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Interprofessional Communication and Engagement in Stewardship

A multidisciplinary panel providing expert advice:

Introduction

Teamwork and interdisciplinary collaboration are an important part of providing optimal care and in antimicrobial stewardship programs (ASP). Traditionally, stewardship responsibilities have fallen on physicians and pharmacists; however, there are ways in which all disciplines can participate in optimizing antibiotic care. This year at IDWeek™, professionals from several different healthcare specialties provided their perspectives on interprofessional communication and its importance in strengthening ASP recommendations.

Interprofessional communication, a nurse's perspective: *(Eileen Carter RN, PhD)*

Nurses are involved in a variety of activities that impact antibiotic use such as obtaining specimens for cultures, administering antibiotics, and communicating with the patient and the healthcare team. There have been several articles published advocating for nursing involvement in antibiotic stewardship.[1-3] Nursing involvement gained national recognition in 2017 when the American Nursing Association (ANA) and Center for Disease Control (CDC) convened a working group to develop recommendations surrounding the role of nurses in hospital-based ASPs. Antimicrobial stewardship activities recommended for nurses included ensuring the medical necessity of urinary cultures, ensuring proper technique with collecting blood and urinary cultures, obtaining and recording an accurate penicillin drug allergy history, encouraging the prompt switch from IV to PO antibiotics, and initiating an antibiotic timeout.

Two studies addressed barriers to nurses' participation in antibiotic stewardship by interviewing prescribers and nurses at different institutions.[4,5] Participants in these studies overwhelmingly agreed that nurses should play a key role in antibiotic stewardship, and nurses viewed this role as a natural extension to their existing role as the patient's advocate. However, the most common barrier described by participants was the lack of education and training in antibiotic selection for different indications, understanding appropriate indications for urine cultures, and understanding appropriate technique for obtaining cultures. Other potential barriers include workflow considerations, existing ideas on professional roles and identities, and a lack of understanding for the importance of antibiotic stewardship in relation to patient care.

In order to engage nursing in antibiotic stewardship, it is important to understand the interplay behind three systems: 1) capability (knowledge and skill); 2) opportunity (environmental and social opportunity); and 3) motivation (mental processing of behavior).[6] Nurse capability can be enhanced by utilizing educational content available to the public and tailoring it towards nursing and stewardship. For example, the ANA has a specific toolkit for nurses involved in ASPs. Additionally, the Department of Antimicrobial Stewardship at Johns Hopkins has developed a toolkit to enhance nursing involvement in stewardship activities, including PowerPoint slides and patient educational materials. Nursing opportunities in ASP can be further strengthened by partnering with nurses to examine workflow and identifying strong interdisciplinary and nursing champions. Additionally, nursing involvement can be motivated by further building upon their identity as the patient advocate and by focusing the patient benefit as the reasoning behind these activities.

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Interprofessional communication, a pharmacist's perspective: *(Emily Heil, PharmD, MS, BCIDP)*
There are several communication challenges when it comes to stewardship and understanding reasons why prescribers are hesitant to implement pharmacist recommendations.

Firstly, since pharmacists are not always directly at the bedside or with the primary team, advice from stewardship pharmacists can be viewed as "unsolicited advice" or "antibiotic policing." Additionally, the physicians are ultimately responsible for the consequences following patient-care decisions, posing hierarchal challenges to implementing pharmacist recommendations. While pharmacists do have a wealth of knowledge and extensive training, it is important to collaborate to find the best intervention for the patient. It may also be helpful to have a physician liaison to help work through challenging cases or to provide recommendations that are beyond the pharmacist's scope.[7]

Effective communication can be built through several considerations:[8]

- ***Consider the audience's workflow and time:*** Pharmacists should consider the best timing of contact based on the provider's schedule (ex; during rounds for internal medicine physicians vs. afternoon for surgeons). Also, when performing in-person stewardship rounds, it is important to set a specific time for the meeting and remain consistent.
- ***Always remember the provider's perspective of wanting to optimize patient outcomes:*** When making recommendations, pharmacists should acknowledge physicians' concerns and make sure that their recommendations align with the physician's goals.
- ***Use consistent and effective communication processes:*** One example of this is the IDSA NARROWS strategy, which is a tool used for communication rooted in motivational interviewing and behavioral change. In this example, N = name the issue, A = ask for the reason, R = reflect their emotion, R = relate with personal experience, O = orient to suggested management, W = work together on a plan, S = set follow-up.
- ***Provide evidence, relevant background, and educational pearls as appropriate:*** The message should be efficient while still providing background information, rationale, and display that the steward's recommendation is rooted in evidence. Future prescribing may be influenced by plugging educational pearls while making these recommendations.
- ***Put yourself in the shoes of the recipient:*** By putting yourself in the shoes of the recipient and understanding the psychology at play, recommendations are much more likely to be accepted.

Other communication strategies include humanizing the communications, leveraging branding/team legitimacy, and the same team/shared goals. Having in-person communication when time-allows can be an effective approach. Additionally, utilizing team members that already have an established relationship with the team (ex: rounding team pharmacist) can be helpful in implementing recommendations.

