

in 2023 (26%) versus 4 (8%); of which, *C. difficile* infection (CDI) was the greatest contributor. Vancomycin was initiated in 31 patients (62%), 22 having no identifiable indication. **Conclusions:** Rates of EAT de-escalation for neutropenic patients after 72 hours of apyrexia and clinical stability improved by 12% as compared to 2019. Mean days of overall EAT was 3 days less in 2023. With a notable increase in CDI rates in 2023, dedicated time for antimicrobial stewardship review, clinician education and guideline driven alerts for review will be explored to help further improve practice.

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**Presentation Type:**

Poster Presentation - Poster Presentation

**Subject Category:** Infections in Immunocompromised Patients

**Nosocomial Transmission of Mycobacterium tuberculosis in an Oncological Setting**

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**Objective:** Mycobacterium tuberculosis (MTB) is a contagious airborne disease that is spread from person to person via particles in the air which are expelled when speaking or coughing. This retrospective observational study aims to assess the nosocomial transmission of pulmonary MTB among inpatient roommates in a high-risk oncological population over a 14-year period. With limited studies on the transmissibility of MTB in such environments, the investigation focuses on evaluating the risk of nosocomial transmission and implementation of appropriate infection control measures. **Design:** A retrospective analysis from 2010 – April 2023 was conducted in an acute care, 500-bed oncological center. Following exposure workups performed by the Department of Infection Prevention and Control, 17 of 57 identified patients with active pulmonary MTB had inpatient stays with roommates. Source infectivity showed 7 AFB smear positive results, 4 MTB PCR positive results, and 14 MTB culture positive results. Some index patients had a combination of AFB, PCR and/or culture positivity. A high-risk exposure is defined as any patient who shared a room with an index patient for >4 cumulative hours during the infectious period. Infectious period was determined for each index patient based on the onset of symptoms and laboratory results. Workups identified 33 exposed roommates who were notified and advised to undergo testing, employing QuantiferON (QFT-GIT) serum test or Tuberculin skin (TST) PPD test at least 8 weeks following their last day of exposure. The overlap between inpatient roommates and index patients ranged from 1 to 4 days, averaging 1.5 days. **Results:** Of the 33 high-risk roommates, 14 (42%) patients were unable to provide follow-up testing for various reasons including: patient expiration prior to testing, patient transfer to hospice, and being lost to follow up. Nineteen (58%) patients completed post-exposure testing. 12 patients underwent PPD testing (63%) and 7 patients underwent QuantiferON testing (37%). Zero (0%) were found to have a positive QuantiferON or PPD following their exposure. 15.8% (N=3) of exposed patients had hematologic malignancies, and 84.2% (N=16) of exposed patients had solid tumor malignancies. **Conclusion:** The risk of active pulmonary MTB transmission in an oncological, inpatient setting was determined to be low. The absence of positive conversions among roommates of confirmed MTB patients underscores the effectiveness of infection control measures, emphasizing the importance of isolating confirmed or suspected cases promptly. Ongoing efforts should continue to focus on these preventive measures to mitigate the risk of MTB transmission in similar high-risk settings.

**References:** 1. How TB Spreads. CDC, 2023. <https://www.cdc.gov/tb/topic/basics/howtbspreads.htm>

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**Subject Category:** Leadership

**Bridging the Gap: Specialized Training Programs for Infection Prevention Specialists Increase Certification Success**

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**Background:** The role of the infection preventionist (IP) is complex and encompasses a range of responsibilities requiring extensive knowledge in infection control practices, data analysis, surveillance, performance improvement and collaboration with multidisciplinary teams. Infection prevention certification (CIC) by the certification Board of Infection Control (CBIC) is a standardized marker of knowledge and competencies required for practice in the field. In a 2020 survey of IPs, less than half were certified or planned to become certified. Of those that do take the certification exam, less than three quarters pass on their initial exam attempt. **Methods:** From 2017 to 2023, fifty-two new IPs were enrolled in a competency-based training program which combined didactic and applied learning on core IP job functions, and a structured mentoring program. The initial didactic phase consisted of evidence-based learning modules with validation of competency through post-training testing and practical demonstration. Education was provided by an advanced practice IP via remote webinars, which included discussion of questions, skills coaching, and review of post-tests. Novice IPs were partnered with at least two preceptors: one advanced practice lead preceptor guided the novice IPs through assigned education modules and oversaw program management and training benchmarks. A second, near-peer preceptor or mentor collaborated with the novice IP in the facility setting. Initial training focused on facility operations, surveillance, rounding and other facility specific activities. Facility mentors were responsible for combining education module topics with practical application of skills. Mentors guided novice IPs through National Healthcare Surveillance network (NHSN) surveillance training and validated surveillance and infection coding until the novice IP had an interrater reliability validation assessing surveillance competency. After the initial training phase, the novice IPs began preparation for certification. This phase included additional training modules aligned with the CBIC certification content outline and practice exams. **Results:** All 52 novice IPs completed the training program and attempted the CIC examination. The initial pass rate for the certification exam among IPs in the supervised training and mentorship program was 98.1% (n=51). This is 33% higher than the initial pass rate published by CBIC, which was 73.9% (Figure 1). **Conclusions:** Organizing evidence-based guidelines into topic-specific modules builds a foundation of infection prevention and control knowledge, which is enhanced through remote instruction and direct application of skills under a preceptor’s supervision.

Figure 1: CIC Initial Test Pass Rate

