

Evidenced-based Oxytocin Guidelines for PPH Prevention

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Problem

Several studies have been conducted on the ideal intravenous oxytocin dose to prevent PPH during elective cesarean section; however, there is a lack of consensus on the safest and efficacious dose, leading to varying practices among institutions and anesthesia providers

Literature Review

Commonly, IV infusion dosing regimens for oxytocin range between 10-40IU diluted into 500ml or 1000ml of crystalloid (Charles et al., 2019; Stephens et al., 2012; WHO, 2018). When comparing dosing regimens to determine the optimal dose of intravenous oxytocin for cesarean delivery, multiple studies suggests that blood loss was not significantly less with higher amounts of oxytocin. Thus, lower oxytocin infusion rates are efficacious in PPH prevention and help avoid the increased incidence of nausea, hypotension, and elevated heart rate associated with higher Oxytocin doses (Charles et al., 2019; Stephens et al., 2012; WHO, 2020).

Methods

This project will be defined as a *quality improvement (QI)* and *quality assurance (QA)* project. The setting will be an online interface that will include a 60-minute evidenced-based Class A pharmacology CE module for CRNAs on the appropriate use of oxytocin to prevent PPH during elective cesarean section.

Illustration



Results

CE module approved by the American Association of Nurse Anesthetists (AANA)

Discussion & Implications

In 2018, WHO updated their recommendations for treatment and prevention of PPH and identified Oxytocin as the recommended Uterotonic of choice for prevention of PPH.

WHO currently recommends 10 IU for PPH prevention for women undergoing cesarean section, without preference for intravenous or intramuscular administration.

Additionally, WHO also suggests avoiding a rapid oxytocin injection, and agreed that the 10 IU oxytocin dose should preferably be diluted and administered slowly in women undergoing cesarean section.

Illustration



Conclusions

An extensive literature review led to the preparation of a CE module with evidence-based recommendations for safe oxytocin usage during c-sections with the aim to facilitate lifelong learning in anesthesia providers.

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