

CASE AND COMMENTARY: PEER-REVIEWED ARTICLE

How Should Clinicians Navigate Interprofessional Tension in Their Roles as Antimicrobial Stewards?

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Abstract

Pharmacists and physicians play key roles in antimicrobial stewardship. This commentary on a case describes these health professionals' need to collaborate to optimize therapeutic use of antimicrobials in clinical settings. Prescription preauthorization is one antimicrobial stewardship strategy that can meet with some physicians' frustration and generate conflict between pharmacists and prescribing physicians, particularly when pharmacists make alternative treatment recommendations. This commentary considers interprofessional tension concerning prescription preauthorization and suggests strategies for navigating such conflict.

Case

RX is an infectious diseases (ID) pharmacist reviewing a list of antimicrobials pending prior authorization. RX calls Dr H, a hospitalist physician colleague, to discuss their prescription for meropenem, a broad-spectrum antibiotic, for JJ, an 89-year-old patient with delirium whom Dr H admitted this morning. JJ has mild hypertension and osteoporosis but is generally healthy and has not been hospitalized for several years.

During the call, Dr H explains that the order for meropenem is for empiric coverage pending further diagnostic workup, including urine cultures, to guide definitive therapy for possible sepsis from a urinary tract infection (UTI) that Dr H believes is the cause of JJ's delirium. RX queries Dr H specifically about whether the bland urinalysis, pending urine culture, and lack of leukocytosis make UTI an unlikely cause of JJ's delirium, particularly from a multidrug-resistant organism that would require meropenem. Dr H responds, "If JJ has an infection, a poor clinical outcome will be my professional responsibility, so I won't change the prescription." RX acknowledges Dr H's perspective and responsibility for the patient's care. But RX also shares their own assessment of the patient informed by (1) the organization's UTI guidance, which discusses risk factors necessitating broad-spectrum empiric antibiotics (absent in this case) and (2) local susceptibility patterns (ie, hospital antibiogram) for common UTI pathogens. Dr H responds, "I agree that the information RX provided suggests that an alternative agent might work, but I remain concerned about JJ's clinical status, so I prefer to use the broadest agent possible. I'll switch when JJ's urine cultures are back in a couple of days."

RX then states that, in cases of disagreement like this one, the next step in the organization's prescription preauthorization protocol is to consult the antimicrobial stewardship program's medical director, Dr MD. Dr MD's review of JJ's record supports RX's findings and recommendation to utilize ceftriaxone, a narrower-spectrum agent with excellent activity against common UTI pathogens based on hospital antibiogram. Dr MD calls Dr H, who now agrees to changing meropenem to ceftriaxone. Dr H adds that they do not appreciate pharmacists "acting like antibiotic police" about their empiric antimicrobial prescribing decisions. Dr MD counters, "We are all working on the same team toward the same goal to take the best care of our patients."

After the interaction, Dr MD wonders how to improve collegiality and promote more efficient, productive interprofessional collaboration.

Commentary

Antimicrobial stewardship programs (ASP) employ a systematic approach that draws on medical and pharmaceutical expertise and practice "to optimize clinical outcomes while minimizing unintended consequences of antimicrobial use."¹ These programs are typically led jointly by an ID physician and pharmacist, but to be most effective they require a multidisciplinary and collaborative approach that includes stakeholders from a diverse group of individuals: inpatient and outpatient prescribers, non-ID pharmacists, infection preventionists, nurses, microbiologists, patients, and many others.¹ While all of these individuals have an essential and important role in antimicrobial stewardship, in this commentary, we will use the term *stewards* to refer specifically to physicians and pharmacists who have a formal role in an established ASP. The case presented epitomizes the ID pharmacist conducting one of several core ASP activities, formulary restriction and prescription preauthorization.¹ In executing these activities, it is commonplace for pharmacists to face difficult situations that might challenge their professional duty, code of ethics, and moral obligations.^{2,3} In an era of increasing antimicrobial resistance, antimicrobial stewards must weigh the needs of current patients to receive optimal antimicrobial coverage for potentially serious infections against the needs of future patients to avoid a "post-antibiotic era" driven by rampant antimicrobial resistance.^{4,5} When combined with other medical, fiscal, and legal demands, this ethical calculus imposes major burdens on antimicrobial stewards.⁶

