Conclusion. Resistant GNP were observed in the OPAT setting for GUI with both ESBL and MDR pathogens. We saw a significantly higher rate of ESBL with GNP from hospital discharge pts compared to community-acquired infections and an increase in the overall incidence of ESBL over time. Management of Gram-negative gentamicin-infections in the OPAT setting requires close monitoring of emerging resistance patterns.

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599. Patient Beliefs Regarding Lyme Disease and Need for Antimicrobial Therapy (OPAT) in Patients with Lyme Disease: Time to Consider for Lyme Evaluation

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Session: P-27. Clinical Practice Issues

Background. Controversy and confusion surround the terminology for patients who have persistent symptoms after treatment for Lyme disease (LD) or may have been misdiagnosed with Lyme disease. While Infectious Diseases (ID) use the term the Post treatment Lyme disease syndrome (PTLDS), patients tend to use the term Chronic Lyme disease (CLD) to describe the syndrome associated with persistent symptoms post treatment of LD. Many ID physicians are reluctant to see patients who identify themselves as having “Chronic Lyme” disease in some part due to reluctance to prescribe repeated courses of antibiotics. The purpose of this inquiry was to assess belief regarding Lyme disease and treatment.

Methods. Patients at the Integrated Lyme Program at the University of Maryland completed clinical intake forms which included questions on their familiarity and beliefs surrounding Lyme disease.

Results. We evaluated 146 patient records from our Lyme Program Registry which began in December 2018. There were 57 (34.5%) males and 108 (65.5%) females, with mean age of 51 years. Forty seven percentage of patients were referred by a physician and 53 % were self-referred. Approximately 50% (71/146) were treated with less than 30 days of antibiotics. 37% (54/146) were treated with 1-6 months of antibiotics and 11.6% (17/146) were treated with >6months of antibiotics prior to their initial evaluation in our Lyme program. Sixty eight percentage of patients were familiar with the term CLD but only 44% percentage were familiar with term PTLDS. Approximately half of the patients (52%) believed that they currently had Lyme disease and 63% believed that their current symptoms were due to Lyme disease. Despite this only 18% believed that they needed antibiotics for Lyme disease at the time completing the form. With a diagnosis of S. aureus bacteremia who were identified as PWID either by ICD-9 or 10 code or chart review. A formal MAT program was established on 11/30/2018. Patients were assigned to the pre-MAT group if they were discharged prior to 11/30/2018 and to the MAT group with treatment after 11/30/2018. We evaluated a composite outcome of failure to complete OPAT, recurrence of S. aureus bacteremia during the OPAT period and readmission within 30 days. A multivariable logistic regression analysis was performed to examine the association between MAT therapy and the primary composite outcome, while adjusting for proven confounders.

Results. A total of 700 patients were identified with 644 patients omitted based on exclusion criteria. The study population included 27 in the pre-MAT group and 17 in the MAT. Median age was 37 years (IQR 30.6 - 46.1). There was a higher number of females in the MAT therapy group compared to the pre-MAT group (82% vs. 33%, p=0.002). Patients in the pre-MAT group had a significantly longer length of stay (25 days, p<0.01). The primary composite outcome was met if a patient did not complete their OPAT, if they had a recurrence of S. aureus bacteremia during their OPAT or if they were readmitted to the hospital within 30 days. In the pre-MAT group 14/27 (52%) met the composite outcome versus 6/17 (35%) of the MAT group (p=0.28).

601. Assessment of a Nursing and Pharmacy Collaborative Outpatient Parenteral Antimicrobial Therapy Management Program

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Background. At our facility a collaborative team of nurse and pharmacist manage patients receiving outpatient parenteral antimicrobial therapy (OPAT). This project aims to characterize this collaboration and assess the effectiveness by reviewing interventions made by the nurse and pharmacist, and assessing patient outcomes such as OPAT or infection related hospital admissions or ED visits, infection clearance, and mortality.

Methods. A retrospective cohort study was performed on patients started on OPAT between 1/1/19 and 12/31/20. This time period was split into three: Period 1 where the clinic only included the PharmD and they saw patients for in-person appointments. Period 2 where the clinic included both the OPAT RN and PharmD and the PharmD performed in-person appointments, and Period 3 where the clinic included both but due to COVID the in-person PharmD appointments were on hold. OPAT or infection related hospital admissions, ED visits, infection clearance, and death were compared for each period.

Results. A total of 388 patients were included in the review. There were 158 (40.7%) and 148 (38.1%) OPAT-related phone calls from the PharmD and RN, respectively. The two most common reasons for both PharmD and RN phone calls were a medication stop order/confirmation, and weekly lab obtainment. The third most common reason for the PharmD was dose change, and for the RN it was patient education. During Periods 1 and 2 the PharmD had in-person appointments with 28.9% of patients. The overall OPAT infection related hospital admission and ED visit rates were 7.7% and 5.4%, respectively. Periods 2 and 3, which utilized the combined efforts of RN and PharmD, had consistently lower hospital admissions related to OPAT/infection (46.50% vs 62% Period 1), and ED visits due to OPAT/infection (33-36% vs 47% for Period 1). Clearance of infection was high for all 3 periods (89-95%), and mean mortality was low (2.1%).

Conclusion. Collaborative management allowed for the nurse and pharmacist to function as substitutes for each other without losing the specific focus of their specialties, with the RN performing more patient education, and the PharmD performing more medication dosing. The collaboration had positive effects on OPAT patient outcomes.

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602. Intravenous Push Versus Intravenous Piggyback Administration of Cephalosporin Antibiotics: Impact on Safety, Workflow, and Cost

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603. Misdiagnosis of Lyme Disease in Patients Referred to an Academic Lyme Center
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Session: P-27. Clinical Practice Issues

Background. Confusion and controversy surround various aspects of Lyme Disease (LD) including diagnosis. Typically, the diagnosis of LD is based on tick exposure, clinical history, exam, and laboratory testing. Laboratory testing and interpretation can be confusing, difficult, and a source of misdiagnosis.

Methods. One hundred and fifteen records of patients referred to the Integrated Lyme Program at University of Maryland for evaluation of LD were analyzed. All patients underwent initial evaluation by Infectious Disease (ID) physician who noted determination regarding Lyme diagnosis based on history, exam, epidemiologic risk factors and laboratory test results. Pt were determined to have one of the following diagnoses: 1) Acute LD 2) Past LD 3) Post Treatment Lyme Disease Syndrome (PTLDS) 4) Misdiagnosed LD. Data was also collected on reasons for misdiagnosis based on record review, referral information and patient reported information.

Results. We evaluated 115 patient records from our Lyme Program Registry. There were 78 female (68%) and 37 males (32%). The mean age was 46 years (range 19 to 83). Of the 115 records analyzed, there were 8 (7%) patients with acute Lyme disease; 38 (33%) patients with past Lyme disease, 3 (2.6%) patients with PTLDS and 93 (81%) of patients who were misdiagnosed with LD. Patients were misdiagnosed for multiple reasons and by different people. Twenty three percent (21/93) were misdiagnosed based on misread IGG Western Blot and 14% (13/93) were misdiagnosed based on unexplained laboratory increase that was not consistent with Lyme disease.

Conclusion. Misdiagnosis of patients referred to Lyme Center is common and due to various reasons including misinterpretation of laboratory Lyme testing by healthcare providers and misinterpretation of symptoms by patients.

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604. Impact of COVID-19 Pandemic on Telehealth Practices in Pediatric Infectious Diseases
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AMMI: Association of Medical Microbiology and Infectious Disease Canada; AAP: American Academy of Pediatrics; Section of Infectious Diseases

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Background. The COVID-19 pandemic has led to changes in clinical practice, including a significant increase in the use of telehealth (TH). We sought to assess the impact of the pandemic on the use and perceptions of TH by pediatric infectious diseases (PIDD) clinicians.

Figure 1. Modalities

Figure 2. Comfort

Figure 3. Platforms

Methods. The PIDS* Telehealth Working Group developed a 26-question online survey to assess telehealth practices among PIDD clinicians. The survey was available via Survey Monkey® from 12/6/2020-2/26/2021 to members of PIDS, PICNIC*, AAMI and AAP*. Clinicians in active practice in North America were included in the analysis.