

Pharmacist-Led Antimicrobial Telestewardship in Small Rural Hospitals: A Descriptive Analysis of Interventions and Prescriber Acceptance

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BACKGROUND

- Antimicrobial resistance (AMR) poses a universal threat to patient safety
- Accreditation Canada has established antimicrobial stewardship programs (ASPs) are required for all acute-care facilities
- Small hospitals face significant barriers to implementing and sustaining ASPs including limited staffing and insufficient infectious disease expertise
- Pharmacist interventions and prescriber acceptance following implementation of a pharmacist-led telestewardship model in small Canadian hospitals has not been described

OBJECTIVES

To characterize telepharmacist ASP interventions and to evaluate prescriber acceptance of these interventions.

METHODS

DESIGN: Prospective observational study

SETTING

- Two rural hospitals participating in a remote pharmacist-led ASP
- Study period: November 2024-December 2025

STEWARDSHIP INTERVENTION

- Remote ASP pharmacists conducted prospective audit & feedback using health record (EHR) access
- Cases selected for ASP review based on standardized criteria
- Recommendations communicated to prescribers via telephone

POPULATION

- Adult patients age 18 years or greater
- Patients who underwent ASP review during the study period

OUTCOMES MEASURED

Primary

- Frequency and type of ASP recommendations (predefined stewardship intervention categories)
- Prescriber acceptance rate (accepted versus declined)

Secondary

- Reasons for prescribers declining ASP recommendations
- Monthly prescriber acceptance rates

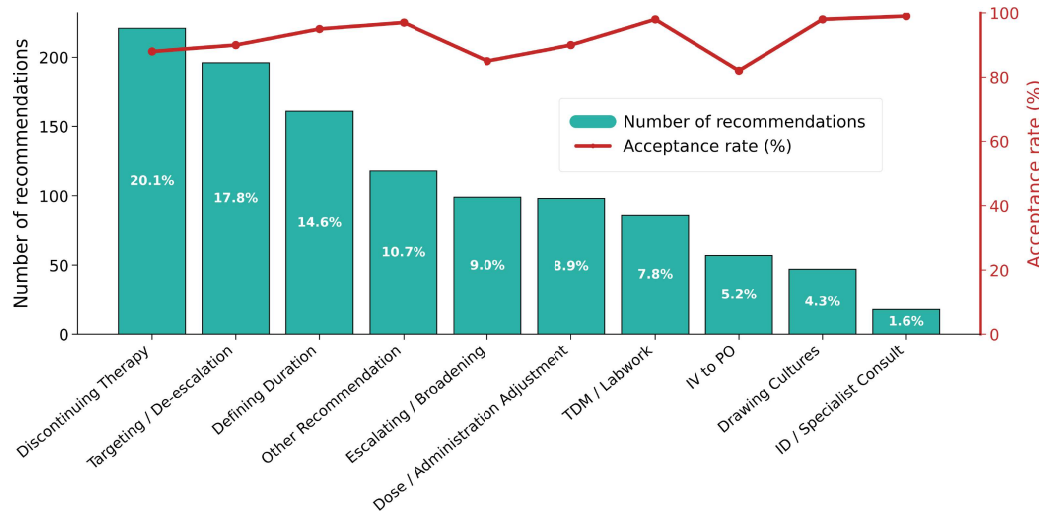
ANALYSIS

- Categorical variables summarized as counts, continuous variables summarized as means or medians, as appropriate
- monthly acceptance rates summarized as mean, median and range

RESULTS



Figure 1: Intervention frequency and prescriber acceptance rate (n=1101)



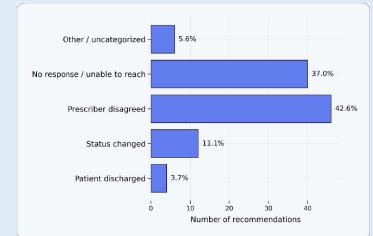
RESULTS

Table 1: Intervention type and acceptance rates

Intervention Type	p-value
IV to PO	0.0042*
Defining Duration of Therapy	0.090
Discontinuing/Stopping Therapy	0.023*
Targeting/Tailoring/De-escalating Therapy	0.357
Escalating/Broadening/Addition of Therapy	0.011*
Adjustment of Dosing or Administration	0.888
Therapeutic Drug Monitoring / Labwork	0.005*
Drawing of Cultures	0.0781
Need for ID/Specialist Consult	0.2451
Other Recommendation	0.012*

*p<0.05

Figure 2: Distribution of non-acceptance reasons (n=108)



CONCLUSIONS

- Remote pharmacist-led ASP interventions were frequent, varied and achieved high prescriber acceptance suggesting telestewardship can support appropriate antibiotic use when on-site resources are limited
- Prescriber acceptance differed significantly across intervention types

DISCLOSURES

All authors employed by Northwest Telepharmacy Solutions

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