PO 8522 ESTABLISHING AN EQUITABLE GOVERNANCE FRAMEWORK FOR AN EBOLA DATA-SHARING PLATFORM

Mahmoud Sama Cherif†, Elaine Craig, Samantha Studwick, Alice Hawryszkiewycz, Laura Merson. Gamal Abdel Nasser University of Conakry, Guinea and Infectious Diseases Data Observatory, University of Oxford, UK

Background Despite the potential public health gains of enabling access to patient-level data on emerging infections, the launch of a centralised, international platform to deliver on this has not been achieved to date. Barriers include: concerns over retention of national data ownership; patient privacy; appropriate consent; loss of academic recognition; criticism or exploitation of the data generators; perceived data misuse; and the challenges of sharing benefits with communities where data is generated.

Methods To determine the best approach to these issues in the context of Ebola, we have assembled a collaboration of partners including governments of Ebola-affected countries, non-government organisations, academic institutions, funders and public health authorities to form the Steering Committee of the Ebola Data Platform. Following stakeholder consultation, research and debate, the committee has developed a governance framework to enable access to emerging infections data, beginning with the data from the West African Ebola outbreak.

Results Promoting fair and equitable sharing of benefits that arise from the use of data is a key element of the framework. Strategies to secure this principle include integration of platform data management activities with the national health institutions in Ebola-affected countries and collaboration with research communities in these countries to determine research priorities and plan analyses. Public health benefit in affected countries is further supported via training and strengthening of research capacity and infrastructure.

Conclusion Developing a governance framework centered on the principle of equity has focused activities of the Ebola Data Platform on the affected health and research communities where they can have the most impact on patient outcomes, public health preparedness and future outbreak response.

PO 8524 MOLECULAR CHARACTERISATION OF THE NOROVIRUS STRAINS RESPONSIBLE FOR ACUTE DIARRHOEA IN CHILDREN UNDER FIVE YEARS OLD HOSPITALISED IN BRAZZAVILLE

1Vivaldie E Mikounou Loyga*, 1Félix Koukouikila-Koussounda, 2Christey Vouvoungui, 3Simon Ch Kobawila, 1Francine Ntoumi. 1Congolese Foundation for Medical Research, Brazzaville, Republic of the Congo; 2Faculty of Science and Technics, Marien Ngouabi University, Brazzaville, Republic of the Congo; 3Institute of Tropical Medicine, Universitätsklinikum Tübingen, Germany

Background Acute gastroenteritis is a leading cause of morbidity and mortality among children under five years old worldwide. Viruses are the most common responsible agent and norovirus is second after rotavirus. There is no published data on the occurrence of this agent in Brazzaville. This study aimed to determine the prevalence of norovirus infection and to evaluate the risk factors in hospitalised children in Brazzaville, Congo.

Methods From June 2012 to June 2013, stool samples were collected from children under five years old hospitalised with acute gastroenteritis at Makeleleke hospital. Rotavirus and adenovirus infections were already characterised in this population. A total of 545 samples were tested for GI and GII norovirus infections using nested duplex reverse-transcription–polymerase chain reaction with specific primers. The positive samples will be sequenced and analysed to determine the corresponding genotype.

Results The GI and GII norovirus infection were found in 148 samples (27, 14%) in this study. Males (28, 85%) were more infected than females (25%) but the difference was not significant. Norovirus infection was detected only in children under 24 months with a higher prevalence in the age group of 7–12 months (p value=0.048). The norovirus infection was detected throughout the year, but it peaked during the dry season (August–September). Dual infection of rotavirus and norovirus was detected in 65 cases (11, 9%), rotavirus-adenovirus in 8 cases (1, 5%), norovirus-adenovirus in 4 cases (0, 73%). Triple infection was detected in 3 cases (0, 55%).

Conclusion This study suggests that norovirus infection is the second cause of gastroenteritis after rotavirus in the study area. However, further surveillance investigations need to be pursued in other sentinel sites of the country.

PO 8527 GLUCOSE-6-PHOSPHATE DEHYDROGENASE DEFICIENCY AND ASSOCIATION WITH UNCOMPPLICATED MALARIA IN CONGOLESE CHILDREN CONSULTING IN A PAEDIATRIC HOSPITAL IN BRAZZAVILLE

1Nerly S Gampio Gueye*, 2Vélanan P Thiurnalaisamy, 1Christey Vouvoungui, 2Simon Ch Kobawila, 2David Nderu, 1Félix Koukouikila-Koussounda, 1Francine Ntoumi. 1Congolese Foundation for Medical Research, Brazzaville, Republic of the Congo; 2Institute of Tropical Medicine, Universitätsklinikum Tübingen, Germany

Background Malaria remains a public health problem in Republic of the Congo. The sub-microscopic infection including gametocytaemia constitutes a parasite reservoir that is recognised to contribute to malaria transmission. It is known that primaquine, an 8-aminoquinoline, is effective to eliminate Plasmodium falciparum (Pf) gametocytes. However, it induces haemolytic anaemia in individuals with glucose-6-phosphate dehydrogenase deficiency (G6PDd). It has been reported G6PDd also confers protection against severe malaria. To know the prevalence of G6PDd in the Congolese population is important in the case of future utilisation of this drug in the country. Therefore, in this study, we investigated 1) the prevalence of G6PDd in children infected with Pf and 2) the possible association between the presence of malaria, the presence of G6PD mutation and haemoglobin concentration.

