RES-320

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Effectiveness of Co-amoxiclav in Managing Upper Respiratory Tract Infections: A Multicenter Retrospective Real-world Study

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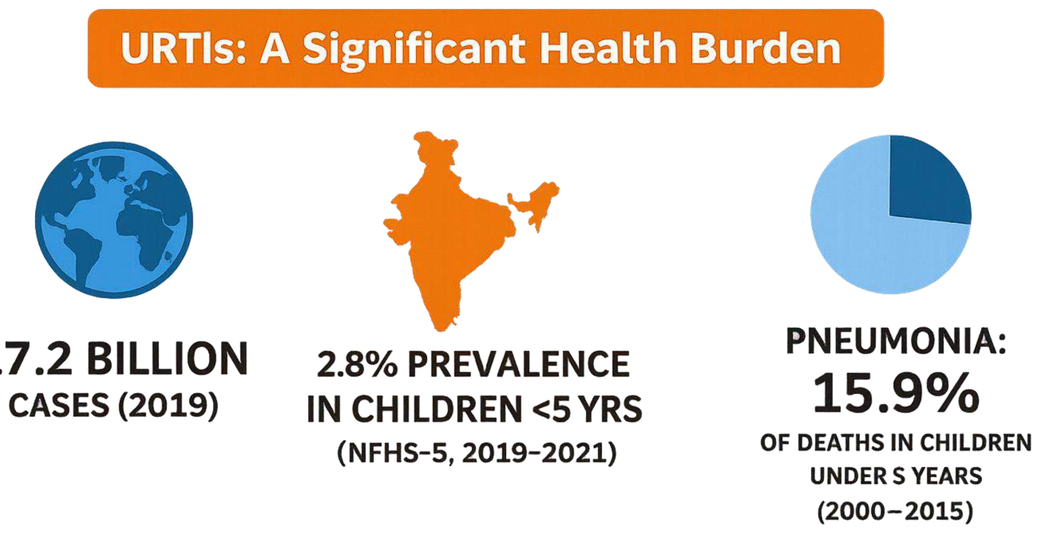
INTRODUCTION

- **URTIs: A Significant Health Burden [1-3]**
  - **Global incidence**: 17.2 billion cases (2019), ~43% of the global disease burden.
  - India:
    - 2.8% prevalence in children <5 years (NFHS-5, 2019–2021).
    - Pneumonia: 15.9% of deaths in children under 5 years (2000–2015).
- **Challenges in Management [4]**:
  - Antibiotic resistance: Increasing global concern due to resistant bacterial strains.
  - Need for effective, broad-spectrum antibiotics to combat resistant pathogens.
- **Co-Amoxiclav as a Potential Solution [4]**:
  - Combines amoxicillin with clavulanate (beta-lactamase inhibitor) to combat resistant bacteria.
  - FDA approval: 1996 (US); EMA approval: 2009 (EU).
  - Indications: Effective against URTIs like acute sinusitis, AOM, and RTIs.
  - Broad-spectrum activity in pediatric and adult populations.



