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# Characteristics of Antibiotic Resistance Nasopharyngeal Strains of *Streptococcus pneumoniae* in Children Suffering from Respiratory Pathologies

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## Abstract

© 2016, Springer Science+Business Media New York. Data have been obtained on dynamics of antibiotic susceptibility of *Streptococcus pneumoniae* isolates circulating in preschool children suffering from respiratory pathologies, in the city of Kazan in the years 2009–2015. The high activity of  $\beta$ -lactam antibiotics (from 96 to 90.8 %, depending on the period considered), macrolides (from 83.7 to 93.4 %), and ciprofloxacin (78.9–73.5 %) for the causal treatment of pneumococcal infections. No vancomycin-resistant strains of pneumococci were registered. Comparative analysis of 2009–2011 and 2015 showed a statistically significant increase of the ratio of resistant strains to penicillin (3.5 %), amoxicillin/clavulanate (3.9 %), amoxicillin (5.3 %), clarithromycin (3.6 %), clindamycin (2.9 %), ceftriaxone (5.2 %), and cefixime (2.3 %). According to data on serotyping of isolates, serotypes of *S. pneumoniae* are covered by the 13-valent conjugate vaccine currently used in children by the national calendar of preventive vaccination.

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## Keywords

Antibiotic resistance, Pneumococcal infections, *Streptococcus pneumoniae*

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