at risk). VRE importation pressure was defined to encapsulate the VRE burden at the time of ICU admission (patient-days of VRE exposure on the unit during the preceding 30 days, divided by total patient-days). Multivariable Cox proportional hazards modeling was used, with patients followed until VRE acquisition, death, or for up to 30 days.

Results. There were 161 patients who acquired VRE among 8,485 patients with negative VRE cultures upon admission, including 1,131 patients who had repeat VRE cultures during the index hospitalization. On univariate analysis, patients with VRE acquisition were more likely to have received vancomycin, have had a neighboring patient who received vancomycin, have high VRE importation pressure, or have high VRE colonization pressure. On multivariable analysis, among these factors only high VRE colonization pressure was an independent predictor of VRE acquisition (aHR 1.79, 95% CI 1.19–2.70).

Conclusion. VRE colonization pressure was the most important risk factor for healthcare-associated VRE acquisition in this ICU population, regardless of VRE importation pressure or local use of vancomycin. Interventions seeking to reduce healthcare-associated VRE acquisition may wish to focus on ways to minimize transmission of VRE between patients with known VRE and the local hospital environment.

Disclosures. **All authors:** No reported disclosures.

1260. Decreasing Hospital Acquired Blood Stream Infections Through Self-Investigation by Hospital Wards

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Session: 139. Healthcare Epidemiology: Outbreaks
Friday, October 5, 2018: 12:30 PM

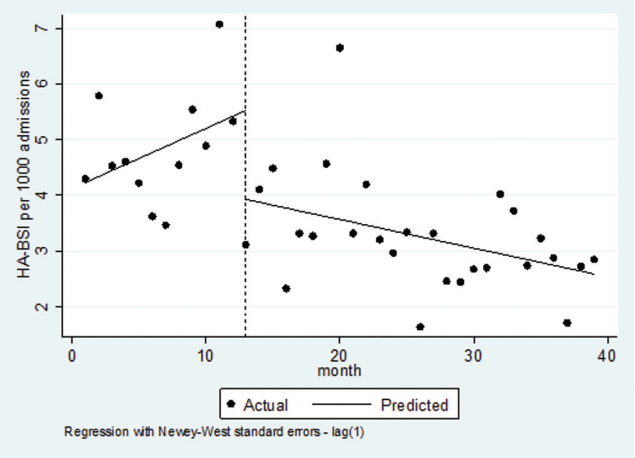
Background. Data on the incidence of hospital-wide acquired bloodstream infection (BSI) and the best ways to reduce it are lacking. Our aim was to increase hospital-wide awareness and decrease incidence of hospital-acquired (HA)-BSI through self-investigation.

Methods. Meir Medical Center is a 740-bed hospital. Beginning in January 2016, reports of HA-BSI events were sent daily to the wards with requests to investigate the source of infection, and preventability using a structured questionnaire. The infection control staff gave immediate feedback to the wards regarding their investigation. A summary of the results was sent to all wards and to hospital management quarterly. Interrupted time series analysis was used to compare the monthly rate of HA-BSI before and after the intervention. We estimated the number of cases prevented by the intervention by applying the HA-BSI rate in 2015 to the number of admissions in 2016–2017 and comparing the observed number of cases to the expected if the rate had not changed.

Results. In 2016, 64% of HA-BSI underwent investigation by the wards; this increased to 78% in 2017. As illustrated in the figure, before the intervention, the HA-BSI rate per 1,000 admissions increased by 0.11 per month (not significant $P = 0.15$). In the first month of the intervention, the HA-BSI rate decreased significantly by 0.43 ($P = 0.04$, 95% CI: −0.84 to −0.02). The HA-BSI rate continued to decrease (relative to the pre-intervention period) by 0.045 per month (P = 0.05, 95% CI: −0.09 to 0.00). During these 3 years, there was no significant change in the rate of community-acquired BSI (8.46, 8,88, 8,58, *P* for trend = 0.83) or in the rate of blood cultures drawn. During the intervention, the rate of HA-BSI decreased in both ICU units and in non-ICU wards. The number of HA-BSI caused by Enterobacteriaceae decreased from 170 in 2015 to 116 in 2017. *S. aureus* decreased from 51 to 30 and *Candida* from 11 to 0. The most common sources of BSI were urinary tract infection (31.4%) and central line associated BSI (16.4%). All-cause 30-day mortality for patients with HA-BSI was 30%. We estimated that in 2016–2017, 200 cases of HA-BSI and 60 deaths were prevented.

