



Tehran University of Medical  
Sciences Publication  
<http://tums.ac.ir>

## Iran J Parasitol

Open access Journal at  
<http://ijpa.tums.ac.ir>



Iranian Society of Parasitology  
<http://isp.tums.ac.ir>

### Letter to the Editor

## Is COVID-19 Posed Great Challenges for Malaria Control and Elimination?

\*Hosein Azizi<sup>1,2</sup>, Elham Davtalab Esmacili<sup>3</sup>

1. Research Center of Psychiatry and Behavioral Sciences, Tabriz University of Medical Sciences, Tabriz, Iran
2. Department of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran
3. Road Traffic Injury Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

Received 09 Mar 2021  
Accepted 19 Mar 2021

\*Correspondence Email:  
[azizih@razi.tums.ac.ir](mailto:azizih@razi.tums.ac.ir)

### Dear Editor-in-Chief

Novel coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was reported in Wuhan, China, in December 2019, with many similar clinical and epidemiological aspects as well as mutual influence with malaria. The COVID-19 pandemic, and actions taken in response to it, may have far-reaching implications for other diseases (1).

Over the past decades, major gains have been made in reducing malaria morbidity and mortality. Globally, many countries made substantial progress in malaria elimination and prevention. These achievements are due to appropriate malaria case management, insecti-

cide-treated bed nets (ITNs), vector control interventions, using rapid diagnostic tests (RDTs), enlarged coverage of integrated vector management (IVM), and many effective efforts (2).

Malaria control and elimination programs are being affected by COVID-19 and appear to face great challenges if the pandemic continues. One of the main concerns is the disruption in the identification and case management of suspected malaria. Timely diagnosis and treatment of febrile suspected malaria cases are one of the most important programs in malaria control. Particularly, rapid identifying and management of suspected cases in low



Copyright © 2021 Azizi et al. Published by Tehran University of Medical Sciences.  
This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International license (<https://creativecommons.org/licenses/by-nc/4.0/>). Non-commercial uses of the work are permitted, provided the original work is properly cited.

transmission and potential re-introduction regions are critical.

In low transmission areas (progress for elimination), healthcare provider's (HCPs) vigilance and system readiness were decreased due to the rarity of malaria and lack of indigenous transmissions. The COVID-19 pandemic has aggravated this problem due to overburdening. Healthcare services and suspected malaria case management is ignored by HCPs. In the current pandemic situation, all febrile outpatients are screened for COVID-19 and other febrile diseases, including malaria, have been overlooked. Moreover, suspected malaria cases may stop attending health services, out of fear of exposure to COVID-19. Furthermore, HCPs have to need additional resources to protect themselves from COVID-19.

In the malaria-endemic countries, these disruptions will increase the number of death by malaria especially in children under 5 years. The COVID-19 pandemic being interrupted supplies of diagnostics and treatment, falsified medicines, and the spread of drug resistance, and could prove catastrophic for global health (3).

In the context of the COVID-19 pandemic, malaria control and prevention programs and elimination efforts should be continued longer than before. Improving the resilience of the health system during the pandemic to be placed on the agenda in the long-term. Malaria identification could be coupled to the

COVID-19 testing of suspected COVID-19 patients to avoid misdiagnosis. Moreover, HCP permanently trained/re-trained about differences in clinical signs and symptoms of suspected cases of malaria and COVID-19 (4).

### **Conflict of interest**

The authors declare that there is no conflict of interest.

### **References**

1. Hogan AB, Jewell BL, Sherrard-Smith E, et al. Potential impact of the covid-19 pandemic on hiv, tuberculosis, and malaria in low-income and middle-income countries: A modelling study. *The Lancet Global Health*. 2020;8:e1132-e1141.
2. Azizi H, Davtalab-Esmacili E, et al. Malaria situation in a clear area of Iran: An approach for the better understanding of the health service providers' readiness and challenges for malaria elimination in clear areas. *Malar J*. 2020;19(1):114.
3. Rogerson SJ, Beeson JG, Laman M, et al. Identifying and combating the impacts of covid-19 on malaria. *BMC Med*. 2020; 18(1):239.
4. Nghochuzie NN, Olwal CO, Udoakang AJ, Amenga-Etego LN-K, Amambua-Ngwa A. Pausing the fight against malaria to combat the covid-19 pandemic in africa: Is the future of malaria bleak? *Front Microbiol*. 2020;11:1476.