2125. Staphylococcus Species Identification by Fourier Transform Infrared (FTIR) Spectroscopic Techniques: A Cross-Lab Study
Tamao Tsutsumi, BSc1; Alok Shah, PhD2; Lisa MT. Lam, MSc1; Sanmarie Schlebusch, FRCPA1; Amnika Krueger, BSc (Hons)3; Ian Frazer, FRs, MD4; Phil Hugenholtz, PhD5; H. Peter Soyer, MD6; Mark Morrison, PhD7; Michelle Hill, PhD8; Jacqueline Sedman, PhD9; Ashraf Ismail, PhD10; McGill University, Montreal, QC, Canada; 2QIMR Berghofer Medical Research Institute and The University of Queensland, Brisbane, Queensland, Australia; 3Mater Pathology; Brisbane, QLD, Australia; 4The University of Queensland, Brisbane, QLD, Australia; 5The University of Queensland, Brisbane, QLD, Australia; 6The University of Queensland, Brisbane, QLD, Australia; 7QIMR Berghofer Medical Research Institute, and The University of Queensland, Brisbane, QLD, Australia

Session: 243. Bacterial Diagnostics
Saturday, October 5, 2019: 12:15 PM

Background. Staphylococcus aureus is well known to be associated with atopic dermatitis. Recent studies also report S. aureus presence in lesional skin of sepsis cases. It’s prevalence varies and 8 cases did not receive any treatment at all. Overall pregnancy outcome varied. Patients frequently presented with prolonged hospital stay (13 days vs. 17 days). There were no differences cost of antibiotic therapy and length of hospital stay (13 days vs. 27.65 hours, P = 0.005) and decrease unnecessary of antibiotic adjustment (51.4% vs. 37.3%). However, there was no trend of interest to treatment shifts. There was a statistically significant association between interest in expanding OTC diagnostics and the following variables: high self-swab comfort level and availability of support (P = 0.009 and 0.001, respectively).

Methods. FTIR spectra of 51 staphylococcal isolates were assigned to one group with 1241 strain-specific FTIR spectra. All isolates were carefully selected from patient samples obtained from AK, SCC and other 上skin lesions. There were statistically significant differences in FTIR spectral features between groups (P = 0.01). FTIR-based species identification was in 90.2% concordance with 16S rRNA sequencing. The results support the potential utility of FTIR spectroscopic techniques to monitor skin S. aureus colonization on AK lesions.

Disclosures. All authors: No reported disclosures.

2126. Comparison of Time to Appropriate Antibiotic Between Using Microarray Assay and Mass Spectrometry Technique for Identification of Positive Blood Cultures
Parichat Sakulkonkij, MD; Parichat Salee, MD, MHS; Wasan Katip, PharmD; Chiang Mai University, Chiang Mai, Thailand

Session: 243. Bacterial Diagnostics
Saturday, October 5, 2019: 12:15 PM

Background. Microarray-based, multiplexed, automated molecular method is a rapid diagnosis of bloodstream infections by directly identify bacterial pathogens and antibiotic resistance by detection resistance genes from positive blood culture. Previous studies showed significantly reduced time to organism identification from positive blood culture and antibiotic resistance gene with 97.1% sensitivity and 100% specificity. This study aimed to evaluate time to appropriate antibiotic between using Microarray Assay and Mass Spectrometry technique for bacterial identification.

Methods. One hundred and forty-five patients with bloodstream infection in medical ward were enrolled between 1 June 2018 and 31 January 2019. There were 2 study periods (pre-intervention and post-intervention), using MALDI-TOF combined with the standard microbiological method as the current standard diagnostic method in pre-intervention group (N = 70) and microarray technique was used add-on to post-intervention group (N = 75). Antibiotic therapy was adjusted by infectious disease team in both periods of study.

