and mechanical failure led to reduced results in comparison to conventional ID/AST. Accelerate Phenox™ delivered correct MIC results for most of the panel antibiotics (e.g., meropenem: 83.3%, gentamicin: 88.9%, etrapenem: 100%).

Conclusion. The use of the Accelerate Phenox™ system significantly improved time-to-ID/AST and would have led to reduced time-to-treatment in patients suffering from sepsemia if results would have been reported. The system currently has some weaknesses in the detection of polymicrobial and streptococcal infections but due to the short hands-on-time, culture-independence and fast generation of results, it represents a promising new diagnostic method for the consecutive antibiotic treatment of septic patients.

Disclosures. All authors: no reported disclosures.

2090. T-Cell Immunity Panel Measures CMV Specific CD4 and CD8 T-Cell Responses
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Background. Infection and disease from human cytomegalovirus (CMV) is a major complicating factor for both solid organ and hematopoietic stem cell transplant recipients. Antiviral therapy is often used to control CMV infections, but presents problems of toxicity, antiviral resistance and excessive costs. Currently, treating physicians are limited in the information and data available to assess a patient’s ability to control a potential CMV infection post-transplant. Recent studies have shown that measuring a patient’s CMV specific T cell mediated immunity may provide valuable information for predicting CMV infection/disease in transplant patients and may aid in determining which patients need antiviral therapy.

Methods. For this purpose, a flow cytometry assay was developed to determine the percentages of CD4+ and CD8+ T cells that respond to stimulation with CMV antigen-presenting macrophage (MP) derived from the patients' PBMCs. We evaluated MP stimulation with nine CMV seropositive samples and one CMV seronegative sample. Four CMV antigens were used to assess patient immunity; a whole viral lysate, a peptide pool of pp65, and a peptide pool of IE-1.

Results. Our data indicate that CD8 T cells respond primarily to the pp65 and/or IE-1 peptide pools while the CD4 T cells respond primarily to the viral lysate.

Conclusion. This assay evaluates a patient's pre-existing CMV specific T cell immunity and their global T cell function.

Disclosures. C. B. Lutgen, Viracor Eurofins Clinical Diagnostics: Employee, Salary; L. Flebbe-Rehwaldt, Viracor Eurofins Clinical Diagnostics: Employee, Salary; S. Kleboeker, Viracor Eurofins Laboratories: Employee, Salary; S. Tomaras, Viracor Eurofins Clinical Diagnostics: Employee, Salary; A. Tomaras, Viracor Eurofins Clinical Diagnostics: Employee, Salary; S. Naccache, Viracor Eurofins Clinical Diagnostics: Employee, Salary; K. Steffens, Viracor Eurofins Laboratories: Employee, Salary

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2091. Application of Laser Light Scattering Technology in Rapid Diagnosis of Urinary Tract Infections and Antimicrobial Susceptibility Testing in a Tertiary Children's Hospital
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Background. Timely and accurate microbiology testing is crucial in the diagnosis and management of urinary tract infections (UTIs). The ability to rapidly screen for potential UTIs can lead to early rule out and judicious use of antimicrobial therapy. This study examines the application of laser scattering for bacterial detection and antimicrobial susceptibility testing (AST) directly from urine.

Methods. Residual urine samples collected for routine culture were tested using the BacterioScan™ 216DX™ UTI System and 216R AST System. Continuous collection of Nitrocefin-positive patients genotyping generated growth curves with one sample determined whether the sample was likely positive or negative for bacteria. Further curve analysis ruled out mixed flora at lower concentrations, and "qualified" samples were identified directly on MALDI-TOF MS. AST for ampicillin, cefazolin, ceftriaxone and ciprofloxacin was performed concurrently on the instrument. Samples were incubated for up to 16 hours with results available as early as 2 hours.