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Background. Preventing the transmission of multidrug-resistant organisms requires strict adherence to isolation precautions. Candida auris (CA), an emerging multidrug-resistant fungal pathogen, can cause widespread and persistent contamination of environmental surfaces within healthcare facilities and lead to outbreaks. While direct observation (DO) with “secret shoppers” is traditionally used to monitor adherence to isolation precautions and personal protective equipment (PPE) use by healthcare personnel (HCP), this method is limited by logistic and cost issues. We studied the use of remote video auditing (RVA) to monitor adherence to isolation precautions in a patient with CA fungemia.

Methods. This is a cross-sectional study of HCP who were in contact with a single patient with CA fungemia. This patient was placed on standard and contact precautions and held in isolation in a single room in an acute care setting. Adherence to isolation precautions by HCP was observed by DO and RVA. RVA consisted of recording videos of HCP entering and exiting the room and auditing adherence using a standardized protocol by remotely-placed observers. Hand hygiene (HH) on entry and exit, the use of gloves and gowns upon entry, correct gown donning and the proper doffing sequence upon exit were observed by both methods. In the DO method, data were recorded per visit and not by entry/exit.

Results. RVA captured data for 120 visits by HCP (entry data [n = 62]; exit data [n = 58]) and DO captured data for 173 visits by HCP during 23 days. Table 1 shows the compliance rates determined by both methods. RVA yielded lower compliance rates on most measures than the DO method. Also, there were a higher number of missing observations in the DO group

Conclusion. RVA, when used to monitor adherence to isolation precautions in a high-concern CA patient, demonstrated lower compliance rates compared with DO and had fewer missing data elements. These results suggest that RVA is a novel monitoring method that may be a more precise alternative to DO for ensuring adherence to isolation precautions and the prevention of nosocomial transmission of high-concern pathogens such as CA.

Table 1.

Observation	RVA		DO	
	Compliance rate % (n/N)	Data missing n (%) ^{a,b}	Compliance rate % (n/N)	Data missing n (%) ^{a,c}
Glove	90.3 (56/62)	0(0.0)	98.2(164/167)	3(1.7)
Gown used	95.1 (59/62)	0(0.0)	100(167/167)	6(3.4)
Gown – full back covered	14.5 (9/62)	0(0.0)	92.2(154/167)	6(3.4)
Gown – secured at top	90.3 (56/62)	0(0.0)	97.0(162/167)	6(3.4)
HH at entry	75.4 (43/57)	5(8.0)	96.4(161/167)	6(3.4)
HH at exit	100 (54/54)	4(6.8)	98.7(153/155)	18(10.4)
Proper doffing sequence	87.7 (43/49)	9(15.5)	94.0(157/167)	17(9.8)

^aEvents for which data were not recorded or the event was not viewable

^bDenominator N=62 except HH at exit and proper doffing sequence where denominator N=58

^cDenominator N=173

Disclosures. All authors: No reported disclosures.

1202. It's a Confidence Scheme—Transmission-based Precautions in the Ambulatory Setting

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Background. Following consistent transmission-based precautions (TBP) beyond the inpatient ward can be challenging. Specifically, ensuring patients are removed when eligible can prevent overuse of TBP and PPE and counter the negative connotations of TBP/Isolation. We sought to enhance providers' ability to provide TBP for indicated patients only.

Methods. We initiated an iterative process to identify patients eligible for TBP discontinuation based on hospital policy. Staff huddle at the start of each clinic to identify patients needing TBP. An electronic medical record (EMR) report was generated and reviewed by an Infection Preventionist (IP) 3 days in advance of a clinic session to identify and remove eligible patients from TBP. When TBP discontinuation required

clinical criteria not available in the EMR, clinic staff were notified and asked to collect the information from families so a decision could be made.

Results. Following 6 weeks of review for 5 services, over 30 patients were removed from TBP prior to their visit. IP review entails approximately 20 minutes three times per week. Clinic staff reported greater confidence with enforcing TBP for patients. Specifically, they could trust the list generated the day of clinic, and they understood following TBP was in accordance with policy.

Conclusion. Verifying the need for TBP in ambulatory patients is not labor intensive. Enhancing the accuracy of lists of patients requiring TBP increases provider confidence in communicating with families and preventing transmission. Increased confidence may empower providers to better utilize TBP appropriately, leading to less waste and dissatisfaction.

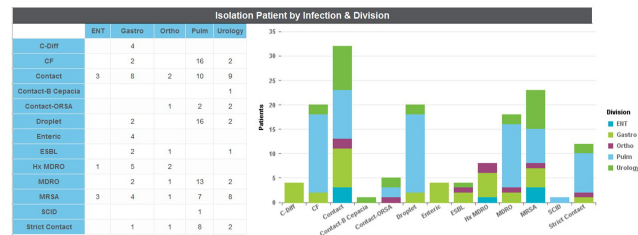


Figure 1 – Example TBP Report. The report allows rapid identification of charts needing review and removal of TBP where appropriate.