Methods 229 children aged 1 to 10 years old presenting with fever (axillary T°C ≥ 37.5°C) were enrolled at the paediatric hospital Marien Ngouabi in Brazzaville. Thick and thin blood smears were done to detect and identify malaria parasites and determine parasite density. To detect the different glucose-6-phosphate dehydrogenase genotypes, a 968 bp fragment of the
G6PD gene containing the polymorphisms 202G>A and 376-G was amplified by PCR followed by sequencing.

Results Malaria prevalence was 22 (10%). With regard to G6PD analysis, it was found that 206 patients had G6PD genotype available including 74.8% (154/206) with G6PD normal, 12.1% (25/206) with heterozygous genotypes and 13.1% (27/206) with G6PD deficiency [11.6% (24/206) were male hemizygs and 1.4% (3/206) were female homozygous]. Data are further analysed to investigate the association between G6PD genotype, uncomplicated malaria, haemoglobin concentration as well as parasite densities.

Conclusion A high prevalence of G6PD deficiency is reported for these Congolese children. Further investigation with larger sample size in different areas of the country is needed to design future and adapted interventions.

PO 8529 INTRODUCING A UNIQUE RESEARCH CAPACITY DEVELOPMENT PLATFORM SUPPORTING PREPAREDNESS FOR EFFECTIVELY COMBATING EPIDEMIC OUTBREAKS


Background In 2013, WHO stated that unless low-income countries become the generators, rather than the recipients, of health research data there will never be any real improvement in the devastating public health challenges these countries face. The Global Health Network was cited as an important agent for change in addressing this need. The Global Health Network built an innovative digital platform, generating and supporting communities of practice focused on global health research. We have established a vast online knowledge-sharing resource, so far visited by more than 1.5 million frontline healthcare workers and researchers globally. Over 400,000 times online modules were taken by users from our target countries using our Training Centre, which offers a wide range of high-quality research skills courses. We also support skills development through regionally-led activities. Here we present how our approach is applied to support preparedness for epidemic outbreaks in Africa.

Methods A community of practice was set up for the EDCTP2 ALERRT programme on The Global Health Network platform (https://alerrt.tghn.org/). It provides a mechanism for research staff to work together, share ideas, methods and approaches to foster knowledge exchange and collaboration. The ALERRT community of practice platform hosts training courses, help topics, templates, guidance – everything that is needed to run a good clinical study. The initial set of resources is available now, others are being developed following the knowledge gap analysis. In addition, our online platform offers free participation in the Professional Development Scheme – a unique framework to track research skills development.

Results The ALERRT capacity development community of practice was launched in April 2018. We will present how this regionally-championed initiative is being taken up and what difference it is already making to the community of researchers.

PO 8536 BIOMEDICAL ETHICS AND REGULATORY CAPACITY BUILDING PARTNERSHIP FOR PORTUGUESE-SPEAKING AFRICAN COUNTRIES (BERC-LUSO)


BERC-Luso is a project for building Ethics and Regulatory Capacity, to be developed in four sub-Saharan African countries: Angola, Guinea-Bissau, Mozambique and Cape Verde, and to be implemented in 2018–2021. National Ethics Committees (NECs) and National Regulatory Authorities (NRAs) have been engaged (6 institutions) with the partnership of 4 Portuguese institutions (experts in ethical review and regulatory supervision).

Considering that: 1) clinical trials are fundamental to improve healthcare and develop biomedical research; but 2) can only take place within regulatory systems and under ethical review protocols; and 3) some African countries still lack an adequate legislative framework and the expertise to assure good ethical review and regulatory supervision, it is urgent to change the current situation.

The BERC-Luso project will unfold at four different levels, each aiming at a specific goal in converging dynamics.

1. Legislative level: Provision of a comparative study of the Portuguese Speaking African Partner Countries’ legislation on NECs and NRAs with recommendations for revision in compliance with the international requirements. The goal is to promote adequate internationally recognised legislation.

2. Educational level: Implementation of an intensive and comprehensive Education Programme, both theoretical and practical, reflexive and normative, ethical and legal, addressing the needs of the countries involved, within their cultural contexts, and in their own mother tongue. The goal is to promote capacity building.

3. Training level: Organisation of intensive internships, demanding participants to accurately apply everything they have learned to their everyday practice. The goal is to have knowledgeable and skilled experts.

4. Networking level: Build powerful digital tools to connect partner institutions, staff and participants during the project and beyond, creating a digital repository of documents, and different tools for ethical and regulatory evaluation.

These actions converge to provide internationally recognised legislation and expertise for the development of biomedical research for the benefit of the population.