

underlying comorbidities. In our series, there were 2 deaths within 2 weeks of infection.

Funding: No

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2021;1(Suppl. S1):s75–s76

doi:10.1017/ash.2021.148

Presentation Type:

Poster Presentation

Subject Category: Respiratory Viruses

Working with Respiratory Illness: Presenteeism Among Healthcare Personnel at Tertiary-Care Hospitals in Bangladesh, 2008–2016

Syeda Mah-E-Muneer; Md. Zakiul Hassan; Mejbah Uddin Bhuiyan; Kamal Hussain; Zubair Akhtar; Mustafizur Rahman; A. Danielle Iuliano; Eduardo Azziz-Baumgartner and Fahmida Chowdhury

Background: Healthcare personnel (HCP) in crowded and resource-poor countries (eg Bangladesh), might be at risk of exposure to and transmission of respiratory illnesses to coworkers, patients, and caregivers. The infection control practices in public hospitals are inadequate in Bangladesh. We estimated the incidence of respiratory illness episodes among HCP, and proportion of HCP who worked during respiratory illnesses, including influenza virus infection, at 2 tertiary-care public hospitals in Bangladesh. **Methods:** From May 2008 to February 2016, HCP (defined as physicians, nurses, interns, patient care assistant, cleaners, and administrative staff working in adult and pediatric medicine wards) were asked to self-report to study physicians when they experienced new onset of cough, rhinorrhea, difficulty breathing, or fever during the April–September influenza epidemic period each year. Study physicians followed HCP throughout their respiratory illness episodes and recorded respiratory symptoms, onset dates, duration of illness, and days of presenteeism and absenteeism during illness. Nasopharyngeal and oropharyngeal swabs were collected after informed written consent and were tested for influenza by rRT-PCR. We used hospital records to enumerate total HCP working in the study wards during influenza season and multiplied by 6-months follow-up per year to calculate person-time contribution for estimating respiratory illness incidence. **Results:** HCP self-reported 107 episodes of respiratory illness during 656 person years of follow-up, for an estimated incidence of 16.3 per 100 person years (95% CI, 13–20). Of 107 episodes, 33 (31%) included fever and cough. The mean illness length was 3.9 days (SD, ± 1.8). HCP worked an average of 3.4 days (SD, ± 1.4) while ill. HCP missed work for a median of 1 day (IQR, 1–2) during 29 (27%) of 107 illness episodes. HCP consented to collect swabs during 56 (52%) episodes, and among them 8 (14%) of 56 tested positive for influenza (flu-A, n = 5; flu-B, n = 3). Also, 63% of HCP with influenza reported fever and cough. HCP experiencing either respiratory illness or influenza worked for similar periods of days while ill: mean, 4 (SD, ± 2.2) versus mean, 3.3 (SD, ± 1.4) ($P = .257$). HCP worked during 105 (98%) of 107 respiratory illness and 7 (88%) of 8 influenza episodes. **Conclusions:** Most HCP in Bangladesh, including those with influenza, worked during respiratory illnesses. The potential value of stay-at-home policies, compensation for sick days, and influenza vaccination in reducing HCP-associated respiratory pathogen transmission could be assessed in Bangladesh and similar settings.

Funding: No

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2021;1(Suppl. S1):s76

doi:10.1017/ash.2021.149

Presentation Type:

Poster Presentation

Subject Category: Respiratory Viruses Other than SARS-CoV-2

Respiratory Syncytial Virus: An Underrecognized Healthcare-Associated Infection

Erin Gettler; Thomas Talbot; H. Keipp Talbot; Danielle Ndi; Edward Mitchel; Tiffanie Markus; Bryan Harris and William Schaffner

Background: Despite significant morbidity and mortality, estimates of the burden of healthcare-associated viral respiratory infections © The Author(s), 2021. Published by Cambridge University Press on behalf of The Society for Healthcare Epidemiology of America. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

S76 2021;1 Suppl 1

Figure 1

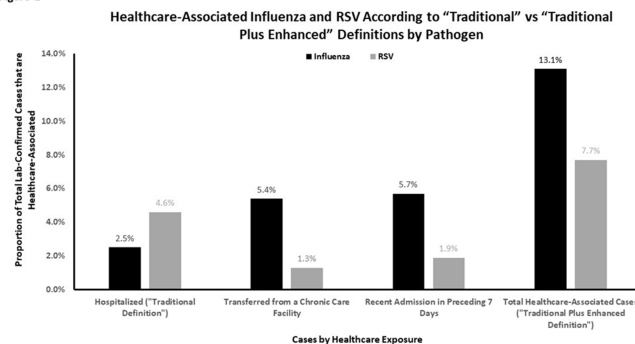
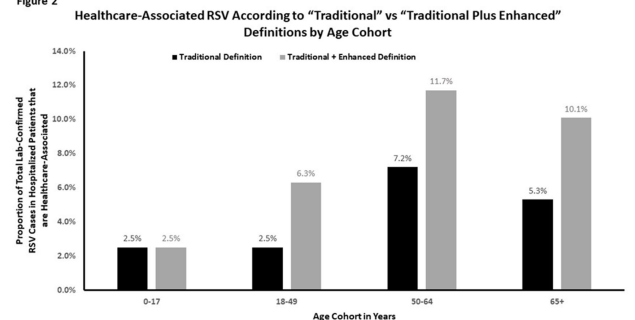


