



# The current scope of the COVID-19 pandemic and its influence on palliative medicine

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The November 2022 issue of *Annals of Palliative Medicine* featured 14 Original Articles, 2 Review Articles, 1 Editorial, 1 Editorial Commentary, 1 Case Series, and several Case Reports. Three of those Original Articles focused on COVID-19 and are highlighted in this Message From the Editor-in-Chief.

Having multiple impactful articles on COVID-19 in this single issue is not surprising. As we approach the three-year anniversary of the March 11, 2020 declaration by the World Health Organization (WHO) that the novel coronavirus COVID-19 is a global pandemic (1), the morbidity and mortality that this virus has caused has been staggering. As of December 2022, the WHO has reported nearly 650,000,000 confirmed cases of COVID-19, including nearly 6,650,000 deaths (2), although these numbers are likely a notable underrepresentation of the true disease burden.

The COVID-19 virus has had a profound impact on society and on medicine as a whole, and this burden has been particularly notable among palliative medicine providers. Three of the top 10 most downloaded articles published in *Annals of Palliative Medicine* in 2021 related to COVID-19 (3), with several other highly downloaded and cited articles already published in *Annals of Palliative Medicine* in 2022.

In the first article relating to COVID-19 in the November 2022 issue of *Annals of Palliative Medicine*, Xiao *et al.* report a systematic review and meta-analysis on clinical features of infants with SARS-CoV-2 infection. While a recent meta-analysis reported on clinical features of COVID-19 disease in children younger than 5 years

of age (4), such clinical features in infants is less well defined. Xiao and colleagues assessed 44 studies and 6,304 infants aged from birth to 1 year with SARS-CoV-2 infections. In total 20% had asymptomatic infections. Notably, the proportion of asymptomatic infection has increased over time, likely reflective of differences in symptoms associated with different disease variants, with asymptomatic infections occurring in 13% in 2020 but 22% in both 2021 and 2022. This is certainly a reassuring trend in the evolutionary history of this virus. However, given that asymptomatic infections can still be contagious (5), infants with asymptomatic infection can serve as sources of virus transmission, which complicates efforts for infection control.

In contrast, across 10 studies reporting mild symptoms, eight studies reporting moderate symptoms, and nine studies reporting severe symptoms, the proportion of mild symptoms was 48%, moderate symptoms were 27%, and severe symptoms was 8%. Symptomatic patients most commonly developed fever (64%), cough (34%), nasal symptoms (31%), respiratory symptoms (23%), feeding difficulty (20%), diarrhea (13%), emesis (13%), and rash (4%). It should be noted that commonly experienced symptoms in older children and adults, such as fatigue and myalgia, were not reported in the studies assess, as it is likely that infants have a greater inability to express their having these symptoms. Despite this and other limitations inherent when including predominantly retrospective studies, this disease characterization is the most comprehensive such analysis in this patient population performed to date, and it is a commendable effort that will serve to better inform

providers on the symptomatology of COVID-19 in infants.

In a second Original Article, Lin and colleagues report on the epidemiology, diagnosis, and treatment of COVID-19 patients in Jiaying City, China during the early phases when the virus was first identified but before it was declared a global pandemic. In the weeks and months following the identification of unexplained pneumonia cases in Wuhan City, China, all provinces, municipalities, and autonomous regions of China reported cases of COVID-19. Jiaying City was no different. During a 6-week period from late January to early March 2020, as the first cases in Jiaying City were diagnosed, most cases reported there were first generation, comprised of patients who developed symptoms after returning to Jiaying from Hubei, and over two-thirds of cases had cluster onsets.

In these earliest days of the virus, when little was known about optimal treatment approaches, providers in Jiaying City cared for infected patients who required a median of 19 days for hospitalization and used virus nucleic acid tests that had median result times of 15.5 days. While the hospitalization rates and durations have dramatically been reduced and the time for test results has significantly shortened since this early experience, this virus continues to exert a tremendous toll on healthcare resources around the globe still 3 years later.

Another Original Article on COVID-19, a meta-analysis by Xu and Zhu, reported on factors influencing people's willingness to receive COVID-19 vaccination in China. As of December 2022, over 13,000,000,000 COVID-19 vaccine doses have been administered worldwide (2), a monumental milestone in vaccine delivery and a tremendous success story in the rapidly of vaccine development. In fact, approximately 71.3% of the world population has received at least one dose of a COVID-19 vaccine, yet the distribution of vaccine administration has been far from uniform across different countries and even within countries. Some countries have effectively vaccinated their entire population, including Samoa, Brunei, Macau, U.A.E, and Qatar, whereas others have been reported to have had less than 5% of their population vaccinated, including Burundo, Yemen, Haiti, Papua New Guinea, and Congo (6).

While these extremes are likely driven by vaccine availability within a country, considerable variability exists by age, by region of a country, by socioeconomic status, by race, and even by political beliefs in countries where vaccine availability is not a rate limiting issue, such as the USA. Understanding factors influencing the decision to receive a vaccination can optimizing vaccination uptake,

which can allow for fewer hospitalizations and deaths from COVID-19 (7,8).

In the analysis by Xu and Zhu, assessing 12 studies involving nearly 30,000 patients, primary factors in influencing vaccination receipt are preexisting beliefs on the efficacy and safety of the vaccine. In fact, those who believe the COVID-19 vaccine is effective are over 4 times more willing to receive the vaccine than those who believe the vaccine is ineffective, and those believing the vaccine to be safe are nearly twice as willing as those who think the vaccine unsafe. Additionally, males and those who think the COVID-19 infection risk is high were more willing to undergo vaccination. These findings underscore the need to develop vaccination strategies to inform the population of the potential benefits and safety of COVID-19 vaccines. There is likely also a benefit to developing gender-specific, race-specific, and other tailored information to raise awareness of the virus and its vaccination options and to improve vaccination rates within specific communities.

With much hope and optimism for continued declines in hospitalizations and deaths from COVID-19 in 2023, I wish each of you happy and health holidays and New Year.

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