

A Needs Assessment and Tailored Webinar Series to Extend Antimicrobial Stewardship Practices

to a Skilled Nursing Facility Collaborative Network

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BACKGROUND

Antibiotic overuse and misuse are widespread throughout the United States healthcare system, including skilled nursing facilities (SNF). Approximately 1.3 million Americans reside in SNF on any given day, and 50-70% of SNF residents will be prescribed an antibiotic over the course of a year.^[1,2] Up to 75% of these prescriptions may be unnecessary or inappropriate.^[3] Since 2016, CMS requires SNF to maintain an antimicrobial stewardship program (ASP) including “antibiotic use protocols and a system to monitor antibiotic use.”^[4] Although CMS makes few specific requirements regarding the structure and routine activities of a SNF ASP, the CDC’s Core Elements (CDCCE) of Antibiotic Stewardship for Nursing Homes outline best practices for ASP in SNF.^[5]

OBJECTIVES

Prior to implementing a SNF ASP consultative program, we conducted a needs assessment of local skilled nursing facilities. Based on this assessment, we then delivered a tailored webinar series addressing the topics of greatest interest.

METHODS

An 18-question needs assessment based on the CDCCE Checklist was electronically distributed in October 2021 to members of the Montefiore Health System Skilled Nursing Facility Collaborative, consisting of 33 facilities across the Bronx and neighboring counties. A follow-up 4-question assessment was performed during SNF Collaborative meetings in February 2022 using polling software. Responses were aggregated using Google Forms and Microsoft Excel. Next, a condensed webinar series was designed to address the topics of respiratory infections, urinary tract infections, and soft tissue infections. Presentations were based on AHRQ and Montefiore ASP materials. The webinars were delivered in April 2022 using Zoom. All facility staff and consultants were invited to attend; continuing education credits were offered to nurse and physician participants. Webinar recordings were subsequently uploaded to the Montefiore ASP webpage for repeat viewing.

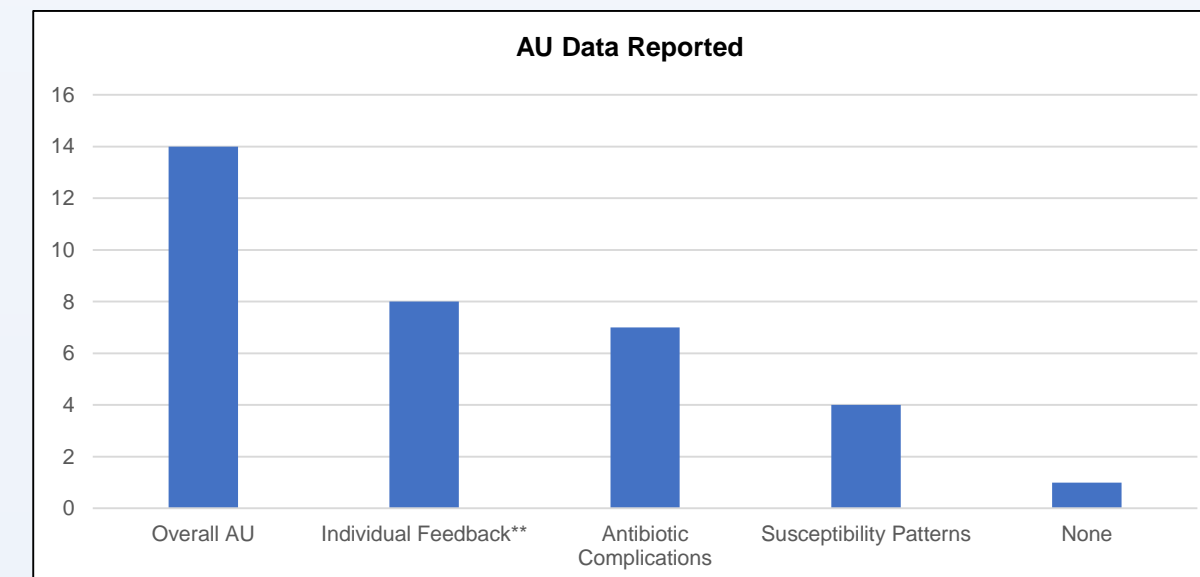
RESULTS

Fifteen facilities (45.5%) responded to the initial needs assessment.

