

Postpartum Cup: A Lifesaving Innovation for Realtime and Accurate Estimation of Obstetric Blood Loss in Postpartum Haemorrhage

Patil, Archit (School: Kashinath Palod Public School)

Postpartum haemorrhage is the leading cause of maternal mortality worldwide. 1, 22,500 women bleed to death after childbirth every year. Blood loss is estimated by grossly inaccurate, visual assessment or by quantitative methods like brass v drape and Kelley's pad which are useful only for intrapartum period and not beyond. Underestimation of blood loss and delay in diagnosis is the major concern. My lifesaving innovation is a silicone device to accurately measure the post delivery blood loss in real-time. The prototype was evaluated by health experts and their suggestions were incorporated in the final design. The testing was done for safety and toxicity from Indian Drug Research Laboratory, Pune. The approval for trial was obtained from the ethical committee of government medical college and written consents were obtained from the participants. The clinical trials were conducted under the supervision of obstetricians government medical colleges and at private hospitals. It was observed that, the obstetricians, paramedics and patients easily adapted to the PPH cup. Exact blood loss after delivery was measured in real-time without much handling of patients and many lives could be saved by taking early measures in case of PPH. Overenthusiastic massive blood transfusion and its related side effects were prevented. The generation of biomedical sanitary waste was minimized. This extra ordinary low cost device is eco-friendly, autoclavable, reusable, safe and effective way of quantitative estimation of blood loss after delivery. The impact of this 50 gm device is huge and validated by all stake holders.

Awards Won:

