**Presentation Type:**
Poster Presentation

**Implementation of an Antimicrobial Stewardship Program in Five Colombian Hospitals in 2018**

Christian Pallares, Centro Médico Imbanaco de Cali; María Virginia Villegas Botero

**Background:** More than 50% of antibiotics used in hospitals are unnecessary or inappropriate. The antimicrobial stewardship programs (ASPs) are coordinated efforts to promote the rational and effective use of antibiotics including appropriate selection, dosage, administration, and duration of therapy. When an ASP integrates infection control strategies, it is possible to decrease the transmission of multidrug-resistant pathogens. **Methods:** In 2018, 5 Colombian hospitals were selected to implement an ASP. Private and public hospitals from different cities were included in the study, ranging from 200 to 700 beds. Our team, consisting of an infectious disease and hospital epidemiologist, visited each hospital to establish the baseline of their ASP program, to define the ASP outcomes according to each hospital's needs, and to set goals for ASP outcomes in the following 6–12 months. Follow-up was scheduled every 2 months through Skype video conference. The baseline diagnosis or preintervention evaluation was done using a tool adapted from previous reports (ie, international consensus and The Joint Commission international standards). Documentation related to ASPs, such as microbiological profiles, antimicrobial guidelines (AMG) and indicators for the adherence to them as well as antimicrobial resistance (AMR) prevention through protocols, were written and/or updated. Prevention and infection control requirements and protocols were also updated, and cleaning and antiseptic policies were created. Training in rational use of antibiotic, infection control and prevention, and cleaning and disinfection were carried out with the healthcare workers in each institution. **Results:** Before the intervention, the development of the ASP according to the tool was 27% (range, 5%–47%). The lowest institutional scores were the item related to ASP feedback and reports (11% on average), followed by education and training (14%), defined ASP responsibilities (23%), ASP function according to priorities (26%), and AMR surveillance (27%). After the intervention, the ASP development increased to 57% (range, 39%–81%) in the hospitals. The highest scores achieved were for education and training (90%), surveillance (75%), and the activities of the infection control committee (70%). The items that made the greatest contribution to ASP development were the individual antibiogram, including the bacteria resistance profile, and the development of the AMG based on the local epidemiology in each hospital. **Conclusions:** The implementation of an ASP should include training and education as well as defining outcomes according to the hospital's needs. Once the strategy is implemented, follow-up is key to achieving the goals.

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**Disclosures:** None
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**Presentation Type:**
Poster Presentation

**Implementation of an Electronic Travel Navigator to Enable "Identify-Isolate-Inform" for Emerging Infectious Diseases**

Sarimer Sanchez, Massachusetts General Hospital; Eileen Searle, Center for Disaster Medicine, Massachusetts General Hospital, Boston, MA; David Rubins, Brigham & Women's Hospital, Boston, MA; Sayon Dutta, Harvard Medical School, Boston, MA; Winston Ware, Center for Quality and Safety, Massachusetts General Hospital,

**Figure 1. MGH Travel Navigator (A) and MERS BestPractice Advisory (B)**

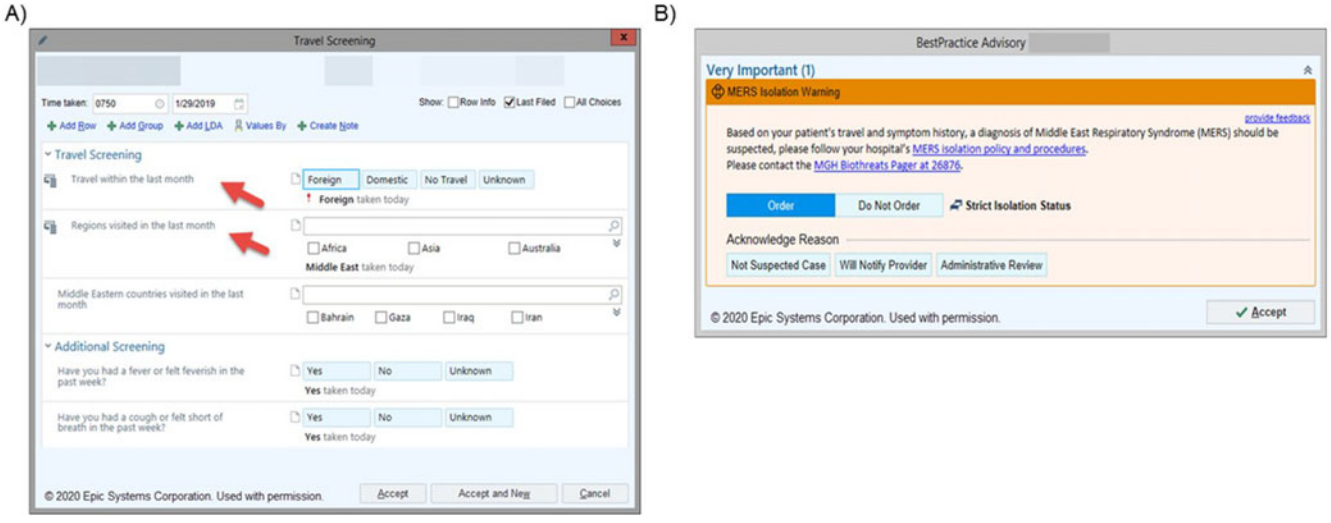


Figure 1. Travel screening includes initial choice of foreign, domestic, no travel, or unknown (A). When a provider selects "foreign", the region choices appear. If a region is chosen, corresponding country choices then appear. If either "Middle East" or one of the 13 countries identified as at risk for MERS is chosen, the additional screening section appears and providers are prompted to answer questions regarding patient symptoms. If either of the symptom screen questions are answered as "yes" or if a temperature ≥100.4 is documented in an electronic flow sheet, the MERS BestPractice Advisory (BPA) appears (B), providing the user with instructions regarding patient isolation and contact information for the MGH Biothreats Pager, staffed 24/7.

**Fig. 1.**



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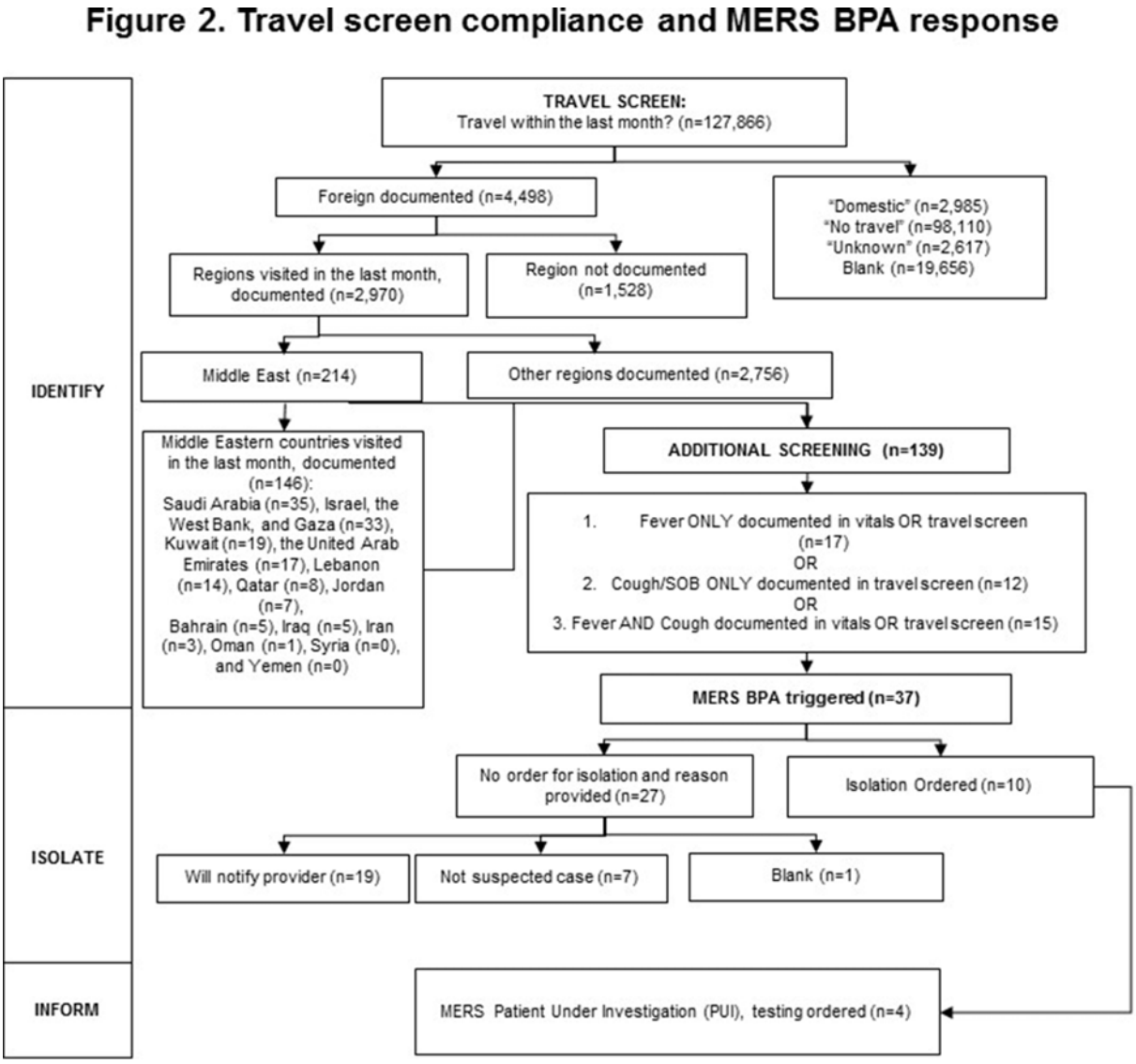


**Fig. 2.**

Boston, MA; Paul Biddinger, Center for Disaster Medicine, Massachusetts General Hospital, Boston, MA; Erica Shenoy, Massachusetts General Hospital

**Background:** Travel screening can facilitate the identification of patients at risk for emerging infectious diseases, such as Middle East respiratory syndrome (MERS). A travel navigator with associated decision support through a best practice advisory (BPA) was implemented in an electronic health record to build upon the CDC "identify-isolate-inform" framework. Compliance with documentation of travel history, symptom screening when appropriate, and isolation of suspect MERS patients were assessed. **Methods:** Adult and pediatric emergency department encounters at the Massachusetts General Hospital, a 1,035-bed, tertiary-care, academic health center in Boston, Massachusetts, from August 2018 to October 2019, were included. We categorized an encounter as adherent to initial travel screening if providers answered "foreign," "domestic," or "no travel" to the screen. Encounters were defined as nonadherent if they were recorded as "unknown" or if an answer was not selected. Adherence to completion of data entry for the subgroup of patients with documented foreign travel was further assessed for region- and country-level specification, completion of symptom screen, and response to the MERS BPA (Fig. 1). **Results:** In total, 127,866 encounters were included, of which 105,593 (83%) were adherent to initial travel screening. Among 4,498 encounters with documented foreign travel, 2,970 (66%) specified the region of travel, and 710 (16%) selected a country of travel from the listing. Moreover, 214 encounters had documented travel to the Middle East. Selection of Middle East or 1 of the 13 countries identified by the CDC as at risk for MERS triggered symptom screening for fever and cough, which was performed in 139 encounters (65%). Of these, 95 encounters documented absence of fever and cough, 15 documented fever and cough, 12 documented a cough alone, and 17 documented a fever alone through reporting or obtaining vitals. The MERS BPA was triggered in 37 encounters; 10 patients were ordered for isolation using the BPA. Of these, 4 patients met CDC criteria for a MERS patient under investigation and were tested; all were negative. **Conclusions:** Initial screening to document foreign travel is completed at a high rate; however, use of the travel navigator to



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specify region and country, key components necessary to prompt clinicians for symptom screening, are documented in a minority of encounters. Future interventions are needed to improve region and country capture and appropriate symptom screening, with isolation when appropriate.

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**Presentation Type:**
Poster Presentation

**Implementation of Antibiotic Time Outs Using Quality Improvement Methodology**

Zachary Willis, University of North Carolina at Chapel Hill; May-Britt Sten, UNC Health Care Will Stanley, UNC Health Care; Lindsay Daniels, University of North Carolina Medical Center; Jonathan Juliano, UNC School of Medicine; Michael Swartwood, University of North Carolina School of Medicine; Ronald Davis, UNC Health Care; Donna Krzastek, UNC Health Care; Clare Mock, UNC School of Medicine; Nikolaos Mavrogiorgos, University of North Carolina; Emily Sickbert-Bennett, UNC Health Care; David Jay Weber, University of North Carolina at Chapel Hill

