID-19 pandemic and is available for free through PubMed for all readers. Some of the more salient clinical pearls from this summary article include: <1% of cases occurred in children <9 years. There have been no fatalities (to date) in this group.

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The risk of death in individuals over 80 is greatest (~15%). Mild illness, which is most common, is indistinguishable from the common cold; however, patients are more likely to have cough and fever instead of sore throat and nasal congestion. Dyspnea and respiratory failure tend to occur late (>1 week) after symptom onset.

Polymerase chain reaction testing is still not widely available; however, more commonly available labs can show a pattern suggestive of COVID-19. These include lymphopenia, mildly elevated transaminases, mildly elevated LDH (lactate dehydrogenase), and C-reactive protein. ■

### Challenges in Determining Duration of Quarantine in Suspected Cases of COVID-19

**Key Point:** Understanding when it is safe to de-isolate patients with confirmed or suspected COVID-19 remains unclear. Use of an algorithm such as the one proposed by the authors of this editorial offers a systematic and prudent approach for clinicians. Clinicians should err on the side of caution and recommend patients self-quarantine until fevers have resolved for several days and at least 1 week post onset of respiratory symptoms.

**Citation:** Tay JY, Lim PL, Marimuthu K, et al. De-isolating COVID-19 suspect cases: a continuing challenge. *Clin Infect Dis*. 2020; Feb 26. [Epub ahead of print]

**Relevance:** The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a novel human virus responsible for the COVID-19 pandemic. Most cases, especially in younger patients, are mild and require only supportive care. However, a common, practical question on patients' minds with confirmed or suspected infection is how long they remain infectious and need to be self-quarantined. This question is also of great importance from a public health standpoint in regard to mitigating the duration and overall morbidity of this virus.

**Study Summary:** These authors reviewed 991 suspected cases of COVID-19 in Singapore. They combined clinical features of illness, polymerase chain reaction (PCR) testing results, and imaging findings to determine the duration of likely infectivity. For safe de-isolation of suspected cases, they recommend *at least* 24 hours of defervescence and *at least* 7 days post onset of symptoms as minimal criteria. For patients with a positive test for another respiratory pathogen (eg, influenza, RSV, pneumococcus), isolation can be guided by need according to the pathogen identified *unless* there is also known COVID-19 exposure because *dual infections can occur in 10% to 20% of cases*. Additionally, even patients with negative PCR testing can have COVID-19 because of the relatively low sensitivity of this test. Overreliance on a single negative PCR swab can provide false reassurance to the clinician and patient. ■

### COVID-19 Findings on Bedside Ultrasound

**Key Point:** Pulmonary effects of COVID-19 result in predictable findings on bedside ultrasound exam.

**Citation:** Peng Q, Wang X, Zhang L. Findings of lung ultrasonography of novel corona virus pneumonia during the 2019–2020 epidemic. *Intensive Care Med* (2020).

**Relevance:** Bedside ultrasound, commonly referred to as point-of-care ultrasound (POCUS), is a useful tool in urgent care, as it offers abundant information in a setting where objective data is quite limited. Thoracic POCUS can reveal characteristic findings in cases of COVID-19. Such testing is highly valuable because PCR testing is limited in availability and generally takes days for results to return when achievable.

**Study Summary:** These investigators performed lung POCUS on 20 patients with confirmed COVID-19 pulmonary disease using the 12-zone method. The authors do not report the sensitivity or specificity of these findings, as this was a pilot study. However, they do report identifying five findings on lung POCUS which correlated with COVID-19:

- Thickening of the pleural line and/or pleural irregularities
- B lines in a variety of patterns ranging from focal to confluent
- Heterogenous patterns of consolidation including multifocal, trans, and nontranslobar with occasional air bronchograms
- A lines were common during the recovery phase
- Pleural effusions were relatively rare

POCUS can serve as an adjunct to chest radiography and is more practical, cost effective, and widely available for UC clinicians compared with chest computed tomography. ■

*“Understanding what patients value in their visit to an urgent care center vs the ED can help to improve patient care. Online platforms such as Yelp provide data that can be analyzed to characterize patient values.”*

### Fluoroquinolone Use Is associated with Serious Arrhythmias

**Key point:** Use of fluoroquinolones such as ciprofloxacin is associated with ventricular arrhythmias and sudden cardiac death  
**Citation:** Porta L, Lee MG, Hsu WT, et al. Fluoroquinolone use and serious arrhythmias: A nationwide case-crossover study. *Resuscitation*. 2019;139:262-268.

