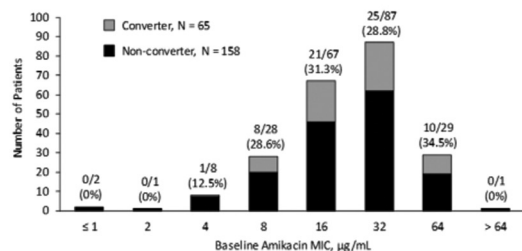


2. Correlation of Baseline Amikacin MIC with Culture Conversion for ALIS+GBT-treated Patients



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806. 2013–2015 Nationwide Tuberculosis Contact Investigation in Childcare Centers and Schools in Korea

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Background. The Republic of Korea has the highest incidence rate of tuberculosis (TB) among members of the OECD, reported as 78.8/100,000 population in 2016. In response, a state-run intensive contact investigation for TB is being conducted. More effective TB control requires an epidemiologic emphasis on the diagnosis and treatment of latent TB infections in children and adolescents, compared with other age groups. Here we present an analysis of data from the childcare center and school contact investigation by the Korea Centers for Disease Control and Prevention (CDC) in 2013–2015.

Methods. Data collected from index patients included age, sex, occupation, disease status, results of AFB smear/culture, and chest x-ray. Data collected from contacts included age, sex, results of serial tuberculin skin test (TST), and chest x-ray. Congregate settings included childcare centers, kindergartens, elementary and secondary schools, and age groups were stratified as follows: 0–4 years, 5–12 years, and 13–18 years. TSTs were considered positive if induration ≥10 mm on the first test (TST1) or demonstrated an increase ≥6 mm over the induration of TST1 on repeat testing after 8 weeks (TST2).

Results. Of the 197,801 subjects with data collected, 173,998 were eligible and included in our analysis. TST1 results were available for 159,346 (91.6%) and when results were positive, induration was 10–14 mm in 7.6% and ≥15 mm in 1.5%. TST2 results were available for 119,797 (82.7%) of the 144,904 with negative TST1, and conversion rate was 9.0%. Altogether considering TST1 and TST2, 17.3% contacts had latent TB infections. Positive rates of TST significantly decreased with age: 20.3% in 0–4 years, 18.8% in 5–12 years, 17.1% in 13–18 years.

Conclusion. In this 3-year school-setting contact investigation, 17.3% contacts were diagnosed with latent TB infection, as demonstrated by TST reactions. Positive rates of TST significantly but mildly decreased with age.

Disclosures. All authors: No reported disclosures.

807. A Risk-Stratified Approach to Healthcare-Associated Tuberculosis Exposures Following the "Stone in the Pond" Principle

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Background. Large-scale tuberculosis (TB) exposure investigations cause anxiety to healthcare personnel (HCP) and patients, in addition to being resource and time intensive. TB contact tracing in England and Singapore follow the "stone in the pond"

principle. We propose a similar risk-stratified approach to TB exposure investigations in an area of low incidence.

Methods. This retrospective study was conducted at a 1,541 bed academic medical center in New Haven, CT between January 14 and 11, 2017. Microbiology records, patient charts, and infection prevention databases were reviewed to find TB exposures. A scoring system adapted from CDC's "Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis" was developed to predict infectivity (two points for laryngeal TB, one point each for: cavitary TB, ≥1 positive respiratory acid fast bacilli smear or Xpert MTB/RIF, multi-drug-resistant (MDR) TB, foreign-born status, immunocompromised status, cough/hemoptysis, or procedure associated with positive TB culture). Using the "stone in the pond" principle, contacts were graded based on the type of exposure (Figure 1). Based on high, medium, and low risk, our new risk-stratified approach was applied to contact tracing.

Results. During the study period, 17 of 29 patients with pulmonary TB led to exposures. A subset of seven TB patients with complete exposure data was selected for further analysis. The original exposure investigations led to contact tracing of 586 HCP and 72 patients. No active or latent TB cases were identified among these exposed contacts. Using our scoring system, these seven patients were categorized into three high, two medium, and two low infectivity risk groups. On applying our new risk-stratified approach, contact tracing could be reduced by 42% and 84% for medium and low-risk exposures, respectively, by excluding these HCP groups from investigation (Figure 2).

Conclusion. We recommend a risk-stratified approach to healthcare-associated TB exposure investigations similar to the "stone in the pond" principle, based on index patient's infectivity risk and type of exposure. This has potential to optimize resources and possibly reduce anxiety in medium and low-risk TB exposures in an area of low TB incidence.

Figure 1. Grading Exposure Risk Using "Stone in the Pond" Principle

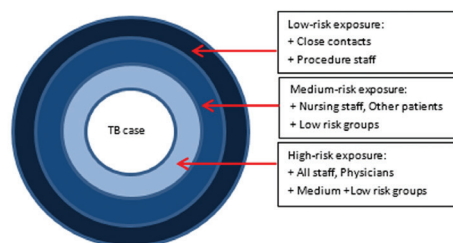


Figure 2. Patient Infectivity Score and Graded Healthcare Exposure Investigation

Risk stratification based on patient infectivity risk	Exposure risk based on "stone in the pond" principle	Current Healthcare Exposure Investigation	Risk-stratified Approach	% Relative Reduction from Current Exposure Investigation Model
High Score ≥5 points (3 cases)	High (Includes everyone)	327 HCP 71 patients	327 HCP 71 patients	0%
Medium Score 3-5 (2 cases)	Medium (Includes nursing and other patients, excludes physicians, transport staff)	129 HCP 1 patient	75 HCP* 1 patient	42%
Low Score <3 (2 cases)	Low (Includes only staff performing procedures)	130 HCP 0 patients	21 HCP*	84%

*Some procedures did not have complete personnel data. Estimates were used.

Disclosures. All authors: No reported disclosures.

808. Perinatal Depression Among HIV- and TB-Infected and Uninfected Women in an Urban Slum in India: Prevalence and Associated Birth Outcomes

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Background. In low- and middle-income countries, depression during pregnancy is three times more common than in the United States and is more common than postpartum depression. There have been few studies on the prevalence of antepartum and postpartum depression in India. The objective of this study was to describe the prevalence of antepartum and postpartum depression among HIV-infected and uninfected pregnant women in an urban slum in India, and to evaluate associated pregnancy and birth outcomes.

Methods. This study was a longitudinal cohort study of HIV-infected and HIV-uninfected pregnant women at Sassoon General Hospital in Pune, India. Enrolled women answer questions about sociodemographics and medical history, including obstetric history. The PHQ-9 depression scale is administered during pregnancy and at 6 months postpartum.

Results. Of the 189 pregnant women enrolled, 113 (60%) exhibited at least one symptom of depression on the PHQ-9 scale with 23 (12%) women having moderate or severe depression. However, significantly fewer postpartum women had evidence of depression (60% antepartum vs. 26% postpartum, $P < 0.001$). Of the 77 women who had a postpartum visit, 20 (26%) also had symptoms of depression prior to delivery, but only 2 (10%) had more severe depression scores while 18 (90%) had improved