

## 09.004

**Managing health and infections in refugees: Turkey's experience**

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Continuing conflicts near the borders led to massive population flows, Turkey has followed an open door policy and accepted them as “guest”. Turkey is currently hosting the largest number of Syrian refugees in the World.

According to the official numbers 2,726,980 (Aug 2016) Syrians are staying at Turkey but it is difficult to give the exact numbers (1). Nearly half of them are children, and 152,000 Syrian refugees were born in Turkey (Feb 2016). A limited number of refugees (269,672; Sep 2016) are sheltered in 26 camps located around the border cities, and others are living throughout Turkey (2). Camps are coordinated by Prime Ministry Disaster and Emergency Management Authority of the Republic of Turkey which provide accommodation, health, food, education, and other services. Local hospitals have been enlarged and equipped to cover the most acute needs.

A lot of legal, administrative and institutional arrangements have been made, some are underway. Currently, each registered Syrian refugee has free access to healthcare services under the Ministry of Health like as Turkish citizen. Emergency healthcare is provided free to unregistered Syrians and to all migrants. Recently, 85 Migrant Health Units have been organized in 16 provinces. In general, preventive health services to refugees are delivered by Public Health Directorates.

Active surveillance for cutaneous leishmaniasis and malaria is initiated. According to the data of Ministry of Health; 825 cases of cutaneous leishmaniasis were detected in 2015. Totally 1022 cases of tuberculosis were diagnosed and treated between 2012–2015 years. Tuberculosis prevalence rate was found as 18.7/100000, similar to Turkish population. Any malaria case was not detected. Syndromic surveillance for food- and waterborne diseases is being conducted at the camps. Syrian children were also affected recent measles outbreak due to interruption of vaccination on civil war condition. Considering the polio cases in Syria, measles and polio vaccination campaign were launched promptly. All the Syrian children are included into the national childhood immunization programme of Turkey.

Nevertheless there are still some problems to access to health care services resulting from communication barriers and cultural differences. Educational activities for healthcare workers and Syrians are in progress.

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## 10.001

**Intense human-animal interaction and limited capacity for the surveillance of zoonoses as drivers for Hepatitis E virus infections among animals and humans in Lao PDR**M. Pauly<sup>a</sup>, C.P. Muller<sup>a</sup>, A.P. Black<sup>b</sup>, C.J. Snoeck<sup>a,\*</sup><sup>a</sup> *Luxembourg Institute of Health, Department of Infection and Immunity, Esch-sur-Alzette/LU*<sup>b</sup> *Institut Pasteur du Laos, Vientiane/LA*

**Purpose:** In Lao People's Democratic Republic (PDR), overlapping habitats of the population and livestock create a propitious environment for zoonoses. Insufficient hygienic measures in slaughterhouses and in rural settings further increase the risk for

zoonotic transmission. Limited laboratory capacity as well as lack of background knowledge prevent timely control of disease outbreaks. Here, we assess the occurrence and transmission of Hepatitis E virus (HEV), as well as public awareness of zoonoses.

**Methods & Materials:** In 2015 and 2016, samples were collected from ruminants in rural areas (n=211), as well as from slaughterhouse workers (n=129) and slaughter pigs (n=290) in Lao PDR. Using commercial ELISAs, presence of antibodies (IgG, IgM and IgA) against HEV was assessed. Fecal shedding of HEV by animals was investigated using a generic real-time PCR. Detected viruses were characterized by Sanger sequencing if feasible. Using a standardized questionnaire, data on risk factors for zoonotic pathogen transmission and awareness on zoonoses were captured. Much emphasis was placed on collaborating with local actors and on strengthening laboratory capacities.

**Results:** Anti-HEV antibodies were detected in 13% of ruminants in rural settings and in 46% of slaughter pigs. 7% of the ruminants and 2% of the pigs shed HEV that were thus far not characterizable. While anti-HEV antibody seroprevalence was of 33% in people exposed to pigs, only 15% of the non-exposed control group were seropositive (p=0.001). Awareness of zoonoses among farmers and slaughterhouse workers was low. Wearing protective equipment was associated with a decrease in anti-HEV antibody detection (p=0.024). Limiting the consumption and use of groundwater and cooking of meat further reduced the risk for HEV infection in a domestic context.

**Conclusion:** We could show that people who are exposed to livestock and pigs are at higher risk for contracting HEV than the general population. Although shedding rates were relatively low, animals may represent an infection source that can be controlled by applying personal protective equipment. Building the capacity for the detection and prevention of infectious diseases and increasing awareness about zoonoses in developing countries is a prerequisite for combating infectious disease outbreaks in future.

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## 10.002

**The Vietnam Initiative on Zoonotic Infections (VIZIONS): An interim analysis of the epidemiology and aetiology of central nervous system infections**H.E. Brindle<sup>a,\*</sup>, M. Choisy<sup>b</sup>, M.P. Tran<sup>c</sup>, R.van Doorn<sup>d</sup>, B. Nadjm<sup>d</sup>, R. Christley<sup>a</sup>, M. Griffiths<sup>a</sup>, H.D.T. Nghia<sup>e</sup>, G. Thwaites<sup>f</sup>, S. Baker<sup>c</sup><sup>a</sup> *University of Liverpool, Institute of Infection and Global Health, Liverpool/UK*<sup>b</sup> *Institut de recherche pour le développement, Hanoi/VN*<sup>c</sup> *Oxford University Clinical Research Unit, Enterics, Ho Chi Minh City/VN*<sup>d</sup> *Oxford University Clinical Research Unit, Hanoi/VN*<sup>e</sup> *Oxford University Clinical Research Unit, CNS/HIV, Ho Chi Minh City/VN*<sup>f</sup> *Oxford University Clinical Research Unit, Ho Chi Minh City/VN*

**Purpose:** The Vietnam Initiative on Zoonotic Infections (VIZIONS) is a nationwide multi-centre study of which aims to assess the aetiology and epidemiology of patients hospitalised with one of four syndromes.

**Methods & Materials:** An interim analysis of seven hundred and seventy-eight cases of central nervous system infection admitted to six hospitals from December 2012 until March