



# Analysis of Amoxicillin/ Clavulanate Prescribing in Pediatric Primary Care

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## BACKGROUND

- Healthcare providers constantly look for ways to reduce medication errors.
- Antibiotics are common medications associated with dosing errors, especially in pediatrics due to needs for weight, dosage calculation, and choice of dosage form and concentration if applicable.
- With amoxicillin/ clavulanate, prescribers must consider measurability for liquid dosage forms and desired ratio based on indication.
- A common dosing error found with antibiotics is underdosing which can lead to resistance and disease progression.

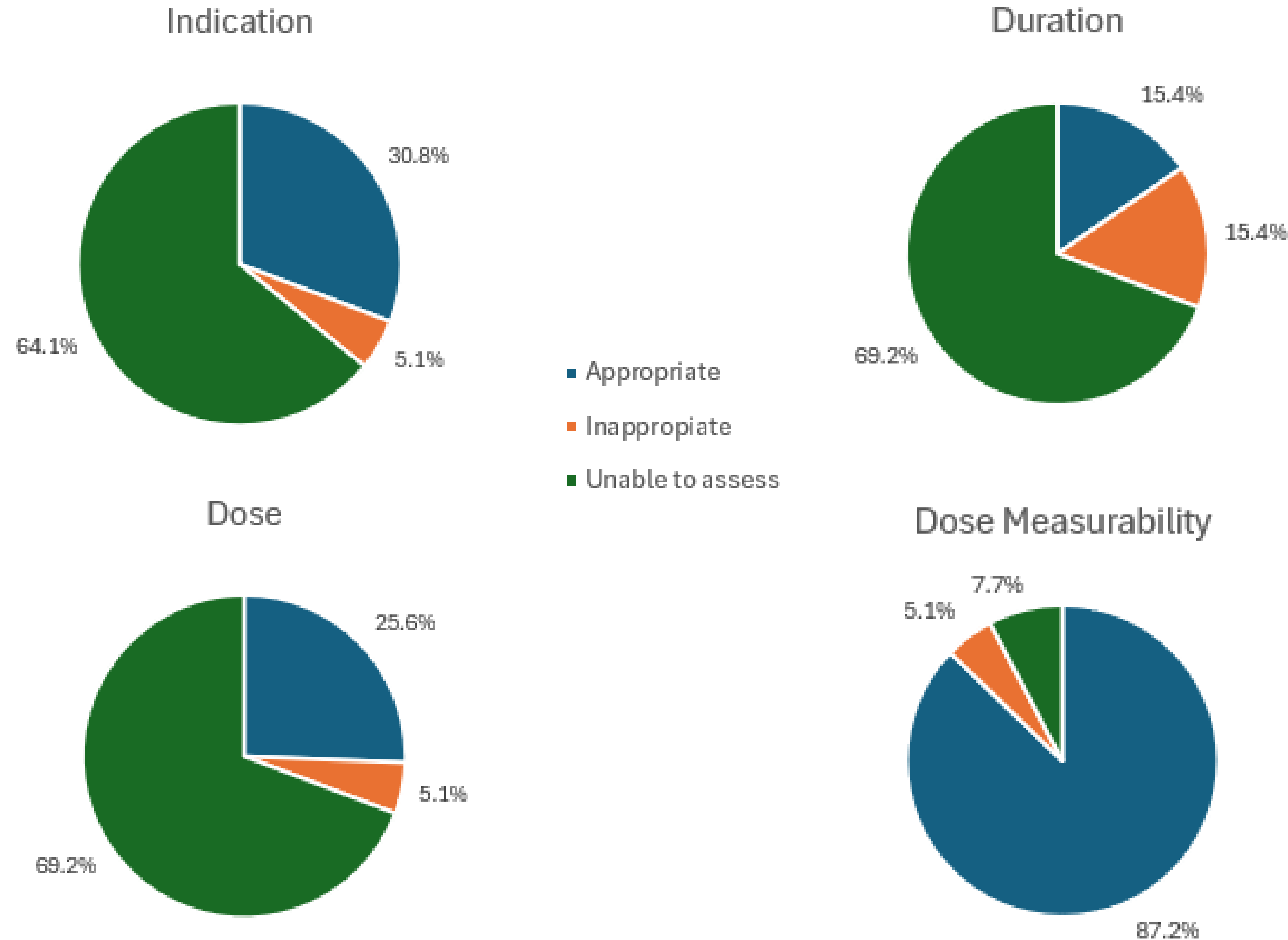
## OBJECTIVES

- This study aims to assess prescribing patterns for amoxicillin/ clavulanate in patients in the pediatric primary care setting: assessing indications for use, ratio selected, dose, and duration of use.

