Table 1. Comparison of pre-intervention and post-intervention outcome measures

	Pre-intervention (7/1/21 – 9/30/21) N=153	Post-intervention (7/1/22 – 9/30/22) N=164	*P*
Total duration of therapy >7 days, n (%)	44 (29%)	23 (14%)	0.0013
Mean total duration of therapy, days ± standard deviation	7.0 ± 2.3	5.9 ± 1.6	<0.001
Guideline-discordant empiric therapy, n (%)	50 (33%)	31 (19%)	0.0049
Unnecessary fluoroquinolone, n (%)	15 (10%)	0 (0%)	0
Unnecessary *P. aeruginosa* coverage, n (%)	20 (13%)	14 (9%)	0.1922
No Pseudomonas coverage when indicated, n (%)	3 (2%)	1 (0.6%)	0.356
Unnecessary MRSA coverage, n (%)	6 (4%)	8 (5%)	0.6787
No MRSA coverage when indicated, n (%)	11 (7%)	1 (0.6%)	0.0022
Unnecessary anaerobic coverage, n (%)	5 (3%)	10 (6%)	0.2357
No atypical coverage, n (%)	12 (8%)	9 (5%)	0.3995

Presentation Type:
Poster Presentation - Poster Presentation
Subject Category: Antibiotic Stewardship
Reducing the rate of guideline-discordant therapy for inpatients with community-acquired pneumonia
Kellie Arensman Hannan; Paul Frykman; Eric Mathiowetz; Jill Sathre; Nou Cheng Yang and Kelsey Jensen

Background: Despite guidelines recommending shorter durations of therapy and empiric coverage of *Pseudomonas aeruginosa* and methicillin-resistant *Staphylococcus aureus* (MRSA) only for patients with certain risk factors, optimizing therapy for community-acquired pneumonia (CAP) remains a challenge for antimicrobial stewardship (AMS) teams. We investigated the impact of a multimodal AMS initiative on the rate of guideline-discordant empiric antibiotic selection and total duration of therapy for CAP. **Methods:** A quality improvement initiative was implemented at 9 community hospitals in 2022 to optimize CAP therapy. Education was provided to pharmacists and providers. Alerts were implemented within the electronic medical record to prompt the AMS team to review fluoroquinolones, antipseudomonal β-lactams, and anti-MRSA agents ordered for CAP. Clinical pharmacists reviewed antibiotic orders for CAP at hospital discharge and encouraged providers to prescribe a total antibiotic duration of 5–7 days. For the preintervention period (July–September 2021) and the postintervention period (July to September 2022), a random sample of 320 patients with an antibiotic order for CAP were evaluated retrospectively via chart review. Patients treated for an indication other than CAP were excluded. The primary outcome was the proportion of patients with a total duration of therapy >7 days. Secondary outcomes included average duration of therapy, rate of guideline-discordant empiric therapy, and type of guideline discordance. **Results:** In total, 317 patients were included. The proportion of patients with a total duration of therapy >7 days decreased from 29% to 14% ($P < .01$). Average duration of therapy and guideline-discordant empiric therapy also decreased significantly (Table 1). **Conclusions:** This multifaceted AMS initiative was associated with decreased guideline-discordant empiric therapy and decreased total duration of therapy for CAP.
Disclosures: None

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Subject Category: Antibiotic Stewardship
Determining trends of respiratory tract infections in a long-term care facility pilot surveillance project
Cullen Adre; Dipen Patel; Vicky Reed; Srilakshmi Velrajan; Christopher Evans and Christopher Wilson

