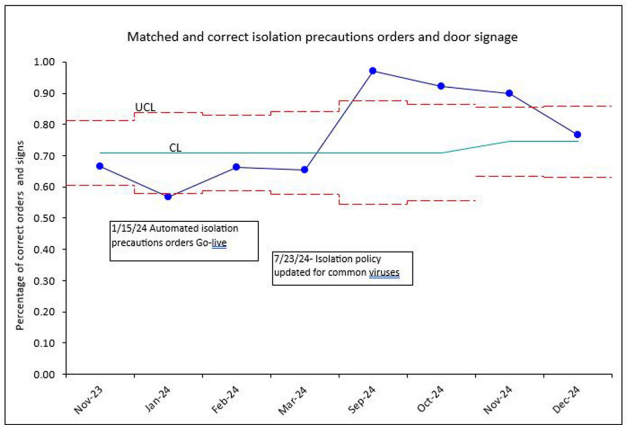
Figure 1: Appropriateness of isolation precautions orders and door signage



(Table 1). The highest incidence of non-anaphylactic allergic reactions was

Table 1. Nephrotoxicity and Vancomycin

	#/1000 OPAT days*	% of OPAT episodes*	p
Non-vancomycin	8.9	44.9	0.0001
Vancomycin	13.7	53.2	
Vancomycin monotherapy	13.2	51.4	0.19
Vancomycin combination therapy	13.3	55.8	

*Excludes hemodialysis or missing creatinine data.

noted with nafcillin, affecting 8.51% courses (rate 2.51/1000 Nafcillin OPAT days, p=0.018) and cefepime, affecting 4.18% courses, (rate 1.36/1000 Cefepime OPAT days, p=0.008). One-year mortality following enrollment into OPAT was 11%. **Conclusions:** Leveraging a robust informatics and reporting infrastructure may allow for consistent and ongoing capture of OPAT-related adverse events and outcomes. More studies are needed to validate standardized approaches for longitudinal evaluation of OPAT program safety and quality, supported by development of regional and national performance benchmarks.

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Presentation Type:
Poster Presentation
Subject Category: Quality Improvement

Impact of Automated Isolation Precautions Orders on Infection Preventionists' Surveillance and Rounding Time at a Pediatric Hospital

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Background: Seasonal viral respiratory pathogens present a significant clinical burden to pediatric patients. During the viral season, hospitals face an increased number of patients requiring isolation precautions. In surveying isolation practices among pediatric institutions, we identified a high variation in interpreting and implementing isolation precautions, including the duration of isolation. This variability resulted in practice challenges articulated by Infection Prevention and Control (IPC) and clinical teams. We sought to simplify and reduce wasteful work processes. Through the initial phase of this quality improvement project, we examined the congruency between isolation orders and signage and the IPC surveillance time needed to modify isolation practices. **Method:** Our interdisciplinary team developed and created a process map of isolation work processes,

Figure 4b

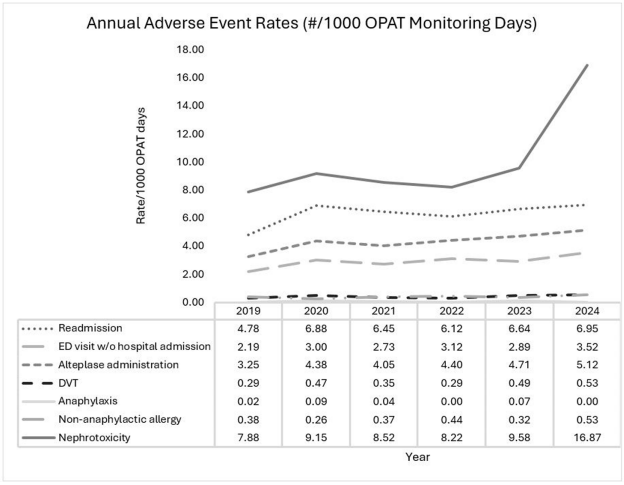
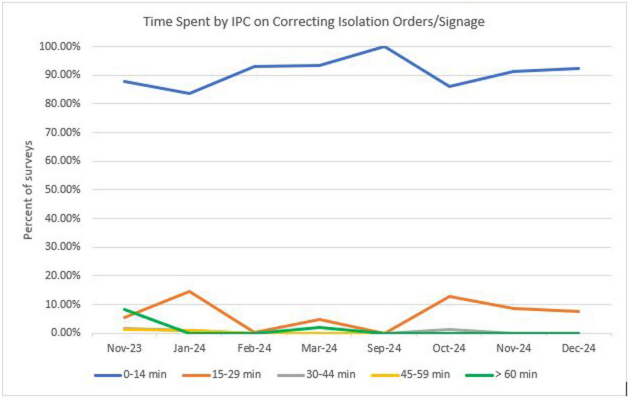


