

The Essential Role of Senior Care Pharmacists in Antimicrobial Stewardship: An Updated Position Statement on Behalf of the American Society of Consultant Pharmacists and the Society of Infectious Diseases Pharmacists

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Senior care pharmacists are well-positioned to lead and drive antimicrobial stewardship (AMS) initiatives, not only through audit and data collection, but also through communication, collaboration, and cooperation with prescribers and nurses to influence prescribing behaviors. Senior care pharmacists are in a unique position to take a leadership role within the interprofessional team to achieve AMS goals. They should engage with the interprofessional team to promote the judicious and appropriate use of antimicrobials at their practice sites. This position statement is an update of the 2017 version by the

American Society of Consultant Pharmacists (ASCP) Antimicrobial Stewardship and Infection and Prevention Control Committee and the Society of Infectious Diseases Pharmacists (SIDP).

KEY WORDS: Antimicrobial stewardship, Infectious diseases, Position statement.

ABBREVIATIONS: AMS = Antimicrobial stewardship, CDC = Centers for Disease Control and Prevention.

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Position

Senior care pharmacists are well-positioned to lead and drive antimicrobial stewardship (AMS) initiatives, not only through audit and data collection, but also through communication, collaboration, and cooperation with prescribers and nurses to influence prescribing behaviors. Senior care pharmacists are in a unique position to take a leadership role within the interprofessional team to achieve AMS goals for activities listed in Table 1. They should engage with the interprofessional team for activities listed in Table 2 to promote the judicious and appropriate use of antimicrobials at their practice sites.¹⁻⁴

Senior care pharmacists should seek infectious-diseases training specific to their practice setting to succeed in engaging in AMS initiatives (Table 3). Though application of AMS skills and access to tools and resources may be limited depending on their facilities, senior care pharmacists are encouraged to use as many AMS strategies as possible to aid their patients. Senior care pharmacists are uniquely positioned to equip prescribers with evidence-based guidance on appropriate antimicrobial use to mitigate the risks associated with these agents in this vulnerable population and ultimately improve clinical outcomes.

Table 1. Activities That Senior Care Pharmacists Should Lead and Actively Participate in Discussions as Part of the Interprofessional Team to Promote the Judicious and Appropriate Use of Antimicrobials in Health Care Settings for Older People¹⁻⁴

- Adjust dosing of antimicrobials that are compromised by insufficient liver and/or renal function
- Develop, disseminate, and implement facility-specific clinical practice guidelines for common infectious diseases (eg, urinary tract infections, respiratory tract infections, and *Clostridioides difficile* infection)
- Encourage the conversion to oral antimicrobials, when clinically appropriate, especially during transitions of care to a geriatric health care setting
- Encourage prescribers to perform routine review of antimicrobial regimens (eg, antibiotic time-outs, routine reviews of ongoing antimicrobial therapy)
- Implement pharmacokinetic monitoring and adjustment programs for select antimicrobials
- Implement retrospective audit and feedback for antimicrobial use as part of the monthly medication regimen review
- Implement strategies to decrease unnecessary use of antimicrobials in geriatric health care settings
- Monitor antimicrobial use, with preference for days of therapy over defined daily dose
- Optimize the use of antimicrobials to reduce adverse effects, including *Clostridioides difficile* infection, antimicrobial resistance, and health care costs
- Reduce antimicrobial therapy to the shortest duration for the specified indication



Table 2. Activities That Senior Care Pharmacists Should Engage in as Part of the Interprofessional Team to Promote the Judicious and Appropriate Use of Antimicrobials in Health Care Settings for Older People¹⁻⁴

- Actively encourage the use of evidence-based communication between nurses and prescribers (eg, SBAR, MCRF)
- Collaborate with the facility leader of AMS activities (eg, medical director, infectious diseases consult service, infection preventionist, or another care provider available to the facility)
- Develop and educate prescribers and staff on a facility-specific antibiogram
- Implement allergy assessments and reviews in patients with a reported history of allergies to antimicrobials
- Implement prospective audit and feedback for antimicrobial use
- Participate in active AMS-related professional development
- Support clinical providers in antimicrobial treatment decisions for terminally ill patients enrolled in hospice and/or palliative care
- Target patients with specific infectious diseases for senior care pharmacist review (eg, patients requiring antimicrobial prophylaxis for HIV-related opportunistic infections, chronic steroid use, chemotherapy; patients requiring antimicrobial suppression therapy for chronic infections)

Abbreviations: AMS = Antimicrobial stewardship, HIV = Human immunodeficiency virus, MCRF = Medical care referral form, SBAR = Situation, background, assessment, and recommendation.

Table 3. Continuous Professional Development and Antimicrobial Stewardship Resources for Senior Care Pharmacists

- Agency for Healthcare Research and Quality (AHRQ)
<https://www.ahrq.gov/nhguide/toolkits.html>
- American Society of Consultant Pharmacists (ASCP)
<https://www.ascp.com/page/asp>
- Centers for Disease Control and Prevention (CDC)
https://www.train.org/cdctrain/training_plan/3697
- Centers for Disease Control and Prevention (CDC) – Nursing Homes Core Elements
<https://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html>
- Infectious Diseases Society of America (IDSA)/Society for Healthcare Epidemiology of America (SHEA)
<https://www.idsociety.org/clinical-practice/antimicrobial-stewardship2/antimicrobial-stewardship/>
- Society of Infectious Diseases Pharmacists (SIDP)
<https://sidp.org/Stewardship-Certificate>

The intent of this joint position statement by the American Society of Consultant Pharmacists (ASCP) and the Society of Infectious Diseases Pharmacists (SIDP) is to inform policy makers and practitioners of the roles senior care pharmacists have with respect to AMS in geriatric health care settings (eg, assisted living facilities, skilled nursing facilities, nursing facilities, rehabilitation centers, and other geriatric health care settings). This position statement replaces the 2017 statement on the essential role of pharmacists in AMS in long-term care facilities.

