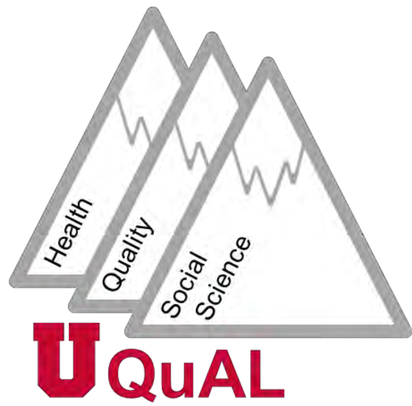

Increasing Influence: Communication Strategies for Antimicrobial Stewards

Julia E. Szymczak, PhD
Associate Professor
Division of Epidemiology
Co-Director of Utah Quality Advancement Laboratory
University of Utah School of Medicine

2023 Antimicrobial Stewardship Summit
University of Nebraska Medical Center
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Disclosures

- I have no financial relationships to disclose in relation to this presentation.

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Objectives

- To establish a rationale for focusing on the communicative dynamics of antimicrobial stewardship
- To explain attributes of effective communication in antimicrobial stewardship
- To present a shorthand way to approach communication in antimicrobial stewardship that increases engagement and decreases conflict
  - The "3 Cs"

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Why Focus on Communication in Stewardship?

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Communication and Stewardship

- Core hospital-based antimicrobial stewardship interventions influence prescribing via communication
  - Prospective audit and feedback
  - Preauthorization
  - Handshake stewardship
- Stewards need more than proficiency in ID, microbiology, data analytics, informatics
  - Social and communicative skills to implement change in complex organizations

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Communication and Stewardship

- Stewards must navigate complex social and cultural dynamics in daily work
  - Delivering advice to people who have not requested it
  - Restricting access and gate keeping role
    - May be perceived as introducing inefficiencies to workflow
  - Contending with "prescribing etiquette" and the norm of non-interference surrounding antimicrobial use
    - "Antibiotic police"

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Communication and Stewardship

- Stewards must navigate complex social and cultural dynamics in daily work
  - Interprofessional stewardship communication can cause conflict (MD-PharmD)
    - Asymmetry in authority, accountability
    - Hierarchy
    - Professional identity and subcultures
  - Recognizing emotional influences on prescribing
    - Fear, relationship with patient, tolerance of uncertainty

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Why does this matter?

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Impact of Interventions

- Variation in impact of communication-based stewardship interventions
  - Wide variation observed in acceptance rates of prospective audit and feedback (11-90%)
  - We know some factors associated with acceptance
    - Face to face
    - Professional role of steward
    - Type of recommendation
    - Sociodemographics of steward
    - Location of patient

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Antimicrobial Steward Job Satisfaction

- Impact of job satisfaction and engagement of antimicrobial stewards who enact policy and guidelines in everyday work
  - Occupational burnout
    - Emotional exhaustion
    - Feelings of cynicism and detachment from work
    - Sense of low personal accomplishment
  - Turnover of stewardship personnel
    - Loss of relationships, institutional expertise

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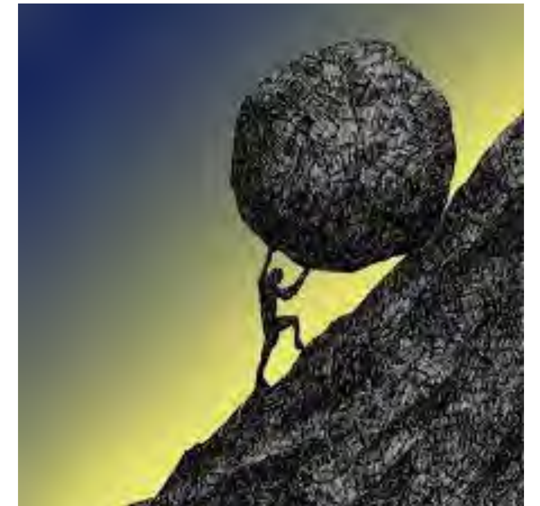

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Thy N. Le
@RxThy13

Follow

Replying to @IDstewardship @JulieSzymczak

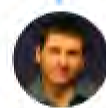
My 1st job after PGY2 was retrospective ASP - I felt like an abx janitor. So, my 2nd job I ran 24/7 ASP with the help/work of pharm residents and support of hospital staff for almost 4 years...now I work for @AXDXNews The (ASP) burn out is real?!

6:57 AM - 9 Mar 2019

Jason Newland @JasonGNewland · Mar 11

Replying to @JulieSzymczak

Couldn't agree more. Those who actively review antibiotics and implore people to improve antibiotic use daily need breaks to do other fulfilling work. In order to keep successful programs we need to figure out how to keep people ready to be stewards on a daily basis.



