Supporting Clinicians in a World of Dynamic Medical Knowledge

The case for real-time, actionable information



## ↘ OVERVIEW

All clinicians, from seasoned to novice, are facing a new reality caused by an unprecedented health crisis they must try to understand together.

As evidence and technology rapidly evolve to meet the needs created by COVID, each clinician must learn and understand what is newly discovered—whether about COVID-19 or other conditions. They must discuss with peers and make clinical decisions based on the latest, most reliable knowledge and evidence.

In an environment in which evidence and guidance change quickly, clinicians need the ability to access various levels of scientific evidence and understanding to support patient care—from guidelines, to case reports, to summarized information. One level might just not be enough.

The fast-evolving "new normal" will require every clinician to continually learn at a rapid rate. COVID-19 is only one example of why the translation of newly acquired knowledge into clinical practice remains critical. With so much information and technology available, it's easy to get lost in the "how" and "when" of patient care. But to fully support clinicians, we must also remember the "why."

"The COVID pandemic has forced us Italian doctors to return to the roots of our job and to the reasons behind our care for patients."

Being a Doctor Will Never Be the Same After the COVID-19 Pandemic<sup>1</sup>





## We don't know what we don't know





Increase in number of COVID-19 related publications, January-June

We've learned from past infectious outbreaks that the dynamic evolution of clinical knowledge lasts well beyond the initial crisis. A 3,319 percent spike in disease-specific publications followed the Zika virus outbreak, for example, and a 1,248 percent rise in research accompanied the emergence of SARS.

"Two years ago, a paediatrician didn't anticipate the need to become knowledgeable regarding acute flaccid myelitis until it was happening, until a patient showed up at the hospital. This year, it was first COVID-19, then multi-system inflammatory syndrome. In both scenarios, we are still learning in real time."

Dr Ian Chuang, Chief Medical Officer, EMEALAAP - Elsevier

The impact of COVID-19 extends beyond the disease itself. The outbreak also is impacting the way other illnesses present and progress, which will demand further research and practice-based learning. It's likely to impose challenging, unforeseen clinical scenarios and require clinicians to evolve care for quite some time to come.

- Asymptomatic infection and atypical manifestations of COVID-19: Comparison of viral shedding duration<sup>2</sup>
- <u>Unintended Consequences of COVID-19: Remember General Pediatrics<sup>3</sup></u>
- The COVID-19 Pandemic and Mayo Clinic Proceedings<sup>4</sup>



New care delivery methods require new ways to share information...immediately





## U.S. telehealth market, Frost & Sullivan analysis

Every major disruptive event in healthcare shapes care for the future, and COVID-19 is the latest example that has transformed care delivery forever. Telehealth, or virtual care, is a perfect example. It has seen massive growth and likely will experience ongoing demand.

While telehealth promises to reduce barriers to care access, it creates new challenges for clinicians who may be physically isolated from colleagues and therefore lack ways to share information face-to-face. In the absence of colleague support and validation, clinicians will need to rely on solutions that offer consistent, current information and the ability to share ideas locally, nationally, and internationally.



"The COVID-19 pandemic has created the immediate need for alternate routes of communication. From both the educational and patient care aspects, hospitals and training programs must utilize telecommunications to continue to provide the highest standard of patient care..."

The effective use of telemedicine to save lives and maintain structure in a healthcare system: Current response to  $COVID_{-19}^{s}$ 



Clinicians must learn faster with less support in "the new normal"



"Many healthcare systems are short of the anticipated qualified clinicians we need—not just during the pandemic, but even going onward. To respond to rapid changes in staff and patient needs, clinicians will have to adapt quickly. They may need to transition from paediatric care to adult care, for example, or move from a surgery unit to the ICU. The learning, the quick on-the-job skills development that's necessary has challenged clinicians to step in and step up."

Dr Ian Chuang, Chief Medical Officer, EMEALAAP - Elsevier

One of the after-effects of COVID-19 is that novice clinicians may need to care for higher complexity patients earlier in their careers than their predecessors. Likewise, even seasoned clinicians may find themselves working in unfamiliar care settings or specialties.

