Variability of adenoidectomy/tonsillectomy rates among children of the Veneto Region, Italy.

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BACKGROUND: Despite national guidelines in 2003 aimed at limiting the recourse to tonsillectomy and/or adenoidectomy (A/T), the latter are among the most frequent pediatric surgeries performed in Italy. Aim of the study is to investigate variability of A/T rates among children of the Veneto Region, Italy. METHODS: All discharges of Veneto residents with Diagnosis-Related Groups 57-60 and ICD9-CM intervention codes 28.2 (tonsillectomy), 28.3 (adenotonsillectomy), 28.6 (adenoidectomy) were selected in the period 2000-2006 for a descriptive analysis. A multilevel Poisson regression model was applied to estimate Incidence Rate Ratios (IRR) with 95% Confidence Intervals (CI) for A/T surgery among children aged 2-9 years in 2004-2006, while taking into account clustering of interventions within the 21 Local Health Units. RESULTS: Through 2000-2006, the overall number of A/T surgeries decreased (-8%); there was a decline of adenoidectomies (-20%) and tonsillectomies (-8%), whereas adenotonsillectomies raised (+18%). Analyses on children aged 2-9 resulted in an overall rate of 14.4 surgeries per 1000 person-years (16.1 among males and 12.5 among females), with a wide heterogeneity across Local Health Units (range 8.1-27.6). At random intercept Poisson regression, while adjusting for sex and age, intervention rates were markedly lower among foreign than among Italian children (IRR = 0.57, CI 0.53-0.61). A/T rates in the 10-40 age group (mainly tonsillectomies) computed for each Local Health Unit and introduced in the regression model accounted for 40% of the variance at Local Health Unit level of pediatric rates (mainly adenoidectomies and adenotonsillectomies). CONCLUSION: A/T rates in the Veneto Region, especially adenoidectomies among children aged 2-9 years, remain high notwithstanding a decrease through 2000-2006. A wide heterogeneity according to nationality and Local Health Units is evident. The propensity to A/T surgery of each Local Health Unit is similar in different age groups and for different surgical indications.

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