Favipiravir--a prophylactic treatment for Ebola contacts?

that Hong Kong airport is a major international transport hub, and thus any potential infections can travel worldwide in a short time.

After dealing with several pandemic threats over the past 15 years, notably severe acute respiratory syndrome coronavirus (SARS-CoV) in 2003, H1N1 influenza in 2009, and Ebola virus in 2014–15, authorities now have ample experience in outbreak response compared with past years. In addition to the need for increased vigilance from health authorities, compliance by the public is crucial for the effective implementation of outbreak responses. Everyone is responsible for upholding the principles of public health, and must play their part to minimise the chances of disease transmission across borders.

We declare no competing interests.

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Since the Ebola outbreak began in March, 2014, 25 178 cases of Ebola have been reported.[1] To control spread of Ebola in west African communities, vaccination campaigns have been proposed. However, the efficacy of candidate Ebola vaccines for primary prevention has not been proven.[2] Furthermore, in communities in which Ebola transmission might be ongoing, an important question is: how will such a vaccination be perceived if a vaccinated person develops Ebola? Such a scenario is possible in people who contract Ebola virus before vaccination. If a person is infected with Ebola virus before vaccination, the vaccine might have a post-exposure prophylactic effect. However, how effective this prophylaxis might be is unknown.[2] Moreover, if someone is infected more than 48 h before vaccination, the post-exposure prophylactic effect is likely to be insufficient, leading to possible development of Ebola after vaccination. This scenario is likely to result in serious issues relating to community trust and acceptance of an Ebola vaccine.[3] How to exclude Ebola among people presenting with post-vaccination fever is also an issue.[2]

We make a case for the study of favipiravir (Toyama Chemical, Japan), administered as directly observed therapy for contacts of patients with Ebola. Favipiravir has increased benefit in patients with low Ebola viraemia compared with patients with high viraemia.[4] As such, this drug could have a post-exposure prophylactic effect among recently infected contacts and a pre-exposure prophylactic effect among contacts exposed to, but not yet infected by, Ebola virus. Additionally, fever has not been reported as a side-effect of favipiravir (ClinicalTrials.gov, NCT02329054). Furthermore, oral administration of prophylactic favipiravir gives people the choice to interrupt treatment if wanted. Additional effects of prophylactic favipiravir might include increased openness of communities to use alert systems and to support contact tracing services (ie, contacts might be receptive to daily follow-up visits). Finally, to reduce incidence of malaria, prophylactic artesunate-amodiaquine could be administered to the contacts of patients with Ebola. One disadvantage of proposed favipiravir prophylaxis might be the need to exclude pregnant women. To mitigate this problem, pregnancy tests could be included as a routine part of the favipiravir prophylaxis package. Finally, prophylactic favipiravir could be field tested by measurement of incidence of Ebola among contacts of patients with Ebola before and after favipiravir is introduced.

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