

Physicians’ Perspectives on Antibiotic Use in Pediatric and Adult RTIs: A
Nationwide Multicenter Survey

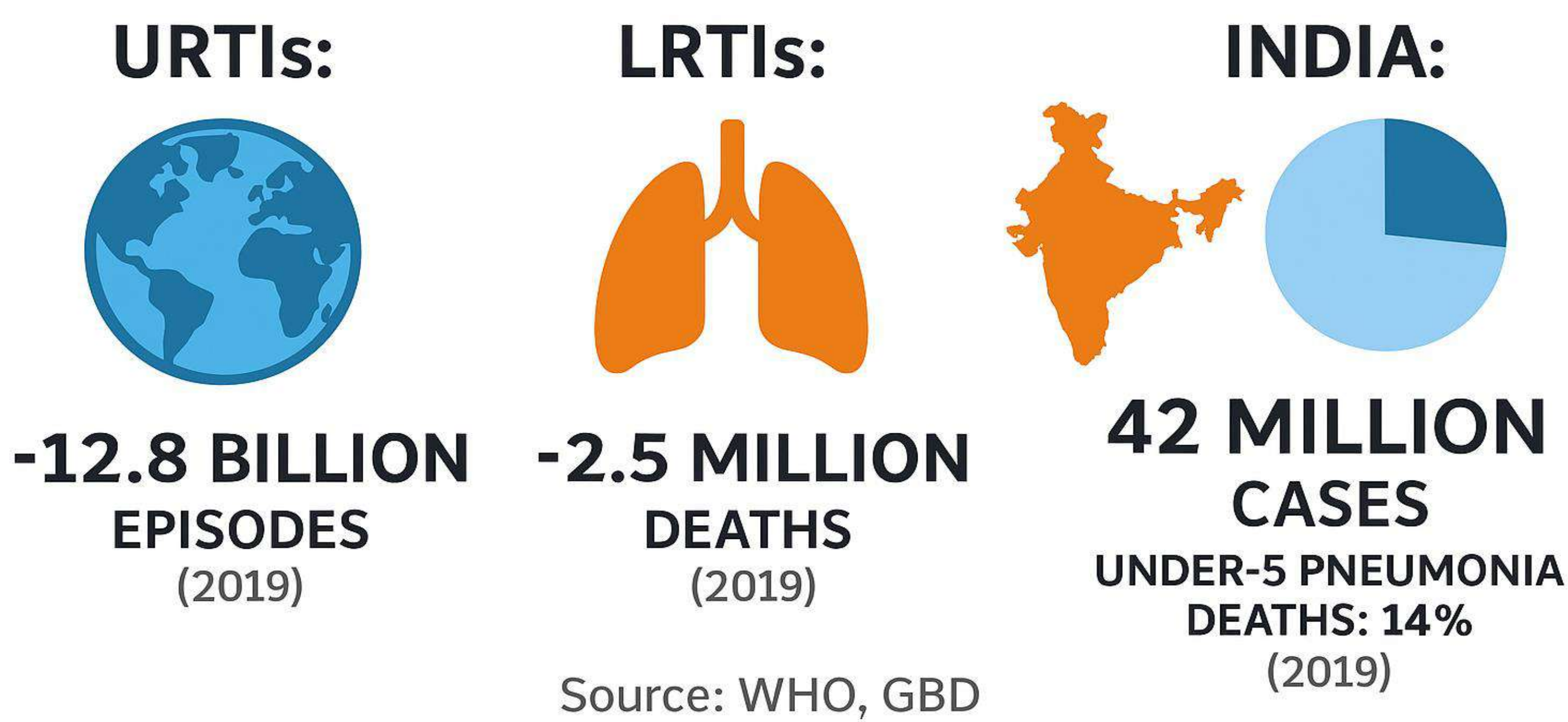
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INTRODUCTION

- **Burden:** RTIs cause >17 billion cases/year, ~20% of consultations, and ~4 million deaths annually.
- **India:** URTIs affect 2.8% of children <5 years; pneumonia causes ~16% of under-5 deaths.
- **Antibiotic use:** 40–60% of RTI cases get antibiotics unnecessarily.
- **Trends:** Adults – Amoxicillin-Clavulanate (~45%); Paediatrics – Macrolides (30–35%).
- **Gap:** Wide variability in prescribing; limited data on syrup vs. tablet use; no large multicentre evaluation
- **Objectives:**
 - Evaluate HCP opinions on syrup vs. tablet antibiotics in paediatric and adult RTIs.
 - Assess attitudes towards antibiotic management across age groups.
 - Identify concerns, challenges, and factors influencing prescription decisions

