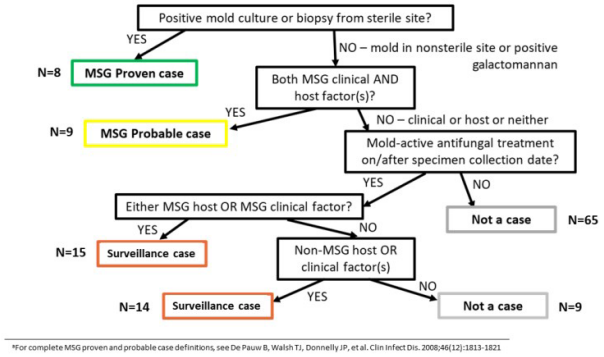
We excluded yeast and dimorphic fungi, hair and nail specimens, and cystic fibrosis patients. Potential cases underwent chart review and were classified by 2 physicians as proven, probable, or non-case according to MSG criteria. Cases that partially met MSG probable criteria and included antifungal treatment were classified as surveillance cases; definitions were mutually exclusive (Fig 1).

Figure 1: Case Classification Algorithm



Results. Of 120 potential IMI cases, 46 (38%) met an IMI case definition: 8 proven, 9 probable, and 29 surveillance cases (Fig 2). Of cases, 14 (30%) involved transplant or cancer in the previous year; 8 of these were proven or probable cases. IMI presented primarily as sinusitis among proven cases (50%), and pulmonary infections among probable (56%) and surveillance (45%) cases. Most surveillance cases were caused by *Aspergillus* spp. (72%) and accounted for all 5 cutaneous IMI (fig 3). Over 80% of cases vs. 10% of non-cases had antifungal treatment.

Figure 2: Invasive mold infection case classifications

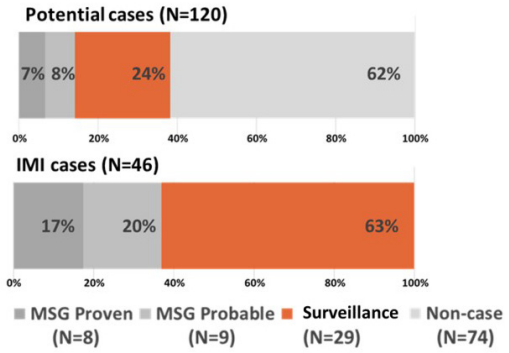
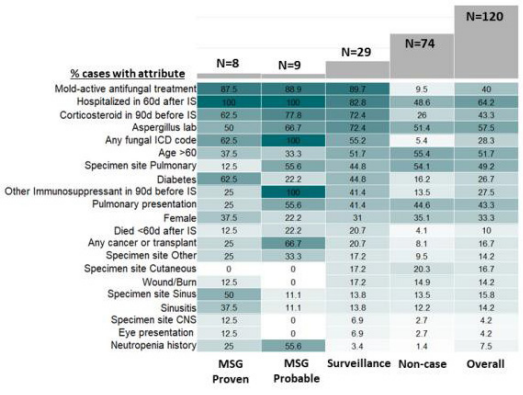


Figure 3: Attributes of IMI Cases and Non-cases from April 2018–March 2019 (N = 120)



% cases with attribute	N=8 MSG Proven	N=9 MSG Probable	N=29 Surveillance	N=74 Non-case	N=120 Overall
Mold-active antifungal treatment	87.5	88.9	89.7	9.5	40
Hospitalized in 60d after IS	100	100	82.8	48.6	64.2
Corticosteroid in 90d before IS	62.5	77.8	72.4	26	43.3
Aspergillus lab	50	66.7	72.4	51.4	57.5
Any fungal ICD code	62.5	33	55.2	5.4	28.3
Age >60	37.5	33.3	51.7	55.4	51.7
Specimen site Pulmonary	12.5	55.6	44.8	54.1	49.2
Diabetes	62.5	22.2	44.8	16.2	26.7
Other Immunosuppressant in 90d before IS	25	100	41.4	13.5	27.5
Pulmonary presentation	25	55.6	41.4	44.6	43.3
Female	37.5	22.2	31	35.1	33.3
Died <60d after IS	12.5	22.2	20.7	4.1	10
Any cancer or transplant	25	66.7	20.7	8.1	16.7
Specimen site Other	25	33.3	17.2	9.5	14.2
Specimen site Cutaneous	0	0	17.2	20.3	16.7
Wound/Burn	12.5	0	17.2	14.9	14.2
Specimen site Sinus	50	11.1	13.8	13.5	15.8
Sinusitis	37.5	11.1	13.8	12.2	14.2
Specimen site CNS	12.5	0	6.9	2.7	4.2
Eye presentation	12.5	0	6.9	2.7	4.2
Neutropenia history	25	55.6	3.4	1.4	7.5

