

## GLOBAL PROBLEMS

**P2-345 AMNIOTIC FLUID CHEMOKINES LEVELS AND AUTISM SPECTRUM DISORDERS, A STUDY UTILISING A DANISH HISTORIC BIRTH COHORT**

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**Introduction** With escalating prevalence over the past 3 decades and increasing cost of care, Autism Spectrum Disorders (ASD) represent a major public health concern. Despite the ongoing extensive research, no specific pathophysiological pathway has been universally accepted. However, converging evidence sheds the light on the important role of immunologic dysfunction in ASD.

**Objectives** To our knowledge, this is the first study to analyse levels of selected chemokines (monocyte chemoattractant protein [MCP]-1, macrophage inflammatory protein [MIP]-1 $\alpha$  and regulated upon activation normal T-cell expressed and secreted [RANTES]) in maternal amniotic fluid of individuals diagnosed with ASD later in life and controls.

**Methods** We adopted a case-control study design utilising Danish nation-wide health registers and a historic birth cohort (HBC) kept and maintained at Statens Serum Institute in Copenhagen. 414 Cases and 820 controls were retrieved from the HBC. Chemokines measurements were performed using Luminex xMAP technology. Case-control differences in biomarker levels were assessed as continuous measures (Tobit Censored regression models) or dichotomised at below the 10th percentile or above the 90th percentile cutpoints derived from control biomarker distributions (logistic regression).

**Results and Conclusion** We found no significant overall difference in the pattern of the analysed amniotic fluid chemokines in ASD cases compared to controls. However, females tend to show a different chemokine pattern compared to males, especially for MIP-1 $\alpha$ , but with no statistical significance (Elevated 90th percentile OR=2.24 [95% CI 0.90 to 5.59]). Larger-scale studies with more sensitive assays are needed to investigate the role of chemokines and other cytokines in ASD.

**P2-346 THE RISK OF VENOUS THROMBOEMBOLISM IN AND AROUND PREGNANCY: A POPULATION-BASED COHORT STUDY**

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**Background** Knowledge of the absolute and RR of Venous Thromboembolism (VTE) in and around pregnancy is crucial in identifying when to commence and cease thromboprophylaxis in women who would benefit most from such intervention.

**Methods** We used electronic general practice data with details of all pregnancies in prospective primary care records of women aged 15–45 years old between 1987 and 2004. Women experiencing their first VTE event were identified, and the risks of VTE during antepartum and postpartum periods were compared with those outside pregnancy using a Poisson regression model adjusted for age and calendar period.

**Findings** Among 972 683 women in our cohort there were 207 327 live birth pregnancies. The overall risk of VTE compared with the risk outside pregnancy was much higher in the postpartum (HR=11.9 95% CI 9.8 to 14.5; absolute risk 228/100 000 person-years) than antepartum (HR=2.9, 2.3 to 3.7; 55/100 000 person-years). The third trimester conveyed greater risk (HR=5.3, 4.0 to 7.0) than the first (HR=1.3, 0.7 to 2.4) and second (HR=1.7, 1.0 to 2.8) trimesters. The increase in postpartum risk was predominantly in the first 6 weeks postpartum (HR=22.3), with only a small increased risk in the second 6 weeks postpartum (HR=1.8). Findings were independent of age and calendar period.

**Interpretation** Women are at highest risk of VTE in the third trimester of pregnancy and in the first 6 weeks postpartum. Beyond the normal age-related increase risk of VTE for all women, pregnancy does not augment further the increased RR of VTE related to age. These findings will inform the revised Royal College of Obstetricians and Gynaecologists guidelines on VTE prophylaxis.

**P2-347 10 YEARS OF POLIO/AFP SURVEILLANCE IN LEBANON: 2000–2009**

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**Background** Ever since the 1988 poliomyelitis eradication global initiative, cases have been drastically decreasing; however, four countries remain polio reservoir sources for virus exportation. In Lebanon, the last two indigenous cases were reported in 1994. Acute flaccid paralysis (AFP) surveillance was adopted in Lebanon in 1998 to detect poliomyelitis cases, using syndromic approach.

**Objective** The objective of AFP surveillance is to early identify polio cases and achieve rapid response.

**Methods** According to Lebanese law, physicians immediately report any suspected polio case, using WHO case definition. Detection is enhanced by weekly hospital zero-reporting and active surveillance. Once case is reported, investigation is launched with data gathering and stool collection within 14 days of paralysis onset. Virological culture is performed at WHO accredited laboratory. Patients are reviewed by treating physicians or National Expert Group at day 60, assessing residual weakness. Accordingly, patients are classified as polio confirmed, compatible or discarded. Surveillance findings are posted at MOPH website.

**Results** Between 2000 and 2009, 154 patients were reported, on average 15 annually. No silent geographic areas were identified. 63% were males and 36% were under 5 years. Annual national AFP rate ranged from 0.79 to 2.34/100 000 under 15 y, with 72% specimen adequacy. Final diagnosis of most patients (75%) was attributed to Guillain Barre. One imported polio patient was confirmed in 2003 and another was classified as compatible in 2008.

**Conclusion** Enhancing AFP surveillance is of national priority because Lebanon is highly susceptible to polio importation due to ongoing Lebanese diaspora and foreign workers turnover.

