World Health Organization

WHO R&D Blueprint

COVID-19

Informal consultation on the role of therapeutics in COVID 19 prophylaxis and post-exposure prophylaxis.

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R&DBlueprint

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Appropriate WHO Confidentiality Undertakings were signed and submitted to WHO by all participating experts

INTRODUCTION

Currently, there are no licensed vaccines for the prevention of COVID 19. While efforts continue to develop efficacious vaccines, it is pertinent to examine the possible role of therapeutic agents in protecting healthcare workers and the general populace who are at significant risk of contracting the virus, either before they are exposed to the virus or to prevent the development of clinical disease following exposure.

This expert consultation convened clinical care partners and experts in the field of randomized controlled trials (RCTs), biostatistics, regulatory affairs, preclinical studies, and pharmacology to evaluate current progress in the area of COVID 19 chemoprophylaxis.

OBJECTIVES OF THE CONSULTATION

The objectives of this consultation were:

1. To review and critically appraise the existing evidence regarding promising therapeutics for chemoprophylaxis.

2. To decide on the best approach to evaluate the prophylactic and post-exposure prophylactic efficacy of the highlighted therapeutics.

This Consultation represents an initial step towards the evaluation of available evidence and harmonization of ongoing scientific efforts.

Agenda items

- Introduction and roll-call.
- Update on current plans and protocols for prophylaxis.
- Conclusions and next steps.

Participants

Chair: Marco Cavaleri

Name	Position	Institutional Affiliation
Marco Cavaleri	Head of Anti-infectives and Vaccines	European Medicines Agency, Netherlands
Eric Pelfrene	Office of Anti-infectives and Vaccines	European Medicines Agency, Netherlands
Sina Bavari	Independent Consultant	
Karl Erlandson	Interdisciplinary Scientist	Biomedical Advanced Research and Development Authority, US Department of Health and Human Services
Yaseen Arabi	Chairman, Intensive Care Department	King Saud bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia

Name	Position	Institutional Affiliation
John Marshall	Co-Director, Critical Illness and Injury Research Centre, St Michael Hospital, Canada	Co-Director, Critical Illness Research, St Michaels Hospital
Ross Upshur	Director, Primary Care Research Unit, Sunnybrook and Women's College Health Sciences Centre, Canada Research Chair in Primary Care Research	University of Toronto, Canada
John Beigel	Associate Director for Clinical Research	NIH, USA
Thomas Fleming	Professor of Biostatistics	University of Washington
John Farley	Director, Office of Infectious Diseases	FDA, USA
Philip Krause	Deputy Director CBER/OVRR	FDA, USA
Peter Dull	Deputy Director, Integrated Clinical Vaccine Development	Bill & Melinda Gates Foundation, USA
Ken Duncan	Discovery & Translational Sciences team Lead	Bill & Melinda Gates Foundation, USA
Nicholas White	Professor of Tropical Medicine	Mahidol University, Thailand
Robert Walker	Chief Medical Officer and Director, Division of Clinical Development	Biomedical Advanced Research and Development Authority, US Department of Health and Human Services
Julia Tree	Microbiological Services	Public Health England

Name	Position	Institutional Affiliation
Scott Miller	Deputy Director, medical interventions	Bill & Melinda Gates Foundation, USA
Frederick Hayden	Professor Emeritus, Medicine: Infectious Diseases and International Health	University of Virginia
Jacqueline Kirchner	Senior Program Officer	Bill & Melinda Gates Foundation, USA
Elizabeth Higgs	Global health science advisor for the Division of Clinical Research (DCR)	NIH. USA
Helen Rees	Professor, Wits Reproductive Health and HIV Institute	University of Witwatersrand, South Africa
White	Associate Professor, Microbiology and Immunology	University of Maryland School of Medicine
Oriol Mitjà	Associate Professor, Infectious Diseases	Universitari Germans Trias I Pujol, Barcelona
Ruanne Barnabas	Associate Professor in Global Health and Medicine	University of Washington
Michael Avidan	Professor of Anaesthesiology	Washington University, St Loius

Other invited experts but only those listed in the table above participated: Hilary Marston (US NIH), Philip Coyne (US PHS), Sina Bavari (Independent consultant), Jeremy Farrar (Wellcome Trust, UK), Markus Mueller (University of Wien), Bin Du (Peking), Yi Guan (Hong Kong); Wannian Liang (MOH China), Bruno Lina (France), Claire Madelaine William Dowling (CEPI, USA) David R Boulware(Minnesota, USA).

WHO Secretariat: Alejandro Costa, Janet Diaz, Ana Maria Henao-Restrepo, Marie-Pierre Preziosi, Ximena Riveros Balta, Kolawole Salami, Emer Cooke, Deusdedit Mubangizi, and Pierre Gsell. David Schellenberg, Pascal Ringwald.

OVERVIEW OF THE DELIBERATIONS

Overall considerations

- The WHO preliminary considerations on a generic protocol was provided for the scientific evaluation of chemoprophylaxis in both pre and post exposure prophylaxis scenarios. A double blind randomized placebo-controlled clinical trial is the encouraged methodology. Randomization could either be at the individual or household clusters or rings around an index case. However, randomization within units is preferable to between units if the aim is to assess effect of prophylaxis on transmission. Protection against illness and infection can, however, be assessed in both individual or cluster randomization; with 'herd protection' assessment more feasible in cluster randomization.

- The Barcelona PEP study is in collaboration with the department of health. It is pertinent as there are currently more than 10,000 confirmed cases of COVID 19 in Spain, and the daily count is progressively increasing with an average R_0 of 3. The aim is to evaluate the efficacy of antiviral treatment in reducing transmission (measured as secondary attack rate) and disease progression in individuals who are found to be infected and their contacts throuah