

Simulation-based Interprofessional team training to prepare for Ex Utero Intrapartum Treatment-to-Airway for fetal neck mass

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- **EXIT to airway procedure:** Secures neonatal airway in cases of anticipated obstruction while maintaining fetoplacental circulation
- **Case: 30-year-old G2P0** was referred at 32 weeks' gestation with large fetal neck mass (57×54×60 mm)
- **Complex coordination:** Large interprofessional team, multiple time-critical steps for maternal and neonatal safety
- **Simulation-based team training:** Uses human factors principles to reduce cognitive load and build shared mental models in high-stakes, low-frequency events.¹

Simulation-based Interprofessional team training

- **Plan:** EXIT-to-airway procedure after multidisciplinary consultation
- **Simulation:** Full-length rehearsal with color-coded teams & multiple contingencies
- **Simulation review:** Livestreamed for real-time expert feedback and post-sim debrief → process improvements
- **Outcomes:** Optimized positioning, improved communication pathways, identified key touchpoints





Discussion and Conclusion

Procedure: EXIT at 36 weeks; airway secured via video laryngoscopy in 10 mins.

Anaesthesia: Epidural + GA (sevoflurane); nitroglycerin for uterine relaxation; phenylephrine for hemodynamic support

Outcome: EBL 1,700 mL (cell salvage 186 mL); uncomplicated maternal and neonatal courses

- **Value of simulation:** Prepares teams for human factors challenges in rare, high-stakes cases
- **Shared mental models:** Clear role delineation, rehearsed contingency plans
- **Evidence:** Evidence: Improves team performance; may reduce neonatal mortality ²
- **Impact in this case:** Shared mental models → better situational awareness, communication & error anticipation
- **Takeaway:** Ongoing human factors training + regular team simulations support optimal performance in rare obstetric events