Figure 2: Percentage of time spent by IPC on correcting isolation orders/signage



identifying at least 7 decision points to place isolation or to de-isolate hospitalized patients. A prioritization matrix was used to select drivers for maximum impact: 1) initiate empiric isolation for the most common viral respiratory pathogens and 2) develop and implement a tool for de-isolation. Improvement measures included isolation order and signage appropriateness (outcome), modifications of isolation orders by providers (process), and IPC time for correcting isolation or providing just-in-time training during rounds (balancing). Both outcome and balancing measures were captured using an investigator-developed survey, which was streamlined 3 times. Comprised of 25 questions, the survey is completed throughout the month by IPC during surveillance and environmental rounds, with collection spanning 2 viral seasons. Descriptive statistics are used to analyze the data for trending and practice modifications. **Result:** We completed 929 individual observations via survey over 8 months. The appropriateness of isolation precautions orders improved over time, with a shift in the center line (Figure 1). We identified that the rate of appropriateness decreased at the height of the viral respiratory season due to additional precautions (droplet isolation for certain viruses based on the risk of splashes or sprays per our policies). Surveillance time for correcting precaution signs and/or orders decreased from ≥ 15 to ≤ 5 minutes (Figure 2). **Conclusion:** Automation and use of empiric isolation precautions orders for the most common viral respiratory pathogens in our hospitalized patients has led to a reduction in wasteful workflow processes, minimized decision points, and has decreased IPC time spent correcting

isolation orders and signs. In the project's next phase, we hope to minimize patients' time in isolation by using a nurse-driven tool to assess their clinical readiness for de-escalation of isolation during their hospitalization.

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Hospital-Onset Bacteremia at Stony Brook University Hospital
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Introduction: A vital factor indicating quality of care in hospital settings is hospital-acquired infections (HAI) occurrence, particularly bloodstream infections (BSI). Currently, BSI tracking through the National Healthcare Safety Network (NHSN) focuses primarily on central-line-associated BSI (CLABSI) and MRSA BSIs. Hospital-onset bacteremia (HOB) is a more comprehensive measure of HAI-BSI from all sources. Non-reportable BSIs account for a substantial number of HAIs and contribute significantly to patient outcomes, making them an important component for quality measurement and patient care improvement. NHSN has indicated that HOB reporting will be implemented within the next few years. **Methods:** This study establishes a baseline measure of HOB at Stony Brook University Hospital (SBUH) for 2022 and 2023. HOB cases were defined as any inpatient having at least one positive blood culture result, with the first positive culture collected ≥ 3 days after admission. Patient demographics, length of stay (LOS), and ICU admission status were compared among HOB and community-onset BSI (CO BSI) cases. Case mix index (CMI)-adjusted rates of HOB infection were generated for each hospital location by residualizing the rate of HOB infection on average annual CMI for each unit. Bivariate analyses were used to examine which hospital locations and medical devices were most frequently associated with HOB and CO BSI cases. Causative organisms were also examined. **Results:** A total of 1906 inpatients had positive blood cultures in 2022, 319 (16.74%) were HOB. In 2023, 1853 inpatients had positive cultures, 268 (14.46%) were HOB. Patients with HOB were significantly younger, and Medicare recipients represented the highest proportion of HOB cases. In both years, over 60% of HOB cases were admitted to an ICU compared to about 30% of CO BSI cases, LOS was about 3 times longer, and ICU LOS was more than two times greater for HOB cases compared to CO BSI cases. CMI-adjusted HOB infection rates were highest for MICU, SICU, CICU, and Oncology units, as well as one general medicine unit. All 9 medical devices examined were significantly associated with HOB in bivariate analysis, with central and peripheral IV catheters, urinary devices, arterial lines, and enteral tubes being most frequently present. Probable contaminant organisms were detected in > 50% of all positive cultures examined, but only probable pathogens were detected in > 50% of HOB cases. **Conclusions:** HOB has a significant impact on SBUH inpatients. Results from our study should be used to target infection prevention initiatives moving forward.