Conclusion. Increase awareness to HA BSI through self-investigation by the wards led to hospital-wide significant reduction in HA-BSI.

Figure 1.



Disclosures. **M. Chowers**, GSK: Grant Investigator, Research grant

1261. Utility of a Multiplex Molecular Gastrointestinal Panel in Rapid Identification and Control of a Norovirus Outbreak in a Pediatric Tertiary Care Center

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Session: 139. Healthcare Epidemiology: Outbreaks
Friday, October 5, 2018: 12:30 PM

Background. Norovirus is one of the most common viral pathogens implicated in gastroenteritis outbreaks in community and healthcare settings. The virus' short incubation period and high attack rate allow its rapid spread through inpatient wards to patients (Patients), staff and visitors. Early identification and appropriate implementation of infection prevention and control measures is essential to interrupt transmission.

Methods. The IWK Health Centre is a 250-bed tertiary care Pediatric and Women's hospital serving the Maritime Provinces, Canada. We describe a norovirus outbreak in our Pediatric Medical Unit, a 24-bed, single room ward with individual bathrooms for patients and families. Hospital-acquired norovirus definition: Patients admitted ≥48 hours with lab-confirmed norovirus AND ≥ 1 of: (1) acute onset diarrhea (no noninfectious cause) or (2) ≥2 of: nausea, vomiting, abdominal pain, fever, or headache. In 2017 the FilmArray Gastrointestinal (GI) Panel was introduced in the Clinical Microbiology Laboratory as part of a prospective post-implementation study. Since then, stool samples sent for viral, bacterial, or parasitic testing are evaluated by PCR. The panel tests for 22 GI analytes, including five viruses, with a 2-hour turnaround time. Previously, in-house stool viral testing was limited to adeno- and rotavirus antigen. Patient characteristics were collected and analyzed for this study.

Results. Patients 1, 2, and 3 had new onset diarrhea and emesis; Pt 1 on day 0, and Patients 2 and 3 on day 1. Patient 3's parents (likely source) had had diarrhea and emesis on days 3 and 2, and used the ward kitchen. Two care-givers of Patient 2, and 1 medical resident developed diarrhea and emesis over days 0 to 2. The outbreak was declared over on day 7. Patients 1, 2, and 3 all tested positive for norovirus in stool on day 1. On days 2–3, six other patients with diarrhea tested norovirus negative. All symptomatic patients were immediately placed on contact precautions, room/ward cleaning frequency increased and proper hand hygiene was reinforced. Common areas (playroom/kitchen) were closed until the outbreak was over. All patients with loose stool were tested during the outbreak.

Conclusion. FilmArrayGI panel enabled same-day identification of norovirus in this single-ward outbreak and permitted real-time identification of the termination of the outbreak.

Disclosures. **All authors:** No reported disclosures.

1262. Investigation and Mitigation of a Multi-Species Outbreak of Invasive Fungal Infections on Two Oncology Wards

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Session: 139. Healthcare Epidemiology: Outbreaks
Friday, October 5, 2018: 12:30 PM

Background. We investigated an increase in hospital-acquired invasive fungal infections (HA-IFI) among patients admitted to adjacent hematopoietic stem cell transplant (HSCT) and hematologic malignancy (HM) wards in the setting of a large construction project adjacent to the hospital.

Methods. We defined cases of HA-IFI as HSCT or HM patients who met criteria for probable or proven IFI with suspected inpatient acquisition. We hypothesized that outside construction increased internal particle/spore counts despite preconstruction prevention efforts. The environmental investigation included an evaluation of storage/distribution of supplies, air handler inspections, air particulate counts, and bioaerosol sampling of airborne fungal spores.