Conan MacDougall @ConanMacDougall · Mar 9

Audit and feedback, no matter how well done, is offering people unsolicited advice with an implication they are currently "doing it wrong". Kind of like telemarketers. Difference being telemarketers don't usually care about their products. But that only gets you so far.

1 6

Jason Gallagher @JGPharmD · Mar 9

Replying to @JulieSzymczak

It is an enormous issue. Thanks for pointing it out. I think part of it is to help our stewards remain intellectually stimulated. Stewardship can be monotonous.

1 1 5

Tristan Timbrook @TimbrookTT · Mar 9

Sisyphus ain't got nothing on the iv-to-po

1 2

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Communication and Stewardship

- While communication has been identified as driver of success in stewardship, we lack an understanding of specific attributes of effective communication
  - How stewards communicate
    - How do they navigate tension?
    - How do they secure prescriber engagement?
    - What microdynamics influence stewardship interactions?
  - How prescribers perceive communication in stewardship
    - What messages are credible?
    - What promotes trust in stewardship recommendations?

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Identifying the Attributes of Effective Communication in Antimicrobial Stewardship

University of Pennsylvania
Brandi M. Muller
Keith Hamilton
Jeffrey S. Gerber
Ebbing Lautenbach

Duke University
Elizabeth Dodds-Ashley
Rebekah W. Moehring
Deverick Anderson

Washington University in St. Louis
Jason G. Newland
Michael Durkin
Hilary Babcock

Research supported by CDC Cooperative Agreement FOA#CK16-004-Epicenters for the Prevention of Healthcare Associated Infections.

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Study Design and Sample

- Multisite qualitative study
  - Phase 1: semi-structured telephone interviews
  - Phase 2: 2 weeks of ethnographic observation in a subset of hospitals from phase 1

- Data gathered at 10 U.S. hospitals, 2017-2019
  - To be eligible, hospital had to have a stewardship program that utilized prior authorization or prospective audit and feedback for at least 1 year
    - Academic/Community
    - Pediatric/Adult
    - Geographic Location (Midwest, Northeast, South)

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Study Design and Sample

- Interview Respondents
  - Stewardship Personnel
    - Performs interventions
    - Program leadership
    - Other "information rich" stakeholders – hospital leaders, microbiology, others in pharmacy
  - Prescribers
    - Variation by clinical specialty – hospital medicine, critical care, pulmonology, surgery, oncology, neonatology, general internal medicine

- Recruitment via stewardship contact at each hospital
  - Effort to recruit along the spectrum of "friendliness" to stewardship
  - Lists of names, direct contact by my team, stewardship contact unaware of who participated

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Data Analysis

- Framework Method for analysis
  - Combination of open and index coding
  - Coding performed by 3 analysts
    - Intercoder reliability assessed, discrepancies resolved by consensus
    - Sentiment coding of prescriber interviews

- Examined variation across hospitals, respondents via matrices
  - Subanalysis to achieve primary aims
  - Additional analyses ongoing

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Results

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Prescribers, n = 146

	Number (%) Of Respondents
Type of Institution	
Academic Medical Center	107 (73.3%)
Community Hospital	39 (26.7%)
Adult/Pediatric	
Adult	84 (57.5%)
Pediatric	62 (42.5%)
Gender	
Female	76 (52.1%)
Male	70 (47.9%)
Medical Specialty	
Critical Care/ICU/Pulmonology	26 (17.8%)
Neonatal ICU	13 (8.9%)
Surgery	35 (24.0%)
Internal Medicine/Hospitalists	54 (37.0%)
Other Medical Subspecialties	18 (12.3%)

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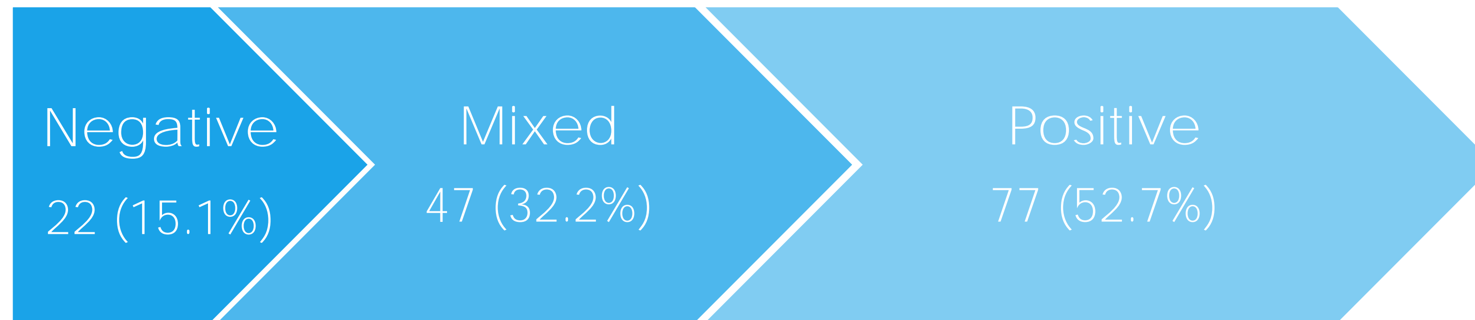
Sentiment of Prescriber Perceptions



