ANTENATAL VACCINATION AGAINST INFLUENZA AND PERTUSSIS IN GREECE

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BACKGROUND AND AIMS

- *Bordetella pertussis* causes serious illness among neonates and infants. Infants under 6 months of age have the highest rate of infection, compared to other ages, and $\geq 90\%$ of pertussis deaths occur in infants under 3 months of age (1).
- Strategies to prevent pertussis in this population include a booster maternal immunization during third trimester of pregnancy (transplacental antibodies transmission) and targeted immunization (“cocooning”) of infant caregivers (2).
- Neonates, having an immature immune system, are in high risk for influenza infection, with clinical manifestations that vary from mild symptoms (respiratory tract) to severe illness, with lethal outcome(3).
- In Greece, the National Immunization Schedule, recommends that pregnant women should receive influenza vaccination, at any time during pregnancy and Tdap vaccine at 27 - 36 weeks of gestation.

The main purpose of our study was to assess the knowledge, attitudes, beliefs, and factors associated with the antenatal vaccine uptake of pregnant women

MATERIALS AND METHODS

- A prospective cross-sectional study was conducted between January and June 2017 in six hospitals of Western Greece.
- The study population consisted of pregnant women who attended obstetric outpatient clinics and inpatient women, who gave birth in the postnatal ward.
- The study was conducted using a closed-ended questionnaire of 28 questions on demographics, knowledge and attitude towards antenatal vaccination.

RESULTS

- 432 women completed the questionnaire (response rate of 86.4%), 324 (75%) were pregnant, 108 (25%) had just given birth.
- Although the majority of women were aware of both diseases (66.9%, 289), they admitted lack of adequate information offered from all sources about antenatal vaccination (73.4%, 317).
- There was poor awareness that the vaccination is safe during pregnancy (95, 22 %).

RESULTS (continued)

- Few women even believed that maternal vaccination can cause birth defects (26, 5%) and autism (13, 2.5%).
- Only 76 (17.6%) of the study participants were aware that all pregnant women should receive influenza and pertussis vaccines.
- The majority of women (349, 80.8%) did not receive any recommendations from their obstetrician who is their major antenatal care provider.
- Only 26 (6%) of women had been offered the vaccines during current pregnancy.
- A binary logistic regression analysis was performed to determine the factors that influence antenatal vaccine uptake taking into account the demographic characteristics, knowledge, and attitude regarding vaccine uptake.
- We found significant impact to vaccine uptake ($\beta = 1.704$, $p = 0.000$), when participants had prior vaccine uptake, were aware of the National Immunization Schedule recommendation ($\beta = 1.286$, $p = 0.006$) and obstetrician's recommendation ($\beta = 0.962$, $p = 0.049$).

CONCLUSIONS

- The knowledge and uptake of influenza and pertussis vaccines among pregnant women in Greece was found to be poor and significantly lower, compared to other European countries and the USA.
- There is substantial room for improvement among antenatal care providers in both patient education and offering the vaccine.

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