Conclusion. Provision of OPAT through a POIC demonstrated to be exceptionally safe and effective in the aged population.

Disclosures. **L. J. Van Anglen**, Theravance: Scientific Advisor, Consulting fee **R. V. Nathan**, Merck: Speaker's Bureau, Speaker honorarium Allergan: Speaker's Bureau, Speaker honorarium The Medicines Company: Speaker's Bureau, Speaker honorarium **K. A. Couch**, Merck: Speaker's Bureau, Speaker honorarium Allergan: Speaker's Bureau, Speaker honorarium

1089. Emergency Department Utilization During Self-Administered Outpatient Parenteral Antimicrobial Therapy

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Background. Self-administered outpatient parenteral antimicrobial therapy (S-OPAT) has been established as a clinically safe and effective alternative to inpatient or outpatient extended-course intravenous antibiotics while reducing healthcare resource utilization. However, previous research has not confirmed that transferring patients from the hospital to home for treatment does not cause a compensatory increase in emergency department (ED) visits. We sought to validate S-OPAT clinical safety and healthcare costs associated with S-OPAT by confirming that S-OPAT does not increase ED utilization during treatment.

Methods. We conducted a before-after study of ED utilization among S-OPAT patients. We compared ED visits, hospital admissions resulting from ED visits, hospital admissions due to OPAT-related causes, and hospital charges associated with all ED visits 60 days before and after initiation of S-OPAT. A 60-day time frame was selected to effectively encompass the maximum treatment duration (8 weeks) for S-OPAT. Paired t-tests were used to compare the change in ED utilization before and after initiation of S-OPAT.

Results. Among our cohort of 944 S-OPAT patients, 430 patients visited the ED 60 days before or after starting treatment. Of the patients with ED visits, 69 were admitted to the hospital for OPAT-related causes and 228 incurred hospital charges from their visit. Initiation of S-OPAT was associated with a statistically significant reduction in total ED visits, all-cause hospital admission, OPAT-related hospital admission, and hospital charges (see Table 1).

Conclusion. Our review of ED utilization among S-OPAT patients demonstrates a reduction in multiple parameters of ED utilization with the initiation of S-OPAT treatment. Our findings confirm that S-OPAT does not yield an increase, but rather a decrease, in ED visits with the transfer of patients from hospital to home.

Table 1

	60 days before S-OPAT	60 days after starting S-OPAT	Paired t-test p- value
ED visits (encounters per patient) *N = 430*	3.4 ± 2.9	2.9 ± 2.6	<0.001
Hospital admissions (inpatient-days per patient) *N = 430*	14.8 ± 16.5	6.2 ± 13.2	<0.001
Hospital admissions: S-OPAT-related (inpatient-days per patient) *N = 69*	9.6 ± 9.5	4.0 ± 6.8	<0.001
Hospital charges (dollars per patient) *N = 228*	$81,034 ± 59,552	$36,105 ± 59,972	<0.001

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

1090. Early ID Outpatient Follow-up of OPAT Patients Reduces 30-day Readmission

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Background. Although weekly outpatient follow-up for patients discharged on outpatient parenteral antimicrobial therapy (OPAT) has been recommended, few practitioners follow this recommendation. No studies have examined the relationship between outpatient follow-up and patient outcomes for this population. We examined the association between outpatient ID follow-up and the risk for 30-day readmission for patients discharged on OPAT.

Methods. We conducted a retrospective cohort study using EMR data comprising 1102 OPAT patients treated between January 2012 and December 2014 at a major tertiary care medical center. We sought to determine whether ID outpatient follow-up was associated with a lower risk of 30-day readmission, after adjusting for patient demographics, infection diagnosis, outpatient antibiotics, and comorbidities (mainly diabetes mellitus, renal failure and immunosuppression).