Background: Respiratory tract infections (RTIs) in long-term care facilities (LTCFs) are particularly burdensome among residents, the COVID-19 pandemic highlighted the devastating consequences of RTIs in LTCFs. This situation has prompted the need for LTCFs to have a robust, active surveillance system to assist LTCFs with RTI identification. Such a system could assist with faster implementation of appropriate antimicrobial therapy and critical infection prevention and control. The TN Emerging Infections Program worked with CDC EIP to implement a pilot project to test the feasibility of performing RTI surveillance to inform future changes to NHSN. **Methods:** We recruited 6 LTCFs to collect prospective RTI surveillance for 6 consecutive months from October 2021 through March 2022. Data were collected for all residents meeting the RTI surveillance definitions: pneumonia, lower respiratory tract infection, influenza-like illness (including influenza), and COVID-19. These data were entered by facility workers into a REDCap database with a prospective RTI LTCF event form. Monthly data collection summaries were submitted using a designated denominator form. Descriptive statistics were used to analyze RTI data, and analyses were performed using SAS version 9.4 software. **Results:** In total, 6 facilities participated in the pilot project during the capture period. The total number of RTI cases across all facilities was 195. December had the most cases (n = 50). The most common first triggers were new RTI signs or symptoms (67.69%), laboratory results (17.44%), imaging findings (6.67%), and clinician-diagnosed RTI (8.21%). The most reported symptom was new or increased cough (57.44%). Chest radiographs were performed for 50.77% of patients. Positive viral laboratory test results were documented 29.74% of the time. Antibiotic treatments were given to 70.77% of residents. The most commonly prescribed antibiotics were cephalosporins (22.56%), macrolides (17.95%), fluoroquinolones (12.31%), and doxycycline (9.23%). Also, 17.4% of cases with antibiotic regimens had cephalosporins as monotherapy. Vaccine documentation was as follows: influenza 2020–2021 (40.51%), influenza 2021–2022 (64.1%), complete COVID-19 vaccine series (82.56%), PPSV-23 vaccine (33.85%), and PCV-13 (23.59%). **Conclusions:** RTI surveillance was incorporated smoothly into the daily workflow for facilities; the biggest barrier to effective implementation was staff turnover. A scheduled weekly time to collect data and fill out forms proved most effective. A high percentage of cases was treated with cephalosporins as monotherapy, which, based on the latest guidelines, may be suboptimal. Individual reports were sent back to facilities with a comparison to the aggregated data. These data will be used to evaluate antibiotic appropriateness and to guide future RTI surveillance efforts in the LTCF setting.
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Pharmacist interventions for appropriate COVID-19 antiviral therapy in long-term care facilities: A public health initiative
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Background: Prescribing errors related to the COVID-19 oral antiviral agent nirmatrelvir-ritonavir have been reported and are primarily due to improper renal dosing and significant drug–drug interactions. These patient safety issues are particularly concerning in the long-term care facility (LTCF) population. The Nebraska Antimicrobial Stewardship Assessment and Promotion Program (ASAP) is a unique collaborative partnership involving the University of Nebraska Medical Center, Nebraska Medicine, and the Nebraska Department of Health and Human Services (DHHS). ASAP is funded through the Nebraska DHHS healthcare-associated infections and antimicrobial resistance (HAI/AR) program and was established in 2016, with a primary focus of promoting safe and effective antimicrobial use in Nebraska. In 2022, ASAP developed a statewide pharmacist-led service to assist LTCFs in evaluating prescriptions for COVID-19 oral therapeutics. We studied the impact of ASAP pharmacist intervention on COVID-19 oral antiviral prescriptions. **Methods:** ASAP created a centralized LTCF treatment

Table 1: Patient and Facility Characteristics

	COVID-19 Courses of Therapy (n = 630)
Race, n (%)	
White	609 (96.7)
Black or African American	14 (2.2)
Hispanic or Latino	5 (0.8)
Other	2 (0.3)
COVID-19 Vaccination Status, n (%)	
Fully vaccinated and boosted	409 (64.9)
Fully vaccinated, not eligible for booster	7 (1.1)
Fully vaccinated, eligible for booster but not received	165 (26.2)
Partially vaccinated	17 (2.7)
Unvaccinated	30 (4.8)
Unknown	2 (0.3)
eGFR (mL/min), n (%)	
>60	316 (50.2)
30-60	209 (33.2)
<30	105 (16.6)
Severely immunocompromised (Y/N), n (%)	
Yes	2 (0.3)
No	628 (99.7)
Severe hepatic impairment (Y/N), n (%)	
Yes	3 (0.5)
No	627 (99.5)
Facility Type, n (%)	
Assisted Living Facility	217 (34.4)
Long-Term Care Facility	413 (65.6)
Medication dispensed, n (%)	
Nirmatrelvir/ritonavir	319 (50.6)
Molnupiravir	311 (49.4)
Counties dispensed in Nebraska, n (%) (Out of 93 counties in Nebraska)	37 (39.8)
Average time from symptom onset to prescription dispense, days	1.6 (0-6)

