TITLE: Intramuscular Oxytocin for the Prevention of Post-Partum Hemorrhage Outside the Hospital: Clinical Evidence and Guidelines

DATE: 18 October 2013

RESEARCH QUESTIONS

1. What is the clinical evidence regarding the routine use of intramuscular oxytocin for the prevention of post-partum hemorrhage (PPH) following childbirth taking place outside of a hospital?

2. What is the clinical evidence regarding the optimal timing of intramuscular oxytocin for the prevention of PPH following childbirth taking place outside of a hospital?

3. What are the evidence-based guidelines regarding the use of intramuscular oxytocin for the prevention of PPH following childbirth taking place outside of a hospital?

KEY MESSAGE

Three systematic reviews, one randomized controlled trial, and three evidence-based guidelines were identified regarding the routine use of intramuscular oxytocin for the prevention of post-partum hemorrhage (PPH) following childbirth.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2013, Issue 10), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. The search was limited to English language documents published between Jan 1, 2008 and Oct 7, 2013. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

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RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials (RCTs), non-randomized studies, and evidence-based guidelines.

Three systematic reviews, one RCT, and three evidence-based guidelines were identified regarding the routine use of intramuscular oxytocin for the prevention of post-partum hemorrhage (PPH) following childbirth. No relevant health technology assessments or non-randomized studies were identified.

Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

The results of one systematic review and three guidelines recommend oxytocin as the first choice of treatment for the prevention of PPH and suggest that all women giving birth be administered oxytocin during the third stage of labour as a preventative measure. For women who are delivering vaginally, and who do not possess specific risk factors for PPH, oxytocin 5 IU or 10 IU by intramuscular (IM) injection is recommended for PPH prophylaxis.

One systematic review attempted to compare the use of IM oxytocin with intravenous (IV) oxytocin infusion for the prevention of PPH, but no relevant RCTs were identified comparing the two treatments. One systematic review sought to determine the effects of timing of oxytocin administration on maternal outcomes. Administration of oxytocin before and after the delivery of the placenta did not significantly change the incidence of postpartum hemorrhage or other clinically important maternal outcomes. Most of the studies included in the review were focused on the use of IV oxytocin. It was unclear if the results would also apply to the use of IM oxytocin. None of the systematic reviews or guidelines were specific to the out of hospital setting.

One RCT examined the effect of IM oxytocin (10 IU) administered after delivery for the prevention of PPH at home births. Overall, there was less bleeding and fewer women were referred to hospital for post-partum bleeding in the oxytocin group than in the control group. No major adverse events were reported in either group. The authors determined that IM oxytocin could be considered for use in some settings outside of the hospital.
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses


Randomized Controlled Trials


Non-Randomized Studies
No literature identified.

Guidelines and Recommendations


See: 5. Prediction and prevention of postpartum haemorrhage, page 3
Summary available from:
http://www.guideline.gov/content.aspx?id=32487

PREPARED BY:
Canadian Agency for Drugs and Technologies in Health
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APPENDIX – FURTHER INFORMATION:

Clinical Practice Guidelines – methodology not specified


Review Articles


Additional References


See: Prevention of postpartum hemorrhage, page 3