

Meningitis: Five Key Questions Beyond 2020

'Tackling Meningitis: the WHO Defeating Meningitis by 2030 Roadmap and the WHO STI Vaccine Roadmap'

Wednesday 2nd December 2020, 13.00-16.10 GMT

Approved for 3 CPD credits by RCP (Code: 133156)

Agenda:

13:00-13.05: Welcome and introduction. Vinny Smith, Meningitis Research Foundation

13.05-14.30 - Should we introduce adolescent MenB vaccine and will the WHO STI Vaccine Roadmap unlock this? Chair: Prof Ray Borrow, Public Health England

MenB incidence is relatively low in adolescents compared to infants in most countries. So far only South Australia has judged incidence to be high enough to warrant MenB vaccination for direct protection of teenagers. There is very limited evidence so far of impact of MenB vaccines on carriage in teenagers at school, reducing the likelihood of a herd effect through reduced transmission.

13.05-13.20 What we have learned from Australian studies of impact of Bexsero on carriage in teenagers, including possible consequences of reduction in carriage of non-capsular meningococci? Is an impact on carriage or carriage density more likely in countries/regions with higher baseline carriage? An update on further studies, including gonorrhoea impact studies. **Prof Helen Marshall, Women's and Children's Hospital, Adelaide**

13.20-13.35 Update from B on the Team study in UK schools amidst COVID-19 control measures. **Dr Matthew Snape, University of Oxford**

13.35-13.50 Possible impact of OMV component of MenB vaccines on gonorrhoea: the MenZB story in New Zealand, OMVs in Cuba and Quebec and subsequent studies. **Dr Steve Black, Professor Emeritus, University of Cincinnati Children's Hospital**

13.50-14.05 WHO roadmap connections (STIs and meningitis) and need for affordable vaccine. **Dr Sami Gottlieb, WHO**

14.05-14.30 Q&A

14.30-14.40 Break

14.40-16.10 - What progress has been made with the WHO global roadmap Defeating Meningitis by 2030? Chair: Prof James Stuart, WHO

Despite significant advances over the last few decades, meningitis remains a much-feared disease worldwide, presenting a major challenge for health systems, economies and society, with serious consequences for individuals, families and communities. Despite its severity and impact, progress against meningitis lags behind other vaccine-preventable diseases. A global roadmap to defeat meningitis by 2030, developed by a WHO-led multi-organisation partnership was ratified by the World Health Assembly in November 2020.

14.40-14.55 Summary of the Defeating Meningitis roadmap and where we are now. **Dr Marie-Pierre Preziosi, WHO**

14.55-15.10 Potential for global impact of the Defeating Meningitis roadmap on meningitis. **Dr Caroline Trotter, University of Cambridge**

15.10-15.25 ACWXY meningococcal vaccine trials, can carriage studies inform introduction strategy in the meningitis belt? **Dr Matt Coldiron, Medecins sans Frontieres**

15.25-15.40 Point of Care tests for low and middle income countries, any closer? **Dr Katya Fernandez, WHO**

15.40-15.55 Impact of meningitis on people and families in higher and lower income countries: how can we best measure associated disability / quality of life impact and monitor improvements? **Prof Nora Groce, University College London**

15.55-16.10 Q&A

Speaker and Chair biographies:



Professor Ray Borrow is Head of the Vaccine Evaluation Unit and Deputy Head of the Meningococcal Reference Unit at Public Health England, Manchester, UK, where he is responsible for the evaluation of serological responses to various bacterial and viral vaccines with a special interest in meningococcal and pneumococcal vaccines. He gained his PhD in 1994, his MRCPATH in 2003 and he became a Professor of Vaccine Preventable Diseases in the Faculty of Medical and Human Sciences at the University of Manchester in 2009 and Visiting Professor at the School of Healthcare Sciences, Manchester Metropolitan University in 2011. His scientific findings resulted in over 400 peer reviewed published papers. Until recently he served as a member of the DoH Joint Committee of Vaccination and Immunisation (JCVI) and continues as an invited expert. He is an ad hoc advisor to WHO and PATH on both meningococcal and pneumococcal vaccines.



