Long-term consequences of the misuse of ivermectin data

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Misuse of ivermectin COVID-19 data – will there be long-term consequences for Neglected Tropical Disease programmes?

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Ivermectin is an oral anti-infective medicine which is integral to Neglected Tropical Disease programmes. It is known to be safe and effective in treatment and control of lymphatic filariasis, scabies and onchocerciasis, sometimes within a Mass Drug Administration, as recognised in the ‘WHO Road Map for Neglected Tropical Diseases 2021–2030’. The WHO Essential Medicines list provides recommendations for minimum medicine needs for a basic health-care system, which includes ivermectin as an anti-helminthic, anti-filarial and anti-ectoparasitic treatment.

There has been a groundswell of opinion across several countries that ivermectin may be useful in reducing symptoms and mortality of COVID-19, with many citing meta-analyses that infer positive effects. However, these conclusions appear to be unreliable. In March 2021, the WHO advised that ivermectin should only be used within clinical trials and not as part of routine clinical practice. This followed the manufacturer, Merck, stating in February 2021 that there is ‘no meaningful evidence for clinical activity or clinical efficacy in patients with COVID-19 disease’. Despite this, there is evidence that ivermectin is being routinely used in some Latin American settings amid recommendations from some governments and health professionals.

In July 2021, a number of scientists reviewed and reported on ivermectin COVID-19 clinical trial data in detail. Their commentaries (not peer-reviewed) highlighted extensive inconsistencies within the trial data. They also demonstrated that the ivermectin trials with inconsistent data were pivotal to the positive conclusions in peer-reviewed meta-analyses. A July 2021 Cochrane Review assessed the evidence base for ivermectin use in prevention of COVID-19, and treatment of in-patient and out-patient cases. Their conclusion was one of uncertainty, highlighting that the included studies were small, with few considered high quality.

As the global health community works to control the Covid-19 pandemic, risks to the future use and reputation of ivermectin are emerging? Papua New Guinea and Togo are among countries implementing MDAs using ivermectin during the last quarter of 2021. Amidst the Covid-19
controversies, this excellent medicine could be viewed with distrust by communities, amidst diversion of available supply, leading to compromise of NTD interventions. Few of the voices currently championing use of ivermectin in Covid-19 response are likely to be long term advocates for its use in addressing the burden of scabies or filariasis.

Information travels easily in a 21st century globalized world. Sustained campaigns of misinformation can affect trust and impact upon public health and population behaviour. Co-author MH has noted the inconsistent political and regulatory handling of the Oxford AstraZeneca COVID-19 vaccine in the global north has been a contributor to vaccine hesitancy in Ghana\textsuperscript{6}, and anecdotally, similar situations have been observed in Ethiopia and Papua New Guinea by RY, JM and WP. Ivermectin itself has been the subject of a widely-reproduced but unsubstantiated link to mortality in the elderly institutionalized, that still deters clinical use in some settings (including the UK).\textsuperscript{10}

Sustained misinformation can lead to diversion of limited healthcare and government resources to addressing rumour, rather than making genuine public health progress. Proactive health promotion and education is needed right now to ensure that locally-trusted actors and communicators (including, but not exclusively, healthcare workers) are aware of the uncertainty around the ivermectin evidence base for managing COVID-19, and that it remains a vital medicine for managing NTDs. Where advocacy emerged from official or high-level sources during the pandemic, we have concerns that this will increase the likelihood of mistrust within communities. There must be an awareness among international and national global health policy stakeholders that this could be an issue that needs addressing in both the short- and medium-term future.

In order to meet the ambitious 2030 targets of the WHO NTD Roadmap, it will be important to ensure access to healthcare, and to reduce stigma and prevalence of misinformation. Lower-income settings have spent years building up trust between health services and their populations to ensure high acceptance and uptake of population health campaigns. If that trust is lowered due to negative
local perceptions around the use of ivermectin, then achievement of national and global NTD targets may be hindered, and ultimately vulnerable populations would suffer.

Authors' contributions

Author MGH wrote the first draft. All authors reviewed and revised the draft with critical comment and additional content.

Conflict of interest statements

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