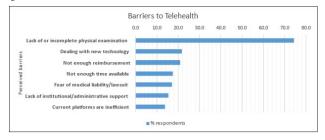
Figure 4. Barriers



Results. The response rate was 10% (n=253) of 2,550 PID clinicians. Physicians accounted for 98.4% of the cohort. The remaining 1.6% were allied health professionals. 81 survey respondents (32%) were in 4 US states (CA, TX, OH and NY) and the province of Quebec. 62.8% of respondents were women, 37% of respondents were 36-45 years old, with 42.7% devoting about 50-99% of their time to direct patient care. TH usage increased during the pandemic with the most gain in provider-patient communications with 65.6% increase for synchronous and 22.1% for asynchronous TH (Figure 1). Gains in provider-provider TH were less than 20%. Respondents reported a 6-fold gain in comfort with TH usage versus pre-pandemic level (Figure 2). Most respondents report being satisfied with their current platform and modality. Once the COVID-19 waivers expire, 70% of respondents plan to continue using TH. The most common TH modality used was an EMR-integrated TH platform (Figure 3). The main perceived barriers to TH adoption were lack of complete physical examination (73.7%), dealing with new technology (21.5%), and insufficient reimbursement (20.8%) (Figure 4).

Conclusion. The COVID-19 pandemic has resulted in a significant increase in the use of TH by PID specialists versus pre-pandemic usage. Respondents gained comfort with use of different telehealth modalities during the pandemic. This data can help clinicians and organizations in planning and resource allocation for telehealth programs in a post-pandemic environment.

Disclosures. All Authors: No reported disclosures

605. Rates of Patient Satisfaction with Home-Based Outpatient Antimicrobial Therapy (OPAT)

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Session: P-27. Clinical Practice Issues

Background. The use of home-based outpatient parenteral antimicrobial therapy (OPAT) is well established. Studies by the National Home Infusion Foundation (NHIF) show that 1.4 million patients receive OPAT each year.¹ With patient satisfaction a priority, NHIF developed, validated, and reliability tested the *Uniform Patient Satisfaction Survey for Home Infusion Providers* in 2017.² Medicare patients are the fasting growing segment in the US and account for a disproportionate share of health care usage. Determining older patient satisfaction is imperative because patients who are more satisfied are more compliant with treatment³ and tend to return for continued care.⁴ Accordingly, the purpose of this study was to determine the level of home-based OPAT patient satisfaction and if a significant difference ($p \le 0.5$) exists between the 0-64 and 65+ age groups.

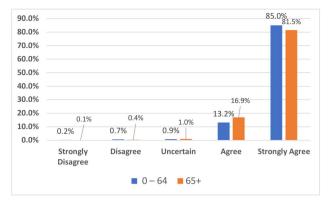
Methods. 2019 and 2020 OPAT survey data (n=5,559) was used in this study. Top box percent, typically used in health care patient satisfaction, was calculated for each survey question. Data was summarized using 7 composite categories formed from the 22 survey questions. Differences ($p = \le .05$) between the age groups was also calculated.

Results. Mean patient age was 64.31 (SD=14.78), 54.99% were 65+ years old, and 58.85% were male. OPAT patients gave high marks to their home infusion service (Table 1). The highest top box % for the composite scores was "Patient instructions" which averaged 98.91%. The most common healthcare satisfaction question "I was satisfied with the overall quality of the services provided" showed significant difference between the age groups (p = .002) with the 0-64 groups being more satisfied than the 65+ (Exhibit 1).

