

Abstracts of the 9th European Congress on Tropical Medicine and International Health

These highlight gaps on helminth control in PSAC, and in poverty stricken areas, which must be addressed not only through provision of anthelmintics but by utilizing a holistic and systems approach which include looking into Water, Sanitation, and Hygiene (WASH) and the social determinants of health.

Practical solutions recommended to improve helminth control and promote equity in nutrition include increasing access to preventive chemotherapy through Day Care Center-based mass drug administration, integration of deworming activities, improvements in WASH, and multisectoral collaboration. Addressing the social determinants of health and alleviating poverty are also important considering that these are significant determinants of STH infections.

DISCLOSURE Nothing to disclose.

PS2.355.LB**Empiric clinical profiling for individual assessment of cardiovascular disease**

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BACKGROUND Comprehensive molecular tests are available to elucidate an individual's genome, transcriptome or proteome. An equally complete technique to obtain the phenotype of a disease is currently lacking. Empiric clinical profiling is a method based on bedside procedures such as history taking, physical exam and point of care laboratory tests. It is available, affordable and portable. We have previously shown that this approach is effective to diagnose patients with atherosclerosis, a chronic disease that affects mid-sized and large arteries and is complicated by cardiovascular events (CVE) such as stroke, myocardial infarction or peripheral arterial occlusive disease. Here we wished to demonstrate its prognostic significance to predict CVE.

METHODS AND RESULTS 269 patients treated for a wide variety of reasons in a Swiss tertiary care hospital were prospectively and non-selectively included in this cohort (www.clinicaltrials.gov; NCT00863967). For each participant, an empiric clinical disease activity score (cDAS) was calculated at baseline. Follow-up visit took place 5.5±0.4 years later. During 1100 follow-up years, 39 patients developed a cardiovascular event. The cumulative 5-year incidence of CVE in patients having the lowest cDAS (1st quartile) was 4.8%, in patients in the 4th cDAS quartile it was 24% (HR 5.2 (1.5–18.2), *P* < 0.001).

CONCLUSION In this prospective, single-center cohort study of common in-patients we established empiric clinical profiling as an effective tool for risk stratification and disease monitoring in atherosclerosis, a common disease process. We propose that the conceptual framework of empiric clinical profiling is not limited to cardiovascular disease in Central Europe. Due to its affordability and portability, it could also be transferred to low and middle income countries, and essentially could be applied to any disease process at a global scale.

DISCLOSURE Barbara Biedermann owns a company (Cobedix AG) that produces a software (COBEDIAS) that supports the work with empiric clinical profiles.

PS2.357.LB**Household sanitation and hygiene indicators of enteric pathogen transmission and childhood diarrheal exposure risk in Mirzapur, Bangladesh**

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BRIEF INTRODUCTION The effectiveness of water quality, sanitation and hygiene (WASH) interventions in reducing diarrheal disease can be strengthened through the identification of enteric pathogen transmission pathways. Our aim was to determine associations between significant diarrheal pathogens among rural Bangladeshi children and potential pathogen sources and household risk factors that may make up such transmission pathways.

METHODS AND MATERIALS Stools collected from children aged ≤59 months with moderate-to-severe diarrhea (MSD) and matched healthy controls enrolled in the Bangladeshi component of the Global Enteric Multicenter Study (GEMS) were screened for enteric pathogens. Multinomial logistic regression was used to determine associations of *Shigella flexneri*, *Cryptosporidium* spp, enterotoxigenic *Escherichia coli* (ETEC), rotavirus and *Aeromonas* outcomes with WASH measures.

RESULTS Children from households with improved sanitation facilities and disposed children's feces had lower *S. flexneri* and *Cryptosporidium* diarrheal risk. *Cryptosporidium* diarrheal risk was higher when cow dung was used as fuel and mothers did not wash hands before eating. Children from households with toilets and that disposed children's feces had lower ETEC infection risk when no handwashing was practiced after cleaning a child following defecation and before cooking, respectively. Rotavirus diarrheal risk was lower among children from households with deep tube wells when no hand washing was practiced after handling of animals. Finally, children from households with improved sanitation facilities and whose mothers washed hands before nursing had lower *Aeromonas* diarrheal risk.

CONCLUSIONS We have identified household sources and factors that are critical points in pathogen transmission pathways and children's exposure to selected enteric pathogens and shown how distinct hygiene behaviors may modify these pathways. These findings have important implications for the development of more cost-effective intervention that reduce pathogen exposure risk and overall diarrheal burden through targeted interventions that focus on critical points in pathogen-specific transmission pathways.

DISCLOSURE Nothing to disclose.

PS2.358.LB**Assessing health status of Khanigaun Village Development Committee (VDC) of Nuwakot District of Nepal**

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