**Background:** Antibiotic time outs (ABTOs), formal reassessments of all new antimicrobial regimens by the care team, can optimize antimicrobial regimens, reducing antimicrobial overuse and potentially improving outcomes. Implementation of ABTOs is a substantial challenge. We used quality improvement methods to implement robust, meaningful, team-driven ABTOs in general medicine ward services. **Methods:** We identified and engaged stakeholders to serve as champions for the quality improvement initiative. On October 1, 2018, 2 internal medicine teaching services (services A and B), began conducting ABTOs on all patients admitted to their services receiving systemic antimicrobials for at least 36 hours. Eligible patients were usually identified by the team pharmacist. ABTOs were completed within 72 hours of antibiotic initiation and were documented in the electronic medical record (EMR) by providers using a template. The process was modified as necessary in response to feedback from frontline clinicians using plan-do-study-act (PDSA) methods. We subsequently spread the project to 2 additional internal medicine services (services C and D); 2 family medicine teams (services E and F); and 1 general pediatric service (service G). The project is ongoing. We collected data for the following metrics: (1) proportion of ABTO-eligible patients with an ABTO; (2) proportion of ABTOs conducted within the recommended time frame; (3) documented plan changes as a result of ABTO (eg, change IV antibiotics to PO); (4) proportion of documented plan changes actually completed within 24 hours. **Results:** Within 12 weeks, services A and B were successfully completing time outs in >80% of their patients. This target was consistently reached by services C, D, E, F, and G almost immediately following launch on those services. As of June 29, 2019, >80% of eligible patients across all participating services have had a time out conducted for 16 consecutive weeks. ABTOs have resulted in a change in management in 35% of cases, including IV-to-PO change in 19% of cases and discontinuation in 5%. Overall, 77% of time outs

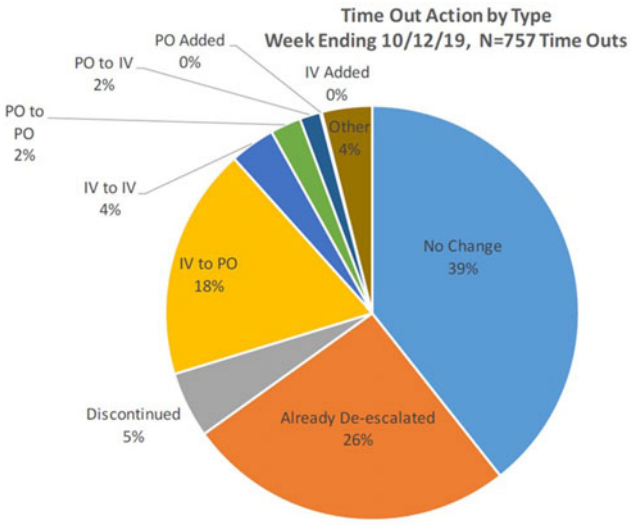


**Figure 2:** Planned changes in antimicrobial regimen documented in the antibiotic time out.

**Fig. 2.**

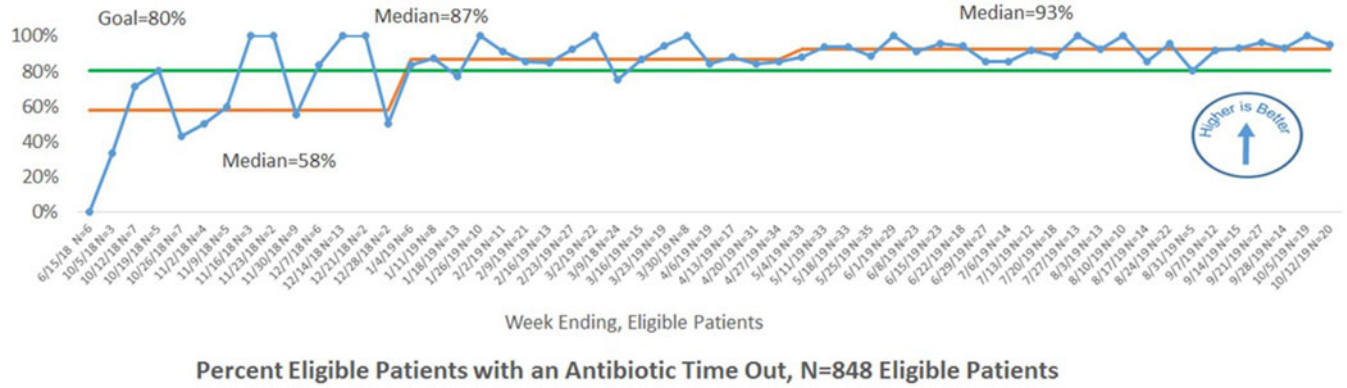


**Figure 1:** Compliance with antibiotic time outs over time, by project week. The green line represents the goal of 80%, and the orange line represents median performance.

**Fig. 1.**