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ABSTRACT BOOK

"There will be epidemics..."

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predicting "all-cause" febrile mortality in Ugandan children (AUROC 0.88, 95% CI 0.84-0.92, negative predictive value [NPV] 99.0%) and Tanzanian adults (AUROC 0.87, 95% CI, NPV 97.9%). sTREM1 displayed non-inferior performance to established clinical disease severity scores (e.g. LODS: AUROC 0.90 95% CI 0.87-0.93, NPV 99.0%; qSOFA: 0.79, 95% CI 0.72-0.87, NPV 97.0%). Combinatorial models adding sTREM1 to either LODS or qSOFA significantly improved their predictive accuracy in both the pediatric (AUROC 0.93, 95% CI 0.90-0.96, NPV 99.5%) and adult (AUROC 0.91, 95% CI 0.88-0.94, NPV 99.7%) cohorts. These data indicate that measuring sTREM1 at clinical presentation, especially when combined with easy-to-measure clinical severity scores, can reliably identify febrile individuals at risk of death. Implementation of biomarker-based algorithms using point-of-care tests could improve the recognition, triage, and outcome of patients with life-threatening infections.

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CUTANEOUS LARVA MIGRANS IN RETURNED CANADIAN TRAVELERS TO THE CARIBBEAN: SURVEILLANCE REPORT FROM CANTRAVNET, JANUARY 2009 — MARCH 2018

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Cutaneous larva migrans (CLM) is one of the most common dermatoses with which travelers to the tropics return. We examined the demographic and travel correlates of Canadian travelers returning from the Caribbean with CLM over a 10-year period to illuminate the recent emergence of this disease in our traveling population. Data on all returned Canadian travelers presenting to a CanTravNet site between January 2009 and March 2018 who were diagnosed with CLM acquired in the Caribbean were analyzed. Of 22,169 travelers in the CanTravNet database over the enrolment period, 299 (1.3%) returned from the Caribbean with CLM. Median age of the returned travelers with CLM was 34 years (range 1 - 73 years), with males accounting for 41% of cases (n=123), and females 59% (n=176). Ninety-five percent (n=284) traveled for tourism. Jamaica was the most well represented source country, accounting for 188 cases (63%), followed by Barbados (n=27, 9%), Dominican Republic (n=25, 8%), Cuba (n=21, 7%), and Saint Lucia (n=11, 4%). In total, 17 different source countries in the Caribbean were represented. Over the first 10-weeks of 2018, 48 travelers with CLM from the Caribbean were evaluated at CanTravNet sites, which represents a 6-fold average increase in cases during those same first 10-weeks in each of the 5 prior years (average 8 cases during the first 10-weeks of each year prior to 2018). Cases in 2018 have been imported predominantly from Jamaica (n=27, 56%), Dominican Republic (n=13, 27%), and Barbados (n=2, 4%), with 1 case (2%) imported from each of Cayman Islands, Cuba, Guadeloupe, Martinique, Saint Lucia, and Saint Martin. Age, sex, and purpose of travel distributions were similar across years. We have documented a large increase in imported cases of CLM originating in the Caribbean in the year 2018, though have not noted any demographic or travel-related aberrations in our returned traveler population to explain this phenomenon.

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ANTIBIOTIC MANAGEMENT OF MODERATE-TO-SEVERE DIARRHEA MAY REDUCE RISK OF LINEAR GROWTH FALTERING IN CHILDREN: A SECONDARY ANALYSIS OF GEMS CASES

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Children with moderate-to-severe diarrhea (MSD) are at particularly high risk of linear growth failure and associated negative health outcomes. However, little is known about whether antibiotic treatment of MSD may protect against linear growth faltering. Using previously collected data from the Global Enterics Multicenter Study (GEMS) of children 0-59 months old with MSD in 7 low- and middle-income countries (LMICs), we conducted a retrospective cohort analysis to assess whether children with MSD who were treated with antibiotics had a lower risk of linear growth faltering in the 60-90 days following the episode. We used relative risk (RR) regression to evaluate loss of ≥1 length/height-for-age z-score [LAZ/HAZ] between enrollment and follow up, and linear regression to assess change in LAZ/HAZ, with propensity score adjustment for variables associated with antibiotic treatment. Of 7659 surviving MSD cases, mean LAZ/HAZ loss during follow up was 0.13, and 3% lost ≥1 LAZ/HAZ. Antibiotics were provided to 81% at presentation. Factors associated with antibiotic treatment included young age, nutritional status, hospitalization, GEMS site, and presence of fever, vomiting, or dysentery. After propensity score adjustment, children provided with antibiotics had a 41% lower risk of losing ≥1 LAZ/HAZ than those who received none (adjusted RR: 0.59; 95% confidence interval [CI]: 0.42, 0.82). Children provided antibiotics in the health center gained 0.06 LAZ/HAZ more than those who were not (95% CI: 0.03, 0.09). Among children ≤ 23 months, those who received antibiotics were less likely to lose ≥1 LAZ/HAZ (aRR: 0.67; 95% CI: 0.48, 0.94), and gained 0.03 LAZ/HAZ more than those who received no antibiotics (95% CI: -0.004, 0.07). Antibiotic treatment of MSD may preserve linear growth in young children in LMICs. Ongoing randomized trials will provide further evidence to evaluate the effectiveness of antibiotics in preventing linear growth faltering in this population. However, any potential benefit of antibiotic management of MSD must be weighed cautiously against negative consequences including antibiotic resistance and microbiome disruption.

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CLINICAL FEATURES AND OUTCOME OF NEONATAL DENGUE AT THE CHILDREN'S HOSPITAL 1, HO CHI MINH, VIETNAM

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Vertical transmission of dengue, a life-threatening disease transmitted by *Aedes* mosquitoes, has been reported in a few case reports. In this context, we tried to determine the clinical features and outcomes of neonatal dengue. We conducted a prospective study on 32 neonates with laboratory-confirmed dengue by positive for either NS1 antigen rapid test or IgM antibody with MAC-ELISA, who were hospitalized at the Children's Hospital 1, Ho Chi Minh, Vietnam from January 2010 to December 2016. Diagnosis of dengue was defined according to the World