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What Underpins Negative Perceptions?

- Stewardship symbolizes unpalatable trends in medicine more broadly
  - Encroachment of bureaucracy that puts profits over patients
  - "Cookbook" medicine

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  - Feeling as if expertise is not acknowledged

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  - Feeling as if expertise is not acknowledged

- Goals of stewardship and goals of prescriber appear to be at odds
  - Inefficiency of systems
  - Different motivations by clinical area (surgery, oncology, neonatology)

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What Underpins Positive Perceptions?

- Stewards communicate things of value in a thoughtful manner
  - Education
  - Updated evidence
  - Catches errors

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  - Thinks critically about where and when to interject

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- Shared sense of mission and motivation between steward and prescriber

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Stewards, n = 58

	Number (%) Of Respondents
Institution Type	
Academic Medical Center	36 (62%)
Community Hospital	22 (38%)
Adult/Pediatric	
Adult	34 (58.6%)
Pediatric	24 (41.4%)
Gender	
Female	30 (51.7%)
Male	28 (48.3%)
Occupational Group	
Physician	22 (37.9%)
Nurse Practitioner	3 (5.2%)
Pharmacist	33 (56.9%)

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Stewards - Communication Strategies

Language

- Purposeful moderation of language to reduce defensive reaction
- Language is way to adapt intervention to prescribing etiquette

Framing

- Communicates that ultimate goal of stewardship is to improve patient care
- Avoids discussion of finances, regulatory pressures or assessments of medical knowledge
- Acknowledge prescriber expertise and level of responsibility
- Purposefully avoids adopting a conflict orientation in their interactions

Strategy

- Thinks about communication over time, "invests" in future interactions
- Knows which battles to fight, leaves some things on the table
- Meets prescribers where they are at physically and emotionally
- Talks about things other than antibiotics

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Conclusions

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Prescribers

- Prescribers in our study generally felt favorably towards stewardship

- Communication viewed positively was:
  - Not dogmatic or aggressive or agenda-driven
  - Conveyed a shared sense of mission: the patient
  - Conveyed a desire to understand
  - Efficient and value-added

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Stewards

- Communication in stewardship is purposeful and multi-modal
  - Consider language, framing, strategy
  - A way to navigate "prescribing etiquette"
- Work to establish credibility and legitimacy is paramount
- Relationship building
  - Thinking about relationships as "chains" of interactions
  - Sets the stage for acceptance down the line
    - Prescribers stewarding themselves?

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Limitations

- Cross-sectional and descriptive

- Bias in the sample
  - Selection
  - Social desirability

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How Can We Use These Findings?

- Acknowledge that communication in stewardship takes effort and is challenging
- You can approach it systematically, holistically, and with consideration for the unique context in which you work
- We have developed a shorthand way to apply the findings of our research to the stewardship encounter
  - Developed during the pandemic in collaboration with Keith Hamilton, MD
  - Elective for medical students when they could not be in the hospital
    - 3Ps/3Ds/3Cs