Results. Of 1102 cases, 201 of 1102 (18%, 95 females, 106 males) were readmitted within 30 days, of whom 133 (66%) were re-admitted in the first 2 weeks post discharge. 837 (76%) were seen in ID outpatient follow-up within 30 days of discharge, of whom 396 (47%) were seen in first 2 weeks. By univariate analysis OPAT patients seen in ID outpatient follow-up within 2 weeks of discharge were less likely to get readmitted within 30 days of hospital discharge (OR: 0.6, CI: 0.4–0.9, $P < 0.02$). Patients with immunosuppression (OR: 1.9, 95% CI: 1.3–2.7, $P < 0.0001$) or discharged on 3 or more antimicrobials (OR: 2.1, 95% CI:1.4–3.2, $P < 0.0001$) were more likely to have 30-day readmission. By multivariate analysis patients seen in outpatient ID follow-up within 2 weeks (OR: 0.6, CI: 0.4–0.9, $P < 0.006$) or those receiving ceftriaxone alone (OR: 0.6, CI: 0.3–0.9, $P < 0.015$) were less likely to have 30-day readmission. Patients who were immunosuppressed (OR: 1.9, CI: 1.3–3.0, $P < 0.003$) or those discharged on 3 or more antimicrobials (OR: 2.1, CI: 1.4–3.2, $P < 0.001$) were more likely to have 30-day readmission.

Conclusion. Infectious disease outpatient follow-up within 2 weeks for patients discharged on OPAT reduces all-cause 30-day readmission. Early outpatient follow-up is especially important for patients who are immunosuppressed and those receiving multiple antibiotics.

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

1091. Follow-up Appointment Adherence of Outpatient Parenteral Antimicrobial Therapy (OPAT) Patients

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Background. Outpatient parenteral antibiotic therapy (OPAT) is a safe and effective care delivery system that allows patients to receive intravenous (IV) antibiotic therapy outside of the hospital. OPAT patients require frequent follow-up appointments for clinical and laboratory monitoring of common adverse outcomes of any IV antibiotic administration such as line infections, adverse drug events, and reinfection. Despite the known importance of clinical monitoring, patient factors that influence adherence to OPAT appointments are unknown. The objective of this study was to identify factors that influence adherence to OPAT appointments, in order to improve the OPAT program and make adherence easier for patients if possible.

Methods. 80 patients undergoing OPAT between December 2014 and January 2016 were interviewed via telephone regarding the following: reasons for not showing up to appointments, when the first follow up appointment was scheduled, whether they received appointment reminders, transit time, and whether they had to make special arrangements to attend their appointments.

Results. Adherence to follow-up appointments was high (83.8%). 52.5% of initial follow-up appointments were made while patients were still in the hospital. 92% of patients received at least one reminder in the form of a letter (32%), call to cell phone (21%), call to landline (22%), email (17%), or other (1%). Participants mostly cited either transportation (23.4%) or other (30.4%), specifically not feeling well, and work as the reason for missing an appointment.

Conclusion. The majority of patients attended all appointments, and of those, almost all received an appointment reminder, suggesting this is an important factor contributing to appointment adherence. These data reveal some of the barriers some patients face. Future studies can examine whether decreased appointment adherence leads to worse clinical outcomes.

Figure 1. Transportation and other were the most cited reasons for missing appointments.

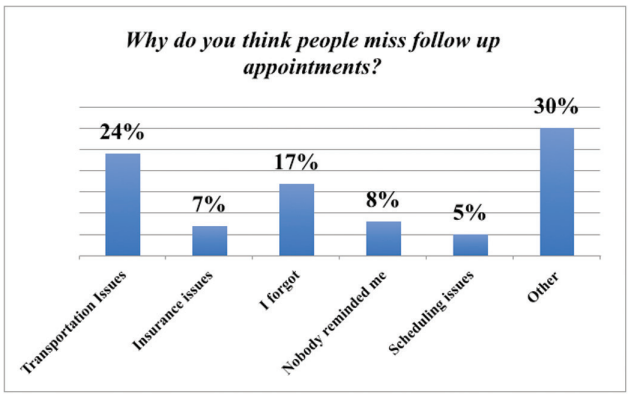


Figure 2. The majority of participants received a reminder for an upcoming appointment in the form of a letter.