Results. There were significantly faster bacterial identification and detection of antibiotic resistance (39.34 hours vs. 5 hours, P = 0.0001) as well as time to adjust specific antibiotic therapy (75 hours vs. 27.65 hours, P = 0.0001) resulted in earlier appropriate antibiotic therapy (31 hours vs. 0 hours, P = 0.005) and decrease unnecessary of antibiotic adjustment (51.4% vs. 37.3%). However, all-cause mortality within 2 weeks was not significantly reduced (11.4% vs. 14.7%), no differences cost of antibiotic therapy and length of hospital stay (13 days vs. 17 days).

Conclusion. Microarray technique has rapid turnaround time to bacterial identification and detection of some resistant genes. A combination of this technique and clinical judgement encourage earlier appropriateness antibiotic therapy and may be helpful in antibiotic stewardship program.

Disclosures. All authors: No reported disclosures.

2127. Parental Acceptance of Over-the-Counter (OTC) Testing for Streptococcal Pharyngitis
Emily MA. Blanton, MD; Mesirot Tena, MD; Temitope Jose, MD; Margaret Hammerschlag, MD; SUNY Downstate Medical Center, Brooklyn, New York

Session: 243. Bacterial Diagnostics
Saturday, October 5, 2019: 12:15 PM

Background. Group A Streptococcus (GAS), is currently diagnosed by throat culture or rapid antigen detection test (RADT) by a healthcare provider (HP), usually patients were uncomfortable self-swabbing or unsure, further education including web tutorial and support availability may lead to greater comfort level with such testing.

Methods. Caregivers of 3–18 years old in OP primary care pediatric clinics were given a questionnaire: data included demographics (excluding all patient identifiers), interest in buying an OTC GAS test, education level, type of health insurance (HI), comfort level swabbing their child, interest in available support/free hotline with HP, and age (P = NS). There was a trend of OTC test interest among those with private HI vs. Medicaid (P = 0.067). There was a statistically significant association between interest in buying an OTC GAS test and the following variables: high self-swab comfort level and availability of support (P = 0.009 and 0.001, respectively). The majority of participants (73/76 [96%]) did not respond to questions about acceptable pricing.

Conclusion. There was mixed interest in OTC GAS testing among respondents. Either age or educational level affected interest. Surprisingly, 96% of respondents declined to select a price they would pay for an OTC GAS test. Greater interest in OTC GAS testing among respondents with private HI suggests those parents are more likely to purchase the kits to avoid an HP visit (and co-payment). Since most respondents were comfortable self-swabbing or unsure, further education including web tutorial and support availability may lead to greater comfort level with such testing.

Disclosures. All authors: No reported disclosures.

2128. Mucinous Typhus and Pregnancy: Case Series and Literature Review
Melinda Tanabe, MD1; Lucas Blanton, MD1; Mauricio La Rosa de Los Rios, MD2; Camille Webb Camminati, MD3,4; University of Texas Medical Branch, Galveston, Texas

Session: 243. Bacterial Diagnostics
Saturday, October 5, 2019: 12:15 PM

Background. Mucinous typhus is an arthropod borne disease of worldwide distribution. There is limited data about the presentation, treatment and outcomes in the pregnant population. We report two cases of mucinous typhus in pregnancy, as well as a case series based in literature published between 1990 and 2019.

Methods. A comprehensive search in PubMed database using words mucinous typhus, pregnancy, R. typhi and endemic typhus was done. Exclusion criteria were asymptomatic mucinous typhus in pregnancy and undiagnosed febrile illness in pregnancy.

Results. Six articles met the criteria of symptomatic pregnant mucinous typhus infection. Four case reports plus our own 2 case reports, and 2 observational population studies. A total of 35 pregnancy patients were identified. Distribution was worldwide. Gestational age at presentation varied. Patients frequently presented with prolonged duration of fever prior to presentation, headache, rash, thrombocytopenia and elevated hepatic transaminases. Diagnosis was mainly based on serology. Treatment varied and 8 cases did not receive any treatment at all. Overall pregnancy outcome