



Oxytocin in Active Management of the Third Stage of Labor

Background

Severe bleeding after childbirth is the largest cause of maternal mortality, accounting for at least one-quarter of maternal deaths worldwide. In the African region, postpartum hemorrhage (PPH) contributes to an even higher proportion of maternal mortality. Active management of the third stage of labor (active delivery of the placenta) helps prevent postpartum hemorrhage. Active management of the third stage of labor (AMTSL) includes—

- Immediate oxytocin
- Controlled cord traction
- Uterine massage

Oxytocin plays an important role in ATMSL and prevention of PPH. The availability and proper use of oxytocin are key components to the success of interventions to prevent PPH. When oxytocin cannot be used, misoprostol has sometimes been recommended for prevention of PPH, although it is an off-label recommendation. Clinical studies on the effect of misoprostol are ongoing, however, and no final recommendation has yet been agreed upon. In the event of oxytocin failure, ergometrine may be used; however, ergometrine is more sensitive to light and heat than oxytocin and loses its potency quite rapidly if left unrefrigerated.

Using Oxytocin

Oxytocin is a naturally occurring hormone in the human body that is stored in the

pituitary gland. When released in a mother just after the birth of a baby, this hormone stimulates both milk production and contraction of the uterus to slow and stop uterine bleeding. The naturally occurring hormone may be insufficient in preventing PPH, however. Synthetic oxytocin is the form used in preventing and treating PPH. It is administered either intramuscularly or intravenously. It gives tone to and overcomes relaxation of the muscular uterine wall, thus preventing severe bleeding.

Oxytocin has the most rapid onset of action of any of the medicines available for PPH. It is effective two to three minutes after injection, has minimal side effects, and can be used in all women. It reduces the length of the third stage of labor and is inexpensive.

Although it requires refrigeration, oxytocin can be used for up to three months if stored at room temperature, depending on the manufacturer (check manufacturer's label).

Making Oxytocin Available

Oxytocin should be included in the national essential medicines list and standard treatment guidelines to ensure that it is procured along with other medicines.

The preferred storage of oxytocin is refrigeration, but it can be stored at room temperature for up to three months (depending on the manufacturer's

recommendation). Oxytocin is not affected by light or freezing.

Oxytocin use should be properly recorded at all levels to minimize stock-outs. These records provide the data needed to estimate procurement quantities.

Policies should be put in place to enable all skilled birth attendants to practice AMTSL.

Conclusion

Oxytocin is the recommended first-line medicine for prevention of post partum hemorrhage. It is preferred because it is effective in two to three minutes after injection, has minimal side effects, and can be used in all women.

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