**P2-348 AVOIDABLE MORTALITY IN ELDERLY PEOPLE: USING THE BRAZILIAN AVOIDABLE CAUSES OF DEATH CLASSIFICATION IN THREE BRAZILIAN CITIES (2003–2007)**

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Population ageing is observed throughout the world, especially in developing countries where this growth is even faster. Ageing leads

to the overlapping of non-communicable diseases (NCDs) and transmitted diseases (TDs) as the main causes of morbidity and mortality. This study describes the distribution of avoidable mortality from the Brazilian List of Preventability (LBE) among the elderly (60–75 years) in the cities of Belo Horizonte, Porto Alegre and Recife in the years 2003–2007. Data on elderly mortality were taken from the Mortality Information System (SIM). The profile of causes of death in the three cities showed no significant differences. In all of them, LBE preventable causes of deaths were more frequent—average of 2907 deaths (60%). The NCDs accounted for 1248 deaths (83.2%). Ischaemic heart diseases was the largest cause of NCDs. Among the TDs (n=163 deaths), respiratory infections were the main cause of death. Among causes avoidable by immunisation, TB was the most prevalent. Accidents and violence were 2.2 times more frequent among men. In the three cities, traffic accidents were also prominent. Preventable deaths predominated, especially NCDs, despite there also being a significant number of deaths from TDs. The use of the LBE showed the process of epidemiological transition in the three cities. In order to reduce premature mortality among the elderly, it is essential to invest in programs and actions promoting health and prevention of both NCDs and TDs.

**P2-349 USE OF INSECTICIDE TREATED NETS AMONG PREGNANT WOMEN ATTENDING ANTENATAL CARE AT A PRIMARY HEALTHCARE FACILITY KADUNA STATE, NIGERIA**

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**Introduction** Malaria is an important public health problem in Nigeria. Pregnant women are among the high risk groups for developing malaria. Insecticide Treated Nets (ITNs) have been shown to be an effective means of preventing malaria. A study was undertaken to assess use of ITNs among pregnant women attending Antenatal care.

**Methods** A descriptive study was conducted. A sample of 330 pregnant women attending Antenatal clinic at a Primary Healthcare center were interviewed on history of fever, use of ITNs and use of other interventions to repel or kill mosquitoes.

**Results** The mean age of respondents was 25.25 years ( $\pm 5.48$ ). More than a third 127 (39%) were in their third trimester of pregnancy. Most 273 (83%) reported having had a fever during the index pregnancy. Only 43 (13%) had any type of mosquito net. Overall 25 (7.6%) had ITNs. Pregnant women with higher levels of education were more likely to have mosquito nets than those with lower levels of education (Secondary education or higher 72% vs Primary education 14%). Most 324 (98%) of the ANC attendees used other interventions to repel or kill mosquitoes, 181 (56%) mainly used insecticide sprays.

**Conclusion** There is low utilisation of Insecticide Treated Nets by pregnant women attending Antenatal Care. Use of other interventions to kill or repel mosquitoes was higher. Antenatal Care provides an opportunity to create awareness and distribute Insecticide Treated Nets to pregnant women. Indoor Residual Spraying is likely to be acceptable as a means of vector control.

**P2-350 WILLINGNESS AND SELF-RATED COMPETENCE TO PROVIDE SMOKING CESSATION SERVICES BY FAMILY AND COMMUNITY MEDICINE DOCTORS IN A TERTIARY HOSPITAL IN NIGERIA**

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**Background** Patients advised to quit smoking by their physicians are more likely to quit than patients not receiving physician advice. However, most smokers do not receive this advice when visiting their physicians. This scoping study was to assess the willingness and self-rated competence of doctors to provide tobacco cessation services as a prelude to the establishment of a hospital based cessation service.

**Methodology** Self-administered semi-structured questionnaire was used to collect information from doctors working in the family medicine and community medicine departments of a teaching hospital.

**Result** Forty-one doctors participated in the study. Mean age of participants was  $35.5 \pm 7.5$  years. Majority (61.0%) were males and most (78.1%) had worked  $\leq 5$  years in the institution. About half (51.2%) were aware of Nigeria tobacco decree, 14.5% were aware of WHO-FCTC and the 5As of smoking cessation. Only 4.9% had ever used the change model. Barriers to tobacco cessation activities in everyday practice included having no materials to hand out (41.5%), lack of time (29.3%), not knowing what to say or do (14.6%); and where to send patients for counselling (31.7%). Smoking cessation services were offered routinely in the clinics of 17.1% of respondents. Less than 10% believed they had excellent knowledge and skills in pharmacology of nicotine, motivating patients to quit and behavioural smoking cessation techniques. Seventy percent expressed willingness to learn more about these topics with majority (53.7%) preferring the on-site continuing medical education mode.

**Conclusion** Training and creation of an enabling environment is needed to encourage doctors to practice tobacco cessation in their facilities.

**P2-351 IRON STATUS AND CARDIOVASCULAR DISEASE RISK IN BLACK SOUTH AFRICAN WOMEN: THE PURE STUDY**

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**Objective** To examine the associations between measures of iron status and cardiovascular disease (CVD) risk factors in South African women.

**Design** The study was cross-sectional in design. Demographic information and health history were obtained during individual interviews using validated questionnaires. Anthropometric indices, iron indices, blood pressure, blood glucose and lipid profiles were measured using standard procedures. Iron status was assessed using serum concentrations of ferritin, transferrin receptor and transferrin receptor to ferritin ratio.

**Setting** North West Province of South Africa.

**Subjects** 1262 apparently healthy black South African women (>35 years).

**Results** Associations between iron status parameters and CVD risk factors were generally weak ( $r < 0.3$ ,  $p < 0.01$ ) and were not retained when age, BMI, smoking, alcohol consumption and C