

Editorial

Giuseppe Lippi and Mario Plebani

Asymptomatic COVID-19 transmission: the importance of avoiding official miscommunication

<https://doi.org/10.1515/dx-2020-0085>

Keywords: coronavirus; COVID-19; information; miscommunication.

The coronavirus disease 2019 (COVID-19), an ongoing infectious disorder caused by acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is still incessantly spreading all around the world [1]. The inter-human transmission, principally conveyed by droplets or physical contact with infected biological material, has already caused the infection of millions people and the death of over 450,000 patients at the time of writing this editorial. With such an unprecedented clinical, societal and economic crisis, garnering timely and accurate information on COVID-19 is compulsory for avoiding mistakes and for taking the most appropriate medical and societal decisions [2].

The World Health Organization (WHO) is considered the leading worldwide association for prevention, containment and management of all human pathological conditions. This holds especially true at the times of COVID-19 pandemic, when every information provided by WHO officers will be taken for granted by billions people worldwide. It is hence objectionable that a lack of efficient communication could rapidly turn into a miscommunication, that may cause embarrassment for the whole Agency, and may especially enhance the risk of harm to the population, even fueling the debate of those who think that the use of preventive measures (such as the use of face mask) may be useless or even dangerous.

The specific circumstance is that of Maria Van Kerkhove, the WHO's technical lead on the COVID-19 pandemic, who stated during a press conference on June 8, 2020, that asymptomatic transmission of SARS-CoV-2 is supposed to be "very rare" [3]. This information is obviously unreliable, as evidenced by a vast number of current clinical studies, which clearly show that the rate of asymptomatic SARS-CoV-2 transmission is "nothing but rare". In a very recent article published in the journal "Science", for example, Li et al. concluded that nearly 80% of SARS-CoV-2 infections might have been caused by asymptomatic individuals, either pre-symptomatic or fully asymptomatic throughout the entire course of their infection [4]. In another recently published article, which has reviewed the currently available scientific information on this matter, it has been reported that asymptomatic subjects may account for approximately 40–45% of SARS-CoV-2 infections, and that they can transmit the infection for as many as 14 days, thus concluding that asymptomatic transmission shall be regarded as a significant factor in the "rapid progression of COVID-19 pandemic" [5]. Notably, the rate of transmission of undocumented infections was also found to be nearly 1.6-fold higher than that of documented infections [4], thus strongly emphasizing that the risk of asymptomatic transmission may be bigger than that conveyed by symptomatic people. This is attributable to the facts that (i) asymptomatic and pre-symptomatic carriers of SARS-CoV-2 have a viral load that is ultimately comparable to that of symptomatic patients [6], and (ii) since asymptomatic and pre-symptomatic carriers are hardly undetectable, their isolation is almost unattainable, thus facilitating public circulation and amplifying the risk of virus spread.

Communicating medical information is not an always easy enterprise [7], especially at the times of COVID-19, when national governments, epidemiologists, healthcare professionals and administrators, as well as the general public, are eagerly willing to receive trustable guidance from reference health organizations, such as the WHO. We strongly advise that officers of eminent scientific organizations, agencies, associations and/or healthcare institutions

Corresponding author: Prof. Giuseppe Lippi, Associate Editor of Diagnosis, Section of Clinical Biochemistry, Department of Neuroscience, Biomedicine and Movement, University Hospital of Verona, Piazzale L.A. Scuro, 10, 37134 Verona, Italy,
E-mail: giuseppe.lippi@univr.it, Phone: 0039-045-8122970,
Fax: 0039-045-8124308

Mario Plebani: Department of Laboratory Medicine, University Hospital of Padova, Padova, Italy. <https://orcid.org/0000-0002-0270-1711>

must be very careful when communicating information and updates on COVID-19, because miscommunications and misunderstandings may otherwise enormously amplify the detrimental consequences of this already tragic pandemic.

Research funding: None declared.

Author contributions: All authors have accepted responsibility for the entire content of this manuscript and approved its submission.

Competing interests: Authors state no conflict of interest.

References

1. Lippi G, Sanchis-Gomar F, Henry BM. Coronavirus disease 2019 (COVID-19): the portrait of a perfect storm. *Ann Transl Med* 2020;8:497.
2. Mattiuzzi C, Lippi G. Which lessons shall we learn from the 2019 novel coronavirus outbreak? *Ann Transl Med* 2020;8:48.
3. Craven J. WHO clarifies comments on asymptomatic transmission of SARS-CoV-2. *Medscape* 2020 Jun 3. Available from: <https://www.medscape.com/viewarticle/932088>. [Accessed 12 Jun 2020].
4. Li R, Pei S, Chen B, Song Y, Zhang T, Yang W, et al. Substantial undocumented infection facilitates the rapid dissemination of novel coronavirus (SARS-CoV-2). *Science* 2020;368:489–93.
5. Oran DP, Topol EJ. Prevalence of asymptomatic SARS-CoV-2 infection: a narrative review. *Ann Intern Med* 2020 Jun 3. <https://doi.org/10.7326/M20-3012> [Epub ahead of print].
6. Chau NVV, Thanh Lam V, Thanh Dung N, Yen LM, Minh NNQ, Hung LM, et al. *Clin Infect Dis* 2020 Jun 4. <https://doi.org/10.1093/cid/ciaa711>. [Epub ahead of print]. PMID: 32497212.
7. Negrini D, Padoan A, Plebani M. Between web search engines and artificial intelligence: what side is shown in laboratory tests? *Diagnosis (Berl)* 2020 Apr 25. <https://doi.org/10.01515/dx-2020-0022> [Epub ahead of print].