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1203. Epidemiology of Respiratory Viruses in Influenza-Vaccinated Healthcare Workers During an H1N1-Dominant Season

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Background. Respiratory pathogens are an important cause of morbidity and mortality in hospitalized patients and nosocomial spread of such pathogens is known to occur. However, little is known about the epidemiology of respiratory viruses in healthcare workers (HCW).

Methods. Between December 28, 2018 and April 26, 2019 enrolled HCW completed a weekly symptom diary, including presence or absence of respiratory symptoms, flu exposure history and whether they received medical attention. Vaccination and flu infection history were collected on enrollment. Participants self-collected flocced nasopharyngeal (NP) swabs every other week and if they reported any symptom on the weekly diary. These were tested using a multiplex PCR platform (Biofire, Salt Lake City, UT) with targets for 14 respiratory viruses. Symptomatic HCW with influenza or respiratory syncytial virus (RSV) were notified and followed policy regarding work restriction.

Results. 66 HCWs provided baseline data and 57 continued data submission (9 withdrew). The active participants included 13 nurses (22.8%), 7 advanced practice providers (12.3%), 18 physicians (31.6%), and 19 other (33.3%). Participants received quadrivalent inactivated flu vaccine this season (2 self-reported/unknown type). Compliance was 89.8% (749 of 834) with weekly diary completion and 83.3% (378/454) for biweekly NP swabs. Thirty-nine unique participants reported symptoms on weekly diaries 100 times and submitted 88 total “symptomatic” NP swabs (88% compliance). Of these, 16 swabs revealed any pathogen (18.2%) and 3 had influenza H3N2 (18.8%) (only one reported fever). Other pathogens identified are detailed in Figure 1. 12 of the 366 asymptomatic swabs were positive for respiratory viruses (23.3%, see Figure 1). No participant had asymptomatic influenza.

Conclusion. Pauci-symptomatic influenza has been previously described by our group and others and is noted even in this small cohort. While asymptomatic flu was not found, there were several cases of other asymptomatic respiratory viruses in HCW. Analysis of the impact on patients is still underway from this cohort but the initial data suggest that patients are at risk of contracting healthcare-acquired respiratory infection even from health care providers.

Figure 1. HCW Respiratory NP Swab Results

Respiratory Panel	Asymptomatic	Symptomatic*
Influenza	None	3
Coronavirus OC43	2	7
Coronavirus 229E	1	3
Coronavirus NL63	1	None
Rhinovirus/Enterovirus	8	2
RSV	None	1

*Some biweekly swabs coincided with symptoms in participants. Hence, the total number of asymptomatic swabs is less than the number of biweekly swabs collected.

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1204. Increased Risk of Respiratory Infections Among Healthcare Personnel (HCP) Caring for Children

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Background. Healthcare personnel (HCP) are exposed to many individuals with respiratory illness while providing care. Because children more frequently present for care with respiratory infections compared with older individuals, we hypothesized that HCP working in pediatric settings might experience greater risks of respiratory infection than HCP working in adult settings. The Respiratory Protection Effectiveness Clinical Trial (ResPECT) prospectively compared respiratory protection among HCP at seven health systems across the United States between 2011 and 2015.

Methods. Swabs were collected from asymptomatic participants twice each respiratory season. Swabs were collected from symptomatic HCP within 24 hours of self-reported respiratory symptoms and again if participants were still symptomatic after 7 days. PCR confirmation for 13 viruses was done by a single laboratory. We compared hazards of multiple outcomes associated with respiratory infections among HCP working in pediatric clinics and HCP working in clinics that care for adults.

Results. The main outcomes were risk factors for symptomatic and asymptomatic viral respiratory infections. A total of 5,180 participant-seasons were evaluated from 2011–2015, 1,130 of which worked solely with children. There were 403 and 1,162 incidents of asymptomatic and symptomatic PCR-confirmed respiratory infection, respectively. Risk factors associated with respiratory infection in the entire cohort included age, race, vaccination status, smoking status, wearing contacts, total household members, study site, and age of patient population. HCP working exclusively with pediatric patients had 1.5 (95% CI 1.2–1.8) times the rate of respiratory virus infection compared with HCP working only with adults. HCP who worked with both populations had 1.4 times (95% CI: 1.2–1.7) the rate of infection with respiratory viruses.

Conclusion. The risk of respiratory infections was increased among HCP that saw children. This risk was not mitigated by working only part-time with children and extended to those who identified as working with both adult and pediatric populations. Our findings highlight the need to target interventions in pediatric settings to decrease HCP acquisition of respiratory infections.

