

FROM VANCOMYCIN TO ALTERNATIVES: DRIVERS OF THERAPY CHANGE IN CHILDREN

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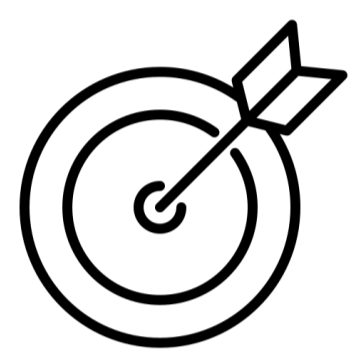
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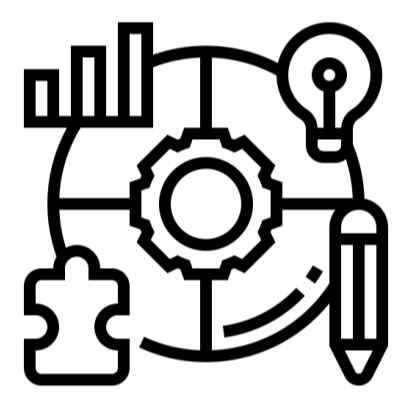
BACKGROUND AND IMPORTANCE

Vancomycin: glycopeptide used to treat Gram-positive bacterial infections.
Failure to reach therapeutic levels or toxicity → switch to alternative treatments.
Few studies have been published addressing this situation among pediatric population.



AIM AND OBJECTIVES

To describe pediatric patients treated with vancomycin who required switching to another antibiotic, and to assess whether these modifications were justified.



MATERIALS AND METHODS

Descriptive, observational, retrospective study

Hospitalized pediatric patients treated with intravenous vancomycin between 01/01/2022 and 31/07/2024, who later switched to another antibiotic for the same indication.

Criteria used for justified changes

- Vancomycin doses > 75mg/kg/day without achieving trough levels of 10–15mg/mL
- Central nervous system involvement
- Clinically unstable patients



RESULTS

836 vancomycin treatments

69 cases required a switch
(8% (62 patients))



582 patients

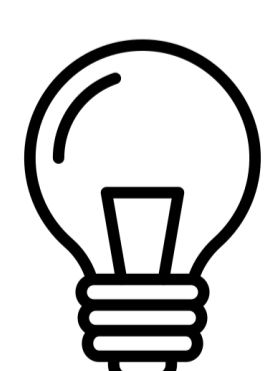
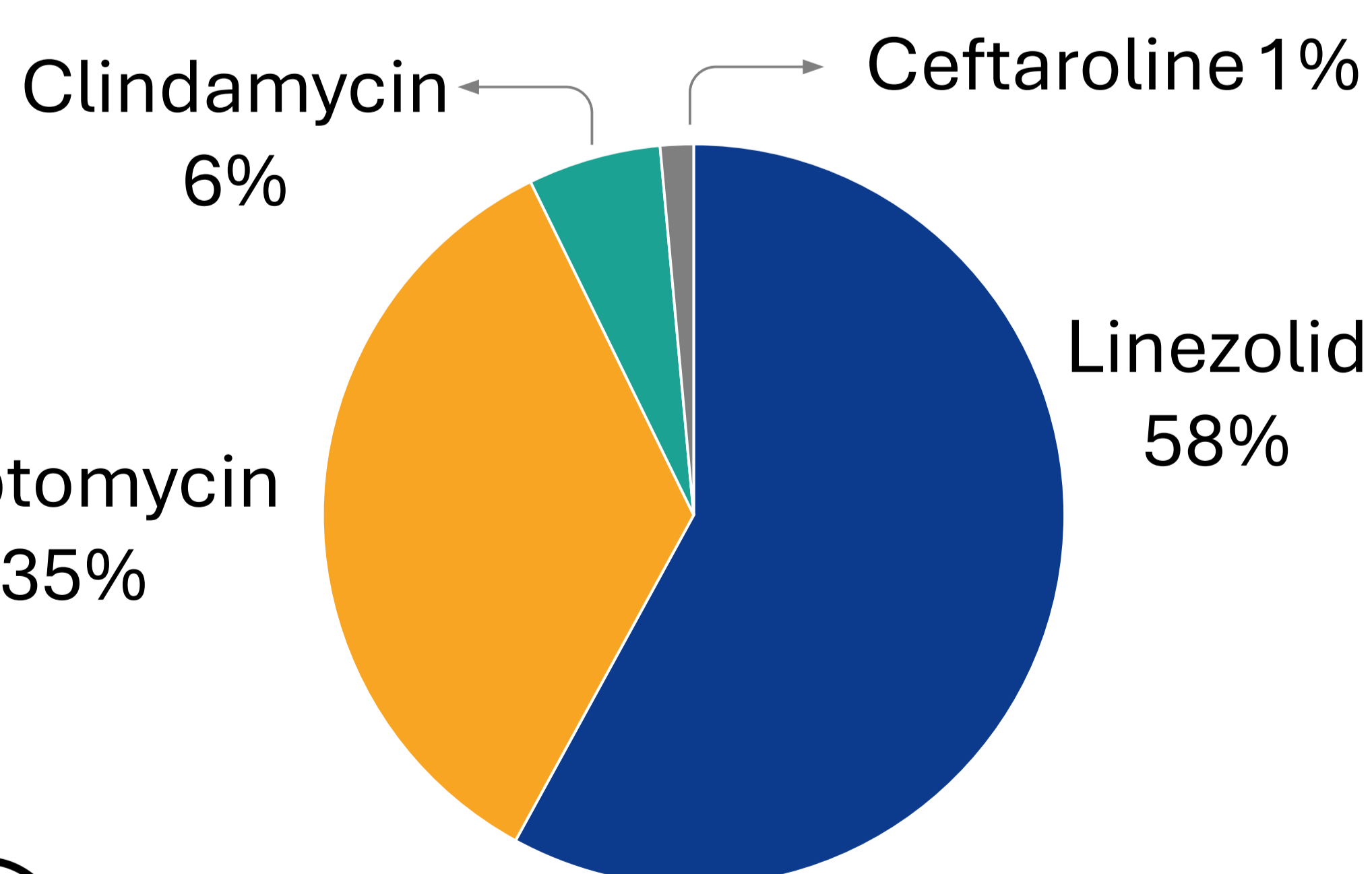
Median age: 4.4 years (1 month–19.5 years)
82% had underlying diseases (51 patients)
→ onco-hematological: 30 patients



Indications: 32% bacteremia, 12% febrile neutropenia, 7% prophylaxis, fever of unknown origin (6%), and pneumonia (6%).

Drivers of therapy change

52% Subtherapeutic levels 20% Patient's clinical condition
22% Sequential oral step-down 6% Allergy or adverse effects



CONCLUSION AND RELEVANCE

- Vancomycin is mainly used in preschool children with onco-hematological diseases.
- Most changes were justified, but **serum level monitoring** and **dose optimization** are crucial before switching. Antibiotic choice should be guided by susceptibility results to ensure appropriate management in pediatric patients.
- This study provides a better understanding of the factors that motivate switching from vancomycin in the treatment of Gram-positive infections