Table 1. OPAT Patient Satisfaction Survey Composite Scores: Percent of Patients Selecting Top-Box Score (n= 5,559)

Composite Category	Survey	2019 & 2020
	Question(s)	OPAT (n=5,559)
1. Equipment and Supplies	1-3	95.72%
2. General Communication	4-7	90.21%
3. Staff Courtesy Questions	8a, b, c, d	93.38%
4. Staff Helpfulness Questions	9a, b, c, d	92.16%
5. Patient Instruction Questions	10a, b, c, d, e	98.91%
6. Overall Satisfaction	11	83.11%
7. Would Recommend	12	81.42%

Exhibit 1. Level (%) of Agreement to "I was satisfied with the overall quality of the services provided" by Age Group (n = 5,559)



Conclusion. Analysis of each survey question shows the 65+ patients are less satisfied than younger patients on the following: being informed of side effects, explanation of financial responsibilities, and the helpfulness of the billing staff. Even though the scores are high for both age groups, additional research needs to be conducted to determine why scores for the 65+ age group are lower, and changes needed for improvement. Knowing the level of OPAT patient satisfaction will benefit infectious disease physicians, providers, prescribers, payers, and regulators as they evaluate how to expand home-based services.

Disclosures. All Authors: No reported disclosures

606. Implementation of a Telehealth-based OPAT Early Post-Discharge Clinic May Reduce Hospital Readmission

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Session: P-27. Clinical Practice Issues

Background. Recent studies suggest that early post-discharge follow-up for patients receiving outpatient parenteral antimicrobial therapy (OPAT) reduces readmission rates. We report our experience implementing a telehealth-based clinic to facilitate early (1-2 week) follow-up for selected OPAT patients perceived to be at high risk for readmission.

Methods. We identified patients who met criteria for and completed a supplemental OPAT telehealth visit following the initial seven months after implementation of this clinic (11/1/20 – 5/31/21). Clinical criteria triggering intake of patients for these visits included: endovascular or cardiac device-related infection; treatment with vancomycin, oxacillin/nafcillin, or aminoglycosides; ≥ 2 prior hospitalizations within past 1 year; treating Infectious Disease or OPAT team's subjective assessment of high readmission risk. Patients planned for < 14 days of OPAT therapy were excluded. Categorical variables were compared using a Chi-square test at the α =0.05 level of significance.

Results. A total of 49 patients completed a telehealth visit; mean time from discharge to telehealth visit was 12.1 days (SD +/- 3.9). An intervention was made in 27% of these visits (13 of 49 patients), most commonly involving attempted mitigation of an adverse event or line-related complication (7 cases). The all-cause, 30-day readmission rate for this cohort was 6.1% (3 of 49 patients), while the rate for OPAT patients who did not receive an early telehealth visit during the same period was 22.7% (52 of 229 patients) which was statistically significant (p=0.008). This association of benefit was also found when comparing infection-related, 30-day readmission rates (0% vs 7.4%, p=0.049).

Conclusion. Implementation of OPAT telehealth encounters for high-risk patients resulted in a high rate of intervention to mitigate adverse events of OPAT therapy. Readmission occurred less than one-third as frequently in the telehealth group compared to patients with no early follow-up visit. Telehealth-based encounters appear comparable in effectiveness to those previously reported utilizing in-person visits, introducing efficiencies that may allow for broader implementation of this intervention.

Disclosures. Nicolas W. Cortes-Penfield, MD, Nothing to disclose Bryan Alexander, PharmD, Astellas Pharma (Advisor or Review Panel member)

607. Improving Health Maintenance Among Patients with HIV by Implementing a SmartPhrase and a Care Gap in the EPIC Electronic Medical Record Yuriko Fukuta, MD, PhD; Thomas P. Giordano, MD, MPH; Baylor College of Medicine, Bellaire, Texas

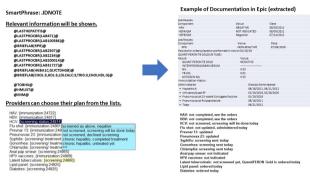
Session: P-27. Clinical Practice Issues

Background. Most deaths in HIV-infected patients receiving antiretroviral therapy are now related to conditions other than AIDS. HIV infection appears to increase the risk of many non-AIDS-related conditions, highlighting the importance of

preventive care, however, recommended health maintenance items unique patients with HIV (PWH) are not always accomplished. We aimed to improve health maintenance by implementing a SmartPhrase and a Care Gap package in the EPIC Electronic Medical Record (EMR).

