ISSUE: In September 2012, Los Angeles County (LAC) Department of Public Health (DPH) was notified of nine patients hospitalized on the bone marrow transplant unit (BMT) with blood specimens positive for galactomannan (GM) antigen between September 3, 2012 and September 11, 2012. The Bio-Rad Platelia™ Aspergillus Ag assay is noninvasive and was used to test all case specimens for GM. There are many documented cases of false positives with this test. An outbreak investigation was begun.
PROJECT: A case was defined as a patient on the BMT unit who had a newly positive blood GM test, with or without symptoms, from June 1, 2012 to September 30, 2012. Invasive fungal disease (IFD) definition was determined using criteria developed by the European Organization for Research and Treatment of Cancer/ Invasive Fungal Infections Cooperative Group and the National Institute of Allergy and Infection Diseases Mycoses Study Group. Case medical records, laboratory data, pharmacy data, environmental sampling data, and policies and procedures were reviewed. The environmental investigation was a joint effort between DPH Environmental Health and an outside consultant.
RESULTS: Twelve of 14 patients in the BMT unit met the case definition. The time from admission to first positive GM test ranged between three and 164 days (μ=58). Ten cases were GM positive $\geq$7 days after admission and were designated hospital associated. Ten cases were GM blood positive multiple times throughout the surveillance period. Specimens were sent to an outside laboratory and all were GM confirmed. Aspergillus species were cultured in 10 BMT rooms from air and surface samples. Of twelve case patients, six expired. Two of the expired cases were among those with the highest GM levels.
LESSON LEARNED: An outbreak most likely occurred because six case specimens were confirmed positive, five cases had respiratory symptoms, six had x-ray changes and four had written documentation of Aspergillus infection. Bio-Rad indicates using a 5% prevalence, the positive predictive value of the GM test is 17.6% (95%CI 6.5-39.8%). In our outbreak, there were no confirmatory cultures collected. We believe cases experienced an environmental exposure (possible source was Aspergillus) resulting in a cluster of positive GM tests.

Publication Number 10-335

Non-polio Enteroviruses in Patients with Aseptic Meningitis: Embaba Fever Hospital Admissions 2010-2011

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BACKGROUND/OBJECTIVES: Human enterviruses (EV) cause a wide spectrum of both common and uncommon illnesses among all age groups. The objective of this study was to identify non-poliovirus EV as a cause of viral aseptic meningitis (VAM) by two Methods (cell culture and Real time PCR).
METHODS: This study was carried out during the period from October 2010 to August 2011. Cerebrospinal fluid (CSF) samples were collected from 85 patients admitted in Embaba Fever Hospital with symptoms of aseptic meningitis of any age and both sexes. The 85 CSF samples were inoculated into RD (human rhabdomyosarcoma) cell line in three blind passages to amplify isolates producing EV-like cytopathic effect (CPE). Real time PCR was used for further identification of non polio EV meningitis.
RESULTS: A total of 14/85 (16.47%) of CSF samples showed EV-like CPE. 11/14 of the culture positive samples and 5/14 of the original CSF source of virus isolation were non-polio EV positive by the Real time PCR . The frequency of non-polio EV meningitis was more in summer (50%) followed by spring (25%), late autumn (16.6%) and winter (8.4%). It was detected in 6/41 of male (14.5%) and in 6/44 of female patients (13.5%), in all ages with marked increase in old age (50%) and young children (41.6%) and less in adult (8.4%).
CONCLUSIONS: Our data showed that the non-polio EV was associated with the majority of VAM during 2010 – 2011 at the Embaba Fever Hospital which serves Embaba area and neighbors localities in Egypt. Rapid detection of non-polio EV meningitis is essential for making decisions about patient management and treatment.

Publication Number 10-336

The Control of a Carbapenem Resistant Enterobacteriaceae Outbreak at Augusta Victoria Hospital, East Jerusalem Palestine ; Applying CDC Recommendations While Addressing Local Challenges

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ISSUE: Despite the lack of mandatory surveillance for Healthcare Acquired Infections (HAIs) in Palestine; Augusta Victoria Hospital, a tertiary -care hospital situated in East Jerusalem set up a surveillance system to monitor the incidence of Healthcare Associated Infections (HAIs) with a focus on multidrug resistant organisms (MDROs). The alarm was raised on the Skilled Nursing Department within the hospital called Sub-Acute department (SAD) when a death occurred and two cases were infected and reported with MDRO Klebsiella pneumonia.
PROJECT: The SAD receives patients from Palestinian health establishments and Israeli Hospitals. These patients usally remain in the deaprtment for a long time ranging from several months to several years. The newly established surveillance system at the time required that all admissions from other health care settings must be screened for colonisation with MDROs through the collection of anal and nasal swabs. In this instance, Anal swabs were repeated for all patients for MDROs including Carbapenem Resistant Enterobacteriaceae (CREs) by screening for Ertapenem disc diffusion antibiotic sensitivity, and confirmed using Hodge Test, followed by PCR. To minimize false negatives. Two staff members were solely responsible for obtaining the tests. Results revealed 65% of patients colonized with CRE confirming an outbreak. Extreme Measures wre taken to isolate the unit from the hospital, strict contact precautions with emphasis on hand hygiene were implemented as well as education of staff and family members. Patients were bathed with 2% chlorhexidine daily and disinfection of high touch areas was implemented each shift (3 times) a day. Indications for catheterization of patients according to the CDC recommendaitons were reviewed.
RESULTS: There were two attributable mortalities; Screening policies were reviewed and made compulsory with no exceptions.