Another contributing factor that can exacerbate this internal struggle is the interprofessional tension sometimes experienced by prescribers and pharmacists working together, all of whom have key **antimicrobial stewardship roles** to play. Stewardship pharmacists can find themselves at odds with—and labeled as a "disconnected outsider" by—prescribers who prefer a "just-in-case" approach, as pharmacists try to uphold a firmly held moral obligation of protecting not only the patient at hand but also future patients that antimicrobial resistance might affect.⁶ Prescribers might perceive giving consideration to future patients as favoritism that prevents the pharmacist from fully factoring the current patient's needs into the equation. Thus, routine antimicrobial preauthorization review can lead to perceptions of infringement on prescriber and patient autonomy.^{4,6,7} Ideally, antimicrobial stewardship pharmacists seek to balance prescribers' professional autonomy and their own duty to determine whether the ordered medication is the most appropriate choice. For the pharmacist, these internal and external tensions contribute to the cognitive dissonance that underpins moral distress.⁸

Moral Injury in Health Care

The topic of **moral distress** experienced by health care practitioners, including pharmacists, has recently received increased attention.^{9,10} Isolated incidents of moral distress, in and of themselves, can be overcome in passing, especially in individuals with moral resilience.¹¹ Unfortunately, many antimicrobial stewards experience a buildup or accumulation of moral distress from repeated negative encounters in the form of moral residue, which exists along a continuum with moral injury, increasing burnout rates among stewards.^{9,11,12,13} Moral injury, a concept first developed to explain persistent moral struggles in combat soldiers, has been classically defined as “perpetrating, failing to prevent, or bearing witness to acts that transgress deeply held moral beliefs and expectations.”¹⁴ Similar to other health care professionals, pharmacists can encounter morally distressing scenarios with a frequency or severity that results in moral injury, ultimately leading to their disengagement from ethical duties once the pendulum swings to burnout.¹¹ The end result of burnout has increasingly been the premature attrition of clinical pharmacists, including those in the field of antimicrobial stewardship.¹⁵ Moral distress and burnout experienced by stewardship pharmacists can also be aroused by stressors other than daily clinical activities, such as presented in this case; additional administrative duties (eg, formulary review, drug shortage management) might result in additional moral distress for pharmacists charged with allocating costly and scarce resources for an entire institution or community.^{1,8}

Several potential mediating factors have been described in the literature that make individuals more vulnerable to moral injury, including constraints specific to a task or institution, as well as social determinants of health.^{8,16} Factors that place ID pharmacists at heightened risk of moral injury include the following: (a) their inherent position in the **decisional hierarchy** of medical practice; (b) their complex role in balancing direct clinical and administrative responsibilities; (c) others’ negative perception of their role as stewards, leading to their being dismissed and labeled with the pejorative terms *gatekeeper* and *antibiotic police*; and (d) their insufficient awareness of and training in bioethical principles during pharmacy education.^{6,17,18}

Antimicrobial stewardship physicians and pharmacists need to better identify and implement strategies to prevent and mitigate moral injury. Unfortunately, pharmacists, especially those in long-standing practice, often completed their terminal training without substantial formal pedagogy in bioethics, limiting their abilities and resources to navigate moral and ethical dilemmas.¹⁷ Prior calls for expansion of bioethics curricula in pharmacy education have yet to be answered with such curricula’s widespread adoption.^{17,19,20} However, a renewed urgency to implement this training is critical, given the rising tide of moral injury, burnout, and premature exodus from the field of antimicrobial stewardship.

