

**DEPARTMENT OF COMMUNITY AND PREVENTIVE MEDICINE
RESEARCH PROPOSAL**

**Predictive Factors For Acute Otitis Media:
Colonization And Immunity In A Cohort Of Children
Rebecca Smith**

Otitis media, or ear infection, is a prevalent childhood illness with significant health costs. During the first year of life, otitis media accounts for one third of all Doctor's office visits, and acute otitis media (AOM) costs the US health care system about 2.98 billion dollars annually.

Previous research has shown a weak but significant correlation between acute otitis media (AOM) and nasopharyngeal colonization with bacterial pathogens (*Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Moraxella catarrhalis*).

In this study, the risk of AOM will be examined in relation to colonization with bacterial pathogens using a prospective cohort of children (aged 6-30 months old). The duration of colonization, episodes of AOM, and high antibody levels will be outcomes considered in multivariable regression analyses. Independent predictors of these outcomes include: day care, lack of breast feeding, exposure to tobacco smoke, family history of otitis media, race, gender, decreased age at first colonization, and duration of follow up.

The findings from this study will solidify previous research and provide new insights into the role of colonization in AOM.

**Committee Chair:
Edwin van Wijngaarden, PhD**

**Committee Members:
Michael Pichichero, MD
Joseph Guido, MS**

**Wednesday, December 16, 2009
12:00PM – 12:30 PM
Helen Wood Hall, Room 4W301**

EVERYONE IS WELCOME