Conclusion. Of IMI cases identified, nearly two thirds had evidence of infection but did not meet an MSG case definition. MSG captured over half of transplant and cancer-associated cases, but these were uncommon overall, revealing most IMI lack classical risk factors. A more sensitive surveillance case definition can capture a broader spectrum of IMI patients receiving antifungal treatment to help guide clinical and public health interventions.

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

913. Distribution of Respiratory Viral Pathogens in Infants Across Different Clinical Settings from December 2019 to April 2020

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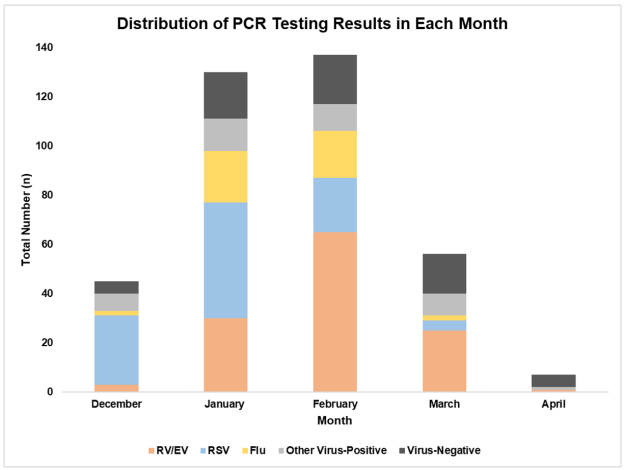
Session: P-43. HAI: Surveillance

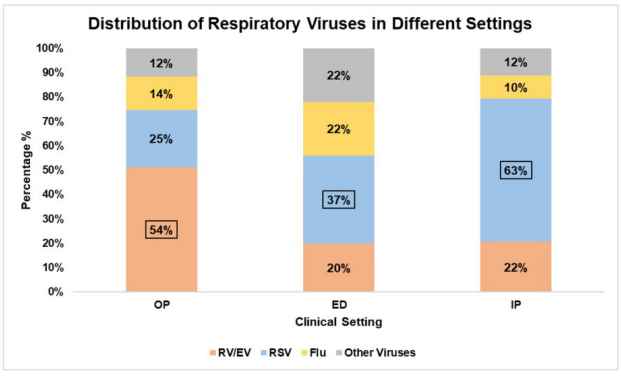
Background. Acute respiratory infections (ARI) are a major cause of morbidity and mortality in young children, with viral pathogens being the most common etiologies. However, due to limited and inconsistent clinical diagnostic viral testing in the outpatient (OP) setting compared to the inpatient (IP) setting, the actual burden and distribution of viral pathogens across these clinical settings remain largely underreported. We aimed to evaluate the frequency of common respiratory viruses in medically attended ARI in infants.

Methods. We conducted a prospective viral surveillance study in Davidson County, TN. Eligible infants under one year presenting with fever and/or respiratory symptoms were enrolled from OP, emergency department (ED), or IP settings. Nasal swabs were collected and tested for common viral pathogens using Luminex® NxTAG Respiratory Pathogen Panel and for SARS-CoV-2 using Luminex® NxTAG CoV extended panel.

