

Conversation with NTD program leaders. Ivermectin for Malaria

November 23th, 2019

Gaylord National Resort & Convention Center, Maryland

Background

The meeting gathered representatives from the NTD community which employ ivermectin in their programs or research activities for disease control. Convened by Regina Rabinovich and Julie Jacobson (BOHEMIA), the goal was to provide an update on the current trials testing the concept of ivermectin as a complementary vector control tool for malaria, and to initiate conversations between the two communities. The stakeholders, which included participants from the major NTD programs, civil society, product developers, academia, and biotechnology, as well as members of the BOHEMIA team, engaged in an open discussion about potential synergies and/or challenges of using ivermectin across different diseases.

Summary

After a brief introduction of the state of malaria globally and the funding situation to support related research, a summary table of the active/planned trials of ivermectin mass-drug administration (MDA) to humans for malaria control (5 total) were presented to the group. The main characteristics of the trials, such as ivermectin dose and regimen, combination with other drugs, and timeline of upcoming results were reviewed. This was contrasted to a summary of the state of use and distribution across the relevant NTDs. A draft table summarizing the implementation of current ivermectin-based NTD programs and clinical trials (onchocerciasis, lymphatic filariasis -LF-, soil-transmitted helminths -STH-, and scabies) was presented for input and to generate discussion. Then, the meeting turned into an open discussion about possible spaces for collaboration.

The group considered several unique aspects of the planned use of ivermectin for malaria control, including the timing (during the rainy season for malaria); the dose (higher than used for onchocerciasis and LF); the delivery assumptions (to be developed for use in malaria at scale, but all agreeing that the NTD model was not likely to be directly applied to the frequency and seasonality likely required for malaria impact); and the other differences that would be relevant (e.g.; two doses in two weeks necessary for scabies). While onchocerciasis and LF are well established programs, the scabies program is evolving rapidly with positive policy statement from WHO, and the STH indication for inclusion of ivermectin is being evaluated in clinical trials of ivermectin and albendazole combined.

Regarding existing ivermectin-donation programs, topics identified included the potential for coordination of drug source and delivery, resource sharing, synergy as to timing of delivery, managing risk of administration in *Loa-loa* areas (or even active implementation in those areas with low dose ivermectin), and specific issues in re-implementation of ivermectin campaigns in places where NTD programs have stopped. NTDs program which still do not widely use ivermectin but are currently running clinical trials to extend its use (e.g. scabies), highlighted how emerging data from the malaria community could inform their research and thus, be useful. In addition, the potential generic market of ivermectin that could be created if ivermectin is effective against other diseases, was seen as a very positive aspect.

The last topic was to generate areas of potential concerns, and topics included future coverage needs to control each disease, effects of drug combinations on NTDs, human resource schemes for drug delivery, duration of the programs for each disease, emergence of NTD parasites resistance to the drug, compliance with an increased number of MDA campaigns, and future surveillance activities. One challenge noted was that NTDs had secured significant commitments to donation of ivermectin, and there are concerns that malaria procurement would impact on those commitments. A frequent comment by the group was the importance of conveying the message that ivermectin does not treat malaria, but rather prevents the disease by killing the mosquito.

Conclusions

Overall, the group of NTD representants showed positive views about this novel use of ivermectin, and expressed interest in continuing close communications and future collaborations. This meeting served to bring the two communities together, and will be followed up first by ensuring access to updates from the BOHEMIA team. The potential to leverage attendance at ASTMH as a venue for another, longer opportunity for discussion will be pursued. Also, the potential for forging a national ivermectin platform for impact, and avoiding competition at the national level, was discussed as a long-term goal, should data be supportive.

List of Participants

Adrian Hopkins, Adrian Hopkins consulting (former MDP- medical donation program)
Alan Brooks, Bridges to development
Belen Pedrique, Drugs for Neglected Diseases initiative (DNDi)
Carlos Chaccour, Barcelona Institute for Global Health (ISGlobal)
Frank Richards, Carter Centre
Jessica Rockwood, International Public Health Advisors (IPHA)
Julie Jacobson, Bridges to development
Maria Rebollo, ESPEN coordinator, WHO
Mary Mael, I Barcelona Institute for Global Health (ISGlobal)
Michael Marks, London School of Hygiene and Tropical Medicine
Patrick Lammie, The Task Force for Global Health
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Regina Rabinovich, Barcelona Institute for Global Health (ISGlobal)
Roger Nditanchou, Sightsavers
Sabine Spetch, Drugs for Neglected Diseases initiative (DNDi)
Simon Bland, CEO Glide project (Abu Dhabi)
Sonia Tomas, Barcelona Institute for Global Health (ISGlobal)
Suzy Campbell, Evidence Action
Upendo Mwingira, Senior NTD Advisor, Onchocerciasis and Schistosomiasis USAID's Act to End NTDs - East Program.
Victoria Periago, Mundo Sano