Professor Helen Marshall is a medical clinician researcher and NHMRC Practitioner Fellow with specialist training in child health, vaccinology, and public health having completed a Bachelor of Medicine and Surgery, Doctorate of Medicine, Master in Public Health and Diploma in Child Health at the University of Adelaide and completed the international Advanced Vaccinology Course at the Pasteur Merieux Institute, France. She holds the position Professor in Vaccinology, School of Medicine and Deputy Director, Robinson Research Institute University of Adelaide and is the Medical Director of VIRTU, the Vaccinology and Immunology Research Trials Unit, in the Discipline of Paediatrics at the Women's and Children's Hospital. She has been awarded two NHMRC Career Development Fellowships in 2010

and 2015. In recognition of her research leadership she was awarded the South Australia Science Award for Excellence in Research for the Public Good in 2010, a national Public Health Association of Australia Fellowship in 2013 and a NHMRC "10 of the best" for 2016. Professor Marshall's research program is directed to address urgent priorities in infectious disease prevention and includes clinical trials in investigational vaccines, infectious and social epidemiology and public health. She is the lead investigator on the "B Part of It study, the largest study of its kind globally assessing the herd immunity impact of meningococcal B vaccine. Professor Marshall has received NHMRC funding for influenza and pertussis vaccine research. Her main interests include meningococcal, Human Papillomavirus and pertussis infections and their prevention by immunisation. Professor Marshall has been an investigator on over 50 paediatric, adolescent and adult clinical trials. Professor Marshall's research group VIRTU is one of only two research centres in Australia using social science research methodologies to investigate community acceptance of immunisation programs and the only centre assessing community attitudes to introduction of new vaccines. Since 2004, she has published over 140 peer-reviewed papers in high quality general medicine and specialist journals across diverse disciplines with individual paper citations > 210. She has been awarded 12 NHMRC, ARC, Government, Foundation and Industry grants totaling >\$25 million. Her leadership is recognised by >50 international and national invited speaker invitations.



Dr Matthew Snape MBBS FRCPCH MD, is an Associate Professor in General Paediatrics and Vaccinology at the Oxford Vaccine Group, University of Oxford Department of Paediatrics and the NIHR Oxford Biomedical Research Council. He is also a Jenner Investigator, an Academic Training Programme Director and works as a General Paediatrician at the Children's Hospital Oxford, Oxford University Hospitals NHS Trust. Assoc. Prof. Snape's principal areas of research relate to vaccines against meningococcal, pneumococcal, influenza, RSV and Ebola virus disease. In 2014/2015 he was the lead investigator on a 'first in human' phase 1 study of a candidate ebola vaccine, providing data crucial to the planning of subsequent studies in West Africa. He is currently the Chief Investigator of

the 'Be on the TEAM' study enrolling 24 000 Year 12 students to evaluate the impact of immunisation with group B meningococcal vaccines on pharyngeal carriage of meningococcus, and is the Director of the National Immunisation Schedule Evaluation Consortium (NISEC), both of which are NIHR funded. Other projects include leading on the instigation of the Global Platform for Prevention of Autoimmune Diabetes (GPPAD) in the UK and acting as a Chief or Principal Investigator on clinical trials of multiple RSV vaccine candidates. He has published over 100 manuscripts relating to immunisation and is a member of the Meningitis Research Foundation's Medical Advisory Group.



Dr Steve Black is a pediatric infectious disease specialist who received degrees in Biology and Chemistry from the University of California Santa Barbara and an MD degree from the University of California San Diego. He completed a fellowship in pediatric infectious diseases at the University of California San Francisco. He has spent more than 30 years conducting clinical trials and safety studies of vaccines including being the principal investigator in five pivotal licensure trials and six phase four post marketing trials. He has also conducted numerous phase 1-2 clinical trials. He is currently Emeritus Professor of Pediatrics at the University of Cincinnati and Children's Hospital in Ohio USA. He recently co-founded the Global Vaccine Data network engaged in developing a global collaborative research network to evaluate vaccine safety, effectiveness and risk benefit. He is work package lead for DSMB activities for the CEPI funded SPEAC project supporting the assessment of

vaccine safety in CEPI funded clinical trials.



Dr Sami Gottlieb is a Medical Officer in the Department of Sexual and Reproductive Health and Research at the World Health Organization, where she works on multiple aspects of the global epidemiology and control of sexually transmitted infections (STIs). She currently leads efforts to implement the Global Roadmap to Advance STI Vaccine Development, which focuses on the critical next steps to advance vaccine development for STIs such as *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and herpes simplex virus (HSV). Prior to her position at WHO, Dr Gottlieb worked at the US Centers for Disease Control and Prevention, first as an Epidemic Intelligence Service Officer in the Foodborne Diseases Branch and then as a Medical Epidemiologist in the Division of STD Prevention, where she

focused on the role of bacterial STIs in causing pelvic inflammatory disease and infertility and on implementation of the human papillomavirus (HPV) vaccine in the US. She received her undergraduate degree in Biological Sciences with distinction and highest honors from Stanford University and her Doctor of Medicine degree from the University of California, San Francisco, where she was also on the Internal Medicine faculty.



