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**Abstracts** 

# Selected Abstracts of the 1<sup>st</sup> Congress of joint European Neonatal Societies (jENS 2015) • Session "Brain & Development"

BUDAPEST (HUNGARY) · SEPTEMBER 16TH-20TH 2015

#### **PROGRAMME COMMITTEE**

Artúr Beke (Hungarian Society), Morten Breindahl (ESN), Giuseppe Buonocore (UENPS), Pierre Gressens (ESPR), Silke Mader (EFCNI), Manuel Sánchez Luna (UENPS), Miklós Szabó (Hungarian Society of Perinatology), Luc Zimmermann (ESPR)









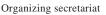






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Mortality was adjusted by the Neocosur mortality risk score (J Perinatol. 2005;25:577).

#### **RESULTS**

10,728 VLBW infants were enrolled (50.8% males): mean BW 1,077 g (± 284), 34.1% under BW 1,000 g, mean GA 28.8 weeks (± 3).

Global mortality was 27.6%. 5% died in the delivery room and 22.6% died after admission. Pregnancy control (82.7 to 90.8%), antenatal steroids use (71 to 80.9%), multiple gestations (17.4 to 22.6%), major congenital malformations (5.2 to 7.6%), Apgar < 3 at 5' (7.1 to 9.6%), CPAP (37.9 to 57.6%), prophylactic CPAP (2.4 to 15.8%) and PDA (29.9 to 42.3%) showed a significant increase. Vaginal delivery (34.0 to 26.1%), early onset sepsis (7.1 to 2.3%), late-onset sepsis (26.6 to 20.4) and ROP (30.1 to 22.4%) showed a significant decrease. Death at delivery room (5.0%),  $O_2$  36 weeks (17.6%), IVH G III-IV (11.2%) and NEC (11.1%) remained with non-significant changes.

Furthermore, adjusted by risk there was a 5% decrease in mortality over the last 6 years period. CONCLUSIONS

Through this 12 year period, raw mortality and the incidence of many major morbidities have remained unchanged in our Network despite improvements in both obstetrical and neonatal practice. However an improvement in mortality was found when adjusting for perinatal risk factors. This fact, together with the significant increases in multiple gestation, congenital malformations and low Apgar scores point towards a shift in the population served.

#### **ABS 15**

### IMPACT OF VARICELLA VACCINATION IN CHILDREN UNDER 1 YEAR OF AGE IN ITALY (2006-2011)

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#### INTRODUCTION

Varicella represents the most widespread vaccine preventable childhood infectious disease in Italy. In children under 1 year of age, it tends to be more severe with a higher rate of complications like pneumonia, hepatitis and encephalitis, and is associated with higher mortality. In Italy, between

2003 and 2010, 8/21 Regions have progressively introduced Universal Varicella Vaccination (UVV) in their immunization programs, with different schedules in children aged 13-15 months and 5-6 years. Objective of this study was to analyze hospitalization rates (HR) in children under 1 year of age, by the different vaccination policies in Italy in 2006-2011.

#### PATIENTS AND METHODS

We performed a retrospective review hospitalization data from Italian hospital discharge forms, provided by the Ministry of Health. We considered the codes 052.0-052.9 by ICD9-CM system (primary or secondary diagnosis). HR of varicella in children under 1 year of age were calculated by different vaccination policies (referring to the year 2008) in 3 different areas: area 1, with a UVV policy (Veneto, Sicilia, Puglia, Toscana), area 2, with policy of vaccinating susceptible adolescents and at-risk population (Piedmont, Friuli Venetia Giulia, Liguria, Lazio, Campania, Basilicata, Calabria, Sardinia) and area 3 with vaccination of only at-risk population (the remaining regions). The denominator for HR was calculated using resident population aged less than 1 year numbers according to ISTAT.

