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

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## 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)	14.8 ± 16.5	6.2 ± 13.2	<0.001
N = 430 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

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## 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: 1.4–2.7, 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.

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## 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.

 $\label{thm:proposition} \mbox{Figure 1. Transportation and other were the most cited reasons for missing appointments.}$ 