Methods. We developed a HIV health maintenance SmartPhrase in EPIC that included the last screening dates for syphilis, gonorrhea, chlamydia, hepatitis A, hepatitis B, hepatitis C, latent tuberculosis, hyperlipidemia, diabetes and human papilloma virus and the dates of receipt of hepatitis A vaccines, hepatitis B vaccines, pneumococcal polysaccharide vaccines and influenza vaccines (Figure 1). Providers can select their plan for each health maintenance item based on these data and their plans are documented in the encounter notes. Providers were educated to use the SmartPhrase in each office visit. An HIV registry was built after choosing 509 HIV related medical conditions. The health maintenance topics were displayed in a "Care Gaps" summary using the data in the HIV registry (Figure 2). Completion rates for the health maintenance items were compared before and after implementation. The health maintenance package was implemented on 3/1/2020.

Figure 1. SmartPhrase .IDNOTE description and note documentation



Information relevant to health maintenance and providers' plan for each health maintenance are documented in the encounter notes.

Figure 2. CareGaps© 2021 Epic Systems Corporation

Maging (1) Other (1)	
CARE GAPS / HM 2 ZOSTER VACCINE (2 of 2) 3 OSTEOPOROSIS SCREE 4 TETANUS SHOT (ADULT) 4 HV CD4 +1 awaiting completion	Due soon on 9/5/2021 (Every 6 Months) Previous Completions 03/05/2021 12/18/2020 LYMPHOCYTE CD4, PERCENT & ABSOLUTE 09/18/2020 LYMPHOCYTE CD4, PERCENT & ABSOLUTE 09/17/2020 LYMPHOCYTE CD4, PERCENT & ABSOLUTE 09/17/2020 LYMPHOCYTE CD4, PERCENT & ABSOLUTE 09/17/2020 LYMPHOCYTE CD4, PERCENT & ABSOLUTE
Registries: Active Pain Agreement: Not on File	View complete topic history

CD4 every 6 months is displayed as a part of the health maintenance in a "Care Gaps" summary using the data in the HIV registry, whether their HIV is well controlled or not.

Results. Of the 380 patients in the registry, 162 had office visits with the ID clinic from 1/1/20 to 6/5/20. Chart review of 100 patients who had office visits after implementation was performed and compared to the 62 patients prior to implementation (Table 1). The rates of hepatitis A vaccination (P= 0.001), hepatitis B vaccination (P= 0.05) and influenza vaccination (P=0.035) were increased significantly. Pneumonia vaccine administrations and anal pap smear performance compliance remained suboptimal. Providers reported that the time they spent searching for lab results and immunization records and documenting were shortened.

Table 1 Comparison of Health Maintenance Compliance Between Pre and Post Implementation Groups

Number of patients	Prior to Implementation		Post Implementation		P value	
	69	N	100	%		
CD4 checked in 6 months	61	88.4	92	92	0.907	
HIV viral load checked in 6 months	62	89.9	93	93	0.907	
Hepatitis A vaccine administered	15	21.7	69	69	0.001	
Hepatitis B vaccine administered	24	35.81)	65	67.01)	0.05	
Hepatitis C screened	45	70.35	82	89.1 ⁴⁾	0.366	
Influenza vaccine administered in 12 months	31	44.9	81	81	0.035	
Pneumococcal conjugate (PCV13) vaccine administered	16	23.2	47	47	0.059	
Pneumococcal polysaccharide (PPSV23) vaccine administered	17	24.6	34	34	0.413	 Two patients had chronic hepatitis B. The denominator was 67.
Syphilis screened in 12 months	64	92.8	97	97	0.82	 Three patients had chronic hepatitis B The denominator was 97.
Gonorrhea screened in 12 months	59	85.5	94	94	0.726	3) Five patients had chronic hepatitis C.
Chlamydia screened in 12 months	59	85.5	94	94	0.726	The denominator was 64. 4) Eight patients had chronic hepatitis C.
Anal pap smear performed	0	0	1	1.45)		The denominator was 92.
Human papilloma vaccine administered	1	256)	3	507)		 Thirty patients did not indicate they have anal sex. The denominator was 70.
Latent tuberculosis screened	69	100	95	95	0.823	 Only 4 patients had strong indication f the vaccine. The denominator was 4.
Hyperlipidemia screened in 12 months	64	92.8	96	96	0.981	7) Only 6 patients had strong indication fo
Diabetes screened in 12 months	66	95.7	99	99	0.963	the vaccine. The denominator was 6.

