

**Michelin L, Lins RS, Falavigna A. COVID-19: Questions and Answers UCS Telemedicine Center. Caxias do Sul: Educus; 2020.**

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The ongoing COVID-19 pandemic in Brazil challenges the scientific community, by imposing itself as a new disease with repercussions in social, economic and ethical aspects never faced before<sup>1</sup>.

Although the human coronavirus was identified in the mid-1960s<sup>2</sup>, and had its genome sequenced, there is no vaccine. In addition, COVID-19 has high levels of transmissibility and clinical severity, given the high lethality observed in other countries where the epidemic occurred, especially in its initial stages<sup>3</sup>.

Sharing qualified information in a timely and transparent manner, especially in case of adverse news, as well as explicitly projecting uncertainties is a crucial step in the pandemics management<sup>4</sup>. Communication must be a routine between government agencies and public to build trust, which is crucial in emergencies<sup>4</sup>.

Informing populations about health risks posed by COVID-19 as well as informing about protection measures, mitigates the spread and reduces the probability of new infections. Accurate, timely and frequent information in a familiar language, transmitted through reliable channels, allows population to make decisions and to adopt positive behaviors to protect themselves and others. Correct information also allows rulling out rumors and mistaken information<sup>5</sup>.

The fast scientific knowledge production that helps society to face this new pandemic is essential. Thus, the authors of *COVID-19 Questions and Answers*, seek to gather, in a practical way, quality information about the disease for easy and free, online access.

Organized and written by medical students at the Universidade of Caxias do Sul (UCS) and made available by this university, the book covers questions and answers about the coronavirus in an e-book. The project assists health professionals and the general population, being helpful in telemedicine services, as remarked presented in the text. It should be noted that in March 2020, the Federal Council of Medicine (Brazil) regulated teleorientation, telemonitoring and tele-consultation while the pandemic last<sup>6</sup>.

The question and answer model makes the e-book a practical guide, providing information with simplicity, but keeping its scientific character. As the speed of updating knowledge about COVID-19 is high, some topics may be out of date.

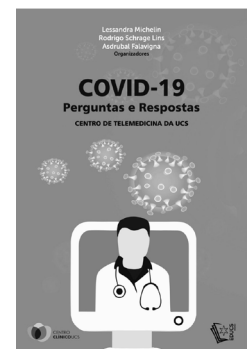
The e-book is divided into two main sections or chapters: 'About the virus' and 'General population'. These sections present the same items, but with different languages: while the first is more technical, the second is aimed at lay people and, therefore, with more accessible language. Thus, it would be more appropriate to name the title of the first section as 'Technical information about the virus' and the other section 'Information for the general population'. As for the items' titles items, they are denominated: 'About the virus'; 'Transmission'; 'Epidemiology'; 'Clinical condition'; 'Diagnosis'; 'Treatment'; 'Prevention'. These items, in an orderly manner, have a logical chain, with seven to twenty questions with their respective answers.

As for the first subdivision, 'About the virus', presented in the homonymous section, there is the presentation of the phylogenetic categories of the virus and the known coronaviruses, how they were discovered and how the infection occurs. The information is temporally ordered, culminating in the recent discovery, SARS-CoV-2. At the beginning, technical terms such as RT-PCR, RNA and mRNA are already found, not previously mentioned and without explanation of the acronyms, which is a limitation. In contrast, the same topic is addressed with less complexity in the section 'General population'.

In the topic 'Transmission', we highlight how transmission occurs, incubation periods, transmissibility and exceptional situations, such as transmission by air conditioning, domestic animals and maternal-fetal transmission. As for the latter, the authors indicated that there is no evidence that SARS-Cov-2 crosses the placenta and infects the fetus. However, cases of possible intrauterine infection have been reported, not clarified as false positives or postpartum infection<sup>7,8</sup>.

As for the item 'Epidemiology, the authors present Brazilian and worldwide data until the date of April 3, 2020. As the disease progresses, the mortality rate for Brazil has already increased and is on the rise. A limitation is that important epidemiological concepts such as home isolation and flattening of the curve are not discussed, but are spread across different topics superficially – flattening is mentioned in the item 'Prevention,' but the reader spends much of the reading with no information on this.

In 'Clinical picture', emphasis is given to the frequency of each disease symptom and more technical terms occur in the first section, while in the other,



more accessible language is used to guide possible alarm signs and symptoms that can be perceived by any person. Interestingly, warning signs and pediatric symptoms, a detailed and well-written item, are mentioned only for the section 'General population', however, it is of extreme importance also for the health professional.

In 'Diagnosis', diagnostic criteria, laboratory tests and image findings are addressed. The main findings expected in propaedeutics are finely discussed, with presence of assistive images in radiographic representations. Concerning the population, doubts about prevention, symptoms, laboratory tests and recommendations to people from abroad are discussed. This topic presents a good development in the part aimed at health professionals, losing its usefulness when aimed at the population, as it is not the aim of the book to instruct the population to diagnose itself: knowing the warning signs fulfill the objective, and it has already been addressed in 'Clinical picture.'

In 'Treatment', the main doubts about therapeutic proposals emerging in the treatment of COVID-19 are elucidated, guiding professionals on mild and severe disease cases. As for the treatment and monitoring of other diseases, such as chronic diseases, this aspect is only presented in the section 'General population', where it is explained that previous comorbidities cannot be neglected. Also, the importance of not interrupting treatments for hypertension and diabetes is discussed.

Finally, the topic 'Prevention' indicates individual protection and hygiene recommendations to reduce virus spread. It explains concepts to understand social isolation and the strategy proposed by the Ministry of Health to reduce beds' overcrowding in Intensive Care Units.

The lack of schemes for information summarization is a limitation. Such resources would make reading more dynamic and clear. In spite of this, the e-book, through questions and answers, solves a large number of doubts properly, serving as a guide for the general population with practical measures that, if adopted, can reduce the spread of COVID-19.

Finally, as highlighted in the book's presentation, there is an alignment of the work with telemedicine assistance provided to the community by the UCS Digital Health Center. It is known that telemedicine needs a central station that receives information as well as medical professionals that

are prepared to respond, based on the premise that doctors and patients provide correct information<sup>9</sup>. Therefore, the book helps healthcare professionals and patients in the fluidity and precision of communication: on the one hand, professionals will have a guide to the most common questions that can arise about COVID-19; and, on the other hand, patients and the community will identify their main doubts, exposed clearly and correctly. Thus, it is possible to establish a closer relationship between doctor and patient in the use of this health technology, which can be very helpful in times of social isolation.

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