

## Antibiotic prescriptions in children.

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**OBJECTIVES:** The aim of this study was to evaluate antibiotic prescription for children in Emilia Romagna, a Northern Italian region with 414 880 people aged 1-14 years.

**METHODS:** The regional Prescription Database of drugs reimbursed by the Italian National Health Service was used in this study. Antibiotic use was estimated as the proportion of children who received at least one prescription during the year 2000 (number of children treated per 100 inhabitants per year). To evaluate the frequency of exposure for each child, all the prescriptions given within a period shorter than 12 days were considered as a single treatment. **RESULTS:** In the year surveyed, 511,270 antibiotic prescriptions in 219,257 children were identified. In all, 52.9% of children received at least one antibiotic; this percentage decreased with age, ranging from 70.4% in children 1-2 years old to 35.8% in children >11 years old. Fifty-two per cent of inhabitants under the age of 15 years were treated with systemic antibiotics at least once in the year. Cephalosporins were mostly prescribed in the youngest children, while macrolides were most frequently used in children over 6 years old. In all 3.9% of children were treated with topical antibiotics.

**CONCLUSIONS:** This study has shown that paediatric antibiotic prescription rates can be derived from analysis of regional drug and resident databases. High antibiotic usage is shown in the paediatric population of Emilia Romagna, similar to that observed in other regions of Northern Italy. Broad-spectrum antibiotics are predominantly prescribed. Comparison with prescription rates from other countries' paediatric populations suggests there is extensive antibiotic overuse in Italy. This could be associated with selection for and dissemination of antibiotic resistance. Interventions are needed to reduce consumption.

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