

The association between antibiotics usage in early childhood and early childhood caries.
Alaki S*, Burt B, Garetz S.
(Under review, AAPD J)

Purpose: this study examined the relationship between antibiotics intake during early childhood and the risk of developing early childhood caries.

Methods: Medicaid data in Michigan were analyzed for all continuously enrolled children born in 2001 for which enrollment, pharmacy and dental claims were filed during 2001 to 2004. Proportional hazards survival models were used to assess the risk of ECC in children who have used antibiotics during the first few years of age.

Results: 29,485 children were included in the study (51% males, and 49% females). The intake of antibiotics during the first year of age was significantly associated with greater risk for ECC during follow up ($p=.002$). When stratified by race, this association was found to be significant only for white children ($p=.03$). The intake of systemic antibiotics during the age of 13-18 months was also associated with a significant increase in risk for ECC during follow up.

Conclusion: the intake of antibiotics in early childhood is associated with a significant increase in risk for ECC during following years. Race and ethnicity can be a determining factor in the association.