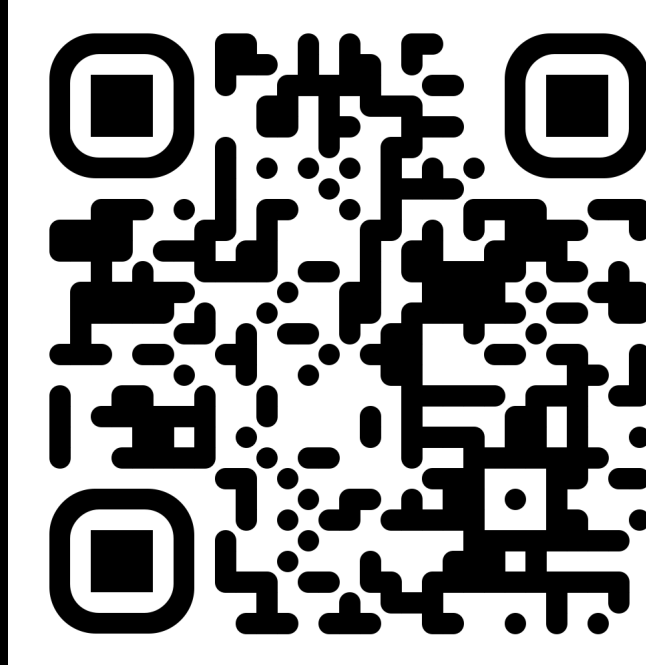




Appropriate Discharge Antibiotic Selection, Dosing, and Duration for Urinary Tract Infections in the Emergency Department and Implications for Pharmacist Intervention

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SCHOOL OF PHARMACY



BACKGROUND

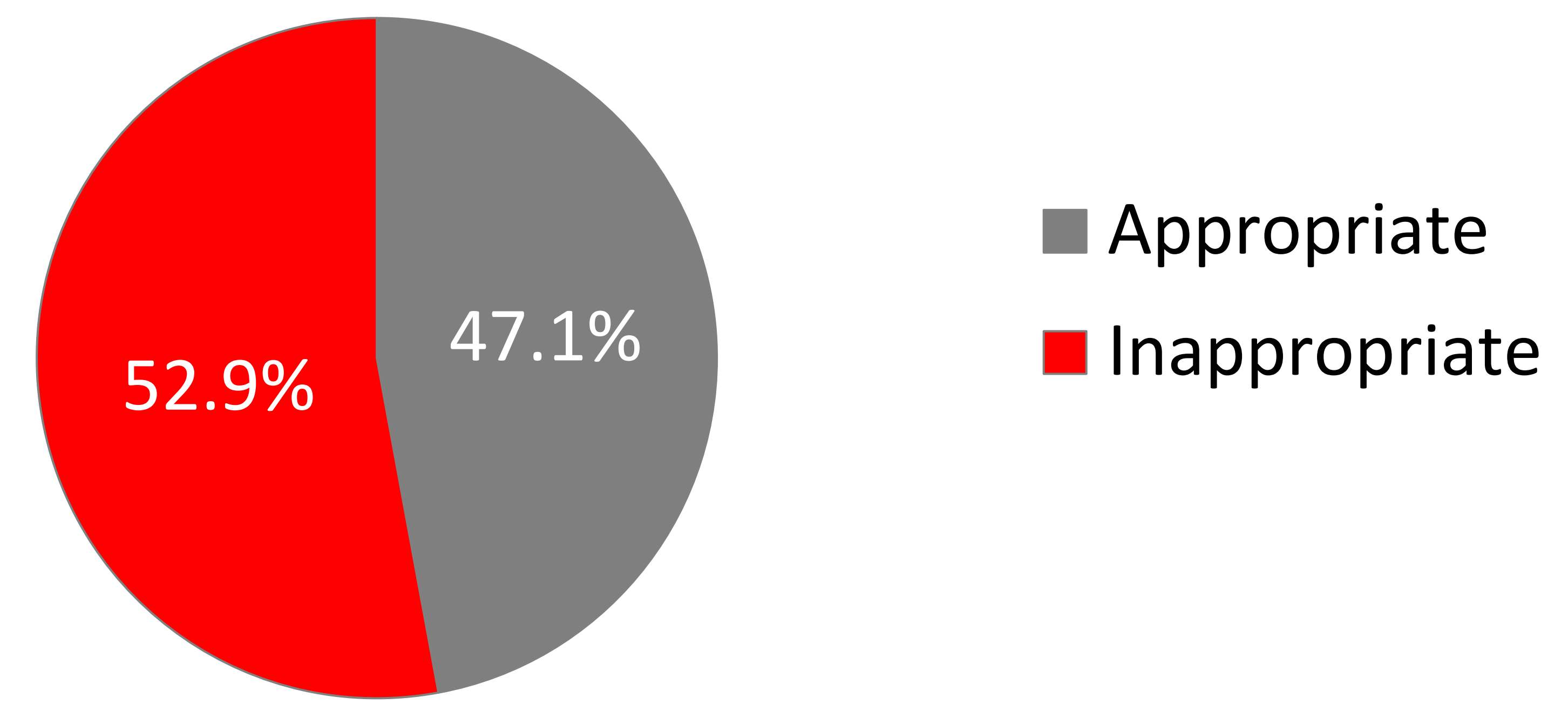
- Urinary tract infections (UTIs) are among the most common reasons patients visit the emergency department (ED), accounting for over 1 million visits annually.¹
- Antibiotic selection and dosage should be driven by culture susceptibilities, allergies, renal function, and the drugs' adverse effects when possible.²
- Inappropriate antibiotic prescribing is common and can result in increased patient and facility costs, adverse events, and antibiotic resistance.³
- Both ASHP and the CDC recommend that pharmacists lead antimicrobial stewardship programs.^{4,5}
- Common antibiotics used in UTIs include cephalosporins, nitrofurantoin, fluoroquinolones, and sulfamethoxazole/trimethoprim.²
- Duration of therapy ranges from 3-14 days depending on the specific indication and antibiotic selected.²