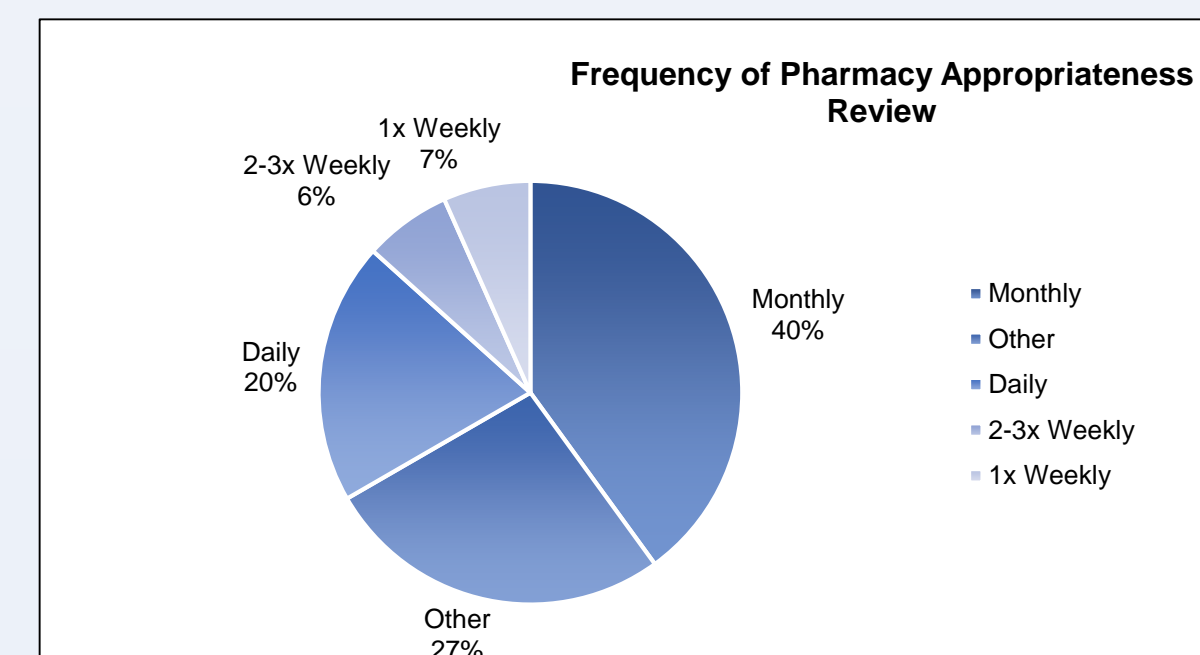
Table 1. CDCCE Checklist Items

Leadership Commitment/Accountability, n (%)	
Nursing Leader	13 (86.7)
Physician Leader	8 (53.3)
Pharmacist Leader	4 (26.7)
Other	4 (26.7)
Stewardship Expertise, n (%)	
Pharmacy Consultant	7 (46.7)
Staff Clinician	7 (46.7)
Clinical Consultant	4 (26.7)
Infection Preventionist	2 (13.3)
None	2 (13.3)
Action, n (%)	
Diagnostic Guidelines	11 (73.3)
Communication Tool	11 (73.3)
Treatment Guidelines	9 (60)
Antibiotic “Time Outs”	5 (33.3)
Tracking, n (%)	
Access to EMAR	13 (86.7)
Facility Antibiogram	10 (66.7)
Monitor <i>C. Difficile</i>	9 (60)
Monitor MDR infections	7 (46.7)
Monitor Drug-related AE	7 (46.7)
Education, n (%)	
Clinical Providers	15 (100%)
Nursing Staff	13 (86.7)
Residents and Families	8 (53.3)

Figures 1-2. Antibiotic Use (AU) Reporting Practices



**Feedback to individual prescribers given monthly (3), annually (1), or as needed (4) if there is a particular concern about prescribing practices



Eighteen facilities (54.5%) responded to the follow-up needs assessment.

