Active Management of Third Stage of Labor

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BACKGROUND/SIGNIFICANCE

- Healthy People 2020 Goal: Improve the health and well-being of women, infants, children and families.
- Postpartum hemorrhage (PPH) is the leading cause of maternal morbidity and mortality.
- Preventable.
- Most cases of morbidity and mortality due to PPH occur in the first 24 hours after delivery.

CLINICAL QUESTION

- In postpartum patients (P), is active management of the third stage of labor (I) effective in reducing postpartum hemorrhage occurrences (O)?

SEARCH STRATEGY

- An online literature review was conducted.
- Search Terms: Active management of the third stage of labor, interventions, postpartum hemorrhage, AMTSL.
- EBSCO
- Inclusion criteria: written in English, vaginal deliveries, peer reviewed, and published from 2008 to 2018.

SYNTHESIS OF THE EVIDENCE

<table>
<thead>
<tr>
<th>Article #</th>
<th>Author &amp; Date</th>
<th>Evidence Type</th>
<th>Sample Size</th>
<th>Study Findings</th>
<th>Limitations</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Saconne et al, 2017</td>
<td>Systematic review and meta-analysis of RCTs</td>
<td>3842 singleton gestation</td>
<td>Uterine massage was not associated with a significant reduction in the incidence of postpartum hemorrhage. Administration of prophylactic oxytocin at any dose decreases PPH and the need for therapeutic uterotonics compared with placebo alone. Controlled cord traction has the advantage of reducing the risk of manual removal of the placenta and of blood loss. Delayed cord clamping has been associated with neonatal benefits with no effects on blood loss. Due to lack of evidence, three standard interventions should be followed: prophylactic oxytocin, DCC, and CCT.</td>
<td>Limited evidence</td>
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<td>2</td>
<td>WHO, 2012</td>
<td>Systematic review</td>
<td>Oxytocin (10 IU IVMM) is the recommended uterotonic drug for the prevention of PPH. In settings where skilled birth attendants are available, CCT is recommended for vaginal births if the care provider and the parturient woman regard a small reduction in blood loss and a small reduction in the duration of the third stage of labor as important. Late cord clamping is recommended for all births while initiating simultaneous essential newborn care. Sustained uterine massage is not recommended as an intervention to prevent PPH in women who have received prophylactic oxytocin. Postpartum abdominal uterine tone assessment for early identification of uterine atony is recommended for all women. Uterine massage is recommended for the treatment of PPH.</td>
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<td>3</td>
<td>Denouez-Tharaux et al, 2013</td>
<td>Multicentre, RCT</td>
<td>CCT: 2175 Standard placental expulsion : 2180</td>
<td>Controlled cord traction for the management of placental expulsion had no significant effect on the incidence of postpartum hemorrhage and other markers of postpartum hemorrhage. The study was not blinded.</td>
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<td>4</td>
<td>Gülmezoglu et al, 2017</td>
<td>RCT, non-inferiority trial</td>
<td>Simplified package group: 11861 Full package group: 11820</td>
<td>The omission of controlled cord traction results in very little increased risk of severe hemorrhage. Controlled cord traction is safe and its use can continue in settings that practice it. Effective prevention of postpartum hemorrhage can be accomplished with an IM injection of oxytocin 10 KJ after delivery of the baby. Teaching of controlled cord traction in medical and midwifery curricula should continue. There is a need to focus on strategies to scale up the use of oxytocin as the primary component of AMTSL. This study did not examine the role of uterine massage in reducing blood loss.</td>
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<td>5</td>
<td>Roy, 2016</td>
<td>Prospective RCT</td>
<td>Study Group: 500 Control Group: 500</td>
<td>Placental blood drainage as part of active management of the third stage of labor was effective in reducing he duration, the blood loss, and also the incidence of postpartum hemorrhage.</td>
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<td>6</td>
<td>Tewel, Zelelem et al, 2017</td>
<td>Cross Sectional Study</td>
<td>528 Electronic care providers</td>
<td>The knowledge and practice of obstetric care providers towards active management of third stage of labor can be improved with appropriate interventions like in-service trainings. The level of knowledge and practice needs immediate attention of universities and health science colleges to revise obstetrics course content.</td>
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FINDINGS

- Uterine massage did not significantly decrease postpartum blood loss, but is still recommended.
- Oxytocin is the first line drug of choice.
- Controlled cord traction had no significant effect on postpartum hemorrhage.
- Placental blood drainage reduced the duration, blood loss, and incidence of postpartum hemorrhage.

SUMMARY

- Recommendation for a more concise definition of AMTSL.
- Possible research using single interventions to measure if one intervention alone decreases postpartum hemorrhage versus multiple interventions used in combination.
- Further research needed on all intervention to assess effectiveness due to differing results and lack of literature.

REFERENCES