RTIs: A Significant Health Burden



RATIONALE

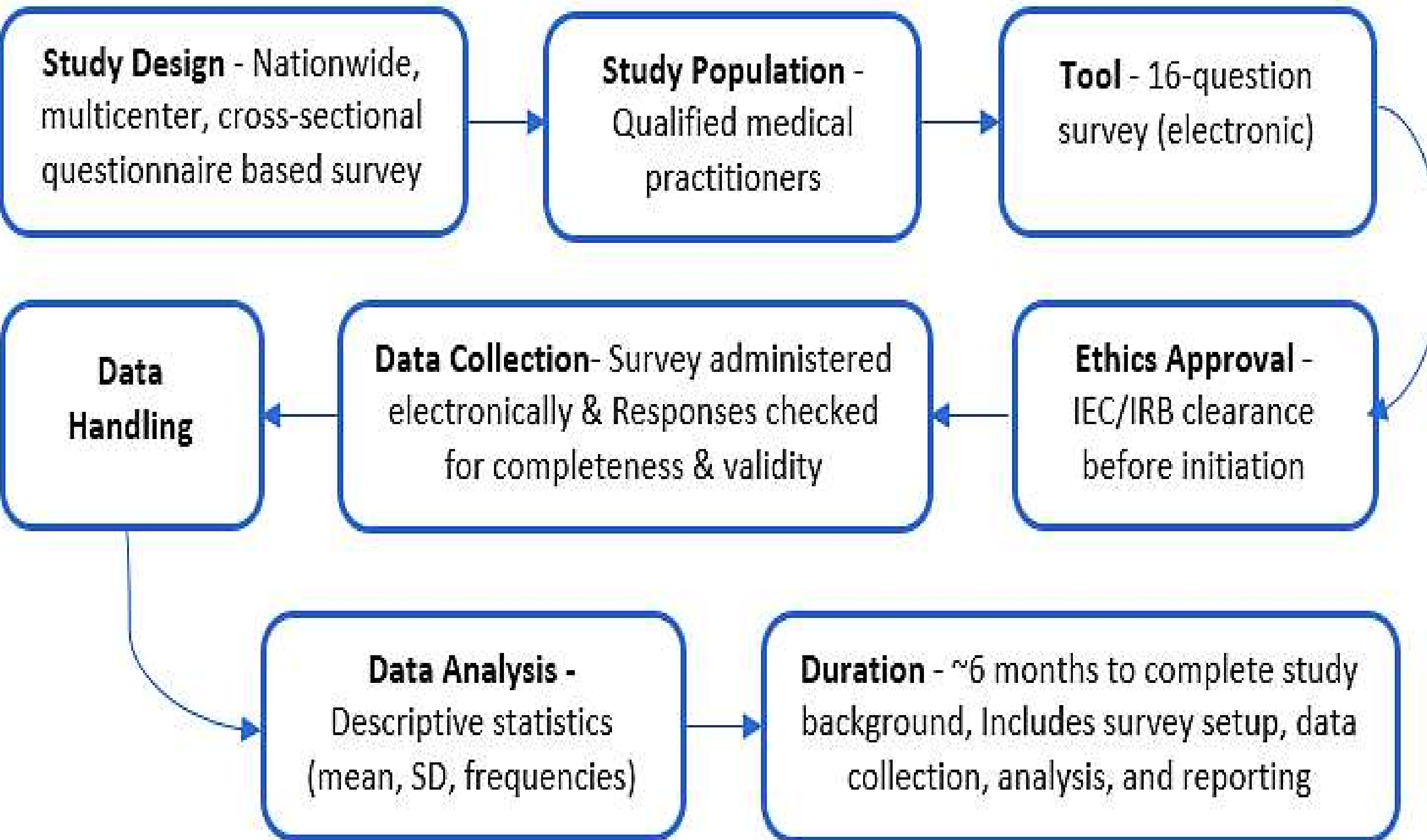
- Wide **variability** in antibiotic prescriptions across healthcare facilities.
- Lack of **consistent and suitable prescribing practices** increases risk of resistance.
- Limited evidence on **syrup vs. tablet formulations** in paediatric vs. adult RTIs.
- Need for a **nationwide multicentre evaluation** to understand real-world decision-making and improve quality of care.

ANTIMICROBIAL RESISTANCE

- **Rising AMR burden:** ~5 million global deaths linked to AMR; ~297,000 in India.
- **RTIs drive misuse:** 40–60% of RTI cases get unnecessary antibiotics; resistance increasing in *S. pneumoniae*.
- **Study contribution:** Captures **real-world prescribing patterns** (syrup vs. tablet; adult vs. paediatric) across ~15,000 HCPs.
- **Impact:** Provides evidence to **inform guidelines, CME, and stewardship** for rational RTI antibiotic use.