A final aspect highlighted by this case is the role of physician ASP leaders. Although they clearly experience moral distress and injury along with their pharmacy counterparts, they are situated differently in the medical decisional hierarchy, as illustrated by the contrasting responses of Dr H to RX and MD in this case. Therefore, their role as a bystander is critical in situations such as the one illustrated here of flagrant professional disrespect shown to the pharmacist.²¹ Although some physician ASP leaders might silently become complicit “to keep the peace,” further exacerbating their pharmacy colleague’s moral injury, others might courageously speak up in support of the ID pharmacist to external parties, thereby uplifting them as an equally important member of the ASP team and mitigating morally injurious events. Through skilled and intentional

communication, ASP leaders can convey stewardship recommendations to their physician colleagues while also highlighting the unique expertise that they contribute to enhancing patient outcomes. In turn, this approach can help foster more collaborative interprofessional interactions essential for effective antimicrobial stewardship.

Stewardship Interprofessional Interactions

Having established the reality of moral injury and need for collaboration in stewardship, what ethical frameworks and resources can be brought to bear on this issue? The principlist medical ethics approach popularized by Beauchamp and Childress, with its reliance on 4 ethical principles—respect for autonomy, nonmaleficence, beneficence, and justice—has recently been applied specifically to the field of antimicrobial stewardship and can offer assistance in resolving major ethical dilemmas.²² However, we propose that the complex interplay of clinical decision making, interprofessional communication, and multifaceted motivations at play in daily stewardship activities are best addressed through one of the most ancient ethical frameworks: virtue ethics.

Originating from the work of ancient Greek philosophers such as Aristotle, virtue ethics has seen a recent resurgence in the modern bioethics literature.^{23,24,25} At its core, virtue ethics stakes the claim that **moral character and virtue** are central to justifying the right or ethical course of action; put another way, “a right action is one that a virtuous person would do in the circumstances.”²⁴ While no comprehensive list of virtues pertinent to stewardship exists, some commonly cited virtues relevant to stewardship include trustworthiness, integrity, discernment, and justice.²³ Trustworthiness is “a disposition to take responsibility for whatever is (appropriately) entrusted” to an individual, which fits well within the concept of stewardship.²⁶ Integrity requires honesty and acting consistently with one’s moral principles, while discernment requires using practical wisdom to evaluate and decide between different actions.²³ Finally, justice entails fairness in the allocation and distribution of rights and resources—specifically, antimicrobials in the case of stewardship.²³ A distinctive feature of the virtue ethics approach is its emphasis on the role of emotions and motivations,²³ as right action “involves not merely the performance of certain acts, but requires acting from certain dispositions and (in many cases) certain motives.”²⁴ Another important contribution is its focus on the social and communal aspects of ethical action.²⁷ As Gardiner aptly penned, virtue ethics “has a deep understanding of the social and interpersonal nature of our human existence and how this can affect and be influenced by our moral behaviour.”²³ Finally, for the virtue ethicist, the ultimate goal of any right action (and all of life) is the pursuit of a state of *eudaemonia*, most often translated as “human flourishing.”²³

What would it look like to apply virtue ethics in an antimicrobial stewardship context? We believe that it would entail the cultivation of a health care team environment where all members, both the antimicrobial stewards and those they interact with, pursued the virtues and corresponding actions that promote flourishing for their patients and the entire community. While much constructive work remains to be done to develop this concept more fully, such a health care community might include the following characteristics:

1. All members are valued as equal contributors with unique knowledge and skills to share in caring for patients, as was highlighted in the case vignette.
2. All members share responsibility for and commitment to the common goal of the best possible outcome(s) for the individual patient and broader community.

3. All members seek to carry out their roles actuated by “right” motives, while assuming the best intentions of others wherever possible.
4. All members strive for fairness and equity when using the available health care resources to benefit the individual patient and broader community.
5. All members can confidently share their voice and perspective *and* listen with humility and empathy to others, including patients.

While the outlined vision of a “virtuous” health care community might seem largely aspirational, we believe that the epidemic of moral injury and burnout among health care professionals, including antimicrobial stewards, demands bold action. The lack of constructive work on this specific topic in the literature will require experts from both bioethics and stewardship to better define the problems and develop strategies to combat them. In the meantime, frontline clinicians and antimicrobial stewards should spur each other on to embody the character and virtues conducive to an environment where their patients and the broader community can truly flourish.

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