RATIONALE & OBJECTIVE

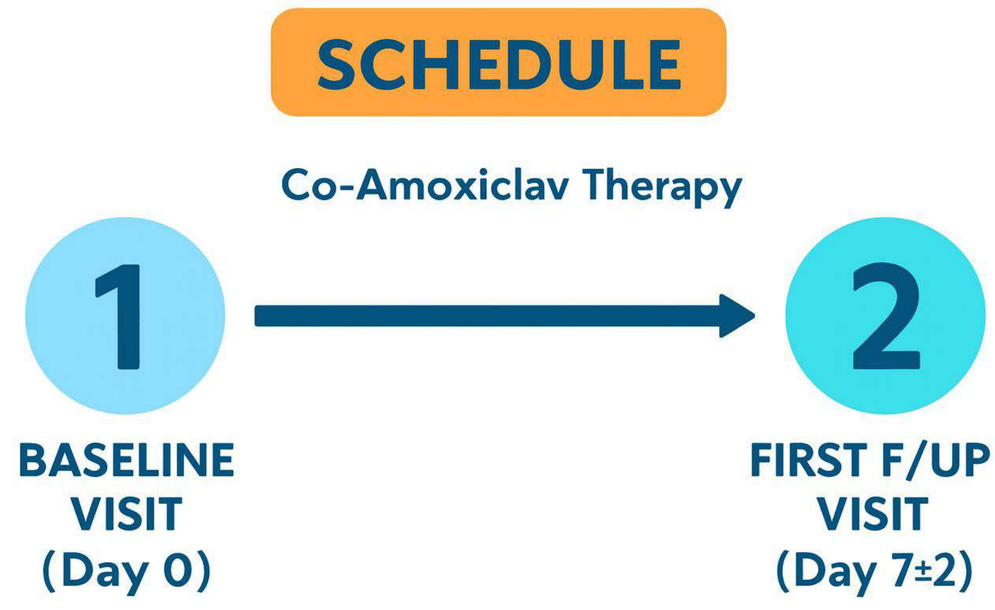
- **Healthcare Burden of URTIs**:
  - Significant impact on healthcare systems, especially in developing nations like India.
  - Broad-spectrum antibiotics like Co-amoxiclav are vital for effective management.
- **Data Gap**:
  - Limited real-world data on the efficacy and safety of Co-amoxiclav in the Indian adult population.
- **Study Objective**:
  - Assess the clinical effectiveness and safety of Co-amoxiclav in managing URTIs.
  - Provide real-world evidence across diverse Indian clinical settings to support evidence-based treatment strategies.

METHODOLOGY

- **Inclusion:** Adults (≥18 yrs) with URTI diagnosis, treated with co-amoxiclav, documented outcomes, and ≥1 follow-up**.**
- **Exclusion:** <18 yrs, not prescribed co-amoxiclav, incomplete/unavailable records.