Results. From October 2017 to January 2018, 11 cases of probable/proven HA-IFI occurred (Figure 1). Infections caused by multiple pathogens (Figure 2) ranged from pneumonia and sinusitis to disseminated disease. Bioaerosol sampling and particulate counts were taken from unit corridors and rooms on both wards. Fungal species identified via bioaerosol sampling were primarily *Penicillium* and *Cladosporium* species, with rare *Aspergillus* identified. Geometric mean particulate counts of 1 µm aerodynamic size were reduced by 88% and 75% on the HM and HSCT wards, respectively (Figure 3). Interventions on these units occurred from January to February 2018 and included: limiting the frequency of outdoor air exchanges on air handler units, reinforcing seals around entrance doors, adjusting room pressurizations to be positive or neutral on HM ward (HSCT ward is already a positive pressure environment), eliminating cardboard associated with supplies, and requiring N95 respirators for HSCT patients when off unit. After implementing these environmental control measures, we have not identified additional cases of HA-IFI on these wards.

Conclusion. We describe a multispecies outbreak of IFI in HM and HSCT patients potentially associated with new building construction that occurred despite implementation of multiple pre-construction control efforts. A multifaceted strategy to improve air quality and protect patients on and off high-risk units was needed to mitigate the outbreak.

Figure 1: Distribution of Proven/Probable IFI Cases by Month

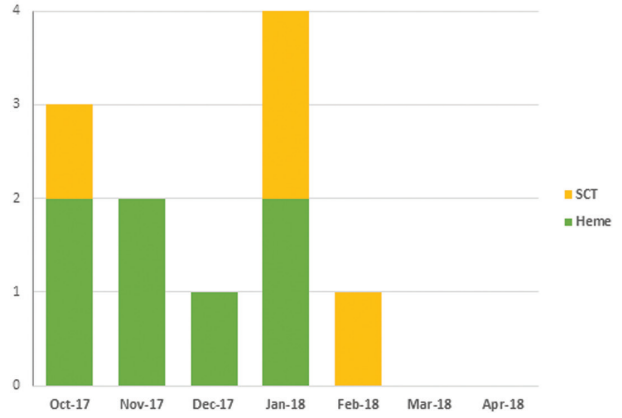


Figure 2: Proven/Probable IFI Cases by Organism by Month

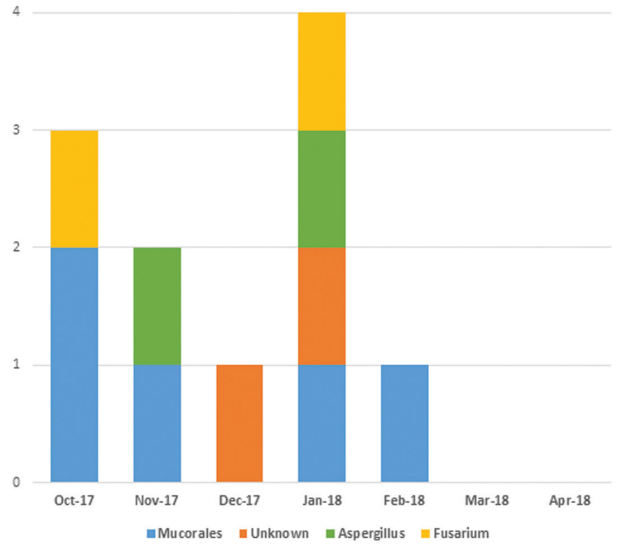
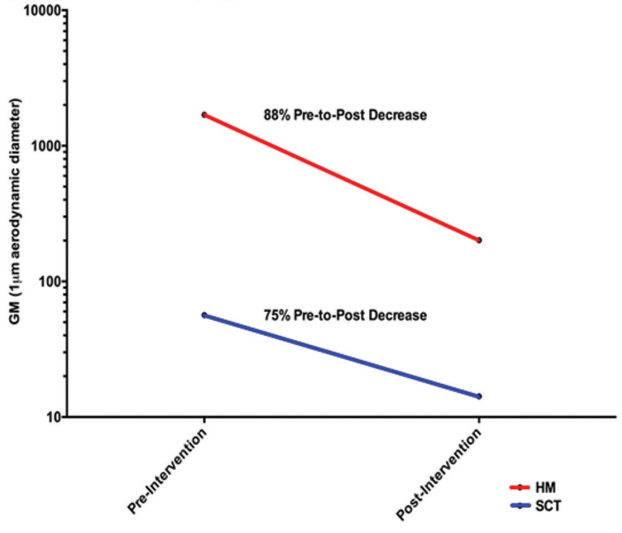


Figure 3: Particulate Sampling Pre and Post Intervention on HSCT and HM Wards



Disclosures. **All authors:** No reported disclosures.

