Conclusion. In our study, LAMP assay was found to be a promising tool for the diagnosis of Tubercular Lymphadenitis and could be used for rapid and cost-effective diagnosis of Tubercular Lymphadenitis in resource-limited settings.

Table 1: Diagnostic accuracy of LoopAMP™ with and without CRS

Method	Performance % (95% CI)			
	Sensitivity	Specificity	PPV	NPV
LoopAMP™ (Smear as standard))	100% (39.8% to 100%)	69.7 % (57.2% to 80.4%)	16.7% (12.2% to 22.4%)	100 %
LoopAMP™ (CRS as reference standard)	100% (85.8% to 100%)	100% (92.3% to 100%)	100%	100%

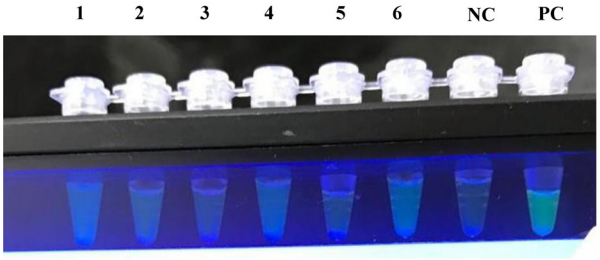

Figure : Visual detection of LAMP assay under UV light. From left to right, tubes 5 is negative, and tubes 1,2,3,4 and 6 are positive.

Table 2 : Diagnostic performance of LoopAMP™ with CRS taken as gold standard (n=70)

LoopAMP™	CRS (gold standard)		Performance (%), (95% CI)			
			Sensitivity	Specificity	PPV	NPV
	Positive	Negative				
Positive	24	0	100% (85.8% to 100%)	100% (92.3% to 100%)	100%	100%
Negative	0	46				
Total	24	46				

Table 3: Diagnostic performance of LoopAMP™ with smear taken as gold standard (n=70)

LoopAMP™	Smear (gold standard)		Performance (%) (95% CI)			
			Sensitivity	Specificity	PPV	NPV
	Positive	Negative				
Positive	4	20	100% (39.8% to 100%)	69.7 % (57.2% to 80.4%)	16.7% (12.2% to 22.4%)	100 %
Negative	0	46				
Total	4	66				

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

2157. Evaluation of the Utility of the MRSA Nasal PCR Assay in a Community Healthcare System

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Background. The MRSA nasal PCR assay is a rapid, noninvasive test that has demonstrated a strong negative predictive value (NPV), as high as 99%, for ruling out MRSA pneumonia. These findings are based primarily on literature from large academic centers, which have evaluated both the positive predictive value (PPV) and NPV of MRSA nasal PCR assays. Investigators sought to assess the NPV of the MRSA nasal PCR assay to rule out MRSA pneumonia within a community healthcare system. To the best of our knowledge, this is the largest study from a community hospital and the only study from a community healthcare system for the utilization of a nasal PCR assay to rule out MRSA pneumonia.

Methods. This is a multicenter, retrospective study of adult patients with both an MRSA nasal PCR assay and positive respiratory culture (sputum, bronchoalveolar lavage, or endotracheal aspirate). Data were collected from September 2014 through August 2015 at three community hospitals (bed size ranging from 328 to 706) across two states within a healthcare system. The study was approved by the Baptist Memorial Hospital Institutional Review Board. PPV and NPV 95% confidence intervals (95% CI) were calculated as previously described in the literature.

Results. A total of 808 patients were included in the analysis across the three hospitals. The total incidence of MRSA in positive sputum samples was 14.9% across the three facilities. Our study demonstrated an overall NPV of 95.1% (93.2, 96.6%) and a PPV of 65.9% (95% CI 57.2, 73.9%). The high NPV was retained despite unit type, resulting in 94.9% (95% CI 92.7, 96.6%), 96.3% (95% CI 90.8, 99.0%), and 94.7% (95% CI 74.0, 99.9%) for the intensive care units (ICU), medical-surgical units, and the emergency department, respectively (Table 1).

Conclusion. We concluded that the high NPV of a negative MRSA nasal PCR assay to rule out MRSA pneumonia persisted within a community hospital system. With the results of our study, we plan to utilize institution-specific data along with previously published literature to encourage earlier discontinuation of anti-MRSA antibiotics in patients being treated for pneumonia with negative MRSA nasal PCR assays. Our study demonstrates the validity of the assay in the large community hospital setting with similar findings to studies at large academic institutions.

Table 1: Results

	NPV	95%CI	PPV	95%CI
Overall	95.1%	93.2, 96.6%	65.9%	57.2, 73.9%
Intensive Care Units	94.9%	92.7, 96.6%	67.3%	57.4, 76.2%
Medical-surgical Units	96.3%	90.8, 99.0%	58.3%	36.6, 77.9%
Emergency Department	94.7%	74.0, 99.9%	75.0%	19.4, 99.4%

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

2158. Cost-Effectiveness and Budget Impact of a Point-of-Care Nucleic Acid Amplification Test for Diagnosis of Group A Streptococcal Pharyngitis in the United States

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Background. Group A streptococcal (GAS) pharyngitis is common in the United States (US). Each year, approximately 12 million people seek medical care for pharyngitis, accounting for ~2% of ambulatory care visits. The gold standard method for diagnosing GAS is culture. However, because culture is time intensive, rapid antigen detection tests (RADTs), with or without culture confirmation, are commonly used. Although RADTs provide results quickly, test sensitivity has been shown to be sub-optimal, which can lead to inappropriate treatment decisions. Recently, highly sensitive point-of-care nucleic acid amplification tests (POC NAAT), such as the cobas® Liat® System, have emerged. The objective of this study was to evaluate the cost-effectiveness (CE) and budget impact (BI) of adopting POC NAAT compared with RADT+culture confirmation to diagnose GAS pharyngitis from the US third-party payer perspective.

Methods. A decision-tree economic model was developed in Microsoft Excel to quantify costs and clinical outcomes associated with POC NAAT and RADT+culture over a one-year period. All model inputs were derived from published literature and public databases. Model outputs included costs and clinical effects measured as quality-adjusted life days (QALDs) lost. One-way and probabilistic sensitivity analyses were performed to assess the impact of uncertainty on results.

Results. CE analysis showed that POC NAAT would cost $44 per patient compared with $78 with RADT+ culture. POC NAAT was associated with fewer QALDs lost relative to RADT+ culture. Therefore, POC NAAT may be considered the "dominant" strategy (i.e., lower costs and higher effectiveness). Findings were robust in sensitivity analyses. BI analysis showed that adopting POC NAAT for diagnosis of GAS could yield cost-savings of 0.3% vs. current budget over 3 years. This is due to savings associated with testing, GAS-related complications, antibiotic treatment and treatment-associated complication costs.

Conclusion. Results suggest that adopting POC NAAT to diagnose GAS would be considered cost-effective and yield cost-savings for US payers relative to RADT+culture. Access to POC NAAT would be important to optimize appropriate GAS diagnosis and treatment decisions.

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

2159. Accurate Carbapenem Susceptibility Testing Within 5–6 Hours

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Background. Patients infected with multi-drug-resistant (MDR) pathogens may experience long delays to targeted therapies due to the incomplete antimicrobial menus and/or breakpoints tested on current commercial antimicrobial susceptibility testing (AST) systems. Detection of carbapenem resistance poses a challenge to rapid, accurate, minimum inhibitory concentrations (MIC) determinations because some