

Self-Medication in Peru During the COVID-19 Pandemic: How Harmless It Could Be?

Dear Editor,

Self-medication is a public health problem; this practice has been increasing during the current context of the COVID-19 pandemic.^[1] This practice may be responsible if the over-the-counter medication used is safe and does not cause major adverse effects. However, the most frequent practice in Peru is irresponsible self-medication, which is characterized by the use of medications that require a medical prescription, due to the complexity of their use.^[2] In Peru, approximately 3 out of 4 people self-medicate and 1 out of 2 does it irresponsibly.^[3] This could be due to several factors, including those associated with the health system and the lack of health insurance. Likewise, it is worth noting the influence of pharmacy staff and the media,^[3] who promote misinformation and self-medication in Peru.^[4]

In the current context, the practice of irresponsible self-medication has increased, by the use of drugs indicated for COVID-19 therapy, which have reported adverse effects and severe drug interactions.^[5] Among the drugs whose demand has increased due to COVID-19 pandemic in Peru, Hydroxychloroquine, Azithromycin, Warfarin, Ivermectin, Prednisone, and Aspirin stand out, as they are easy to acquire and orally administered.^[6] These drugs have even been described as a prophylactic treatment, as well as in mild or asymptomatic cases of COVID-19.^[5] Therefore, we evaluated the drug interactions and adverse effects when using these drugs together, using the medical tool Lexicomp from the Uptodate software.^[7] Table 1 shows the main adverse effects reported, being the most relevant the prolongation of the QTc interval, the increase in international normalized ratio (INR) and bleeding.

It is necessary to take measures to reduce self-medication in the Peruvian population since it could generate an increase in medical attention due to the occurrence of adverse effects. Also, complications due to lack of usual medicines could occur in chronic patients using these drugs. On the other hand, there could be an increase of COVID-19 cases

due to unnecessary exposure to the hospital environment of people who require medical attention for the consumption of these drugs. Interventions to fight this irresponsible practice should be implemented as a joint effort between the Ministry of Education and Health, promoting public and collective health.

The government should promote interventions using the media; by sending text messages, radio and television campaigns, reporting the risks of irresponsible self-medication, in the same way as they have been used in chronic diseases.^[8] Furthermore, the information provided by the media should be controlled to avoid promoting irresponsible self-medication and unproven therapies to treat COVID-19.^[4] It is necessary to increase the control of informal sale of these drugs, as well as to improve the regulation of pharmacies and drugstores that sell non-over the counter medicines without medical prescription. Irresponsible self-medication could generate severe consequences in Peru and must be a public health priority.

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Conflicts of interest

There are no conflicts of interest.

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Table 1: Drug interaction effects in COVID-19 treatments

	Azithromycin	Warfarin	Ivermectin	Aspirin	Prednisone
Hydroxychloroquine	QTc interval prolongation	Not reported	Not reported	Hypoglycemia	Not reported
Azithromycin		INR elevation, bleeding	Itching/rash, dizziness, diarrhea and nausea	Not reported	Not reported
Warfarin			Bleeding	Bleeding	INR elevation
Ivermectin				Not reported	Not reported
Aspirin					Gastrointestinal ulcer

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