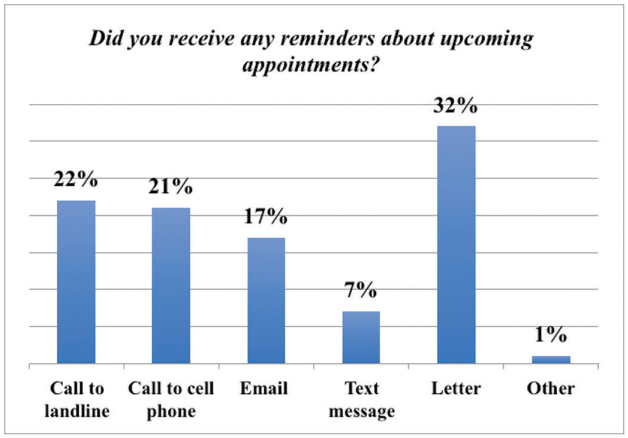
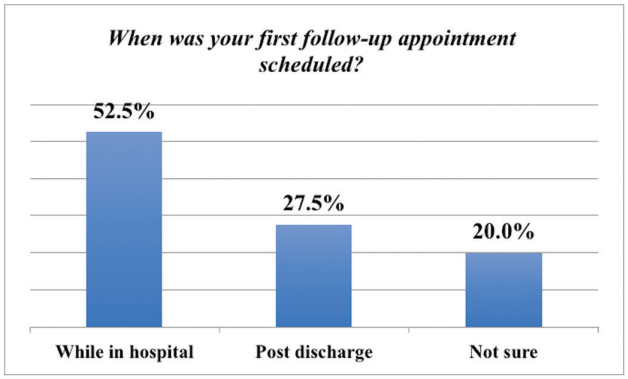


Figure 3. The majority of initial follow-up appointments were scheduled while patients were in the hospital.



Disclosures. **G. Allison**, Merck: Grant Investigator and Speaker's Bureau, Grant recipient and Salary

1092. Pilot of a Home Telehealth Platform in a Pediatric OPAT Program

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Background. Patients discharged with outpatient parenteral or prolonged oral antibiotic (OPAT) require monitoring to ensure optimal clinical outcomes. Advances in technology have allowed novel approaches for clinical interactions. We sought to develop a new home telehealth platform for a subsection of pediatric OPAT patients.

Methods. We used an existing infrastructure developed by our hospital telemedicine program to pilot the electronic home visit. A process was established to create a virtual connection at a pre-designated time using a HIPPA-secured web-based platform. Clinic staff performed a pre-visit technology check. Electronic Medical Record (EMR) scheduling platforms were created and the parent was coached on how to download and execute the necessary software. A virtual clinic was established between provider and family. Documentation occurred in the EMR with specific language and modifier codes for billing accuracy identified by the telemedicine team. Patients were selected based on medical complexity and travel time greater than 2 hours to our institution.

Results. Two pediatric OPAT patients completed the pilot in Spring 2017 for treatment of 1) CLABSI with retained line and 2) chronic ulcer with osteomyelitis. Three visits between the OPAT ID provider, located in her office, and the patient, located at home, were successfully piloted with video and voice. A routine clinic visit was conducted with a parent-driven physical exam. A clinical note was documented in the EMR with specific telemedicine templates. This platform also allowed for multi-disciplinary visits with a hospitalist and home health nurse to address a central line related issue with ID provider present. Total time for each visit was under 20 minutes.

Conclusion. We were able to demonstrate feasibility and functionality of this novel platform to conduct a billable OPAT clinic visit in a patient's home. Health system infrastructure was a necessary and vital component to execution of the virtual clinic. Specific patient groups may benefit from this provider-patient interface. The use of telemedicine in OPAT may serve as a new platform for improving provider efficiency, lowering health system costs, and achieving greater patient satisfaction.

