



BACKGROUND

- Antibiotic prescribing in transitions of care is a recognized source of antibiotic misuse that is not yet widely addressed by many stewardship programs
- The Allina Health's Home Hospital (HH) program allows outpatient providers access to institutional antimicrobial prescribing resources and shared electronic medical record (EMR) system
- This unique setting allows antibiotic stewardship pharmacists (ASP) to monitor adherence to guidelines, patient adverse effects, and serve as a resource for questions or communication with the infectious diseases team

Objective: Evaluate the impact and feasibility of a novel prospective audit and feedback pilot on antimicrobial therapy within the HH care setting

METHODS

- Retrospective chart review pre- implementation (1/3/21– 3/31/21) and post-implementation (1/3/21– 3/31/21)
- **Primary outcome:** Mean antibiotic days of therapy/1000 patient days (DOT)
- **Secondary outcomes:**
 - Broad-spectrum antibiotic usage
 - Percentage of inappropriate antibiotic indication, dosing, duration
 - Compliance with OPAT monitoring
 - Treatment failure
 - Antibiotic-associated adverse effects
 - Cost of antibiotic therapy



Inclusion(s)

- Patients ≥18 years of age enrolled in Allina Health HH program and receiving antibiotics (oral or intravenous) prescribed at discharge or initiated during HH admission

Exclusion(s)

- Patients on long-term prophylactic, suppressive, or anti-mycobacterial antimicrobials
- Patients only on antifungals, topical and/or ophthalmic antimicrobial products

RESULTS

- Significantly more prescriptions had inappropriate indication in the intervention group (**46 [36%] vs 15 [19%], p=0.01**), particularly for postsurgical prophylaxis following arthroplasty procedures
- A trend of lower compliance to the outpatient antibiotic reference guide and more instances of treatment failure in the control group
- Majority of recommendations were regarding stopping antibiotics after guideline-recommended duration of therapy or unnecessary antibiotic coverage (**14/19, 74%**)
- Recommendations were well-received by HH providers (**12/19, 63%**) with very positive verbal feedback about the program