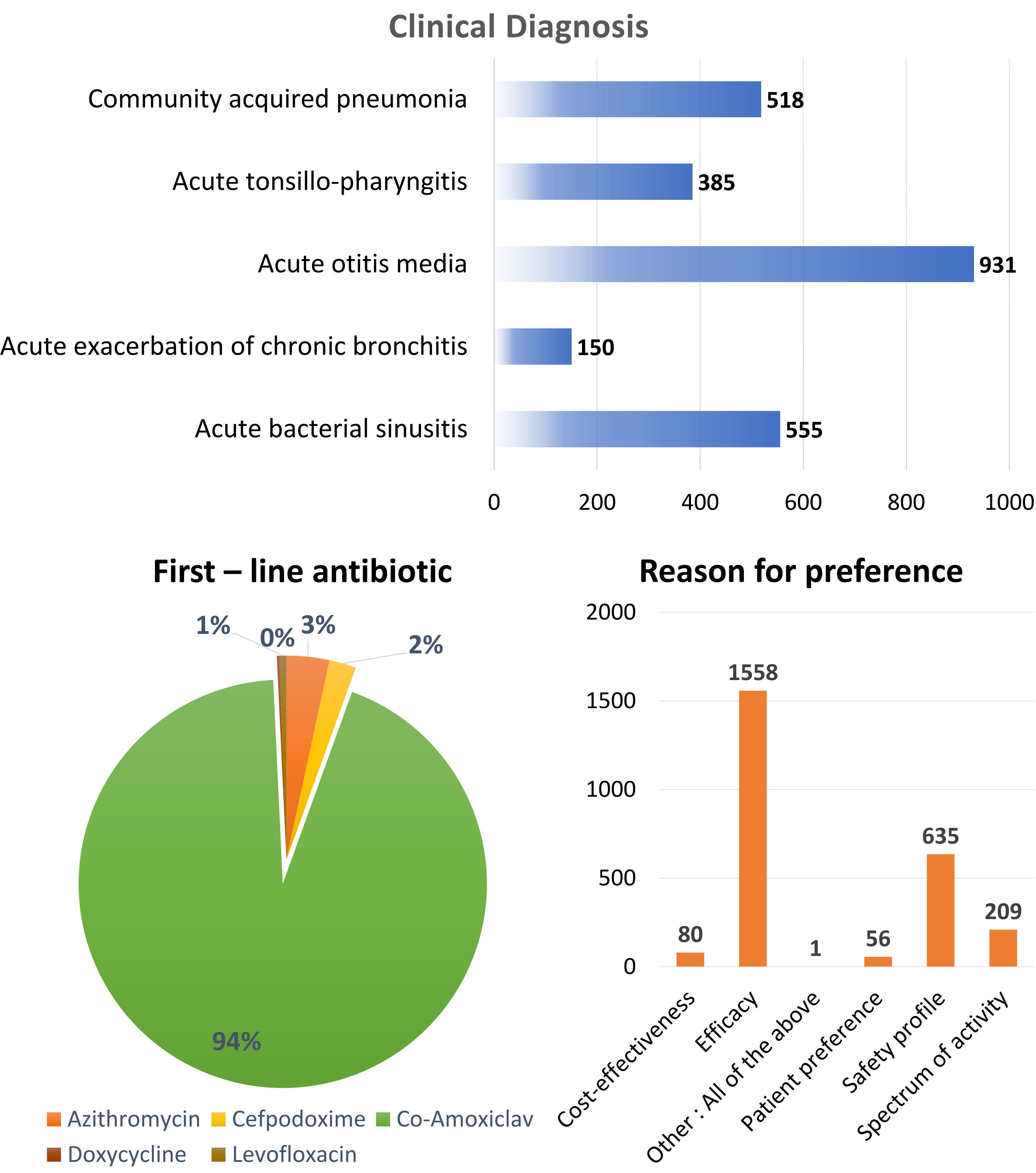
METHODOLOGY

- **Design:** Nationwide, multicentre, cross-sectional, questionnaire-based survey.
- **Participants:** **Qualified medical practitioners** (General Physicians, Paediatricians, ENT Surgeons, Consulting Physicians).
- **Tool:** **16-question structured survey** administered electronically.
- **Duration:** ~6 months for study completion.
- **Analysis:** Descriptive statistics (mean, median, SD, frequencies);



RESULTS

- **Participants (n):** 2,539 HCPs.
- **Most affected age group:** Children 0–10 years (26.9%).
- **Common presentations:**
 - Acute Otitis Media – 36.7%
 - Bacterial Sinusitis – 21.9%
 - Community-Acquired Pneumonia – 20.4%
- **First-line antibiotic:** Co-Amoxiclav (94%).
 - Reasons: efficacy (61.4%), safety (25%).
- **Guideline adherence:** Influenced prescribing in 56.4%.
- **Antimicrobial susceptibility testing:** Used by 62.4%.
- **Treatment failure management:**
 - Dose escalation – 45.8%
 - Switch to High-dose co-amoxiclav – 40.2%
 - Switch to Cefpodoxime – 33.8%
- **Dosing adjustment:** Weight-based in 75.9%.
- **Most reported adverse event:** Diarrhoea (17.8%).



CONCLUSION

- **Co-Amoxiclav continues to be the cornerstone** of RTI management among Indian HCPs, aligning with guideline recommendations and supported by strong clinical evidence.
- **Prescribing decisions appear rational**, with physicians factoring in age, comorbidities, and clinical presentation rather than relying solely on empirical habits.
- This reflects a **mature, evidence-informed approach**, demonstrating awareness of resistance patterns and the need for appropriate spectrum coverage.
- However, **continued medical education and robust stewardship programs** remain essential to ensure uniformity across practices, minimize misuse, and preserve antibiotic efficacy for the future.

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