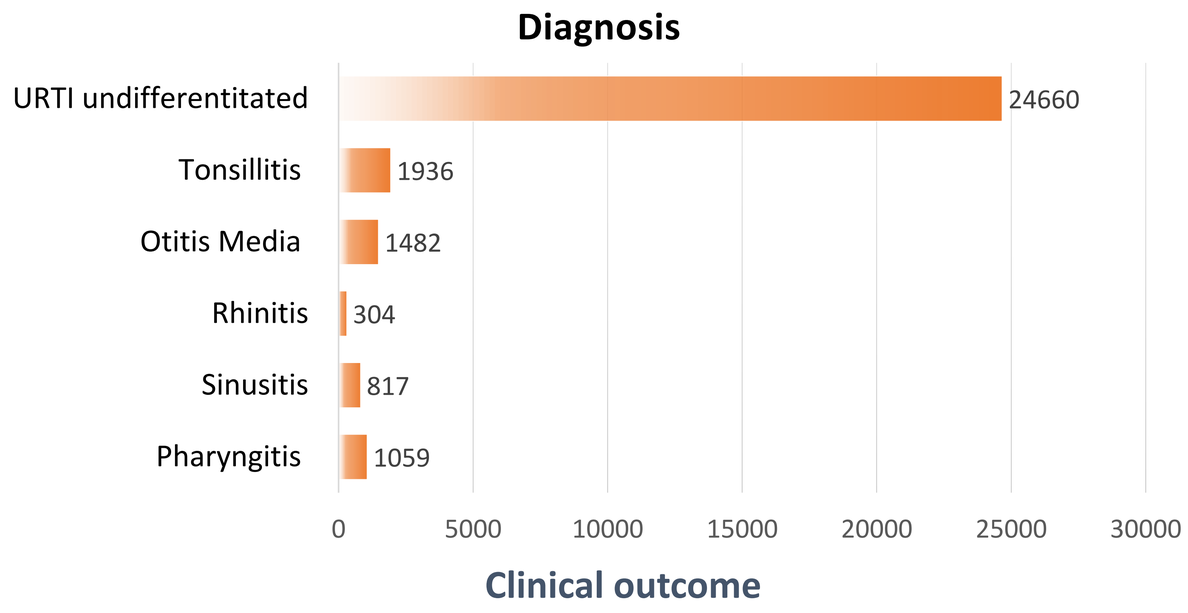
STUDY OVERVIEW

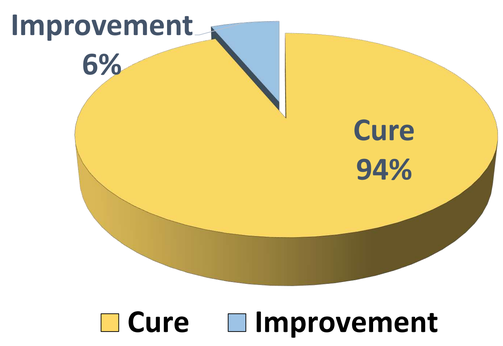
- **Data**: Retrospective review of records at baseline (Day 0), follow-up (~Day 7)
- **Parameters**: Demographics, response (cure, improvement, worsening, mortality), adverse events.
- **Endpoints**: Clinical response + safety.
- **Analysis**: Descriptive stats, Chi-square test.
- **Ethics**: IEC approved, confidentiality maintained, consent not required.

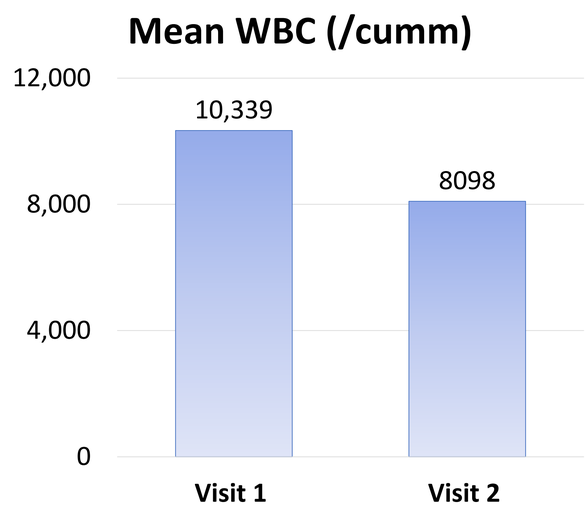


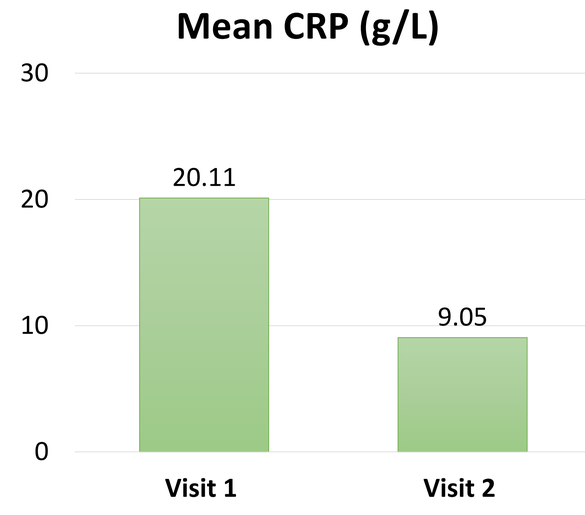
RESULTS

- **Participant Demographics**:
  Total participants (n): **30,258**
  Mean age: **39 ± 16.3 years**
  Gender distribution:
  - **Male**: 22,088 (73%)
  - **Female**: 8170 (27%)
- **Severity of Cases**: Mild cases: 74%
- **Types of URTIs**:
  - **Undifferentiated URTI**: 81.5%
  - **Tonsillitis**: 6.4%
  - **Otitis Media**: 4.9%
- **Prescribed Treatment**:
  - **Co-amoxiclav 625 mg**: Prescribed to **80.4%** of participants
  - Typical dosage: **Twice daily for 5–7 days**









CONCLUSION

- **Efficacy and Safety**:
  - Co-amoxiclav is highly effective and safe for URTI treatment.
  - Most patients achieved clinical cure with minimal adverse events.
- **Role in Antimicrobial Resistance**:
  - Maintains effectiveness despite rising resistance trends.
  - Beta-lactamase inhibitors enhance pathogen susceptibility, reinforcing their importance in combination therapies.
- **Future Directions**:
  - Larger studies are needed to validate long-term outcomes.
  - Continued research to refine treatment regimens and resistance monitoring.

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