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Impact of a Daily Device Safety Huddle on Device Utilization and Infections
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Background: Device-associated infections, such as catheter-associated urinary tract infections (CAUTI) and central line-associated bloodstream infections (CLABSI), increase patient mortality, morbidity, and length of stay. These infections are best prevented through appropriate use and maintenance of the devices. There is often a lack of accountability regarding the appropriateness of central lines and urinary catheters. Our team's goal was to develop an approach that validates device necessity each day to reduce device utilization and ultimately decrease CAUTIs and CLABSIs. **Methods:** A multidisciplinary team, including infection prevention (IP), facility leaders, unit nursing leaders, performance improvement coordinators, and providers, implemented a hospital-wide (excluding the neonatal intensive care and maternity units) daily Device Safety Huddle (DSH), in a 360-bed hospital in September 2024. IP facilitates the meeting, and unit leaders or their delegates are expected to report daily on the number of central lines and urinary catheters on their unit. Leaders also report any concerns related to site or type, actual necessity, plans for removal, and barriers to removal. IP spot checks various charts to ensure that device necessity correlates with unit reporting. The team compared device utilization rates (DUR) and infection rates for CAUTI and CLABSI pre (January - August 2024) and post-intervention (September - December 2024). Statistical analysis was applied to assess the differences between both groups. **Results:** DUR for urinary catheters reduced from 18.1 per 100 patient days pre-intervention to 15.1 (IRR 0.83, p < 0 .0001) post-intervention, with similar reductions calculated for central lines from 15.6 per 100 patient days to 13.8 (IRR 0.89, p < 0 .0001). Infection rates remained stable for CAUTI (0.57 vs 0.43/1000 catheter days, IRR 0.73, p=0.77) and CLABSI (0.69 vs 0.74/1000 central line days, IRR 1.07, p=0.89) post-intervention (Table 1). **Conclusions:** Implementing a daily DSH helped improve accountability related to device necessity and decreased device utilization. The infection rate changes are not statistically significant at this time and will continue to be evaluated for long-term impact. The inclusion of administrative and director-level leadership is essential for accountability and the success of the intervention.

Table 1. Device and Infection data pre-and post-implementation of a daily device safety huddle

	No. of infections (pre)	No. of Infections (post)	Device days (pre)	Device days (post)	Patient days (pre)	Patient days (post)	IRR, P value
CAUTI Rate	6	2	9956	4348	N/A	N/A	IRR 0.76, p=0.78
Foley Catheter utilization rate	N/A	N/A	9956	4348	54753	28622	IRR 0.83, p<0.0001
CLABSI Rate	6	3	8550	3971	N/A	N/A	IRR 1.08, p=0.89
Central line utilization rate	N/A	N/A	8550	3971	54753	28622	IRR 0.89, p<0.0001

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Presentation Type:
Poster Presentation
Subject Category: Quality Improvement
The impact of an existing Anesthesia Control Tower (ACT) trial to improve intraoperative care on infectious outcomes
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Background: Adverse perioperative outcomes remain a major public health challenge despite being largely preventable. Surgical site infection (SSI) is a common preventable healthcare-associated infection (HAI) following surgery. The Barnes-Jewish Hospital anesthesiology department developed an innovative telemedicine model, the Anesthesia Control Tower (ACT), to improve intraoperative care delivery and address predisposing factors for adverse outcomes. The ACT is staffed by anesthesiologists and certified nurse anesthetists who use a customized, electronic