

**TITLE:** RESISTANCE PROFILE OF STREPTOCOCCUS BETA-HEMOLYTIC ISOLATED FROM OROPHARYNX OF ASYMPTOMATIC CHILDREN

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**ABSTRACT:**

Group A Streptococcus Beta-hemolytic (EBHGA) are Gram positive aerobic bacteria that causes a variety of infectious syndromes and are considered of great clinical interest because of their high pathogenicity, these bacteria are usually involved with pathologies in the oropharynx and skin, and may cause various inflammatory diseases. It was a cross-sectional and descriptive study that occurred between February and October 2016 in a public school. The study was approved by the Research Ethics Committee (REC) under opinion n°. 49273815.4.0000.5203. The oropharynx samples were collected in the morning by using sterile swabs and tongue depressors. Twists of 360°C were performed on the right and left palatine tonsils. In the laboratory, the material was seeded by depletion in Petri dish containing Mueller Hinton agar plus 5% sheep defibrinated blood. Then, the plates were incubated in a stove at 36-37°C for 24 hours in order to visualize possible beta hemolysis. The hemolytic beta colonies were reisolated to obtain pure colonies and after 24 hours of incubation were stained by the Gram technique. Samples that presented as Gram positive cocci were first tested for the production of the enzyme catalase, to characterize microorganism as belonging to the genus *Streptococcus*. Subsequently, its differentiation between other beta hemolytic species was performed through complementary tests, bacitracin and L-Pyrrolidonyl- $\beta$ -Naphthylamide (PYR), confirming the presence of EBHGA. The EBHGA strains were evaluated for their susceptibility profile and resistance to antibiotics by in vitro antibiogram test. From the 229 children whose parents and / or guardians signed the Free and Informed Consent Term, 11 (4.80%) were colonized by EBHGA. The major antimicrobials that were resistant to the isolated were: Penicillin and Cefepime (54.54%), Ceftriaxone (45.45%), Clindamycin and Ampicillin (27.27%) and Vancomycin and Erythromycin (18,18%). The prevalence of EBHGA in asymptomatic children and the pattern of resistance found are worrisome. In this way, attention to this group of bacteria in childhood is of paramount importance, as well as the awareness of the rational use of antibiotics by children.

**Keywords:** bacteria, oropharynx, resistance.

**Development Agency:** Centro Universitário Tabosa de Almeida (Asces-Unita)