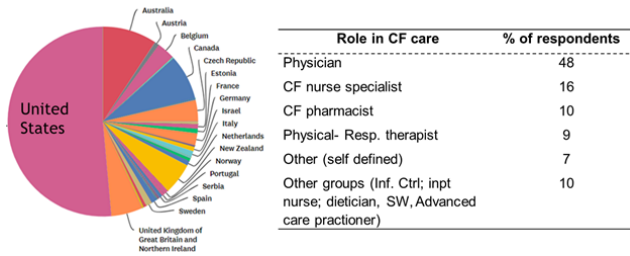


Conclusion. Although most CF HCP have access to individual aspects of AMS, fewer had access to a formal AMS program. Help with antibiotics during exacerbations was identified as an important aspect for input from AMS programs.

Figure 1: Respondent Characteristics



Disclosures. All authors: No reported disclosures.

1079. Impact of Antimicrobial Stewardship Program (ASP) on Patients with Neurological Conditions

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Background. Rising rates of antimicrobial resistance worldwide has dire consequences on patient care, as infections with resistant organisms impair patients' recovery, resulting in protracted illness and hence prolonged hospital stay. Antimicrobial Stewardship Programs (ASPs) have shown to effectively reduce antibiotic resistance. Locally, we observed that patients with neurological conditions were often initiated on antibiotics for change in mental state or isolated fevers. Little is known whether these patients truly require antibiotics and hence, we aim to study the impact of ASP in these patients.

Methods. Retrospective review of ASP database between January 2014 and December 2017 was conducted, among all patients admitted to the neurology department in SGH and in whom the ASP team recommended discontinuation of empiric use of antibiotics. Demographics were collected. Clinical outcomes, duration of antibiotics therapy, length of hospital stay (LOS), infection-related readmissions and mortality, were compared between interventions accepted and rejected groups.

Results. The ASP team recommended 184 interventions [overall acceptance rate of 82.6% (152/184)]. There was no significant difference in underlying demographics, and Charlson Co-morbidity score between the 2 groups. However, the interventions-acceptance group had shorter duration of therapy by 1.67 days (4.99 ± 2.50 days vs. 6.66 ± 2.34 days; $P < 0.01$) and LOS by 2 days (22.5 ± 51.4 days vs. 24.5 ± 3.04 days; $P = 0.83$). There were no significant differences in 14-day mortality and readmission rates between the 2 groups.

Conclusion. In patients with neurological conditions, ASP interventions were safe, and associated with a significant reduction in the duration of therapy and LOS.

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1080. OPAT at the End of Life?: Short- and Long-Term Mortality Following Outpatient Parenteral Antibiotic Therapy

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Background. Outpatient parenteral antimicrobial therapy (OPAT) patients have high rates of adverse drug events, emergency visits, and readmissions. Understanding correlates of mortality during and after OPAT may clarify opportunities to enhance care and meaningfully interpret the clinical profile of patients receiving OPAT.

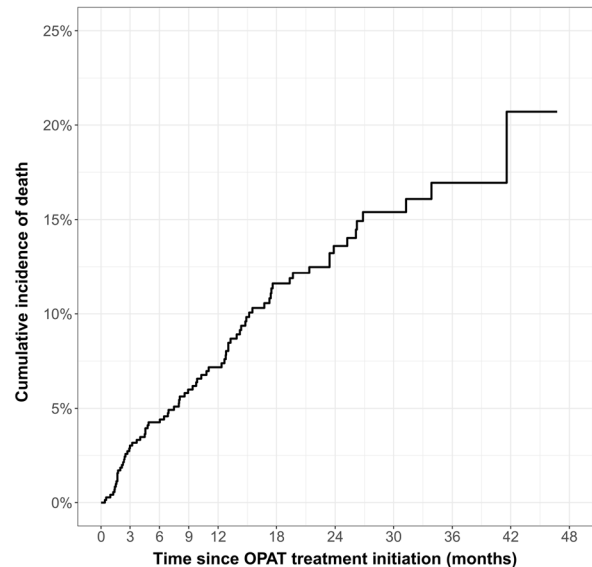
Methods. We analyzed a cohort of patients enrolled in our OPAT program from 2015 to 2018. Patients were followed to death or December 31, 2018, whichever came first. Using Linkplus, we linked patients to North Carolina death records by name, birth date, and sex. We performed a probabilistic linkage and reviewed any nondeterministic matches. Clinical and demographic data were extracted by chart review. Cause of death was determined by first cause in the state death data, as indexed by ICD-10 code. Mortality rates were tabulated at 90 days and 1 year after treatment start. Predictors of 1-year mortality were assessed by multivariable logistic regression and adjusted for age, sex, *Staphylococcus aureus* infection, early antibiotic stop, and readmission.

Results. Among 729 OPAT courses in the study, the median age was 54 (interquartile range, IQR 44–65) and 60% were male. Seventy-seven deaths

occurred during the period at a median 272 days (IQR 89–462), including 7 during OPAT (figure). Mortality at 90 days and 1 year was 3.1% (19 of 617 eligible OPAT courses) and 7.1% (31 of 408), respectively. 90-day mortality was equally due to infection (37%) and cancer (37%), whereas 1-year death was most commonly due to infection (32%). The most commonly reported causes of death at any time during the period were cancer (25%), infection (19%) and cardiovascular disease (17%). Each year increase in age was associated with a 5% relative increase in odds of 1-year death (odds ratio, OR, 1.05, 95% CI 1.02–1.08), and readmission was associated with risk of 1-year death (adjusted OR 7.78, CI 3.46–17.50).

Conclusion. In this large OPAT cohort, 90-day mortality was 3% and 1-year mortality was 7%. Readmission during OPAT was a strong predictor of 1-year death. Strategies to decrease 1-year mortality may include mitigating readmissions or allocating resources after readmission. The prevalence of cancer-related death suggests an opportunity for OPAT providers and oncologists to collaborate in care of high-risk patients.

Figure 1. Cumulative risk of death among OPAT patients, 2015-2018.



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1081. Use of Antimicrobials at the End of Life (EOL): A Retrospective Cohort Study Analyzing Providers' Reasons for Prescribing Antimicrobials at the EOL, Their Benefits and Adverse Effects

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Background. Infections are common in terminally ill patients, and although antibiotics are frequently prescribed, their benefit for symptom relief is not clear. Antimicrobials at the end of life (EOL) increase the risk of antimicrobial resistance and *Clostridium difficile* infection. Very few studies have described the risks and benefits of antimicrobials in patients at EOL. Here, we describe a retrospective chart review of antimicrobial use at EOL.

Methods. We reviewed electronic medical records of patients admitted in a palliative care unit of a tertiary care hospital between 2017 and 2018 and assessed antimicrobial use in the last 14 days of life. The analysis excluded neutropenic patients. Differences in demographics and symptom control between patients who did or did not receive antibiotics (AB+ or AB-) were analyzed using chi-square analyses; P-values were computed using Mann-Whitney tests.

Results. Of a total of 133 patients included, 89 (67%) received antimicrobials (AB+); however, the role of antibiotics was documented in only 12% of patients. The AB- and AB+ groups were similar with respect to demographics, including sex, and Charleston Comorbidity Index except for age (table). Documented infections were similar between AB- and AB+ groups, except urinary tract infections. No statistically significant differences were noted in documented symptoms including pain, dyspnea, fever, lethargy, and alteration of mental state or length of stay (LOS).

Conclusion. Our study did not show differences in frequencies of documented symptoms with use of antimicrobials at EOL. These results indicate that the risks of antimicrobial use may outweigh potential benefits and their use should be a part of goals of care discussions at EOL.