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The 3Ps/3Ds/3Cs Framework

Table 1. The 3Ps/3Ds/3Cs Framework for Antimicrobial Stewardship

Place	• What is/are the infection(s) or potential infection(s)? • From what possible places is/are infection(s) coming (eg, skin, gastrointestinal tract, oropharynx, health care environment)? • Are there tests that need to be performed to determine location?
Pathogen	• What organism(s) could be or is/are causing the infection? • If the organism(s) is/are not known yet, which organisms tend to live in the potential locations (eg, skin = *Streptococcus* and *Staphylococcus*) • Are there tests that should be performed to identify the organism(s)?
Patient	• Is the patient sick or not sick? • Are there risks for resistance (eg, health care exposure, recent antibiotics)? • Does the patient have characteristics that affect antibiotic choice (eg, renal insufficiency, prolonged QTc interval, antibiotic allergies)?
Drug	• What antibiotic(s) is/are patient on? What do you want them to be on? • What sort of monitoring is needed for antibiotics (eg, drug levels, labs, electrocardiograms)? • Are there drug characteristics that affect antibiotic choice (eg, cost, efficacy data, drug–drug interactions, spectrum of activity)?
Dose	• What is the dosing frequency of the antibiotic(s)? • Does the dose need to be adjusted for renal function/liver function? • Does the antibiotic need to be dosed by weight? Which weight (ideal body weight, adjusted body weight, actual body weight)?
Duration	• Is there an evidence-based duration for the indication(s) being treated? • Is there an evidence-based duration for the antibiotic(s) being used? • If the duration cannot yet be determined, is there additional testing or follow-up that needs to be done to determine duration?
Context	• What professional or cultural factors may be motivating the provider or team in making antibiotic decisions? • What questions need to be asked to better determine the motivations and context of the provider or team?
Communication	• How should the recommendations be framed to the provider or team considering the context of antibiotic prescribing? • What team member should be contacted to have effective discussion (eg, intern, resident, advanced practice provider, attending, consultant)?
Collaboration	• How can you work together with the provider or team to increase trust and decrease future conflict? • Is follow-up with the team needed? • Should an infectious disease or other consultation be suggested?

Wang R et al. Open Forum Infect Dis. 2021 May 8;8(6):ofab231.

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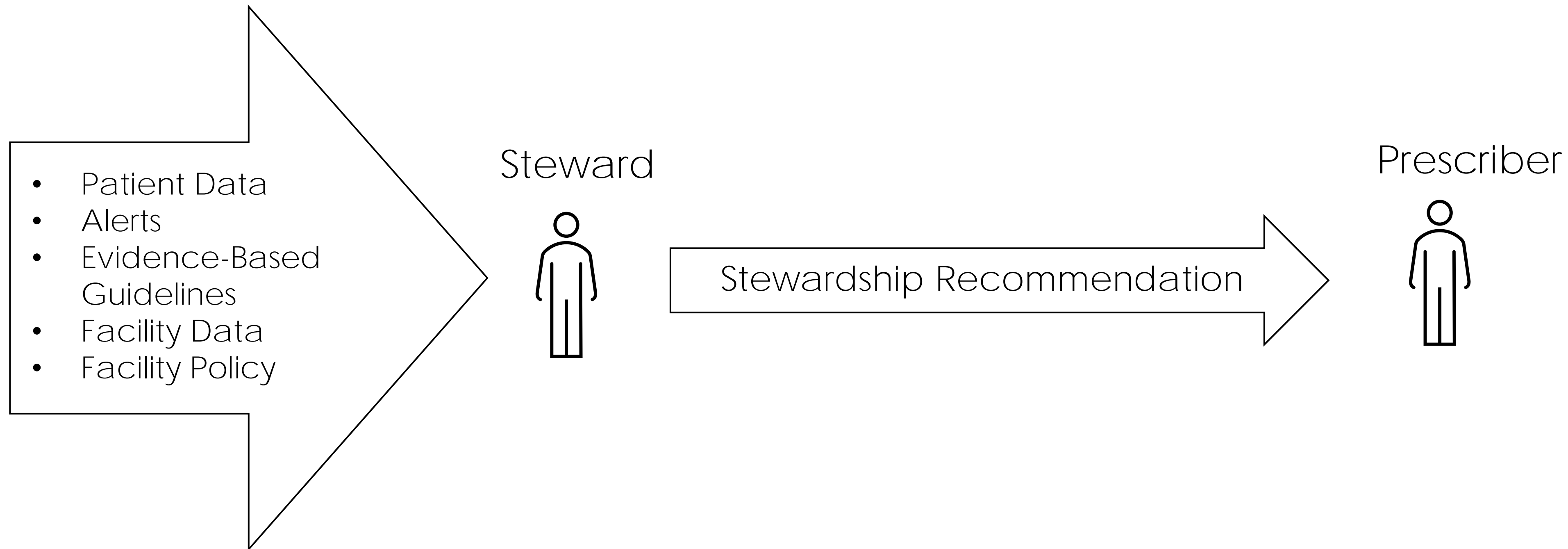
Information Transfer in Stewardship



