

<https://dx.doi.org/10.4314/jnoa.v24i1.2>

Editorial

Understanding the opinion of sub-Saharan Africans regarding uptake of Chloroquine (CQ) and hydroxychloroquine (HCQ) for COVID-19 treatment

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Sometime ago, a study[1] showed that 12 out of 30 Africans with heart block had a history of chronic chloroquine abuse, and out of these number, eleven people had evidence of chloroquine retinopathy. In four of those who did not abuse chloroquine (n=18), there were abnormal fundi changes, attributed to age-related changes. Such chronic abuse of Chloroquine was again reported during COVID-19 with reports of serious heart rhythm problems and other safety issues, including blood and lymph system disorders, kidney injuries, and liver problems and failure. These harmful effects were not statistically different between those who were treated with hydro chloroquine group (HCQ) and standard care (SC) [(RR= 1.11, 95% CI 0.74–1.65, I²=45%) and (RR=1.28, 95% CI 0.33–4.99), I²=54%] respectively[2]. Following the lack of scientific evidence, FDA revoked the emergency use authorization (EUA) to use hydroxychloroquine and chloroquine to treat COVID-19 in certain hospitalized patients[3].

Furthermore, across the globe, there were rising concerns of hydroxychloroquine (HCQ) supply shortages for patients who need the medication the most especially people with rheumatic disease. In some countries, institutions started a critical monitoring of the clinical impact of these shortages[4]. In SSA, a scoping review study found that malaria cases and deaths increased due to the direct and indirect effects of the pandemic[5]. The African Translational Research Group (ATReG) set out to investigate people's opinion regarding the uptake of chloroquine for treating COVID-19. The findings of this study is used in this editorial due as this is very relevant considering the ocular implications of such drug abuse in patients visiting our practices post pandemic.

Educational Aim:

As the vaccine rollout for treatment of coronavirus disease 2019 (COVID-19) infection continues, the public opinion around the potential use of chloroquine (CQ) in treating COVID-19 remains mixed and may continue especially among Africans, if vaccines are not made easily accessible to people. The aim of this article is to raise awareness on the abuse of Chloroquine (CQ) tablet and its analogues in African post the pandemic.

Educational Outcomes:

Upon completion of this module practitioners should have a clear understanding of:

1. The prevalence of Chloroquine uptake among Africans during the pandemic
2. The perception of Africans regarding the effectiveness of CQ tablet for treatment of COVID-19

The factors associated with CQ uptake for COVID-19 treatment among Africans

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Question 1	Which of the following is not associated with chloroquine (CQ) poisoning and the use of hydroxychloroquine (HCQ)? Select the incorrect answer.	
		True = x
Answer a	life-threatening cardiovascular disorders	
Answer b	irreversible blindness	
Answer c	in-hospital mortality	
Answer d	severe allergies	
Answer e	chloroquine retinopathy	

Question 2	Only a few of those who purchased CQ believe in its use for COVID-19 treatment. Is this statement true or false?	
		True = x
Answer a	True	
Answer b	False	

Question 3	People with adequate knowledge of COVID-19 transmission were more likely to purchase CQ for COVID-19 treatment and this can be attributed to one of the following. (Select the most accurate answer).	
		True = x
Answer a	information overload and medication misinformation regarding the disease	
Answer b	unnecessary fear of contracting the infection	
Answer c	widespread panic in the region	
Answer d	legitimate public health advice by government officials	
Answer e	Advice from members of the public	

Question 4	Which of the following statements is NOT true of the belief and uptake of CQ?	
		True = x
Answer a	It may have been encouraged by socio-behavioural factors	
Answer b	It may have been encouraged by familiarity with the drug	
Answer c	It may have been encouraged by the drug's perceived efficacy	
Answer d	It may have been encouraged by the drug's wide distribution	
Answer e	None of the Above	

Question 5	Other studies that have shown that CQ may not be as efficacious as claimed especially in severe cases of COVID-19. Is this statement true or false?	
		True = x
Answer a	True	
Answer b	False	

