Outbreak investigation of suspected hepatities E among South Sudan refugees, Gambella regional state, Ethiopia, July 2014

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**Background:** Hepatitis E is a liver disease caused by the hepatitis E virus: it is a common cause of acute hepatitis with poor sanitation and hygiene. First week of June, 2014 Gambella regional state health bureau reported cluster of acute jaundice syndrome among South Sudan refugees living in Gambella regional state of Ethiopia. An investigation was conducted to identify the etiology of the outbreak, and to recommend control and prevention methods.

**Methods & Materials:** Patient observation and searching active cases was done in three refugee camps (Lietchuor, Kula 1 and Kula 2) and at MSF France clinic, line list and medical record also reviewed, 22 Serum specimens were tested for Hepatitis E by PCR techniques at CDC KEMRI/Kenya and screen for different vector-borne viral infections using IgM ELISA techniques at EPHI. Descriptive analysis was conducted by using Microsoft Excel.

**Results:** During May 4 – July 12, 2014 a total of 240 Jaundice cases were reported. 227(95%) of the cases had fever, 238(99%) of the total cases developed Jaundice. The overall median age is 23 years. From the total cases 99(41%) were females and 141(59%) were males, among those cases 6 pregnant women were found. There were 12 death of the 240 cases with a case fatality rate of 5%. 1 (8.3%) of whom was pregnant women. 200 (83.3%) refugees who develop Jaundice were reported from Lietchuor and 35 (14.5%) were from Kula 1the rest 5(2%) were from Kula 2. Of the 22 blood samples tested 12 (54%) were positive for Hepatitis E virus (HEV) by PCR technique.

**Conclusion:** The emergence of the outbreak in refugee camps is a major concern because of the associated difficulties in implementing effective preventive measures under camp conditions. Based on our findings the risk of the disease very high for pregnant women, the area was observed to be very porne to water born diseases, there was no latrine and shortage of safe drinking water is rampant. UNHCR and other partners initiated control measures, including health education on hygiene promotion activities, supplying safe drinking water and rushing to latrine construction.

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Laboratory diagnosed dengue among clinically suspected febrile patient-samples at National Dengue Laboratory, Sri Lanka

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**Background:** Dengue results with one or more of four related serotypes, DENV-1, -2, -3, and -4. Outbreaks hitting with different clinical manifestations spanning asymptomatic, classical dengue, dengue hemorrhagic fever and dengue shock syndrome. Different diagnostic tests are used to identify dengue different stages. This study based on laboratory-diagnosed dengue cases at National Dengue Laboratory at Medical Research Institute (MRI), Sri Lanka and it’s impact.

**Methods & Materials:** Study involved review of laboratory-diagnosed dengue cases for a one-year period beginning from March 2014. Reference laboratory received samples for testing from different hospitals across the country. Hospital visited, clinically suspected, both children and adult serum samples were tested using capture Dengue IgM ELISA assay, to detect anti-DENV IgM antibodies. Patients were diagnosed with recent infection if they were positive, followed by patient data investigation and comparison. Epidemiological data obtained from requests sent along with the samples.

**Results:** This retrospective study investigated the positive cases for comparison of epidemiological data, clinical profile and outcome. Total 2779 were tested, 1493(53.72%) were positive. 6% needed hospital intensive care and 1.6% received as post-mortem samples. 25% belonged to age 0-10 years and 2% were infants. Cases peaked in monsoon and post monsoon, May (65.56%), June (68.53%), and July (62.37%), 7.3% visited hospital in first five days, while 33% visited after day five of the illness. 1.7% associated with uncommon presentations; fits, chest-pain, cough, and urinary infection, 49% indicated common presentations; fever, myalgia, and headache.

**Conclusion:** The study results confirmed the dengue threat in Sri Lanka and it’s huge impact on health-system. In order to target preventive measures effectively one should understand the dengue cases peaking during the monsoon and post monsoon seasons. Findings appreciated common and rare presentations of dengue and emphasized the importance of healthcare awareness of different clinical presentations and potential to improve laboratory diagnosis for early detection to make step forward in dengue management.

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