Interprofessional communication: a physician's perspective: (Marisa Holubar, MD, MS)
Effective communication stems from understanding the antibiotic prescribing culture at an institution. One study evaluating prescribing in hospitals from 2007-2017 found 4 overarching themes.[9] The first was concern over the **loss of ownership** of prescribing decisions. There is a hierarchy in medicine that prevails when it comes to antibiotic prescribing. For example, in many settings, junior physicians will defer to senior physicians as the ultimate decision-makers. This ownership of prescribing decisions becomes especially ambiguous after-hours and when care-teams change. The second prevailing idea was a **conflict between evidence-based practice and bedside medicine**. For example, occasionally, prescribers feel the need to do something to help patients when actually doing nothing or scaling back treatment is the right thing to do. The third theme was **tension between individual care and broader public health concerns**. Finally, there

are diverse priorities between different clinical teams, so the same messaging might not work for all of them.[9]

These themes can be used to empower physician trainees to make informed antibiotic choices. Trainees operate in a challenging environment of hierarchal relationships, powerful prescribing norms, lack of clear roles and responsibilities, and implicit knowledge and engagement boundaries. Due to this environment, junior prescribers comply with senior prescribers' decisions and are reluctant to challenge senior prescribers. This structure impedes the stewardship recommendations when given to junior prescribers and trainees. Senior clinicians are also influenced by these biases; however, they have the added challenge of unlearning practices as medicine is constantly changing. In one study, being a "later career" family physician was associated with prolonged antibiotic prescribing for common infections (adjusted odds ratio 1.48 [95% CI 1.38-1.58]).[10]

Harnessing strategies from business such as the "Principles of Persuasion" can strengthen communication and help persuade colleagues to prescribe antibiotics in line with stewardship principles.[11] Some of these principles that apply specifically to antibiotic stewards are *consistency, consensus, authority*, and *liking*.

- ***Consistency and Communication:*** Stewardship programs can implement these principles through institutional guidelines and through different modes of communication. When communicating our recommendations, we can highlight previous discussions and successful interventions.

- ***Authority and Liking:*** Stewardship programs can capitalize on this by mentioning previous relationships, leaders within their department who are stewards, and emphasizing departmental goals.

Interprofessional communication, a medical sociologist's perspective: *(Julia Szymczak, PhD)*
Communication and stewardship go hand-in-hand. Core hospital-based antimicrobial stewardship interventions such as prospective audit and feedback, preauthorization, and handshake stewardship influence prescribing via communication. It is important for infectious diseases specialists to gain social and communicative skills in order to implement changes and influence others, as they are often delivering advice to people who have not requested it. They also often restrict access to antibiotics, which may be perceived as introducing inefficiencies to workflow. Additionally, stewardship can conflict with "prescribing etiquette" and the norm of non-interference surrounding antimicrobial use.[9] The nature of stewardship interactions is usually an interprofessional interaction (ex: MD and PharmD) which can cause conflict due to asymmetry in authority, accountability, hierarchy, and professional identity.[12]

It is important to understand why communication is rooted in the ultimate success of stewardship. We know that communication-based stewardship interventions are variable in their impact. For example, in the literature, acceptance rates of prospective audit and feedback range from 11-90%[13-17], which suggests that the delivery of the recommendation and context surrounding these recommendations are influential. While communication has been identified as a driver of success in stewardship, we lack an understanding of specific attributes of effective communication.

Wang et al. conducted a multisite qualitative study to identify the attributes of effective communication in antimicrobial stewardship. This was a multisite study that gathered data from 10 hospitals in the United States with established ASPs using prospective audit with feedback or preauthorization. Demographics of these hospitals included both academic medical centers and community hospitals, pediatric and adult hospitals, and were spread across different geographic locations in the United States. The researchers conducted 58 interviews with antimicrobial stewards and 146 interviews with frontline prescribers varied across different specialties.[18]

The results of this study described three main ways in which stewards think about their communication. These include language, framing, and strategy. For language, stewards thought about purposefully moderating their language to reduce defensive reactions. In terms of framing, stewards found importance in communicating that the ultimate goal of stewardship was to improve patient care. They also framed their communication by acknowledging prescriber expertise and purposefully avoided adopting conflict orientation into their interactions. Stewards strategized and used their communication as long-term investments to build trust with providers. They also found it helpful to know which battles to fight and talk about things other than antibiotics to build relationships.[15]

From a prescriber's perspective, 15.1% viewed stewardship interactions negatively, 32.2% had mixed perceptions and 52.7% viewed these interactions positively. There were several themes that underpinned negative perceptions. For example, some physicians felt that stewardship often put profits over the patient and that stewardship represented "cookbook medicine" (trying to broadly apply evidence-based guidelines to all patients). Additionally, providers viewed stewardship as a threat to their professional identity or sense of self and experienced discomfort from feeling as though their expertise was not acknowledged. Finally, some felt that the goals of stewardship and the goals of the prescriber were at odds. This included inefficiency of systems such as disruption of workflow and different motivations by clinical areas (surgery, oncology, neonatology etc.). Overall, prescribers generally felt favorable towards stewardship. Communication viewed positively was not dogmatic or aggressive, conveyed a shared sense of mission (the patient), conveyed a desire to understand, was efficient, and added value. Providers viewed stewardship positively when stewards provided clinical pearls or education or when the stewards caught errors.[15]

Final Thoughts:

When considering methods of communication, texting can make communication easier and more efficient; however, it is important in some situations to have an in-person or phone discussion. Stewardship conversations can be emotionally charged so it is important to listen to the emotional reasons for prescribing before emphasizing the evidence behind the stewardship recommendation. If stewardship programs have vetted data about different prescribers, it can also be helpful to include comparison data with peers.

Strengthening emotional intelligence and gaining curiosity regarding the reasoning behind these prescribing decisions is an important factor in stewardship conversations. Some important principles include self-awareness, self-regulation, motivation, empathy, and social skills. When starting out in stewardship, seeking feedback often and having people observe interactions may be helpful to strengthen communication and implement recommendations. Finally, it is important to have compassion and remember that everyone is working towards the same goal of providing the best care for the patient.

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