non-pregnant cohort ($p<0.001$). TLR 1 expression was highest postpartum compared to the non-pregnant controls with mean TLR 1 expression being 78% ($p< 0.001$) above the non-pregnant control level.

CONCLUSION: TLR 1 is elevated during pregnancy and postpartum in uncomplicated pregnancies. Since TLR 1 ligands are specifically associated with bacteria, we hypothesize that basal expression of TLR 1 increases following transient exposure to bacteria at delivery and remains elevated into the postpartum period. Postpartum TLR 1 levels have not yet returned to non-pregnant control levels suggesting that immune system adaptations persist beyond the prototypical puerperal stage. This information may be useful for future studies evaluating TLR 1 and preterm labor.

Percentage increase in TLR 1 positive cells when compared to non-pregnant controls

Serum Collection	Mean Increase	Standard Error of Mean
Collection 1 (First Trimester)	50.3%*	1.7%
Collection 2 (Second Trimester)	69.9%*	1.3%
Collection 3 (Day of Delivery)	59.4%*	1.4%
Collection 4 (Postpartum)	78.0%*	1.6%

* Significant $P < .05$ compared to non-pregnant controls.

103 Implementation of a full-time laborist program is associated with a substantial reduction in cesarean section rate

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OBJECTIVE: Laborist programs have grown as a means to improve patient safety and lower physician work hours. While laborist programs have expanded, there has been limited research examining their effect on patient outcomes. Within many community hospitals, physicians are often located off site dividing time between office and hospital settings. This traditional model results in reduced physician oversight, inefficiency, and incentive to move towards earlier cesarean delivery. Our hypothesis is that the initiation of a full-time dedicated laborist staff decreases cesarean section rate (CSR) in term primiparous patients.

STUDY DESIGN: A hospital database was examined to look at delivery data from 2006-2011 for 3 historical groups based upon laborist status: no laborist, 24 hour in hospital laborist coverage by community staff, or 24 hour in hospital coverage by a full-time laborist team. Data was examined for primiparous patients who delivered at ≧ 37 weeks.

RESULTS: Data was available on 6396 term primiparous patients. A significant reduction in CSR was seen with the full-time laborist team as compared to the no laborist and community laborist groups. No significant difference was found between the no laborist and community laborist group in CSR. Logistic regression analysis was utilized to examine the effects of birthweight, gestational age, diabetes, maternal weight, and physician group upon CSR. An adjusted odds ratio revealed a 27.5% reduction in risk of cesarean section with provision of care by the full time laborist group when compared either the no laborist or community laborist groups.

CONCLUSION: A large reduction in CSR was seen with term primiparous delivery when a full-time laborist staff was utilized. In contrast, in-hospital coverage with community physicians who are not committed full-time as laborists resulted in no significant change in CSR. This study supports the formation of dedicated full-time laborist staff models at community hospitals to lower the CSR.

Higher MWT and GA were associated with higher CSR by logistic regression analysis

	No Laborist (NL)	Community Laborist (CL)	Full-time Laborist (FL)	P value
CSR %	41.5	40.0	34.8	<0.001 a
Birth weight (gms)	3283±437	3274±429	3283±432	NS
Maternal weight (MWT)	177.0±37.8	178.9±37.9	180.6±39.6	<0.05 b NS c
Diabetes %	3.9	3.3	3.3	NS
Gestational Age (GA)	39.3±1.1	39.2±1.0	39.3±0.9	NS d <0.05 e

a: significant difference between FL vs. NL, and FL vs. CL; b: significant difference between FL and NL; c: NS between FL and CL; d: NS between FL and NL; e: significant difference between FL and CL.

104 Optimization of competences in obstetrical emergencies: a place for simulation training?

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OBJECTIVE: In emergency situations inducing intense stress, optimal management requires an immediate coordinated action of the multidisciplinary and multi-professional team. This study investigates the influence of simulation training on 3 specifics skills: control of the emergency situation, knowledge of algorithms, team communication.

STUDY DESIGN: Clinical algorithms are first presented to the participants including obstetricians and midwives. Six emergency situations (shoulder dystocia, postpartum hemorrhage, eclampsia, maternal basic life support, neonatal resuscitation, operative vaginal birth) are trained on high fidelity simulation mannequins, with subsequent debriefing. The 3 above-mentioned skills are evaluated anonymously through a self-assessment questionnaire with a five points Likert scala immediately after the training and 3 months later.

RESULTS: Since 2010, 168 participants took part in the training. The return rate of questionnaires after 3 months was 36.3%. The proportion of junior doctors, specialist doctors and midwives was 31.1%, 34.7% and 34.2%. 40.2 % of the participants had less than 5 years professional experience, 23.6 % between 5 and 10 years and 36.2% more than 10 years. In comparison to the self-assessment collected directly after the course, 3 months later, the participants had emergency situations completely or rather better under control (61.5% vs. 22.8%) and the algorithms completely or rather better present (69.2% vs. 46.5%). 3 months after the training 89.7% of the participants had improved their team communication. The participants who most benefited of the training for the control of emergency situation and presence of algorithms had a professional experience between 0-5 years. The participants with a professional experience between 5-10 years improved most their team communication.

CONCLUSION: The implementation of simulation training strengthens the professional competence sustainably and contributes to optimize the peripartum care of mother and child in emergency situations.

105 Decreased expression of endostatin (ES) and hypoxia-inducible factor 1α (HIF-1α) is associated with excessive trophoblast invasion and aberrant angiogenesis in placenta accreta

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OBJECTIVE: ES, a bioactive C-terminus proteolytic cleavage fragment of extracellular matrix collagen XVIII, inhibits migration/proliferation of cancer epithelial cells. ES has powerful anti-angiogenic activities via down-regulation of vascular endothelial growth factor (VEGF), which is modulated by HIF-1α signaling. We hypothesized that in focal areas of excessive trophoblast invasion, ES interferes with angiogenesis and HIF-1α induction of VEGF.