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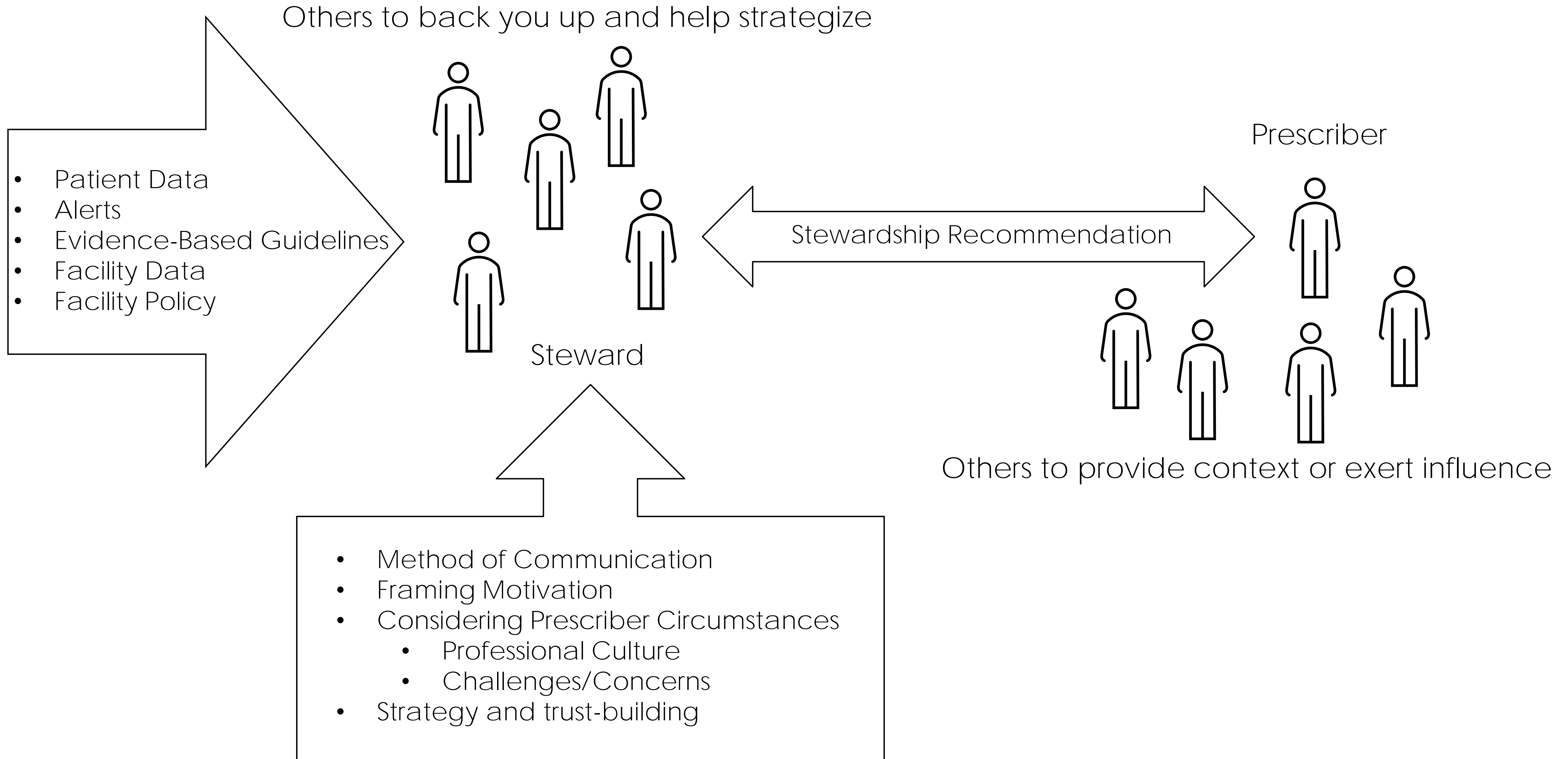
Communication in Stewardship



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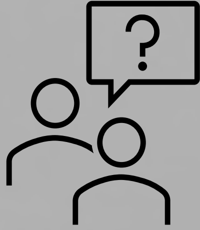
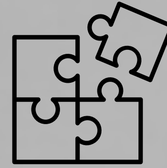
The 3 Cs of Stewardship



Communication

- In what format will you communicate your antimicrobial stewardship recommendation to prescribers?
- What team member should be contacted to have an effective discussion? (e.g., intern, resident, advanced practice provider, attending, consultant)
- How will you frame the motivation around your stewardship recommendation?



Context

- What are the circumstances (physical, workload, emotional) surrounding the person you will be communicating with?
- How will you take into account their challenges, perspectives and professional culture when you convey your stewardship message?
- What questions need to be asked to better determine the motivation and context of the prescriber?

Collaboration

- How will you approach the stewardship interaction with relationship-building in mind?
- How can your communication in this moment facilitate trust-building in the future?
- If conflict might occur, how might you manage it?
- Is follow up with the team needed?
- Should other resources be suggested?

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Questions and Discussion

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