#### **RESULTS**

10,483 hospitalizations for varicella were identified in patients of any age. The peak in varicella hospitalizations was observed in the first year of life. In this age group varicella was responsible of 13.7% of hospitalizations. 71.5% of cases in primary diagnosis (PD) were varicella without mention of complications, followed by the varicella with other specified complication (9.6%). 32 diagnosis reported post-varicella encephalitis and 15 hemorrhagic pneumonia. When varicella diagnosis was reported as secondary (SD), the most frequent PD were pneumonia or respiratory failure (25.7%). Annual HR globally declined in this age group from 56.4 to 34.2/100,000 children. The greatest HR were in area 3 and they declined from 63.9 to 44/100,000. In area 2 HR declined from 55.6 to 43.1/100,000, and in area 1 HR significantly decreased from 49.3 to 11.5/100,000 (test for trend, p < 0.001) (**Fig. 1**).

#### CONCLUSIONS

This study demonstrated that varicella continues to represent a relevant health problem in Italy, especially in the pediatric age. Data obtained by the Italian Regions that first introduced universal vaccination demonstrated that it allows to reduce the incidence of varicella and hospitalization rates.

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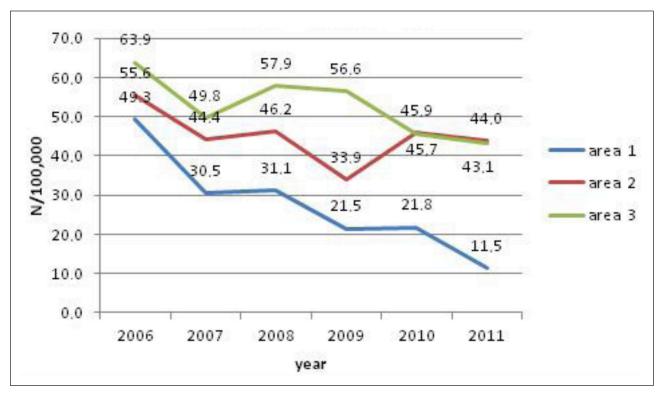


Figure 1 (ABS 15). Hospitalization rates (x 100,000) in children under 1 year of age in Italy in 2006-2011 by vaccination policies.

#### **ABS 16**

## GENERAL HEALTH PERCEPTION OF YOUNG ADULTS BORN PRETERM OR WITH A VERY LOW BIRTH WEIGHT IN THE NETHERLANDS VERSUS PEERS

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#### INTRODUCTION

Studies have shown adverse outcomes for those born very preterm or with a very low birth weight, even until adulthood. The aim of the current study is to gain insight in the general health perception of young adults in the Dutch nationwide POPS (Project On Preterm and Small for gestational age infants) cohort study, who were born very preterm (< 32 weeks of gestation) and/or with a very low birth weight (< 1,500 grams) in 1983, at two different ages in young adulthood.

#### PATIENTS AND METHODS

At 19 years of age, the participants of the POPS cohort were asked to complete questionnaires

at home before their visit for a full physical examination (n = 672). At 28 years of age, they completed various online questionnaires (n = 314). At both ages a general health question used in the CBS (Statistics Netherlands) Health Interview Survey (HIS) was asked, originating from the SF-36 questionnaire: "In general, would you say that your health is: excellent, very good, good, fair, or poor?". The HIS data from the same year that the POPS cohort completed the questionnaires was used as control data. In the HIS data bases, 18-20 year olds were selected from the data file of the year 2002 (n = 203) and 27-29 year olds (n = 220) of 2011.

#### **RESULTS**

**Fig. 1** shows significant differences between the POPS participants and their peers within the HIS at both 19 (p = .001) and 28 (p < .001) years of age. At 19 years of age, 44.8% of the POPS participants reported 'excellent' or 'very good' health, versus 62% of their peers within the HIS. At 28 years of age, 52.6% of the POPS participants reported 'excellent' or 'very good' health, versus 68.7% of their peers. Gender also affected general perceived health; women perceived their health as poorer, compared to men. In a multivariate analysis, including both gender and groups, the differences