

## NSAID use in patients with COVID-19

<b>S</b>	<p><b><u>Situation</u></b></p> <p>Concern for worsening COVID-19 symptoms due to NSAID use (in particular ibuprofen) has been raised within the public (e.g., social media) and healthcare sectors.</p>
<b>B</b>	<p><b><u>Background</u></b></p> <p>This warning seems to have originated out of France and further spurred by a letter published in Lancet Respiratory Medicine on March 11, 2020.</p> <p>The French Health Minister advised the public to avoid NSAIDs (recommending acetaminophen instead) in a Twitter warning earlier this month based on reports of some French COVID-19 patients experiencing significant adverse effects.</p> <p>The link between COVID-19 and NSAID use is based on evidence showing that ibuprofen (as well as ACEi, ARB, thiazolidinediones) increases the number of ACE2 receptors in the body. ACE2 has been shown to be a co-receptor for viral entry of coronaviruses.</p> <p>Lancet Respiratory Medicine article <a href="https://www.thelancet.com/action/showPdf?pii=S2213-2600%2820%2930116-8">https://www.thelancet.com/action/showPdf?pii=S2213-2600%2820%2930116-8</a></p> <p>NPR article <a href="https://www.npr.org/sections/health-shots/2020/03/18/818026613/advice-from-france-to-avoid-ibuprofen-for-covid-19-leaves-experts-baffled">https://www.npr.org/sections/health-shots/2020/03/18/818026613/advice-from-france-to-avoid-ibuprofen-for-covid-19-leaves-experts-baffled</a></p>
<b>A</b>	<p><b><u>Assessment</u></b></p> <p>The FDA and World Health Organization (WHO) have commented on this topic. Neither organization is aware of any evidence showcasing negative effects of NSAIDs (including ibuprofen) with worsening COVID-19 symptoms.</p> <p><u>Please note:</u> NSAIDs, aspirin, and acetaminophen reduce fever and therefore could diminish diagnostic signs in detecting infections.</p>

**R**

**Recommendation**

Continue to use NSAIDs when clinically indicated.

Reminder: NSAIDs should be avoided in patients with ischemic heart disease, heart failure, hypertension, and chronic kidney disease. NSAID use is associated with recurrent ASCVD events (MI/stroke), HF exacerbation, sodium/fluid retention, and renal injury.

FDA is investigating this issue and will provide updates when more information is available.

FDA comment on NSAIDS for COVID-19

<https://www.fda.gov/drugs/drug-safety-and-availability/fda-advises-patients-use-non-steroidal-anti-inflammatory-drugs-nsaids-covid-19>

WHO has not recommended avoidance of ibuprofen use

WHO Twitter update on 03/18/2020

<https://twitter.com/who/status/1240409217997189128>