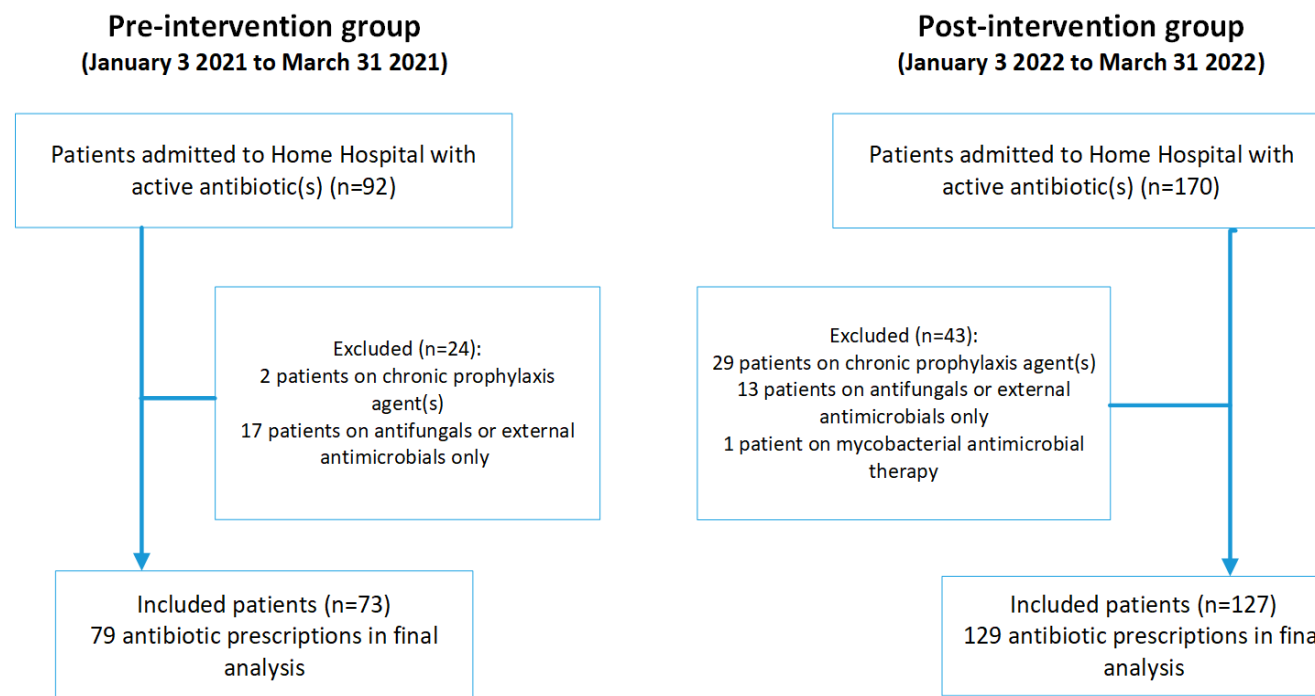


Figure 1. Study inclusion flowchart.

LIMITATIONS

- Small patient sample and number of interventions due to limited timeframe
- Hesitancy of advanced practice providers to adjust antibiotic orders written by physicians due to unfamiliarity with established inpatient ASP workflow

CONCLUSION

- This novel pharmacist-driven antimicrobial stewardship review pilot was welcomed by HH providers. Findings of the pilot suggest more opportunities for additional antimicrobial stewardship involvement in the Hospital-at-Home setting

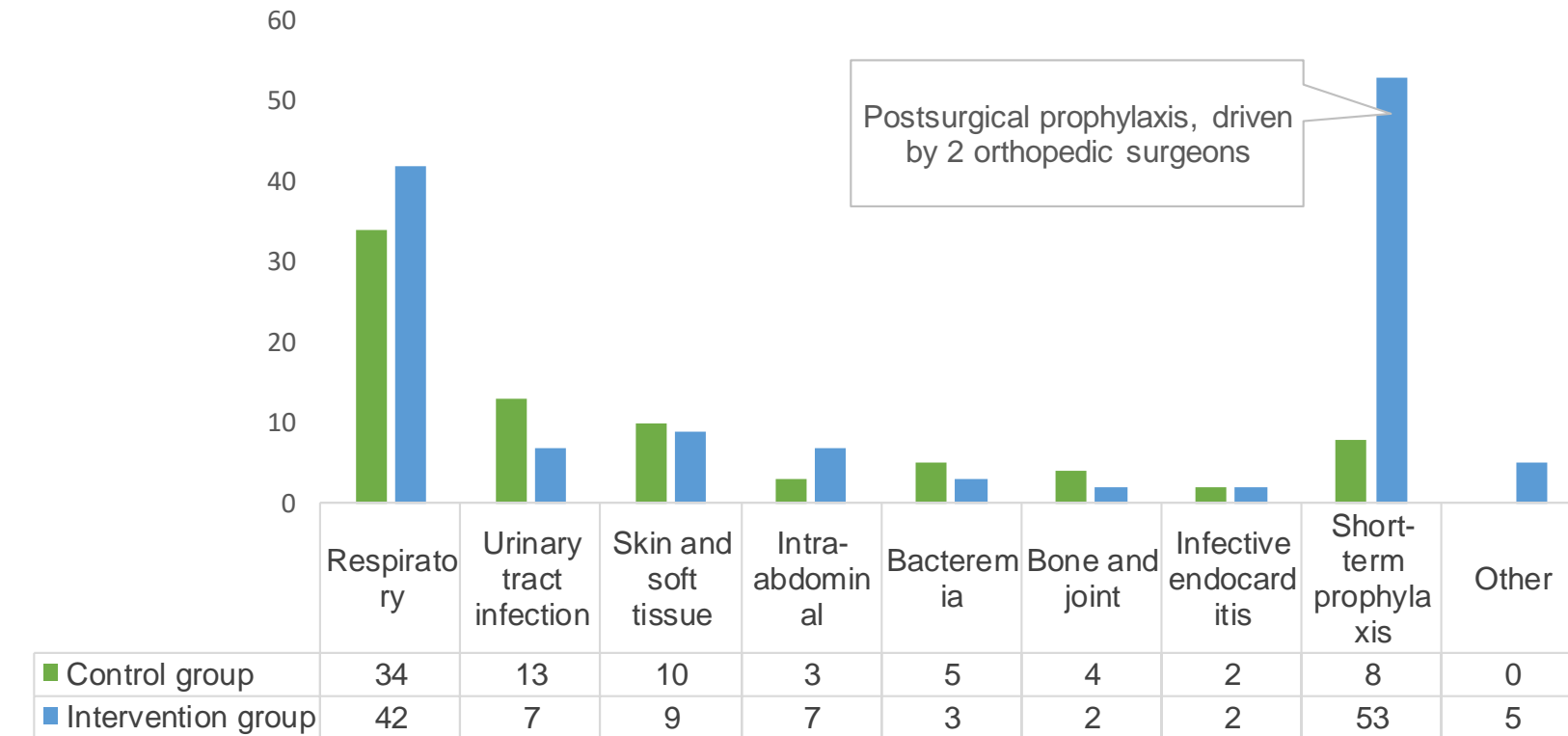


Figure 2. Infection types breakdown.

