impaired endothelial health are at increased risk. We studied genetic polymorphisms associated to cardiovascular disease and impaired endothelial function in women with and without preeclampsia.

Methods: 241 African and 279 Caucasian women were recruited for genetic testing of the polymorphisms epoxide hydrolase 1 (EPXH1), endothelial nitric oxide synthase (NOS3) on exon 7 and variable nucleotide tandem repeats in intron 4 (NOS3I4a/b), angiotensinogen and the estrogen receptor1 polymorphism in intron 1.

Results: Of 241 African women, 95 developed preeclampsia and out of the 279 Caucasian women 81 had preeclampsia. Carriers of the NOS3I4a/b polymorphism had a 1.7-fold increased risk to develop preeclampsia. There was no difference in distribution of the other tested polymorphism. Furthermore we could show a fourfold reduction to encounter severe course of preeclampsia (defined as occurrence of HELLP-syndrome or eclampsia) in carriers of the EPHX1 polymorphism encoding histidine.

Conclusions: Our data reveal a highly significant association of the NOS3I4a/b polymorphism with increased risk to develop preeclampsia in pregnancy. The shown association of EPXH1 polymorphism with the severity of preeclampsia strengthen the concept, that individual susceptibility determines the capability of the maternal organism to deal with the pregnancy derived agents causing preeclampsia.

PP058. Cradle: Community blood pressure monitoring in rural Africa: Detection of underlying pre-eclampsia
Hezelgrave Natasha, de Greef Annemarie, Irvine Lucy, Seed Paul, Radford Samara, Shennan Andrew

Introduction: In many developing countries pre-eclampsia is under-detected partly due to inadequate training in accurate blood pressure (BP) measurements and insufficient, poorly functioning equipment.

Objective: To evaluate whether the introduction of easy to use, low cost novel BP devices (Microlife 3AS1-2; designed by our research group specifically for use in developing countries and validated in pregnancy (B/A grade) according to BHS criteria) into rural clinics in Tanzania, Zimbabwe and Zambia increases referrals for suspected pre-eclampsia to a central referral hospital (as reflected by an increase in mean BP in pregnant women seen in the central referral site).

Methods: International prospective longitudinal pre- and post-intervention pilot study. BP measurements were taken from consecutive women $\geqslant$20 weeks' gestation who accessed care at a referral site ($N = 694$). 20 BP devices were distributed to 20 rural antenatal clinics in each country. Post-intervention data was collected the following year ($N = 547$).

Results: After adjustment for confounders, there was a significant increase in primary outcome; post-intervention mean diastolic BP for all women (2.39 mmHg, $p < 0.001$, 95% CI 0.97–3.8), implying an increased proportion of referred hypertensive women; and a reduction in proportion of women (median gestation 35 weeks') who had never previously had a BP taken in pregnancy (25.1% to 16.9%, OR 0.58, $p = 0.001$, CI 0.42–0.79).

Conclusion: Equipping community healthcare providers with this novel validated BP device is feasible, widely accepted and results in increased referrals for suspected pre-eclampsia. A cluster RCT to evaluate the effect of these monitors equipped with a traffic-light 'early warning system' is planned.

PP059. Characteristics of body inflammatory reaction during the implementation of differentiated therapy of preeclampsia in perioperative care
Jonboboeva Galiya, Pyregov Aleksey

Objectives: To learn features of the electrolyte balanced starch solution of Tetraspan in comparison with standard starch solutions in therapy of preeclampsia. The advantages of Tetraspan (B Braun®) application were the composition, which is due to electrolyte composition near to blood plasma absence of negative influence on kidneys and on curtailing system of blood.

Material and methods: 220 puerperal women with preeclampsia after cesarean section were investigated. They were divided into two groups: In the basic group $n = 110$, the composition of infusion therapy included Tetraspan, in comparison group $n = 110$ one of the well known hydroxyethylstarch solution. The control group include puerperal women ($n = 100$) without preeclampsia infusion therapy of this group did not include starch solutions. Efficiency of therapy was estimated on a clinical picture, body fluid's sectors examination in dynamics and cytokine profile (proinflammatory IL1â, IL 6 and anti-inflammatory IL 10) immunological examination. Inspections were spent on 1st and 5th days after Cesarean section.

Results: The cytokines profile: the 1st day in the basic group: IL1 â–124 ± 13.1, IL 6 – 56.2 ± 19.1, IL 10 62 ± 11. At 5th day: IL1 â 109 ± 13.5, IL 6 – 41.6 ± 17.3, IL 10 52 ± 13. At comparison group -1st day: IL1 â-123 ± 10.9, IL 6 – 51.3 ± 28.2, IL1 â 10 63.4 ± 14.1. At 5th day: IL1 â 112 ± 24, IL 6 - 47 ± 26.3, IL 10 61 ± 18.4. Control group: At 1st day: IL1 â -82 ± 15.2, IL 6 – 33.3 ± 21.1, IL10 98.7 ± 13.6. At 5th day: IL1 â - 114 ± 12.6, IL 6 – 27.1 ± 18.3, IL 10 – 64.9 ± 12.6.

Conclusion: The cytokines dynamic profile examination from the first to fifth day in basic group (in comparison with the second group) shows timely minimization of proinflammatory cytokines level and increase of the anti-inflammatory cytokines, which has good prognostic indication in recovery period. Modeling influence of Tetraspan at the inflammatory answer provides early decrease of proinflammatory and increase of anti-inflammatory markers level. Thus, on the basis of clinical and laboratory inspection results proved the efficiency of Tetraspan and recommends to apply this electrolyte balanced starch solution in perioperative therapy of average and heavy preeclampsia.