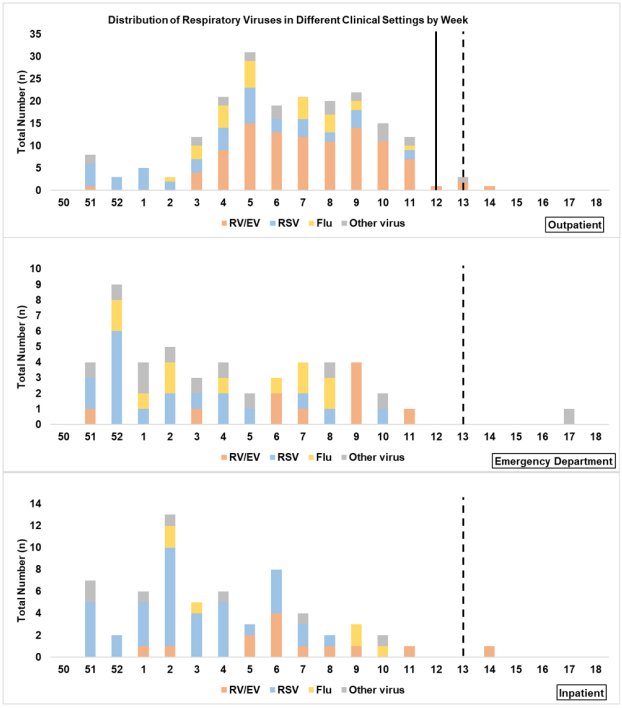
Results. From 12/16/2019 to 4/30/2020, 364 infants were enrolled, and 361 (99%) had nasal swabs collected and tested. Of those, 295 (82%) had at least one virus detected; rhinovirus/enterovirus (RV/EV) [124 (42%)], respiratory syncytial virus (RSV) [101 (32%)], and influenza (flu) [44 (15%)] were the three most common pathogens detected. No samples tested positive for SARS-CoV-2. Overall, the mean age was 6.1 months, 50% were male, 45% White and 27% Hispanic. **Figure 1** shows the total number of PCR viral testing results by month. RSV was the most frequent virus detected in the IP (63%) and ED (37%) settings, while RV/EV was the most common in the OP setting **(Figure 2). Figure 3** displays viral seasonality by clinical setting, showing an abrupt decrease in virus-positive cases following the implementation of a stay-at-home order on March 23, 2020 in Nashville, TN.



Distribution of Respiratory Viruses in Different Settings



Distribution of Respiratory Viruses in Different Settings by Season



Solid line: March 16th, surveillance halted in 3 out of 4 outpatient clinics due to SARS-CoV-2 restrictions

Dashed line: March 23rd, stay-at-home implementation in Nashville, TN

Conclusion. Most medical encounters in infants are due to viral pathogens, with RSV, RV/EV, and flu being the most common. However, distributions differed by clinical setting, with RSV being the most frequently detected in the IP and ED settings, and second to RV/EV in the OP setting. Continued active viral ARI surveillance in various clinical settings is warranted. Preventative measures such as vaccines and infection control measures deserve study to reduce viral ARI burden.

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914. Epidemiology of Patients with ESKAPE Pathogen Bloodstream Infection in the US Military Health System

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Session: P-43. HAI: Surveillance

Background. Bloodstream infections (BSI) are associated with both inpatient mortality and substantial morbidity in the United States. We sought to characterize the epidemiology of BSIs with ESKAPE pathogens on patients served by the United States Military Healthcare System (MHS), which actively prospectively captures clinical and microbiological data from US service members and their beneficiaries.

Methods. We performed a retrospective analysis of MHS patients with blood cultures positive for ESKAPE pathogens (*E. faecium*, *S. aureus*, *K. pneumoniae*, *A. baumannii*, *P. aeruginosa*, and *Enterobacter spp.*), as well as *Neisseria gonorrhoeae* and *Raoultella spp.* between January 2010 and December 2015. Microbiological data from the Navy and Marine Core Public Health Center was retrospectively collated with clinical and demographic data from the MHS Data Repository.

Results. We identified 7,404 patients who experienced 8,791 episodes of ESKAPE (including *N. gonorrhoeae* and *Raoultella spp.*) BSI. The patients were predominately active duty (N=688) or retired (N=2,517) Armed Forces service members and their dependents (N=2,361). Further, 59.4% were male and 47.5% were >65 years old. A total of 5,594 (75.5%) of BSI episodes were associated with hospital admission, with an average length of stay of 14.9 days (SD of 27.5 days) and 47.4% (N=2,650) of those admissions were associated with an ICU stay averaging 8.6 days (SD of 18.0 days). The most common pathogens detected were *E. coli* (34.6%, N= 3,042) followed by *S. aureus* (28.0%,N=2,464), with 7.6% and 40.7% of isolates resistant to ceftriaxone and methicillin, respectively. We found a larger proportion of *E. coli* BSI in females (47.4% versus 26.2%) and *S. aureus* BSI in males (32% versus 21.9%). The frequency of *A. baumannii* BSI in younger patients, ages 18-30, was an average 4.5 fold higher than in older age groups (30-50, 50-65 and >65).

