Conclusions In this cohort, the frequency of high caffeine consumption was low; however, it was independently associated with LBW, but not with preterm birth.

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PS-312 WITHDRAWN

PS-313 AN INQUIRY INTO ALCOHOL CONSUMPTION DURING PREGNANCY IN THE NETHERLANDS (2007–2010)

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Background and aims Alcohol consumption during pregnancy is associated with several adverse outcomes for the developing child, of which fetal alcohol syndrome (FAS) is the most well-known. In The Netherlands it is recommended not to drink any alcohol while pregnant. Our objective was to describe the prevalence and pattern of alcohol consumption during pregnancy in the Netherlands.

Methods In 2007 and 2010 we undertook two nation-wide surveys amongst mothers who brought their infant aged ≤6 months to a well-baby clinic. Survey-data were weighted for educational attainments to represent national figures.

Results In 2007 data were obtained from 2768 and in 2010 from 1448 women. Between 2007 and 2010, the frequency of drinking did not increase, but the amount per occasion did. Overall, 21% of women reported that they had drunk alcohol during pregnancy. Of women who drank alcohol during the first 3 months, 25% reported 1–3 drinking occasions per month; 7% reported weekly intake, and 0.5% reported daily intake of alcohol. Binge drinking (≥6 drinks/occasion) while pregnant was reported by 8%. In 2007, 53% had <1, 40% had 1–3, and 7% had ≥3 drinks/occasion. In 2010 this was respectively 4%, 83%, and 13%. As compared to the first three months, in the last six months of pregnancy alcohol intake was somewhat less.

Alcohol consumption in pregnancy was more prevalent amongst older (≥35 years of age), higher educated women, and amongst women who reported that they had smoked tobacco products while pregnant (adj. OR 2.06; 95% CI 1.51–2.73).

Conclusions Despite current recommendations, in 2007 and 2010, 21% of Dutch women drank alcohol while pregnant.

PS-314 THE RISK OF MACROSOMIA LINKED TO DIABETES IN PREGNANCY: DATA FROM THE FRENCH POPULATION IN 2011

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We evaluated the risk of macrosomia according to the type of maternal diabetes from the French birth cohort in 2011.

Method Data were obtained from the PMSI (medical Information system program) and the SNIIRAM (inter-regimens national system of information) of the French health insurance. All the childbirths and the terminations of pregnancy (TOP) after 22 weeks were selected. The mother's diabetic status was determined by an algorithm based on the consumption of antidiabetics and hospitalisation diagnoses before and during the pregnancy. An identifier in the PMSI links mothers and children. Macrosomia was defined as a birth weight (BW) > 4 kg or > 90th percentile for gestational age.

Results 806 579 childbirths /TOP > 22 weeks were identified in the PMSI. The motherchild chaining was obtained for 474 614 births. 16.7% of the newborn had BW >4 kg in type 1 diabetes (T1D), 13.4% in type 2 diabetes (T2D), 9.0% in GD, and 6.6% in the normal population. 42.5% (n = 354) of the newborn had a BW >90th percentile in T1D, 30.4% (n = 348) in T2D, 15.7% (n = 5096) in GD and 9.4% in the absence of diabetes. The OR compared with the absence of diabetes were respectively 7.0 [6.1–8.0], 3.9 [3.4–4.4] and 1.7 [1.6–1.8]. The median BW was significantly higher whatever the term of birth in cases of GD compared to the normal population.

Conclusion the risk of macrosomia is the highest in case of T1D, but it remains in case of GD, although it is lower.

PS-315 NEONATAL ADRENAL SUPPRESSION AFTER MATERNAL CORTICOSTEROID USE? A SINGLE-CENTRE CASE-STUDY

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Background The use of supra-physiological exogenous corticosteroids in pregnancy can lead to neonatal adrenal suppression causing life-threatening disease. However, evidence on the occurrence of neonatal adrenal suppression after maternal steroid use, is lacking.

Objective Examining the occurrence of adrenal suppression in newborns after maternal steroid use during pregnancy.

Methods Single-centre case series including all newborns (n = 18) between October 1st, 2006 and February 1st, 2014 of mothers using prednisolone, more than 10 mg/ day. Newborns were routinely assessed by physical examination, blood glucose concentrations, serum cortisol, adrenocorticotropic hormone concentration and urinary steroid profiles within 48 h after birth. Hypoglycemia was defined as blood glucose below 2,6 mmol/L (46 mg/dl). Abnormal serum cortisol was defined as twice below 100 nmol/L. An abnormal urinary steroid profile was defined as absence of fetal metabolites.

Results Six newborns suffered from hypoglycemia, responding well to oral feedings or intravenous glucose administration. All had additional risk factors for hypoglycemia; none had abnormal serum cortisol concentrations or urinary steroid profiles. In two newborns abnormalities in urinary steroid profiles were suggestive for adrenal suppression, although both had adequate serum cortisol concentrations. In both cases, the infants were born prematurely and placenta bed pathology was suspected. After four weeks, urinary steroid profiles of both neonates showed fetal metabolites.

Conclusion No clinically relevant adrenal suppression was found in eighteen newborns of mothers using corticosteroids during

pregnancy. Assessment of adrenal function should be preserved for newborns with clinical suspicion of adrenal dysfunction or with risk factors as prematurity or placenta bed pathology.