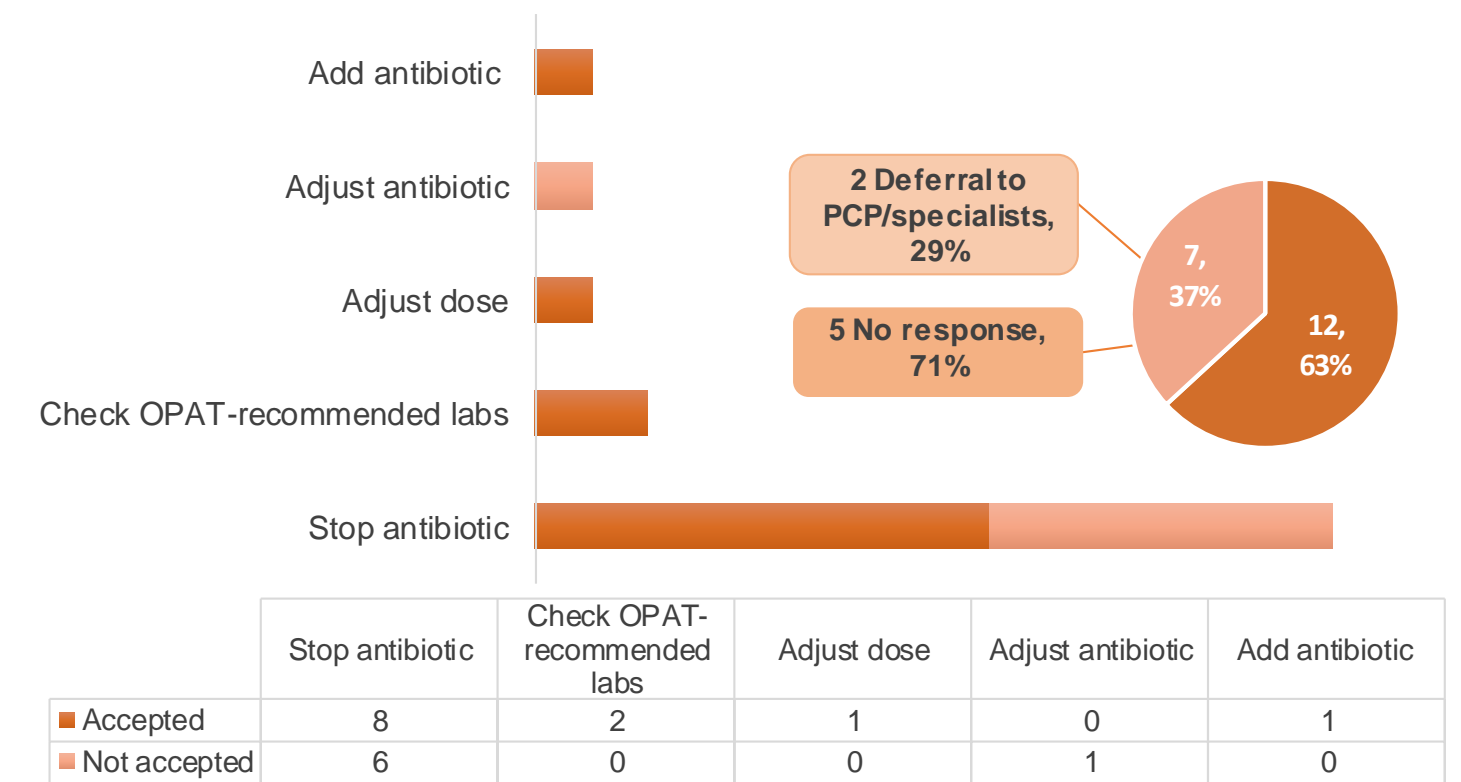


Figure 3. Intervention breakdown.

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