The rates of hepatitis A vaccination (P=0.001), hepatitis B vaccination (P=0.05) and influenza vaccination (P=0.035) were increased significantly.

Conclusion. A health maintenance package consisting of a SmartPhrase and summary display in the EMR with provider education likely helps improve health maintenance in PWH.

Disclosures. All Authors: No reported disclosures

608. Continuous Infusion Vancomycin Is Not Associated with Improved Safety in an Outpatient Parenteral Antimicrobial Therapy Program

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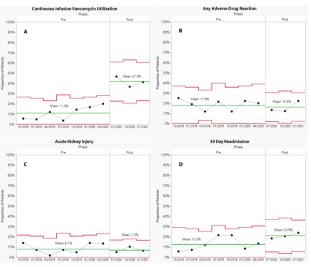
Session: P-27. Clinical Practice Issues

Background. Continuous infusion (CI) vancomycin has been reported to be associated with improved safety outcomes compared to intermittent infusion (II) in the outpatient parenteral antimicrobial therapy (OPAT) setting. Based on this our institution implemented a quality improvement intervention to discharge more patients on CI vancomycin aiming to improve vancomycin safety in our OPAT program.

Methods. This single-center, pre-/post-intervention, quasi-experimental study evaluated adult patients who received vancomycin for a minimum 7-day intended duration of therapy after discharge, were discharged to home health or a skilled nursing facility, and had a follow-up visit with an infectious diseases provider. Outcomes included discontinuation due to acute kidney injury (AKI) or due to any adverse drug event (ADE), time to AKI or ADE, and unplanned 30-day readmissions and were compared between the pre-intervention (11/25/2018 to 7/5/2020) and post-intervention (7/6/2020 to 3/31/2021) periods. Adverse events were defined as premature discontinuation of vancomycin with documentation of a suspected adverse event.

Results. Of the 445 patients included, 102 patients received CI vancomycin. Demographic characteristics were generally similar between time periods, although more patients discharged to home health were included during the post-intervention period. CI vancomycin use was higher after the intervention (42% vs 11%, P < 0.0001). Discontinuation due to AKI (7% vs 8%, P = 0.68) or any ADE (16% vs 18%, P = 0.65) occurred just as frequently post-implementation. Unplanned 30-day readmission was higher post-intervention (21% vs 12%, P = 0.02). When comparing patients receiving CI and II vancomycin, discontinuation rates due to AKI (10% with CI vs 7% with II, P = 0.35) and any ADE (17% with CI vs 16 days with II, P = 0.26) and any ADE (median 22 days vs 22 days, P = 0.55) were also similar. There was a trend toward a significantly higher unplanned 30-day readmission rate with use of CI compared to II (22% vs 14%, P = 0.07).





These control charts show the variation over time of the proportion of patients A. utilizing CI vancomycin, B. experiencing any adverse drug reaction, C. experiencing acute kidney injury, and D. being readmitted within 30 days. Upper and lower control limits are depicted by red lines, and the mean is depicted by a green line.

Conclusion. We found no safety advantages when using CI instead of II vancomycin in the outpatient setting. The potentially higher readmission rate observed with CI vancomycin will be investigated further.

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