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## SUMMARY OF THESIS\*

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**REY, Luís Carlos** – *Streptococcus pneumoniae* isolado de nasofaringe em crianças sadias e com pneumonia de Fortaleza: sorogrupos e resistência aos antibióticos. São Paulo, 2000. (Tese de Doutorado – Escola Paulista de Medicina/Universidade Federal de São Paulo).

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### **NASOPHARYNGEAL *STREPTOCOCCUS PNEUMONIAE* ISOLATED FROM HEALTHY AND PNEUMONIA CHILDREN IN FORTALEZA, BRAZIL: SEROGROUPS AND ANTIBIOTIC RESISTANCE**

Pneumococcal pneumonias are important causes of child morbidity and mortality in Brazil. Increasing resistance rates to penicillin and other drugs are of great concern worldwide. To determinate the extent of carriage rate, resistance to drugs and serogroups of nasopharyngeal pneumococci, 911 younger-than-five children were randomly selected, 482 with pneumonia and 429 healthy controls from day care centers and immunization sets in Fortaleza. Of 500 (54.9%) nasopharyngeal isolates overall, pneumococcal colonization was 71.8% in day care center controls and 50.4% in children with pneumonia. The oxacillin screening test showed a reduced susceptibility in 64% of isolates; determination of minimum inhibitory concentrations (MIC) by microdilution technique was performed

in 441 isolates (88.2%); penicillin MIC showed 44.9% of intermediate and 3.6% of full resistance. Full resistance rates to other antimicrobials were: ceftriaxone 1.1%; co-trimoxazole 41.7%, erythromycin 23.1%, clindamycin 18.5%, chloramphenicol 6.6% and rifampin 2.7%. The most prevalent serogroups/types from 269 isolates tested were: 6, 19, 23, 14, 15, 9, 16, 11 and 18. Serogroups 6, 14, 19 and 23 accounted for 78% of isolates, were more frequent in pneumonia (83.7) than in control children (72.9%), and have shown higher resistance to penicillin than other serogroups/types (86.2% vs 50.83%). Penicillin resistance of nasopharyngeal pneumococci in children was high in Fortaleza, related to day care center attendance and to serogroups 6, 14, 19 and 23.

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\*This thesis is available at the Library of the Instituto de Medicina Tropical de São Paulo