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

1093. Utilizing a Post-discharge Telephone Call in Outpatient Parenteral Antimicrobial Therapy (OPAT): Findings from a Quality Improvement Project

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Background. Transitions of care from hospitals to outpatient settings, especially for patients requiring outpatient parenteral antimicrobial therapy (OPAT) are complex. OPAT complications, such as adverse antimicrobial reactions, vascular access problems, and hospital readmissions are common. Data from transitions of care literature suggest that post-discharge telephone calls (TCs) may significantly decrease re-hospitalization but no studies have assessed the utility of post-discharge TCs as an OPAT program quality improvement process.

Methods. Adult OPAT patients discharged from our hospital between April 1, 2015 and May 31, 2016 were queried for post-discharge concerns. TCs to patients or their caregivers were administered by trained medical assistants within the Department of Infectious Diseases using a standardized script and documented in the electronic medical record (EMR). Feasibility was assessed using call completion rate. The type and frequency of reported issues were analyzed by retrospective chart review.

Results. 636 of 689 eligible adult OPAT patients or their caregivers received a TC with responses to scripted questions documented in the EMR (92% completion rate). 302 patients (47%) reported 319 issues, including 293 (92%) relevant to OPAT. Antimicrobial issues included diarrhea/stool changes (58; 9%); nausea/vomiting (27; 4%); and missed antimicrobial doses (22; 3%). Vascular access issues included line patency concerns (21; 3%); vascular access dressing problems (17; 2.6%) and arm pain/swelling (6; 1%). OPAT vendor issues included delays in lab or line care services (23; 4%) and OPAT orders reported as lost/not received (21; 3%). Other ID-related issues included fevers/chills/sweats (27; 4%), wound concerns (16; 2.5%), and pain (15; 2.5%).

Conclusion. Adding a post-discharge TC to an OPAT program was feasible and resulted in frequent and early identification of significant OPAT patient and caregiver concerns. Findings suggest potential high-yield topics for process improvement, as well as anticipatory guidance and patient education in OPAT. Further evaluation and analysis of optimal hospital discharge processes and care coordination in OPAT, as well as their impact on post-discharge adverse events, is needed.

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

1094. Emergency Department Visits During Outpatient Parenteral Antimicrobial Therapy: A Cohort Study

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Background. Outpatient parenteral antimicrobial therapy (OPAT) carries risk of vascular access complications, antimicrobial adverse effects, and worsening of infection. Both OPAT-related and unrelated events may lead to emergency department (ED) visits. The purpose of this study was to describe adverse events that result in ED visits and risk factors associated with ED visits during OPAT.

Methods. OPAT courses between January 1, 2013 and December 31, 2016 at Cleveland Clinic were identified from the institution's OPAT registry. ED visits within 30 days of OPAT initiation were reviewed. Reasons and potential risk factors for ED visits were sought in the medical record.

Results. Among 11,440 OPAT courses during the study period, 603 (5%) were associated with 1 or more ED visits within 30 days of OPAT initiation. Mean patient age was 58 years and 57% were males. 379 ED visits (49%) were OPAT-related; the most common visit reason was vascular access complication, which occurred in 211 (56%) of OPAT-related ED visits. The most common vascular access complications were occlusion and dislodgement, which occurred in 99 and 34 patients (47% and 16% of vascular access complications, respectively). In a multivariable logistic regression model, at least one prior ED visit in the preceding year (prior ED visit) was most strongly associated with one or more ED visits during an OPAT course (OR 2.96, 95% CI 2.38 – 3.71, p-value < 0.001). Other significant factors were younger age (p 0.01), female sex (p 0.01), home county residence (P < 0.001), and having a PICC (p 0.05). 549 ED visits (71%) resulted in discharge from the