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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.

Disclosures. Trish M. Perl, MD; MSc, 7–11: Advisory Board; medimmune: Research Grant.

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

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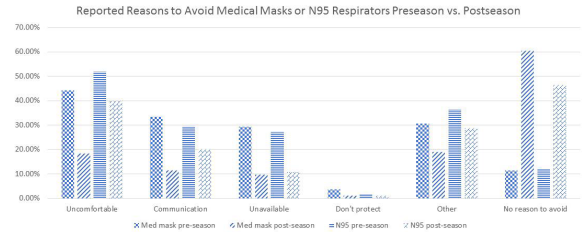
Background. Healthcare personnel (HCP) knowledge and attitudes toward Infection Prevention and Control (IPC) measures are important determinants of practices that can protect them from acquisition of infectious diseases from patients. We aimed to describe HCP knowledge and attitudes concerning IPC measures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



Disclosures. Trish M. Perl, MD; MSc, 7–11: Advisory Board; medimmune: Research Grant.

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

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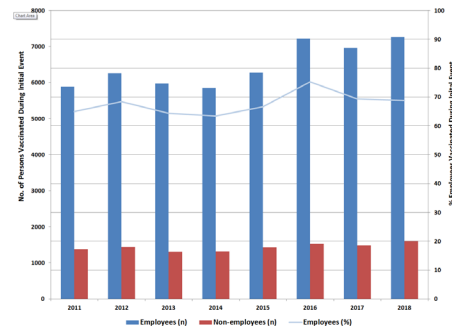
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Background. Since 2011 our health system has achieved >90% employee influenza vaccination via a 3-week intensive nonmandatory program offering entrance location vaccinations. We partnered with Emergency Management to consolidate this process into 1 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.



Disclosures. All authors: No reported disclosures.