Figure 3. Stewardship Challenges

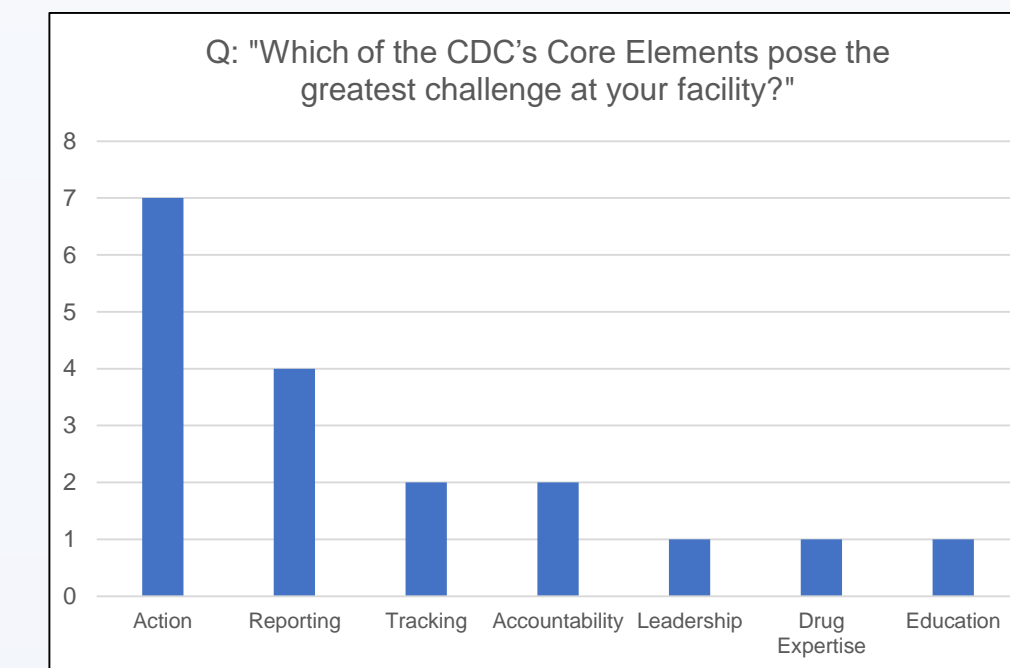
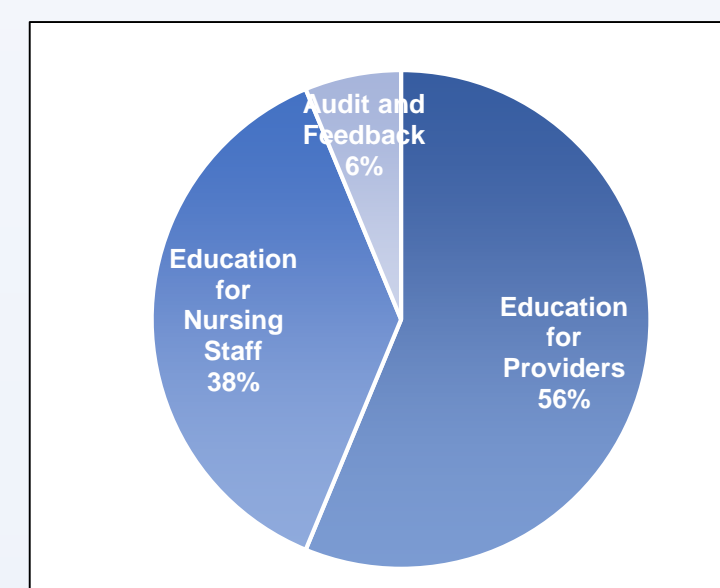


Figure 4. Preferred Stewardship Support



Most requested educational topics: pneumonia and respiratory tract infections (5), cellulitis and wound infections (5), general infection prevention principles (4).

Only 1 facility requested education on urinary tract infection management. However, due to the high prevalence of UTI and asymptomatic bacteriuria in SNF populations, this was selected as a webinar topic alongside respiratory and soft tissue infections.

Six webinars (2 sessions per topic) were delivered via Zoom over the course of 3 weeks in April 2022. There were 55 participants, representing 22 out of 33 SNF Collaborative member facilities. Thirty (54.5%) participants were nurses, 17 (30.9%) were physicians, and 8 (14.5%) were non-clinical administrators. The respiratory infection webinars were the lowest attended, and the soft tissue infection webinars were the highest attended.

Only 7 course evaluations were received, but all respondents rated the course as “Outstanding” (4) or “Good” (3) and indicated they would recommend the webinar series to a colleague. As a result of the webinar, respondents reported they felt more comfortable pursuing ASP leadership roles, making recommendations to attendings or colleagues, and were more likely to review their own documentation practices and durations of therapy.

CONCLUSIONS

In addition to assessing adherence to national guidelines, a thorough SNF ASP assessment must include additional process and outcome measures, such as acceptance of interventions and perceived effectiveness of tools and policies. Further investigation is needed to determine best strategies to implement, evaluate, and improve ASP in SNF, considering structural challenges unique to this setting.

Our survey of 33 Bronx-area SNF revealed overall high interest in improving antimicrobial stewardship practices, as evidenced by the 40-50% response rates to our needs assessments. Moreover, participants came from 22 different facilities. Responses to course evaluations indicated that participants felt motivated to take a more active role in stewardship activities at their facilities in addition to reevaluating their own antibiotic use.

Limitations of our intervention include the lack of participation from pharmacists and advanced practice providers, who play critical roles in antimicrobial stewardship and antibiotic prescribing. Future goals include periodic stewardship needs reassessments through regular meetings with the Skilled Nursing Facility Collaborative and expansion of topics covered by the webinar series.

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CONTACT AND DISCLOSURES

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Disclosures: None