Professor James Stuart is an honorary professor in population health sciences at the University of Bristol and is a consultant for WHO. After qualifying in medicine, James worked for ten years as a clinical doctor in the UK and rural South Africa before specialising in public health and epidemiology of infectious diseases, particularly meningococcal meningitis. He has been involved in the investigation and control of outbreaks internationally and has published extensively on the epidemiology of meningococcal disease and carriage. In recent years James has worked on a major research project into meningococcal carriage during the introduction of a serogroup A conjugate vaccine across the meningitis belt of Africa. For WHO he co-ordinated revision of outbreak

response guidelines for the meningitis belt. He is currently helping to develop the WHO global strategy on "Defeating Meningitis by 2030", and he chairs the MRF Scientific Advisory Panel.



Dr Marie-Pierre Preziosi is leading on Flagships at the Initiative for Vaccine Research, World Health Organization (WHO), a team currently concentrating on meningococcal, Ebola and malaria vaccines, as well as on the R&D Blueprint for action to prevent epidemics. From 2012-2014, she was director of the Meningitis Vaccine Project, a partnership between WHO and PATH, established in 2001. The project mission was to eliminate epidemic meningitis as a public health problem in sub-Saharan Africa through the development, testing, introduction and widespread use of meningococcal conjugate vaccines. A project member since 2003, Dr Preziosi previously served as the director of clinical development. While leading the strategy and implementation of the clinical research, she helped foster strong

relationships between the partner organizations and contributed technical guidance to meningococcal vaccine introduction activities and research to define evidence-based policy for optimal vaccine use. Prior to joining MVP, she was a visiting assistant professor at the Rollins School of Public Health at Emory University in Atlanta, where she conducted research on pertussis vaccination. As an epidemiologist at the Institute for Research and Development, she spent several years in Senegal conducting pertussis vaccine trials. Her interest in vaccines started with Hib vaccine studies at Pasteur Merieux. Marie-Pierre Preziosi earned her medical degree from Lyon University and her PhD in epidemiology from Bordeaux University (France). She trained in tropical medicine at the Institute of Tropical Medicine in Antwerp (Belgium) and in field epidemiology at the Centers for Disease Control and Prevention in Atlanta (USA).



Dr Caroline Trotter is an infectious disease epidemiologist with a particular interest in vaccine evaluation. She is based at the University of Cambridge and has an honorary position with Public Health England. Most of her research is on bacterial meningitis, and in particular meningococcal disease. She uses a variety of methods, including observational studies, mathematical modelling and cost-effectiveness analyses and enjoys addressing questions of direct relevance to vaccine and public health policy. Caroline is also the Director of the Cambridge-Africa Programme, a University wide initiative to connect researchers in Cambridge and Africa.



Dr Matt Coldiron has worked as a medical epidemiologist at Epicentre / Médecins Sans Frontières since 2011. After completing an AB at Princeton, he received MD and MPH degrees from Emory University, and completed residency training in Internal Medicine at NYU-Bellevue Hospital in New York. His major areas of interest are meningitis and malaria in the African Sahel, the treatment of snakebite in resource-limited settings, emerging infectious diseases, and conducting research in humanitarian emergencies.



Dr Katya Fernandez is a public health specialist with 15 years of experience in the control of infectious diseases in WHO. Trained in philosophy and biological sciences, with a Master's degree in Public Health from the London School of Hygiene and Tropical Medicine. At my present position in the World Health Emergencies Programme in Geneva, I am part of the team which coordinates the development and implementation of global meningitis control strategy, providing particular technical support to the control of epidemic meningitis in the African meningitis belt. I have previous experience managing the International Coordinating Groups for meningitis and yellow fever vaccine provision. Current interests include public health ethics, epidemiology and control of epidemic diseases.



Prof Nora Groce is a medical anthropologist, who works on issues of global health, international development and human rights, with particular focus on global disability issues. Nora's research over the years has concentrated on vulnerable groups, with attention to the interface between persons with disability and access to adequate health care and inclusion in international development programs.

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