Background

The Infectious Diseases Society of America, the Society for Healthcare Epidemiology of America, and the Pediatric Infectious Diseases Society define AMS as “coordinated interventions designed to improve and measure the appropriate use of antimicrobials by promoting the selection of the optimal agent, dose, route of administration, frequency, and duration of therapy.”^{5,6}

The overuse of antimicrobials often disrupts the microbiome of older people leading to potential negative consequences, namely, colonization and



infection with antimicrobial-resistant organisms and *Clostridioides difficile* infection. Antimicrobial misuse contributes to adverse effects and drug interactions as well as increased length of hospital stay, health care costs, morbidity, and mortality.^{1,7} These adverse consequences are more pronounced for frail and older people who often have comorbid conditions requiring multiple medications.¹ The Centers for Disease Control and Prevention (CDC) identified several core elements for AMS initiatives in the nursing facility, which can be applied to all older people in any health care setting.¹ These core elements emphasize the importance of pharmacists as key players in reducing the overuse and inappropriate use of antimicrobials. Specifically, senior care pharmacists can fulfill the core elements of “Drug/Pharmacy Expertise,” “Accountability,” and “Education and Expertise” through optimizing antimicrobial use in older people in any health care setting.¹ Given their pharmacotherapeutic knowledge, clinical skills, and consistent presence across health care settings, senior care pharmacists are called upon to develop, implement, maintain, and evaluate AMS initiatives, in collaboration with physicians, nurses, and other members of the health care team.¹

Arguments and Research: Senior Care Pharmacists in All Practice Settings

Of all hospitalized patients started on antibiotics, approximately 44% of adults older than 65 years of age are initiated on broad-spectrum antimicrobial therapy.⁸ Up to 70% of long-term care residents receive one or more courses of systemic antimicrobials in a year and, similar to findings in hospitals, 40 to 75% of antimicrobials prescribed in long-term care facilities may be unnecessary or inappropriate.^{1,9,10} Additionally, in the outpatient setting, at least 30% of antimicrobial prescriptions are estimated to be unnecessary, with older people having higher prescription rates than their younger counterparts.^{2,11,12}

Senior care pharmacists, with their expertise and training, are poised to execute key AMS strategies that can have high impact in older people. They can identify clinical scenarios that may lead to antimicrobial overuse, such as asymptomatic bacteriuria.^{1,13} Implementation of standard diagnostic criteria and facility-specific treatment algorithms can improve antibiotic use for common infectious diseases in this population (eg, urinary tract infection, community-acquired pneumonia, and skin and soft tissue infections).^{1,14} Senior care pharmacists can tailor

these algorithms to their practice site, by combining local antibiogram data with the medication formulary. Established treatment guidelines and algorithms can serve as a framework to facilitate prospective audit and feedback or preauthorization, as antimicrobial prescriptions can be compared with the facility-specific recommendations.^{1,14}

While senior care pharmacists may not have a physical presence at all geriatric health care settings, they can engage the nursing staff to participate in AMS efforts. For example, nursing staff can prompt prescribers to perform post-order review of antibiotics, also known as an “antibiotic time-out.”¹ Senior care pharmacists should facilitate evidence-based communication between nurses and prescribers when an infection and/or inappropriate antimicrobial use is suspected, including antimicrobials for prophylaxis.¹⁶ Data on adherence to antimicrobial prescribing policies and antimicrobial use should be shared with providers and nurses to maintain their awareness and engagement in AMS activities. Providing education and feedback to health care professionals about their prescribing habits is known to improve AMS outcomes in all practice settings.^{1,15,16}

Senior care pharmacists have access to the electronic health record, providers, and the patients’ preferred formulary coverage. At the time of prescribing, the senior care pharmacist can be available for consult and review of medication selection, dosing, and drug interactions with the provider. The senior care pharmacist can monitor and assess the patient after initiation of antimicrobial therapy, in conjunction with the provider. Patients in the outpatient setting should be instructed to call the pharmacist directly with any medication-related concerns or adverse effects before independently discontinuing therapy or seeking additional medical attention. The senior care pharmacist can also engage with the patient’s caregiver to identify any medication-related problems, which is especially important in the older adult population. This senior care pharmacist-patient-caregiver-provider relationship promotes superior clinical outcomes, improves patient satisfaction, and decreases overall health care spending.¹⁷

Summary

It is a responsibility of senior care pharmacists to promote the most appropriate antimicrobial treatment for older people while they reside in geriatric health



care settings. The AMS efforts in this population are essential and should be led by a senior care pharmacist, given the extensive knowledge, skills, and labor necessary for the judicious and appropriate use of antimicrobials. Senior care pharmacists should seek continuous professional development in AMS principles and strategies, and a senior care pharmacist

serving as an AMS champion should seek additional infectious-diseases training geared toward treatment of infectious diseases common in older people. As stewardship continues to evolve, the senior care pharmacist should be a recognized provider and leader in AMS when caring for older people.

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