METHODS

- Single-center, retrospective chart review done via EMR at Decatur Memorial Hospital in Illinois.
- IRB approval was obtained.
- Recommended dosing obtained from 2010 IDSA guidelines and Lexicomp.
- Inclusion Criteria: Age \geq 18 discharged from the ED with a diagnosis of complicated or uncomplicated cystitis or pyelonephritis from December 2023 to May 2024
- Exclusion Criteria: Multiple infections, admitted patients, indwelling catheters, immunocompromised, and pregnancy

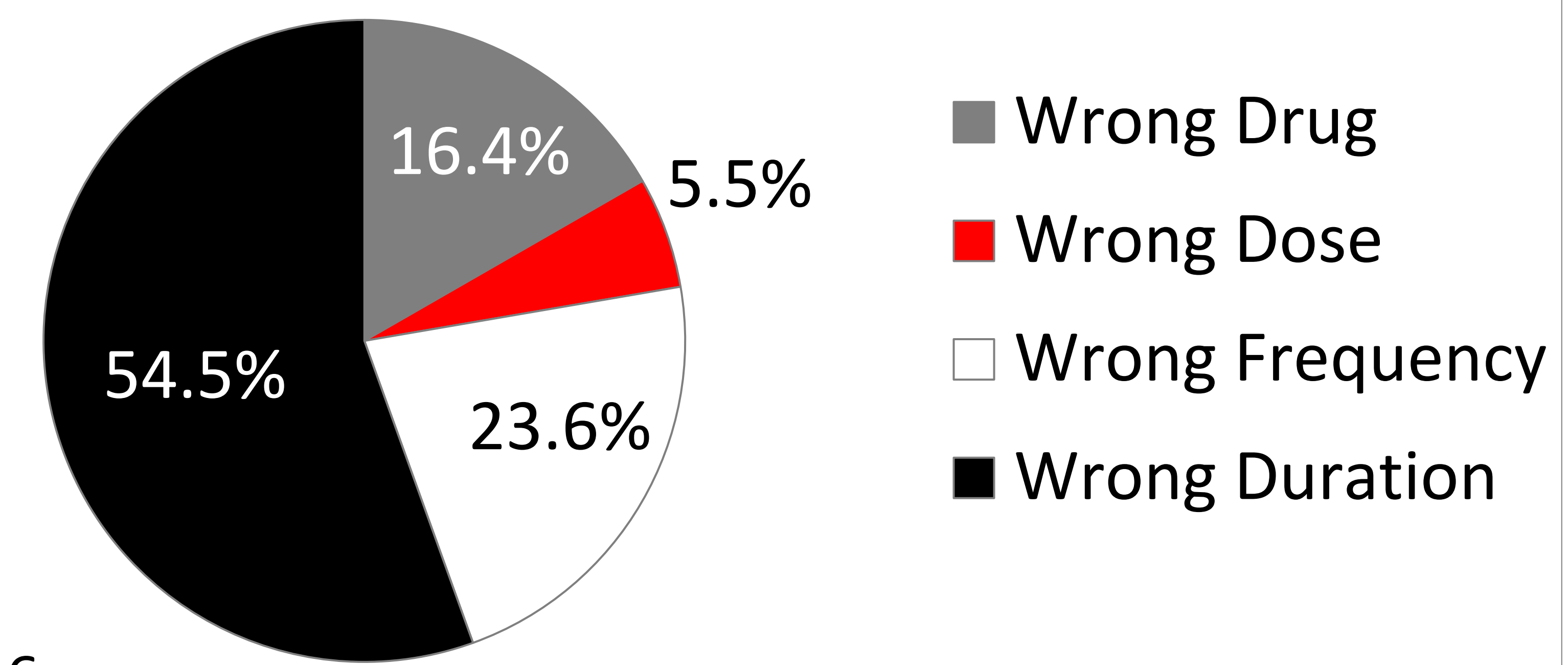
RESULTS

Primary Endpoint Antibiotic Prescribing



N=87

Secondary Endpoint Reason for Inappropriate Prescribing



N=46

CONCLUSION

- 52.9% of prescriptions sent from the ED for UTI were inappropriate.
- 54.5% of the inappropriate prescriptions were due to the wrong duration.
 - An average of 3.5 days of unnecessary antibiotic coverage per patient who had a prolonged duration of therapy
- Limitations
 - Single site
 - Retrospective chart review
 - Assessed appropriateness based on diagnosis code

PHARMACIST INTERVENTIONS

- Pharmacists could create guidance on antibiotic prescribing for UTIs.
- Pharmacists could review discharged antibiotic prescriptions for UTIs for appropriateness.

DISCLOSURES

There are no conflicts of interest to disclose related to the content of this poster or research.
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