Supplemental Digital Content

Airway Mucosal Immune-Suppression in Neonates of Mothers Receiving A(H1N1)pnd09 Vaccination During Pregnancy

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Methods

Time from vaccination to sampling of mucosal lining fluid: The time in days from vaccination to sampling of MLF was used as continues variable in the children born to mothers vaccinated during pregnancy.

Season of birth: Date of birth was grouped into 4 seasons: winter (December-February), spring (March-May), summer (June-August) and fall (September-November).

Older siblings at birth (yes/no): Children living in the home at the time of birth were considered as siblings.

Bacterial colonization of the airway (yes/no): Aspiration from the hypopharyngeal area was done intermittently assuring no suction was applied during retraction through the oropharynx and nasopharynx. The catheter was flushed with 1 ml of saline into a vessel for remaining secretions from the tube. Samples were transported at room temperature to the microbiology laboratories within 24 hours at the Department of Microbiological Surveillance and Research, Statens Serum Institute in Copenhagen, Denmark. Colonization with *Streptococcus pneumoniae*, *Hemophilus influenzae* and/or *Moraxella catarrhalis* was considered as bacterial colonization with airway pathogenic bacteria.

Maternal atopy (yes/no): Maternal atopic status was based on the history of doctor diagnosed asthma, hay fever and/or atopic dermatitis independent of sensitization.

Exposures during 3rd trimester of pregnancy included smoking (yes/no), alcohol consumption (yes/no), and antibiotic usage (yes/no).

Paternal atopy was defined from a history of doctor diagnosed asthma, hay fever and/or atopic dermatitis. (yes/no).
Birth details comprised way of delivery (normal birth, planned or acute sectio); birth weight; gestational age; and Apgar score below or above four one minute after birth.

Baseline antibody titers: Serum was sampled in the mothers prior to vaccination (baseline). Serum plasma levels of specific H1N1pnd09 antibodies were determined in twofold dilutions in a conventional hemagglutination-inhibition assay\textsuperscript{39}. Geometric mean titers were computed from the log_{10}-transformed mean.

Socioeconomic status was evaluated from yearly household income at birth of the infant classified into five groups as \(<54\cdot000\;\text{€}; 54\cdot000-81\cdot000\;\text{€}; 81\cdot000-108\cdot000\;\text{€}; 108\cdot000-135\cdot000\;\text{€}; and >135\cdot000\;\text{€}.\)