All clinicians, therefore, will need better ways to access new knowledge, as well as obtain just-in-time skills, refreshers and training. They must keep up with rapidly evolving scientific evidence, as well as new workflows that may require a broader spectrum of multidisciplinary wisdom. They will not know what they don't know— and they must face the unknown with less traditional instructional support.

For more examples, see:

- The coronavirus (COVID-19) pandemic: Adaptations in medical education<sup>6</sup>
- <u>Repurposing of Endoscopy Units and Gastrointestinal Services<sup>2</sup></u>
- Medical students for health-care staff shortages during the COVID-19 pandemic<sup>8</sup>





## **CONCLUSION**

In the wake of COVID-19, proactive information capable of supporting clinicians' critical thinking skills is more important than ever. Access to a deeper level of scientific evidence and understanding is crucial for clinicians to support patient care—now and into the future.

"We absolutely have to refocus on the fact that our patients are the center of our universe."

Assoc. Professor Jane Griffith Chief Nursing Information Officer, CEO Office Dubai Healthcare Corporation, Middle East



The fast-evolving "new normal" will require every clinician to continually learn at a rapid rate. Solutions that provide multimodal, multiformat, multidisciplinary reference materials available 24/7—such as ClinicalKey—will play a vital role in keeping clinicians abreast of the latest, most reliable knowledge and evidence.



Citation	ClinicalKey Link
Giulio M, Maggioni D, Montroni I, et al. Being a Doctor Will Never Be the Same After the COVID-19 Pandemic. Am J Med. 2020;133(6):652. doi:10.1016/j. amjmed.2020.03.003 <sup>1</sup>	https://www.clinicalkey.com/#!/content/ journal/1-s2.0-S0002934320302163
Noh JY, Yoon JG, Seong H, et al. Asymptomatic infection and atypical manifestations of COVID-19: Comparison of viral shedding duration [published online ahead of print, 2020 May 21]. J Infect. 2020;S0163-4453(20)30310-8. doi:10.1016/j.jinf.2020.05.035 <sup>2</sup>	https://www.clinicalkey.com/#!/content/ journal/1-s2.0-S0163445320303108
Cherubini V, Gohil A, Addala A, et al. Unintended Consequences of COVID-19: Remember General Pediatrics [published online ahead of print, 2020 May 8] <sup>3</sup>	https://www.clinicalkey.com/#!/content/ journal/1-s2.0-S0022347620305783
Nath KA. The COVID-19 Pandemic and Mayo Clinic Proceedings. Mayo Clin Proc. 2020;95(5):835-836. doi:10.1016/j.mayocp.2020.04.009 <sup>4</sup>	https://www.clinicalkey.com/#!/content/ journal/1-s2.0-S0025619620303785
Elkbuli A, Ehrlich H, McKenney M. The effective use of telemedicine to save lives and maintain structure in a healthcare system: Current response to COVID-19 [published online ahead of print, 2020 Apr 7] <sup>5</sup>	https://www.clinicalkey.com/#!/content/ journal/1-s2.0-S073567572030231X
Alsafi Z, Abbas AR, Hassan A, Ali MA. The coronavirus (COVID-19) pandemic: Adaptations in medical education. Int J Surg. 2020;78:64-65. doi:10.1016/j. ijsu.2020.03.083 <sup>6</sup>	https://www.clinicalkey.com/#!/content/ journal/1-s2.0-S1743919120303101
Sethi A, Swaminath A, Latorre M, et al. Donning a New Approach to the Practice of Gastroenterology: Perspectives From the COVID-19 Pandemic Epicenter. Clin Gastroenterol Hepatol. 2020;18(8):1673-1681. doi:10.1016/j.cgh.2020.04.032 <sup>7</sup>	https://www.clinicalkey.com/#!/content/ journal/1-s2.0-S1542356520305280
Rasmussen S, Sperling P, Poulsen MS, Emmersen J, Andersen S. Medical students for health-care staff shortages during the COVID-19 pandemic. Lancet. 2020;395(10234):e79-e80. doi:10.1016/S0140-6736(20)30923-5 <sup>8</sup>	https://www.clinicalkey.com/#!/content/ journal/1-s2.0-S0140673620309235



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