Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

twice on day 1, then 400 mg once a week thereafter) for asymptomatic health-care workers treating patients with suspected or confirmed COVID-19, and for asymptomatic household contacts of confirmed cases.[2] The document states "its use in prophylaxis is derived from available evidence of benefit as treatment and supported by preclinical data". Although some in-vitro evidence supports the antiviral activity of hydroxychloroquine and its precursor chloroquine, there is no peer-reviewed publication that evaluates either drug for exposure prophylaxis of SARS-CoV-2 infection. Even for treatment of diagnosed cases, only one small study reported faster nasopharyngeal viral clearance, with no data for clinical improvement.[3] This evidence, or the lack thereof, hardly justifies state-endorsed, widespread use of hydroxychloroquine for prophylaxis.

We are deeply concerned that in this environment of global panic, an endorsement by the highest scientific body of India (and also by the President of the USA)[4] will create an overly optimistic perception of the effectiveness of hydroxychloroquine among the public. Markets in the USA are already reporting a short supply of both hydroxychloroquine and chloroquine.[4] The situation in India is no different, probably indicating widespread self-medication.

The shortage of chloroquine, an inexpensive antimalarial in low-income malaria-endemic countries like India, could lead to preventable morbidity and mortality. Moreover, mathematical models estimate a worst-case scenario of 10 million cases of COVID-19 in New Delhi, India, alone in the coming weeks.[5] In these chaotic times, no health-care system can screen such a large number of healthy contacts for concomitant QTc prolonging medicines, long QT syndromes, or glucose-6-phosphate dehydrogenase deficiency. Even a 0·1% proportion of serious complications would amount to more than 10 000 severe adverse events in New Delhi alone, a number an already overwhelmed health-care system would not be able to cope with. The drug is untested, the benefits unknown, and the risks not negligible, especially at this scale of use. Moreover, the safety of these immunomodulators in people at risk of a severe viral illness has never been evaluated.

An ongoing pandemic justifies leeway in generation and interpretation of evidence in the interest of public health. However, all scientific reasoning cannot be abandoned citing desperate times. A blanket recommendation for chemoprophylaxis in the absence of credible evidence might be contentious to say the least. If hydroxychloroquine is to be used, a clear informed choice needs to be offered to every contact, explaining the scarcity of evidence for its efficacy and its potential risks. Additionally, all outcome events should be recorded. If this is not done, the risk–benefit assessment would be skewed, adverse events accepted as collateral damage, and a drug accepted provisionally in a time of crisis could become commonplace as standard of care for a long time to come.

We declare no competing interests.

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Hydroxychloroquine prophylaxis for high-risk COVID-19 contacts in India: a prudent approach

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We read with interest the Correspondence from Sahaj Rathi and colleagues[1] on hydroxychloroquine prophylaxis for COVID-19 contacts in India. The authors see the decision by the Indian Council of Medical Research, under the Ministry of Health and Family Welfare, to recommend chemoprophylaxis with hydroxychloroquine in select groups of contacts at high risk as an abandonment of scientific reasoning in desperate times. We present our counterview on this issue.

The safety concerns raised by Rathi and colleagues include haemolysis in individuals with glucose-6-phosphate dehydrogenase deficiency and QTc prolongation. The prevalence of glucose-6-phosphate dehydrogenase deficiency in India ranges from 0% to 10%, with heterogenous distribution and incomplete penetrance.[2] Haemolysis is not clinically significant when hydroxychloroquine is administered in usual therapeutic doses to individuals with WHO class II and III glucose-6-phosphate dehydrogenase deficiency, and the safety of hydroxychloroquine is well established

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with prolonged use. Furthermore, a routine electrocardiogram for QTc interval is not essential before hydroxychloroquine initiation in clinical practice and is not recommended in any guidelines. Decades of experience with this drug in autoimmune disorders is enough to allay these fears.

Concerns have been raised regarding lack of data on efficacy of hydroxychloroquine against severe acute respiratory syndrome coronavirus 2. A paucity of data is expected in the first wave of a pandemic caused by a novel virus. Hydroxychloroquine has been shown to have in-vitro activity against the virus. Recently published human trials,[4] along with other unpublished data,[5] suggest that it could decrease the duration of viral shedding and symptoms if given early. A study from South Korea shows the efficacy of hydroxychloroquine for post-exposure prophylaxis.[6] Historically, many drugs used in the treatment of an infectious disease have also been used for prophylaxis. The pharmacokinetics of hydroxychloroquine, such as its long half-life and high lung concentration (500-times the blood concentration), are ideally suited for use as an agent for prophylaxis.[7]

The criticisms made by Rathi and colleagues overlook the fact that prophylactic hydroxychloroquine would be targeted to individuals at high risk rather than the general population. Projection of adverse events to the population level causes unjustified alarm. The advisory from the Indian Council of Medical Research includes a section of key considerations that address all such concerns, which have been ignored by Rathi and colleagues. In addition, the argument that there will be a shortage of the drug is not tenable. Production has been ramped up and the Government of India is supplying hydroxychloroquine to more than 50 countries, which has received widespread appreciation.

We are in the midst of a once-in-a-generation pandemic, given the scale of morbidity and mortality. The frontline health-care workers are at great risk of infection; in Italy, 20% of the responding health-care workers have been infected.[8] A wide variety of therapeutic interventions are being tried in COVID-19 patients, without any evidence but following a prudent approach. We believe that the hydroxychloroquine prophylaxis in selected groups of high-risk contacts is a prudent approach considering the risk–benefit analysis. Implemented as envisaged in the recommendation document from the Indian Council of Medical Research, evidence will be generated for future recommendations.

We declare no competing interests.

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Hydroxychloroquine use in COVID-19: what is the basis for baseline tests?

We read with great interest the letter by Sahaj Rathi and colleagues[1] on the implications of recommending hydroxychloroquine prophylaxis in the context of COVID-19. We agree with the authors, since such recommendations, in the absence of succinct evidence and with over-aggressive media attention, have led to mass consumption of hydroxychloroquine and its subsequent unavailability for the people who actually need it.

However, in light of the renewed global interest in hydroxychloroquine, and to allay irrational new-found fears in dermatology and rheumatology patients who have been taking hydroxychloroquine for years, we would also like to point out an error in the letter[1] regarding the need to screen for glucose-6-phosphate dehydrogenase (G6PD) deficiency before prescribing hydroxychloroquine. G6PD deficiency is the most common human enzymatic deficiency that affects 400 million people worldwide. In red blood cells, G6PD is the only pathway available to generate NADPH, an important scavenger of reactive oxygen species. When G6PD-deficient individuals are exposed to particular pharmacological or microbiological insults, haemolysis occurs because of the accumulation of free radicals. Hydroxychloroquine (a derivative of chloroquine) has been used in dermatology and rheumatology settings for more than 50 years, and unlike its related drug primaquine (an 8-aminoquinoline), hydroxychloroquine (a 4-aminoquinoline) does not induce haemolysis in G6PD-deficient individuals. This finding was substantiated by a seminal study,[2] which ruled out the occurrence of hydroxychloroquine-related haemolysis in G6PD-deficient individuals. No rheumatology guidelines recommend baseline