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1205. Healthcare Personnel Knowledge, Attitudes, and Beliefs Towards Infection Prevention and Control Measures for Protection from Respiratory Infections

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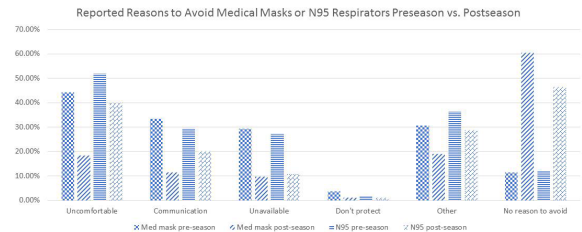
Background. Healthcare personnel (HCP) knowledge and attitudes toward Infection Prevention and Control (IPC) measures are important determinants of practices that can protect them from acquisition of infectious diseases from patients. We aimed to describe HCP knowledge and attitudes concerning IPC measures over time in the context of a clinical trial.

Methods. ResPECT was a multi-center, multi-season cluster randomized clinical trial designed to compare the effectiveness of medical masks (MM) and N95 respirators (N95) for preventing acute respiratory illnesses in HCP employed in outpatient clinical settings. At the beginning of each respiratory virus season, participants completed a survey instrument to measure IPC knowledge. At the beginning and end of each season participants completed a survey to assess attitudes and beliefs about IPC measures, especially MM and N95.

Results. A pre-study and post-study survey pair was available for 88.1% of participant seasons. There were no significant differences in demographic variables or

job assignment between survey respondents and nonrespondents for each participant season. Participants correctly identified 59.8% to 63.4% of IPC measures that should be used by HCP when exposed to patients with symptoms of acute respiratory illness, or at high risk of infection. There was modest improvement in the knowledge score over time among providers who participated for multiple years in the study. In the first pre-study survey of IPC attitudes and beliefs, 88.5% and 87.9% of participants identified at least one reason to avoid using either MM and N95, respectively (Figure 1). At the post-season survey, the proportion of participants reporting a reason to avoid MM fell to 39.6% (IRR for pre- vs. post-season 0.15, 95% CI 0.13–0.17) and 53.6% reported a reason to avoid N95 (IRR 0.57, 95% CI 0.51–0.66).

Conclusion. HCP knowledge of IPC precautions was poor, suggesting a need for better IPC education and accountability in the outpatient setting. When given incentives to comply with processes toward which they had negative attitudes at baseline, HCP realized that medical masks and N95 respirators were comfortable enough to wear for patient encounters and interfered with their work processes less than expected.



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1206. #HitMeWithYourFluShot: Consolidating a 3-Week Influenza Vaccination Program into a One-Day Drill

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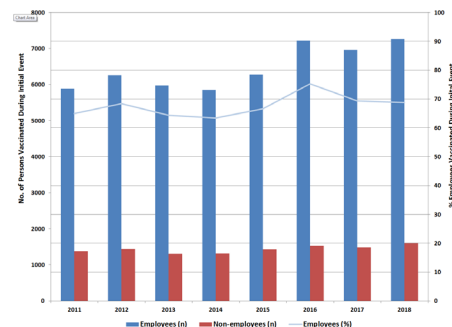
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Background. Since 2011 our health system has achieved >90% employee influenza vaccination via a 3-week intensive nonmandatory program offering entrance location vaccinations. We partnered with Emergency Management to consolidate this process into 1 day, fulfilling a dual purpose of conducting an emergency vaccination drill.

Methods. The health system comprises 2 hospitals (913-bed and 250-bed) and campuses, multiple off-campus clinical and nonclinical sites, and a free-standing emergency department, employing nearly 12,000 people in 4 states. A multidisciplinary team planned the drill, scheduled 4 am–9 pm at 3 locations in the 2 hospitals. In addition, roving vaccination teams visited all off-campus sites to either perform vaccinations or deliver supplies. Employees not scheduled to work were encouraged but not required to come in; all eligible employees working that day were expected to be vaccinated. Nonemployees (including physicians, volunteers and retirees) were also included. To promote the event, we developed posters and other communications using a #HitMeWithYourFluShot hashtag, and included radio stations, therapy dogs, photo booths and other activities. After the event we surveyed participants to elicit feedback.

Results. During the 1-day event we vaccinated 7267 (69%) employees, along with 1594 nonemployees, similar to prior 3-week campaigns (figure). Nearly 300 employees volunteered to vaccinate or perform other duties. The roving teams visited 81 practices at 42 separate locations, traveling >250 miles. Of those completing the post-event survey ($n = 656$), 79% found the event very convenient, and 61% of those who had participated in prior campaigns found this format somewhat or much better. Employee vaccination rates for the entire season was 92%.

Conclusion. This effort demonstrated that we could achieve high levels of employee flu vaccination in a single day in a large and geographically diverse healthcare system, using a mass vaccination drill format that included multiple sites of vaccination as well as roving vaccination and transport teams. We identified the lack of a master list with locations of all off-campus employees as the greatest opportunity. Participants favorably accepted the drill format and employee engagement was high.



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