Figure 2



(HA-VRI) for noninfluenza infections are limited. Of the studies assessing the burden of respiratory syncytial virus (RSV), cases are typically classified as healthcare associated if a positive test result occurred after the first 3 days following admission, which may miss healthcare exposures prior to admission. Utilizing an expanded definition of healthcare-associated RSV, we assessed the estimates of disease prevalence. **Methods:** This study included laboratory-confirmed cases of RSV in adult and pediatric patients admitted to acute-care hospitals in a catchment area of 8 counties in Tennessee identified between October 1, 2016, and April 30, 2019. Surveillance information was abstracted from hospital and state laboratory databases, hospital infection control databases, reportable condition databases, and electronic health records as a part of the Influenza Hospitalization Surveillance Network by the Emerging Infections Program. Cases were defined as healthcare-associated RSV if laboratory confirmation of infection occurred (1) on or after hospital day 4 (ie, “traditional definition”) or (2) between hospital day 0 and 3 in patients transferred from a chronic care facility or with a recent discharge from another acute-care facility in the 7 days preceding the current index admission (ie, “enhanced definition”). The proportion of laboratory-confirmed RSV designated as HA-VRI using both the traditional definition as well as with the added enhanced definition were compared. **Results:** We identified 900 cases of RSV in hospitalized patients over the study period. Using the traditional definition for HA-VRI, only 41 (4.6%) were deemed healthcare associated. Adding the cases identified using the enhanced definition, an additional 12 cases (1.3%) were noted in patients transferred from a chronic care facility for the current acute-care admission and 17 cases (1.9%) were noted in patients with a prior acute-care admission in the preceding 7 days. Using our expanded definition, the total proportion of healthcare-associated RSV in this cohort was 69 (7.7%) of 900 compared to 13.1% of cases for influenza (Figure 1). Although the burden of HA-VRI due to RSV was less than that of influenza, when stratified by age, the rate increased to 11.7% for those aged 50–64 years and to 10.1% for those aged ≥ 65 years (Figure 2). **Conclusions:** RSV infections are often not

included in estimates of HA-VRI, but the proportion of cases that are healthcare associated are substantial. Typical surveillance methods likely underestimate the burden of disease related to RSV, especially for those aged ≥50 years.

Funding: No

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2021;1(Suppl. S1):s76–s77

doi:10.1017/ash.2021.150

Presentation Type:

Poster Presentation

Subject Category: Other

Facemasks for Source Control: Testing Influenza Transfer to Bedside Tables

Adriane Biggio and Stephanie Nagy-Agren

Background: Research testing human study participants regarding the effectiveness of face masks in preventing influenza transfer or transmission is limited. In this pilot study, we investigated the following question: In influenza-positive veterans, what is the effect of face-mask wearing in comparison to not wearing a face mask on influenza transfer to bedside tables measured for 2 hours per condition over a 10-week period during the 2019–2020 influenza season **Methods:** Influenza-positive veterans with influenza symptom onset ≤ 120 hours admitted to the Salem Veterans Affairs Medical Center were recruited to participate in this study. Exclusion criteria included critical illness requiring an oxygen mask or intubation. The Precept® FluidGard® 160 Procedure Mask 15300, Precept Medical Products, Inc., Arden, NC was worn by all participants during the two-hour intervention period. Surface swabs were used to measure the presence of influenza on bedside tables. CDC/NIOSH tested for influenza A and B from surface samples and facemasks using real-time polymerase chain reaction (PCR) assay (TaqMan ThermoFisher Scientific). Demographic information was collected (Table 1). A study questionnaire collected qualitative data on tolerability and feasibility of wearing a facemask when hospitalized with influenza. Institutional Review Board approval was granted. **Results:** From January 2, 2020, to March 11, 2020, 8 participants completed the study. Mean age was 67 years, all were male. Of these 8 participants, 6

Table 1.

Participant age, influenza type, temperature, oseltamivir doses received, and pertinent medical history.

