

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 discharged pts compared to community-acquired infections and an increase in the overall incidence of ESBL over time. Management of Gram-negative genitourinary 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 Treatment when Referred for Lyme Evaluation

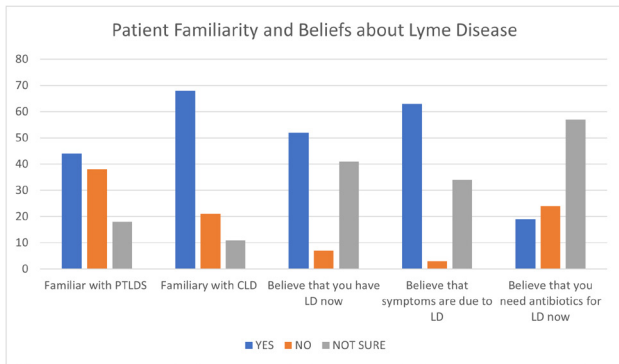
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Session: P-27. Clinical Practice Issues

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 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 their form.



Conclusion. Patient referred to our Lyme center were more familiar with term CLD vs PTLDS. Many of them believed that they currently had LD and their symptoms were due to Lyme disease. Despite this, the majority did not feel that they needed antibiotics for Lyme Disease at the time of their clinical visit. More research is needed to better understand patient beliefs and understanding regarding Lyme disease.

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600. The Effect of Medication-Assisted Treatment on Completion Rates of Outpatient Parenteral Antibiotic Therapy

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Background. Injection drug use is a nationwide epidemic associated with an increased risk of invasive Staphylococcus aureus (S. aureus) infections. Medication-assisted treatment (MAT) is effective in reducing substance use and increasing adherence to inpatient medical therapy in persons with injection drug use (PWID). Studies assessing the impact MAT has on completion of outpatient parenteral antibiotic therapy (OPAT) are limited.

Methods. This was a single-center, retrospective, cohort study at The Ohio State University Wexner Medical Center in patients admitted from 12/1/2017 to 12/1/2019

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 vs. 17 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).

	Pre-MAT N= 27		MAT N= 17		P-value
Composite Outcome	14	52%	6	35%	0.28
Failure to complete OPAT	12	44%	5	29%	0.32
Recurrence of S. aureus bacteremia during OPAT	2	7%	1	6%	1
Readmission within 30 days of discharge	8	30%	2	12%	0.27

Conclusion. Patients in the MAT group met the composite outcome 17% less than those in the pre-Mat group which is suggestive of the impact MAT has on completion of OPAT therapy; however, this study did not reach statistical significance as it was underpowered. Further longitudinal evaluation with greater sample size is needed to fully evaluate this intervention.

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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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