**Relevance:** Fluoroquinolones such as ciprofloxacin and levofloxacin offer broad-spectrum coverage and are used to treat a wide variety of infections including respiratory, genitourinary, and soft tissue infections. However, two fluoroquinolones have been withdrawn from the market due to associations with dangerous arrhythmias. This study aims to establish an association between currently prescribed fluoroquinolones and arrhythmias.

**Study Summary:** In this case-crossover study, the authors looked at cases of serious arrhythmias associated with fluoroquinolone use in 2 million randomly selected beneficiaries of Taiwan’s National Health Insurance. Serious arrhythmias were defined as sudden cardiac death or ventricular arrhythmias receiving IV antiarrhythmics, defibrillation, or CPR. Fluoroquinolone prescription for at least 3 days during a 30-day exposure period prior to an arrhythmic event was compared with a control 30-day period with no fluoroquinolone use. When results were adjusted for time-varying confounders, the odds ratio for a serious arrhythmic event after fluoroquinolone use was 1.48 (95% CI 1.18, 1.86). ■

### Inhaled isopropyl alcohol offers nausea relief

**Key point:** Inhaling isopropyl alcohol offers significant nausea relief and improved patient satisfaction score when compared with placebo.

**Citation:** Beadle KL, Helbling AR, Love SL, et al. Isopropyl alcohol nasal inhalation for nausea in the emergency department: a randomized controlled trial. *Ann Emerg Med*. 2016;68(1):1-9.e1.

**Relevance:** Nausea and vomiting account for approximately

5 million ED visits per year in the United States. Isopropyl alcohol inhalation has been shown to be effective in relieving nausea postanesthesia. This study aims to find if this method of nausea relief is also effective in all other causes of nausea.

**Study summary:** In this randomized, double-blind, placebo-controlled trial, 84 patients in an urban tertiary care ED were randomized to receive either nasally inhaled isopropyl alcohol or normal saline solution. Patients were asked to score their satisfaction and reduction in nausea 10 minutes after treatment. At 10 minutes postintervention, median satisfaction score in the isopropyl alcohol arm vs placebo arm was 4 vs 2 (95% CI 2, 2) on a 5-point Likert scale while median nausea response scale score was 3 vs 6 (95% CI 2, 4) on an 11-point verbal numeric response scale (0=no nausea, 11=worst nausea). ■

**Patients Like the ED and Urgent Care Centers for Different Reasons**

*Key point: Different reasons drive patients to give 1- or 5-point ratings on Yelp for EDs and UCs.*

*Citation: Agarwal AK, Mahoney K, Lanza AL, et al. Online ratings of the patient experience: emergency departments ver-*

*sus urgent care centers. Ann Emerg Med. 2019;73(6):631-638.*

**Relevance:** Urgent care centers have been expanding at a rapid pace. It is important to understand what patients value in their visit to an urgent care center vs the emergency department to improve patient care and the patient experience. Online platforms such as Yelp provide data that can be analyzed to characterize patient values.

**Study summary:** In this retrospective analysis of over 100,000 Yelp reviews, the authors focused on the extreme ends of reviews (1- and 5-star reviews) to identify drivers of high or low satisfaction among ED and UC visits by identifying words associated with these ratings. Overall, median rating of ED vs UC was 2 vs 5 stars, respectively. Important themes in both ED and UC centers in 5-star reviews included comfort, professionalism, clean facilities, and friendly staff. Important themes in both ED and UC centers in 1-star reviews included poor communication, waiting, billing, and pain management. Themes unique to UC 5-star reviews included pharmacy refills or prescriptions. Themes unique to UC 1-star reviews included lack of confidence and reception experience. ■

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