Participant	Age (years)	Influenza type	T _{max} on study date	Oseltamivir (# doses received)	Pertinent medical history
1	67	B	99.7	2	COPD, diabetes, cigarette smoking
2	72	A	98.5	2	
3	84	A	98.4	2	
4	86	B	98	2	
5	69	A	98.1	2	COPD, diabetes
6	70	A	98.4	2	pneumonia, COPD, cigarette smoking
7	59	A	98.4	4	
8	27	A	100.3	1	cigarette smoking

Table 2.

Number of hours tolerated facemask-wearing condition, general experiences wearing facemask, and opinion about ease or difficulty wearing the facemask

	N (%)
Two hours	4 (50)
Three hours	2 (25)
Five hours or more	2 (25)
Warmth	5 (62.5)
General discomfort	3 (37.5)
Shortness of breath	1 (12.5)
No discomfort	2 (25)
Easy or very Easy	8 (100)

Table 3.

Influenza A or B Detection on Nasopharyngeal Swabs, Masks, and Bedside Tables

N=8	Nasopharyngeal swab (total M1 copies in sample)	Worn mask	Before mask intervention	After mask intervention	Before unmasked intervention	After unmasked intervention
1	DNQ*	UD	UD	UD	UD	UD
2	2.40E+03	DNQ	UD	UD	UD	UD
3	46.0	UD	UD	UD	UD	UD
4	UD	NA	NA	NA	NA	NA
5	2.94E+03	DNQ	UD	UD	UD	UD
6	no sample	DNQ	NA	NA	NA	NA
7	2.64E+02	UD	UD	UD	UD	UD
8	UD	UD	NA	NA	NA	NA

DNQ = detectable but not quantifiable

*denotes influenza B

UD = undetected

NA = not assayed

had influenza A and 2 had influenza B. Half were diabetic; all received oseltamivir. Relative room humidity ranged from 15.6% to 39.8%. Neither influenza A nor B was detected by qPCR on bedside tables for any of the 8 participants under either face-mask-wearing condition. All participants reported that wearing the face mask was easy or very easy; of these, 5 reported experiencing warmth from the mask. Also, 50% of participants selected 2 hours as the time they could tolerate wearing a mask; the other 25% specified they could wear the face mask for 3 hours or 5 hours or more, respectively. **Conclusions:** In this pilot study, we demonstrated that wearing face masks is a tolerable infection control practice for providing source control for inpatients with influenza and will guide future research. Because a major limitation was the small size of the study, associated with lack of viral capture, a larger study is planned. Using face masks for source control among inpatients with influenza and other respiratory virus infections should be considered a standard infection control practice.

Funding: No

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2021;1(Suppl. S1):s77

doi:10.1017/ash.2021.151

Presentation Type:

Poster Presentation

Subject Category: SSI

Incidence and Risk Factors for Surgical Site Infection Following Coronary Artery Bypass Graft Procedures

Polly van den Berg; Sharon Wright and Baevin Feeser

Background: Deep and organ-space surgical site infections (SSIs) are serious complications of coronary artery bypass graft (CABG) procedures. It is unclear whether the use of bilateral versus single internal mammary artery (BIMA vs SIMA) and surgical approach to internal mammary artery (IMA) harvest (pedicled vs skeletonized) are independent risk factors for SSI. The use of BIMA grafting redirects blood flow away from the sternum to the heart and may increase SSI risk due to lower tissue perfusion. A skeletonized approach to graft harvest, wherein the IMA is dissected free of surrounding tissue to preserve collateral sternal blood flow, may decrease SSI risk as compared to a pedicled approach in which the IMA is mobilized within a tissue pedicle. We describe the incidence and potential risk factors for post-CABG SSI in an academic tertiary-care center performing ~500 IMA procedures annually. **Methods:** Data were abstracted on adult patients who underwent a CABG procedure using at least 1 IMA graft

Table 1: Changes in Post-CABG SSI Incidence and Surgical Technique, 2017-2020

Time Period	Total # CABG Procedures	Overall SSI/100 procedures	Surgical Approach n (%)		CABG type n (%)	
			Skeletonized	Pedicled	SIMA	BIMA
Jul 17 – Jun 18	550	1.8	160 (29.1)	390 (70.9)	426 (77.5)	124 (22.5)
Jul 18 – Jun 19	561	1.1	192 (34.2)	369 (65.8)	427 (76.1)	134 (23.9)
Jul 19 – Jun 20	480	0.63	189 (39.4)	291 (60.6)	391 (81.5)	89 (18.5)

CABG=coronary artery bypass graft, SSI=surgical site infection, SIMA=single internal mammary artery, BIMA=bilateral internal mammary artery