Multisystem inflammatory disease, hypercoagulable state, and COVID-19 — What clinicians are searching for

When there is a medical question, where do clinicians turn for information that is current and well-informed? On average, clinicians have two to three unanswered questions a day, even under normal conditions. UpToDate is well established as a trusted resource for accurate and current clinical information. With the onset of the COVID-19 pandemic, clinicians have been called upon to treat patients presenting with a new viral infection associated with a high mortality rate and a complex transmission pattern. In order to support clinicians on the front lines, the UpToDate expert authors and editorial team rapidly created new topic reviews to help clinicians care for their patients. By May, the team had created more than 22 new topic reviews with in-depth information about the wide-ranging clinical manifestations, diagnosis, and management of COVID-19, and this content has been continuously updated and expanded as new information emerges.

As two examples, UpToDate authors and editors continue to track a novel condition resembling Kawasaki disease associated with COVID-19 infection in children, and coagulation abnormalities associated with increased mortality in patients with COVID-19.

Kawasaki disease is a rare condition that causes vascular inflammation, most commonly in children. In late April, UpToDate editors saw a dramatic spike in the use of UpToDate topics on Kawasaki disease. Concurrently, news outlets began reporting^{1,2} that some children who tested positive for COVID-19 were presenting with signs and symptoms that resemble Kawasaki disease. Soon thereafter, the number of UpToDate searches on Kawasaki disease increased as much as 10 times over searches before the pandemic. These data suggest that Kawasaki-like disease was being seen more frequently or that clinicians were hoping to learn about this possible complication in case they encountered it while treating patients. Soon, this condition was recognized as a unique complication of COVID-19

and renamed "multisystem inflammatory syndrome in children." The UpToDate team recruited authors with expertise in this disorder and developed a dedicated topic review on its presentation, diagnosis, and management.³



As another example, clinicians began seeing an increased rate of thrombotic complications in patients hospitalized with COVID-19.4.5 The UpToDate team published a new topic about the hypercoagulable state associated with COVID-19 that covered risk factors, presenting findings, prevention, and management of thrombotic complications.6 The topic was published in late April, and within a month it had nearly 80,000 topic views — an average of nearly 3000 times a day. Once again, clinicians turned to UpToDate for expert advice on recognizing and managing a complication of COVID-19.

Regardless of whether clinicians are searching for COVID-19-associated complications in order to learn more about them or to manage specific patients, there is clearly a need for information that is timely, complete, and accurate. With UpToDate, clinicians can access a single, trusted resource for the most current information that encompasses the breadth and depth of expertise on this disease.

Endnotes

- ¹Pediatric Intensive Care Society: Increased number of reported cases of novel presentation of multi-system inflammatory disease (April 27, 2020). Available at: https://pccsociety.uk/wp-content/uploads/2020/08/PICS-statement-re-novel-KD-C19-presentation-v2-27042020.pdf
- ²The New York Times, 5/5/2020: 15 Children Are Hospitalized With Mysterious Illness Possibly Tied to Covid-19.
- ³Son, MBF, Friedman, K. Coronavirus disease 2019 (COVID-19): Multisystem inflammatory syndrome in children. In: UpToDate, Post, TW (Ed), UpToDate, Waltham, MA. Initial release 5/20/2020.
- ⁴Gale J. Coronavirus Causes Damaging Blood Clots From Brain to Toes. Bloomberg, May 4th, 2020.
- ⁵Oudkerk M, Buller HR, Kuijpers D et al. Diagnosis, Prevention, and Treatment of Thromboembolic Complications in COVID-19: Report of the National Institute for Public Health of the Netherlands. Radiology 2020 Apr 23.
- ⁶Cuker A, Peyvandi F. Coronavirus disease 2019 (COVID-19): Hypercoagulability. In: UpToDate, Post, TW (Ed), UpToDate, Waltham, MA. Initial release 4/27/2020.