request process for oral antivirals. A REDCap survey hosted on a dedicated program webpage was used to collect requests for treatment submitted by any LTCF in Nebraska, including assisted living facilities. An ASAP pharmacist reviewed each survey submission for renal and hepatic function, drug–drug interactions, date of symptom onset, and ability to take oral medications. After pharmacist approval, delivery of the appropriate COVID-19 therapeutic to the LTCF was coordinated with the dispensing pharmacy. The pharmacists recorded the specific interventions for each treatment in the program database. Descriptive analyses were used to study the program impact. **Results:** In total, 630 courses of oral COVID-19 antivirals were administered to Nebraska LTCF residents through the ASAP program in 2022. The median patient age was 84 years, and 59% were female. Most dispensed courses (n = 410, 65%) needed pharmaceutical interventions upon review for 506 individual interventions. The most frequent intervention was to hold or adjust doses of concomitant medications in 205 patients (33%), followed by antiviral dose adjustment for renal function in 117 patients (19%), and selecting an alternative COVID-19 therapy due to drug–drug interactions in 108 patients (17%). COVID-19 therapeutic agents were changed upon ASAP intervention to be in compliance with the National Institute of Health COVID-19 treatment guidelines in 37 patients (6%). **Conclusions:** Pharmacist review of oral antiviral prescriptions for COVID-19 through a public health–supported initiative identified and prevented potential patient safety issues in LTCF residents. Future studies should analyze the impact of similar interventions on patient outcomes.

Disclosures: None

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Antibiotic practice and stewardship in the management of neutropenic fever: A survey of US institutions

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Background: Neutropenic fever management decisions are complex and result in prolonged duration of broad-spectrum antibiotics. Strategies for antibiotic stewardship in this context have been studied, including de-escalation of antibiotics prior to resolution of neutropenia, with unclear implementation. Here, we present the first survey study to describe real-world neutropenic fever management practices in US healthcare institutions, with particular emphasis on de-escalation strategies after initiation of broad-spectrum antibiotics. **Methods:** Using REDCap, we conducted a survey of US healthcare institutions through the SHEA Research Network (SRN). Questions pertained to antimicrobial prophylaxis and supportive care in the management of oncology patients and neutropenic fever management (including specific antimicrobial choices and clinical scenarios). Hematologic malignancy hospitalization (2020) and bone-marrow transplantation (2016–2020) volumes were obtained from CMS and Health Resources & Services Administration databases, respectively. **Results:** Overall, 23 complete responses were recorded (response rate, 35.4%). Collectively, these entities account for ~11.0% of hematologic malignancy hospitalizations and 13.3% bone marrow transplantations nationwide. Of 23 facilities, 19 had institutional guidelines for neutropenic fever management and 18 had institutional guidelines for prophylaxis, with similar definitions for neutropenic fever. Firstline treatment universally utilized antipseudomonal broad-spectrum IV antibiotics (20 of 23 use cephalosporin, 3 of 23 use penicillin agent, and no respondents use carbapenem). Fluoroquinolone prophylaxis was common for leukemia induction patients (18 of 23) but was mixed for bone-marrow transplantation (10 of 23). We observed significant heterogeneity in treatment decisions. For stable neutropenic fever patients with no clinical source of infection identified, 13 of 23 respondents continued IV antibiotics until ANC (absolute neutrophil count) recovery. The remainder had criteria for de-escalation back to prophylaxis prior to this (eg, a fever-free period). Respondents were more willing to de-escalate prior to ANC recovery in patients with identified clinical sources (14 of 23 de-escalations in patients with pneumonia) or microbiological sources (15 of 23 de-escalations in patients with bacteremia) after dedicated treatment courses. In free-text responses, several respondents described opportunities for more systemic de-escalation for antimicrobial stewardship in these scenarios. **Conclusions:** Our results illustrate the real-world management of neutropenic fever in US hospitals, including initiation of therapy, prophylaxis, and treatment duration. We found significant heterogeneity in de-escalation of empiric antibiotics relative to ANC recovery, highlighting a need for more robust evidence for and adoption of this practice.

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