PS-316 UMBILICAL BLOOD FLOW PATTERNS DIRECTLY AFTER BIRTH BEFORE DELAYED CORD CLAMPING

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Background Delayed cord clamping (DCC) effects both cardiopulmonary transition and blood volume in neonates. Understanding the circulation through the umbilical vessels immediately after birth, with cord and placenta intact, is important.
Objective To describe the duration and patterns of blood flow through the umbilical vessels during DCC.
Methods Arterial and venous umbilical blood flow was measured during DCC using Doppler ultrasound in a prospective, observational, study of uncomplicated term vaginal deliveries. Immediately after birth, the probe was placed in the middle of the umbilical cord and the pattern and duration of flow in the vein and arteries evaluated until cord clamping.
Results Thirty infants were studied. Venous: In 10% there was no flow, in 57% flow stopped at a median (IQR) min:sec of 4:34(3:03–7:31) after birth before cord was clamped, and in 33% flow continued until cord clamping at 5:13 (2:56–9:15). Venous flow was initially intermittent (100% increase during large breaths, stopped/reversed during crying), but became continuous. Arterial: In 17% there was no flow, in 40%, flow stopped at 4:22(2:29–7:17), while cord pulsations were still palpable. In 43% flow continued until cord was clamped at 5:16 (3:32–10:20). Arterial flow was pulsatile, unidirectional towards placenta or bidirectional to/from placenta. In 40% flow became almost continuous (non pulsatile) later after birth.
Conclusion During DDC venous and arterial umbilical flow occurs for longer than previously described. Net placental transfusion is probably the result of several factors of which breathing could play a major role. Umbilical flow is unrelated to cessation of pulsations.

PS-317 QF-PCR AS A STAND-ALONE TEST FOR DIAGNOSIS OF ANEUPLOIDES IN PRE AND POSTNATAL SAMPLES: AN INDIAN REPORT

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Down syndrome is the most common aneuploides seen in live born babies with the prevalence of 1 in 1000 followed by other trisomies. The burden of aneuploides can be reduced with new molecular cytogenetic technology which helps in early intervention and genetic counselling. As our centre is being a referral centre for all genetic disorders, we receive a high risk couples related to chromosomal abnormalities as having one affected child. Since we are providing QF-PCR as a stand-alone test for postnatal diagnosis, the same methodology was extrapolated for prenatal diagnosis.

Initially, 500 postnatal samples (Blood in EDTA vial) and 240 amniotic fluid samples were received for analysis of chromosomal aneuploidies from various part of the country. The DNA was extracted with QIAamp DNA mini kit by Qiagen. QF-PCR was carried out with the following markers D21S1411, D21S11, D21S1435, D21S1412, AMEL, SRY, D18S535, D18S391, D13S258, D13S634 and XHPRT, X22 whose heterozygosity have been studied.

We observed 100% concordance with the clinical diagnosis as well as cytogenetic analysis of postnatal samples. With these results we went for prenatal services were chromosomal studies are very common for suspected Down syndrome pregnancies. Out of 240 pregnancies studied, 2% (5) was of Trisomy 21 and a single case of Trisomy 18 was identified, these results were also reconfirmed with karyotyping results.

Results of present investigation reassure QF-PCR as stand-alone test for high risk pregnancies. This is the first study from India that tested the in-house developed multiplex QF-PCR for post and prenatal diagnosis.

PS-318 ARE ANTENATAL CORTICOSTEROIDS LESS EFFECTIVE IN TWINS THAN IN SINGLETONS? A COHORT STUDY IN THE ITALIAN NEONATAL NETWORK

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Background Although antenatal corticosteroids (ACS) represent the paradigm of "evidence-based medicine", their efficacy in case of twin pregnancy is not established, and available results are conflicting.

This study aimed at evaluating the association between ACS and neonatal outcomes in twins, comparing the results with those in singletons.
Methods A cohort of neonates 24–29 weeks gestational age (GA) without congenital anomalies, born in 2005–2012 and assisted in 90 hospitals adhering to the Italian Neonatal Network, was analysed.

Outcomes were: death, grade 3–4 intraventricular haemorrhage (IVH), cystic periventricular leukomalacia (PVL). Logistic regression models, adjusting for GA, sex and birthweight and clustering for hospitals, were used. Results were also checked adjusting for a propensity score of receiving ACS.
Results We studied 13029 infants (mean GA 27.1 weeks; mean birthweight 964 g); 81.4% were treated with ACS (any dose); 29% were twins. Twins were treated more often than singletons (84.4 vs. 80.2%, $p < 0.001$).

Among twins, ACS were associated with a reduction of in-hospital death (adjusted Odds ratio, aOR = 0.75; 95% CI: 0.58–0.98) and IVH (aOR = 0.52; 95% CI: 0.40–0.68) but not PVL (aOR = 0.92; CI: 0.62–1.36).

The effect of ACS was always smaller in twins than in singletons (72% lower for death, 23% for IVH, and 15% for PVL).

Analyses using the propensity score approach yielded similar results.
Conclusions This large cohort allowed us to clarify that ACS prophylaxis is efficacious also in twins but the magnitude of the