Question 6	CQ is restricted and strictly reserved for the following conditions. (More than one answer may be correct)	
		True = x
Answer a	COVID-induced malaria	
Answer b	severe malaria	
Answer c	special cases of uncomplicated malaria	
Answer d	patients with inflammation	
Answer e	patients allergic to other anti-malarial drugs	

Question 7	Majority of the sample population were 'worried about contracting COVID-19', thus, were driven to buy whatever the media promoted as a cure. Is this statement true or false?	
		True = x
Answer a	True	
Answer b	False	

Question 8	The intake of CQ has been associated with severe adverse effects in COVID-19 patients. Is this statement true or false?	
		True = x
Answer a	True	
Answer b	False	

Question 9	Which of these underlying health issues increases risk of experiencing heart problems when taking CQ and HCQ?	
		True = x
Answer a	Liver disease	
Answer b	Kidney Disease	
Answer c	Flu	
Answer d	Cancer	
Answer e	Gastritis	

Question 10	The legislation of CQ/HCQ as prescription-only-medication available to designated pharmacies would not help in mitigating the abuse of CQ/HCQ.	
		True = x
Answer a	True	
Answer b	False	

Question 11	Which of the following purposes will an emphasis on the medication history of patients serve for practitioners during consultation? (More than one answer may be correct)	
		True = x
Answer a	To reduce the risk of heart problems	
Answer b	To ensure proper legislation	
Answer c	To identify those who do not need the medication but are taking it	
Answer d	To counsel patients on medication safety	
Answer e	To counsel patients on medication's associated adverse effects	

Question 12	The severe adverse side effects of CQ in COVID-19 patients is more concerning in Africa because of the following (More than one answer may be correct)	
		True = x
Answer a	The region lack proper screening programs	
Answer b	People in the region are more likely to experience heart problems from taking CQ and HCQ	
Answer c	There are many people in the region that are unaware that they have an underlying disease	
Answer d	The region has poor health systems	
Answer e	People in the region are more likely to have underlying health issues	

Question 13	Irrespective of the other factors, respondents with higher education were significantly more likely to believe on the effectiveness' of CQ for COVID-19 treatment in this study. Is this statement true or false?	
		True = x
Answer a	True	
Answer b	False	

Question 14	To combat the inadequate knowledge and increasing worry demonstrated by Africans in this study, the following interventions could be employed. (Select all that apply)	
		True = x
Answer a	Awareness creation	
Answer b	Sensitizing the public on COVID-19 transmission	
Answer c	Re-orientation on the dangers of indiscriminate use of CQ	
Answer d	Migration to urban regions	
Answer e	Healthy nutrition	

Question 15	The selected techniques in No. 14 are most likely to be achieved by one of these?	
		True = x
Answer a	Provision of healthy doses of CQ/HCQ	
Answer b	Health facility expansion	
Answer c	Provision of clean drinking water	
Answer d	Community/regional educational intervention	
Answer e	Increasing workers' remuneration	

Question 16	The media was not the major contributor of misinformation concerning the use of CQ in the treatment of the COVID-19 infection. Is this statement true or false?	
		True = x
Answer a	True	
Answer b	False	

Question 17	In this article, CQ was previously used as a first line treatment regimen for malaria caused by this parasite.	
		True = x
Answer a	Plasmodium malariae	
Answer b	Plasmodium vivax	
Answer c	Plasmodium ovale	
Answer d	Plasmodium falciparum	
Answer e	All of the above	

Question 18	Reports of the favourable effect of CQ/HCQ on COVID-19 patients are still without clinical trials using proper methodology. Is this statement true or false?	
		True = x
Answer a	True	
Answer b	False	

Question 19	The indiscriminate promotion of this medication by those in authority and widespread use of CQ in Africa have led the following, except,	
		True = x
Answer a	Extensive shortages	
Answer b	Self-treatment	
Answer c	Fatal overdoses	
Answer d	Increased market prices	
Answer e	Reduction in government monitoring	

Question 20	The prevalence of belief in CQ as a cure for COVID-19 was highest inand lowest in regions?	
		True = x
Answer a	Southern Africa AND West Africa	
Answer b	Central Africa AND East Africa	
Answer c	East Africa AND West Africa	
Answer d	Central Africa AND Southern Africa	
Answer e	Central Africa AND West Africa	

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