Conclusion. We noted epidemiological differences in the burden of ESKAPE pathogen BSIs, in various populations including sex and age specific risk factors in a population served by the MHS. Further work is underway to evaluate risk factors for infection and outcomes with pathogens with in vitro resistance controlling for factors such as age, gender, co-morbid diseases and severity of illness.

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

915. Global 2018 Surveillance of Eravacycline Against Gram-positive Pathogens, Including Resistant Isolates

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Session: P-43. HAI: Surveillance

Background. Eravacycline (ERV) is a fully-synthetic, fluorocycline antibacterial approved by the FDA and EMA for the treatment of complicated intra-abdominal infections (cIAI) in patients ≥18 years of age. The purpose of this study was to further monitor the *in vitro* activity of ERV against Gram-positive pathogens, such as *Staphylococcus aureus* (including methicillin-resistant *S. aureus*, MRSA), *Enterococcus* spp. (including vancomycin-resistant *Enterococcus*, VRE) and *Streptococcus* spp.

Methods. Isolates were collected globally during 2018 from various body sites. Minimum inhibitory concentrations (MICs) were determined by CLSI broth microdilution. Antibiotic susceptibility was determined using the most recent CLSI breakpoints (30th ed CLSI M100 document), except for ERV and tigecycline (TGC) where FDA breakpoints from 2018 and 2005, respectively, were applied.

Results. Summary MIC data for ERV and select comparators are shown in the Table. ERV $MIC_{50/90}$ for *Enterococcus* spp were 0.06/0.12 µg/mL and were not affected by the presence of vancomycin resistant mechanisms. The MIC_{90} of ERV against VRE was 2-fold lower than TGC, at a value of 0.12 µg/mL. ERV MIC_{90} values for methicillin-susceptible *S. aureus* (MSSA) was 0.12 µg/mL and for MRSA was 0.25 µg/mL. Generally, for all pathogens, ERV MIC_{90} values were 2- to 4-fold lower than TGC.

Table

Organisms (N)	ERV $MIC_{50/90}$	TGC $MIC_{50/90}$	VAN $MIC_{50/90}$	DAP $MIC_{50/90}$
Enterococcus spp (985)	0.06/0.12	0.12/0.25	1/>16	2/2
E. faecalis (502)	0.06/0.12	0.12/0.25	1/2	1/2
E. faecium (483)	0.06/0.06	0.06/0.25	1/>16	2/4
VRE (189)	0.06/0.12	0.06/0.25	>16/>16	2/4
S. aureus (520)	0.06/0.12	0.25/0.25	1/1	0.25/0.5
MSSA (308)	0.06/0.12	0.25/0.25	1/1	0.25/0.5
MRSA (212)	0.06/0.25	0.25/0.5	1/1	0.5/0.5
Streptococcus anginosus group[a] (48)	0.015/0.03	0.03/0.06	0.5/1	0.25/0.5

Units in µg/mL; $MIC_{50/90}$ - minimum inhibitory concentration required to inhibit growth of 50/90% of isolates; [a]*S. anginosus, S. constellatus, S. intermedius*

Conclusion. ERV *in vitro* activity was demonstrated for clinically important Gram-positive pathogens, including resistant isolates. Overall, ERV demonstrated lower MIC_{90} values than comparators for all organisms. This 2018 global surveillance highlights ERV's utility against Gram-positive organisms and further underscores its role in cIAI, where these pathogens play a causative role.

Disclosures. Steven Morgan, PharMD, Tetraphase Pharmaceuticals (Employee) Sara Hwang, PharMD, Tetraphase Pharmaceuticals (Employee) Ekaterina Efimova, PharMD, Tetraphase Pharmaceuticals (Employee) Stephen Hawser, PhD, Tetraphase Pharmaceuticals (Scientific Research Study Investigator) Virgil Lijfrock, PharMD, Tetraphase (Employee)

916. National Estimates of the Proportion of Bacterial Pathogens Expressing Resistant Phenotypes in US Hospitals, 2012-2017

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Session: P-43. HAI: Surveillance

Background. In 2019, CDC updated national estimates of antibiotic resistance. In this abstract we provide national estimates of and trends in proportion of bacterial