

Conclusions from our research (references mentioned publications)

- Introduction of multidisciplinary teamwork training with integrated acute obstetric training interventions in a simulation setting is effective in the prevention of errors, thus improving patient safety in acute obstetric emergencies.
- Multidisciplinary team training appears to be cost-effective, therefore this training should be implemented.
- Team performance and medical technical skills improve significantly after multiprofessional obstetric team training in a medical simulation centre.
- Multiprofessional simulation-based obstetric team training improves patient-reported quality of care.
- Simulation team training facilitated implementation of the all-fours technique, improves documentation of delivery notes and has a beneficial effect on the number of children injured due to shoulder dystocia.
- Team training reduces trauma due to shoulder dystocia (OR 0.50, 95% CI 0.25-0.99) and increases invasive treatment for severe postpartum haemorrhage (OR 2.2, 95% CI 1.2-3.9).
- The beneficial effect of a one-day, simulation-based, multiprofessional, obstetric team training declines after three months.
- If team training is further evaluated or implemented, repetitive training sessions every three months are recommended.
- Multi-professional team training in a medical simulation center is cost-effective in a scenario where the repetition training sessions are performed on-site.
- According to the simulation model, maternal hyperoxygenation leads to an increase in fetal oxygenation. We are currently performing a randomised controlled trial to evaluate the use oxygen in case of fetal distress.
- In our trainings, based on literature search, we support the use of tocolysis and maternal repositioning for fetal distress. When oxygen appears to be safe and effective, this will be implemented immediately.
- The Clinical Teamwork Scale (CTS) demonstrated the most comprehensive validation.
- Simulation-based team training is advised to reduce the number of medical errors.
- Instructional design features for an evidence based effective training course are well described. We developed a valuable and reliable assessment tool for the evaluation of the instructional design of simulation-based team training courses: the ID-SIM. An objective and standardized evaluation of these courses enables reliable comparisons between different training designs.
- The five-minute Apgar score is an easy and reliable tool to measure perinatal outcome

What's the evidence from our research group and to what extent does it add to scientific literature?

As a conclusion from all publications mentioned above we can state that multiprofessional training in a medical simulation center is effective if medical professionals continue thereafter with repetition training sessions every three months.