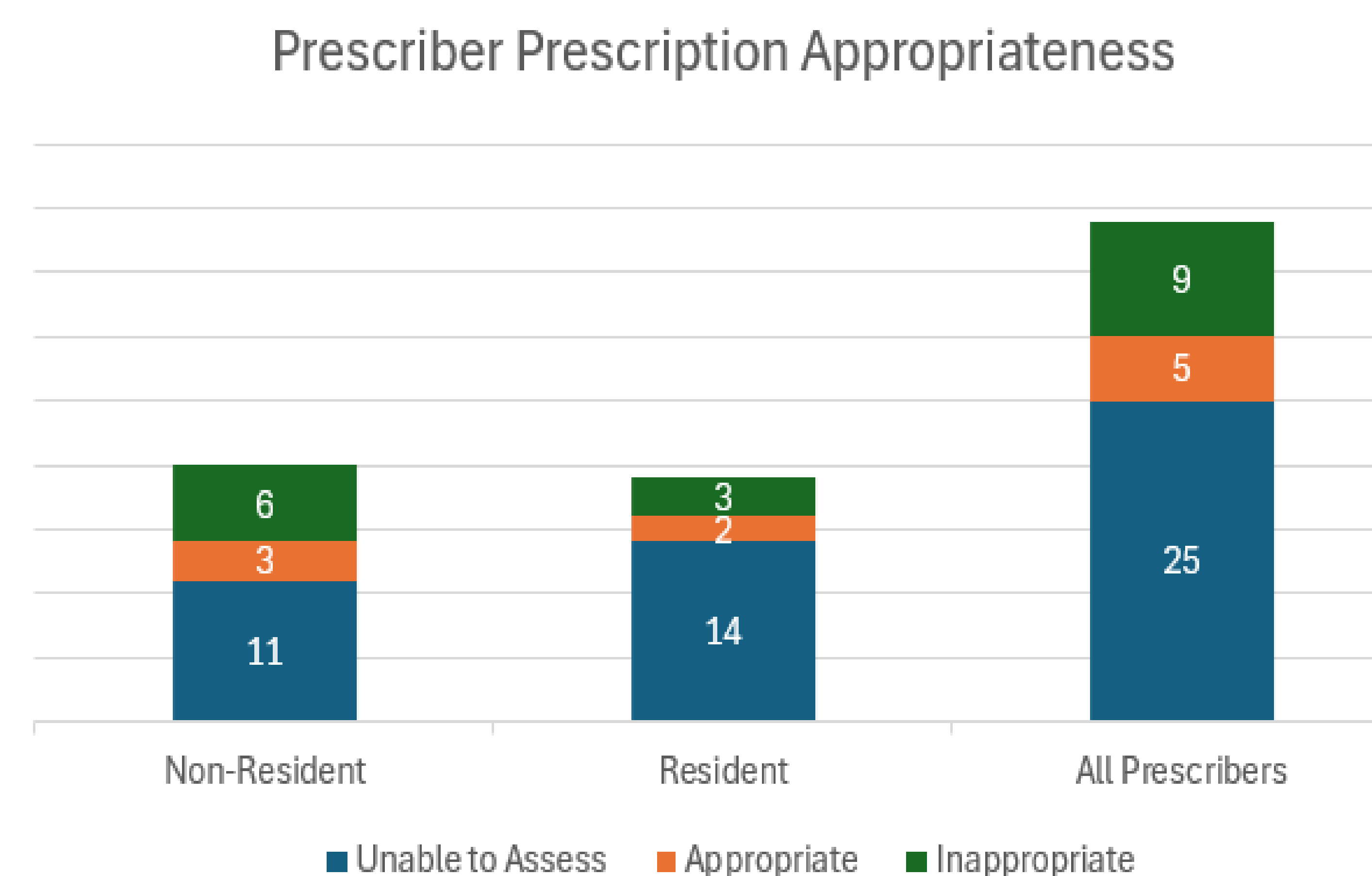
## METHODS

- Retrospective non-human subjects research conducted to review amoxicillin/ clavulanate prescriptions from January 2024 through March 2024 to assess prescribing patterns.
- Prescriptions issued to patients aged 0-17 years receiving care at Riley Pediatric Primary Care Center underwent analysis.
- Specific data collected: patient demographics (age, sex, weight, race), amoxicillin/ clavulanate prescription (indication, dosage form, ratio, dose, route, frequency, duration), and type of prescriber (resident, non-resident).
- Appropriateness of these endpoints were based in the context of the indication.

## RESULTS



Types of Medication Related Problems	
<b>Indication</b>	<b>N</b>
Prescribed when not recommended	5
<b>Duration</b>	
Too short	2
Too long	3
<b>Dose</b>	
Too low	1
<b>Measurability</b>	
Not measurable	1



## DEMOGRAPHICS

Demographics (N=39)	
Age of Patients (mean (SD), years)	3.7 (3.9)
<b>Sex (N (%))</b>	
Male	27 (69.2)
Female	12 (30.8)
<b>Race (N (%))</b>	
White	22 (56.4)
Black/ African American	10 (25.6)
Asian	1 (2.6)
2+ Races	3 (7.7)
None of these apply	3 (7.7)
<b>Ethnicity (N (%))</b>	
Hispanic/ Latino	7 (17.9)
Not Hispanic/ Latino	32 (82.1)
<b>Indication (N (%))</b>	
Infectious Indication not specified	25 (64.1)
Acute Otitis Media	9 (23.0)
Paronychia	3 (7.7)
Laryngomalacia	1 (2.6)
Lymphadenopathy	1 (2.6)

## CONCLUSION

- These findings underscore the importance of each part of a prescription when verifying appropriateness, especially for antibiotics.
- Most prescriptions between both residents and non-residents lacked documentation of an infectious indication which made it impossible to assess any other aspect of the prescription.
- Education on the importance of indication for each prescription is the first step in correcting common medication errors.
- The next most common error between all prescribers was in relation to duration of antibiotic use.
- Educational will be provided to prescribing staff on common errors including the importance of indication for pharmacy staff and appropriate duration of use based on indication.