1263. Managing an Influenza Outbreak Which Spilled Over to an Acute Care Hospital from a Behavioral Health Unit

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Session: 139. Healthcare Epidemiology: Outbreaks
Friday, October 5, 2018: 12:30 PM

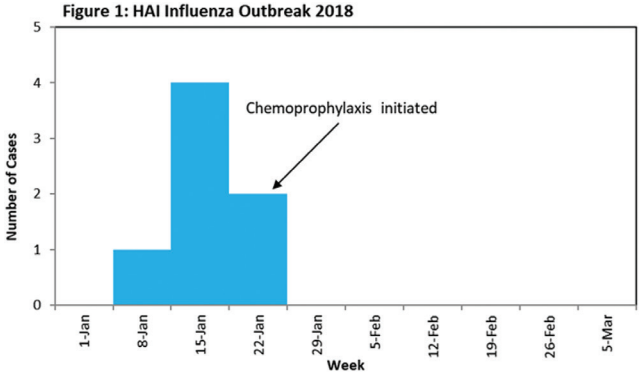
Background. Behavioral health units (BHU) have been implicated in influenza outbreaks due to group activities, low availability of alcohol-based hand gels and unique host factors. We describe the management of an unusual influenza outbreak, which started in the BHU and then spilled over to the acute care hospital (ACH).

Methods. University of Maryland Harford Memorial Hospital is a 95-bed ACH with a 14-bed closed-door adult BHU located on the fifth floor. Two cases each of hospital-acquired influenza were identified in our BHU during 2016 and 2017. In January 2018, however, hospital-acquired influenza cases in the BHU spilled over to the adjacent ACH to cause an outbreak. A case was defined as a patient with fever of >100.4°F, presence of influenza-like illness, and a positive influenza test >72 hours after admission. Outbreak control measures included twice daily fever screening, enhanced droplet precautions, visitor restrictions, discontinuing community activities, enforcing hand hygiene at all hospital entrances, and hospital-wide chemoprophylaxis with oseltamivir.

Results. On January 15, 2018, the index patient developed influenza in the BHU followed by a second case in BHU 4-days later. Over the next 10 days, five more patients on the third and fourth floors of ACH tested positive. Attack rate was 3% and average length of stay was 8.9 days. Chemoprophylaxis with oseltamivir 75 mg orally once a day was given to 71% of all eligible hospitalized patients for a week (at a cost of $17,000). All seven patients yielded influenza A, subtype H3N2 and were successfully treated with oseltamivir 75 mg orally twice a day for 7 days. The outbreak lasted 11 days. Figure 1 shows the epidemiologic curve.

Conclusion. Special attention should be paid to influenza prevention in the BHUs due to the risk of spillover effect to sicker patients in the adjacent ACH. A short, 7-day course of hospital-wide oseltamivir chemoprophylaxis, in addition to promptly implementing the infection prevention measures was effective in controlling the outbreak.

Figure 1: HAI Influenza Outbreak 2018



Disclosures. **All authors:** No reported disclosures.

1264. Healthcare-Acquired Influenza in Critical Ill Patients

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Session: 139. Healthcare Epidemiology: Outbreaks
Friday, October 5, 2018: 12:30 PM

Background. Healthcare-associated infections (HAIs) increases morbidity and mortality. During 2014, at Hospital Clínico Red de Salud UC CHRISTUS (RS-UCCH), was estimated that 15% of viral respiratory infections were acquired during hospitalization, and influenza was the main etiologic agent. The aim of this study was to obtain clinical characterization of HAIs due to influenza virus in patients hospitalized in critical care units (CCU) and special care units (chronic patients who need hospitalized nurse care).

Methods. Descriptive study of CCU and special care patients with hospital acquired influenza during 2014–2017. HAI due to influenza was defined as: symptoms onset and/or positive influenza PCR ≥48 hours after hospital admission, without previous respiratory symptoms or with negative PCR.