

Creating Healthy Work Environments 2019

How has Active Management of the Third Stage of Labor Reduced Postpartum Hemorrhage Occurrence?

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Background: Postpartum hemorrhage is the leading cause of maternal mortality and is preventable. Its prevalence is still high even with guidelines in effect. Postpartum hemorrhage occurs mainly during the third stage of labor up to 24 hours after birth. Active Management of Third Stage of Labor consists of interventions to prevent or control postpartum hemorrhage which include the use of uterotonics, uterine massage, controlled cord traction, cord clamping, placental blood drainage and uterine assessment. The purpose of this review was to identify effectiveness of current interventions used during third stage of labor to decrease postpartum hemorrhage occurrences.

Methods: A literature review was conducted of the online database – EBSCO – with the following inclusion criteria: peer reviewed, published from 2008 to 2018, written in English, and vaginal deliveries. Fifty records were retrieved with 23 meeting inclusion criteria and included in final evaluation.

Findings: There were inconsistent results with all interventions proposed. Early cord clamping was shown to have no effect on the amount of blood loss. Similarly, delayed cord clamping was shown to not increase risk of maternal blood loss. Uterine massage was shown to be beneficial in postpartum hemorrhage and was also shown to be a potential cause for increased bleeding. Placental blood drainage results shown decreased blood loss, shorter duration and decreased complications during the third stage. Similarly, placental blood drainage was found to have no effect on maternal blood loss. The use of uterotonics are beneficial, however; results vary on which drug is more effective. Controlled cord traction was shown to have a non-significant effect on maternal blood loss.

Conclusion: Active management of third stage of labor is still recommended for the prevention and treatment of postpartum hemorrhage. Further research needed on all intervention to assess effectiveness due to differing results and lack of literature. Possible research using single interventions to measure if one intervention alone decreases postpartum hemorrhage versus multiple interventions used in combination.

Title:

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Keywords:

active management of third stage of labor, interventions and postpartum hemorrhage

References:

Alexandra, B. (2015). Implementation of delayed cord clamping in the active management of the third stage of labour. *MIDIRS Midwifery Digest*, (2), 211. Retrieved from <https://login.ezproxy.lib.uwf.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsovi&AN=edsovi.00115386.201506000.00019&site=eds-live>

Bishanga, D.R., Charles, J., Tibaijuka, G., Mutayoba, R., Drake, M., Young-Mi, K., & Rawlins, B. (2018). Improvement in the active management of the third stage of labor for the prevention of postpartum hemorrhage in Tanzania: a cross-sectional study. *BMC Pregnancy and Childbirth*, Vol 18, Iss 1, Pp 1-10 (2018), (1), 1. <https://doi-org.ezproxy.lib.uwf.edu/10.1186/s12884-018-1873-3>

Claudio, G. S., Fernando, A, Jose, M. B, Pierre, B. Use of oxytocin during early stages of labor and its effect on active management of third stage of labor. *American Journal of Obstetrics and Gynecology*. 2011;(3):238e1.

<https://login.ezproxy.lib.uwf.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsovi&AN=edsovi.00000447.201103000.00027&site=eds-live>. Accessed November 14, 2018.

Deneux-Tharoux, C., Sentilhes, L., Maillard, F., Closset, E., Vardon, D., Lepercq, J., & Goffinet, F. (2013). Effect of routine controlled cord traction as part of the active management of the third stage of labour on postpartum haemorrhage: multicentre randomised controlled trial (TRACOR). *BMJ: British Medical Journal*, 14. Retrieved from

<https://login.ezproxy.lib.uwf.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.23494425&site=eds-live>

Fathima, N., & Rao, M. V. R. (2016). An evaluation of the practice of active management of third stage of labour in a teaching hospital. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, (6), 1705. <https://doi-org.ezproxy.lib.uwf.edu/10.18203/2320-1770.ijrcog20161445>

GÃ¼lmezoglu, A. M., Lumbiganon, P., Landoulsi, S., Widmer, M., Abdel-Aleem, H., Festin, M., & Elbourne, D. (2012). Articles: Active management of the third stage of labour with and without controlled cord traction: a randomised, controlled, non-inferiority trial. *The Lancet*, 379, 1721-1727. [https://doi-org.ezproxy.lib.uwf.edu/10.1016/S0140-6736\(12\)60206-2](https://doi-org.ezproxy.lib.uwf.edu/10.1016/S0140-6736(12)60206-2)

GÃ¼ngÃ¶r, K., OlgaÅ, Y., GÃ¼lseren, V. & Kocaer, M. (2018). Active management of the third stage of labor: A brief overview of key issues. *Turkish Journal of Obstetrics and Gynecology*, Vol 15, Iss 3, Pp 188-192 (2018), (3), 188. <https://doi-org.ezproxy.lib.uwf.edu/10.4274/tjod.39049>

Hermida, J., Salas, B., & Sloan, N. L. (2012). Clinical article: Sustainable scale-up of active management of the third stage of labor for prevention of postpartum hemorrhage in Ecuador. *International Journal of Gynecology and Obstetrics*, 117, 278-282. <https://doi-org.ezproxy.lib.uwf.edu/10.1016/j.ijgo.2012.01.017>

Kashanian, M., Fekrat, M., Masoomi, Z., Ansari, S.N. (2008). Comparison of active and expectant management on the duration of the third stage of labour and the amount of blood loss during the third and fourth stages of labour: a randomised controlled trial. *Midwifery*. 2010;26:241-245. doi:10.1016/j.midw.2008.03.004.

Kaudel, S., Rana, A., Ojha, N. (2015). Comparison of Oral Misoprostol with Intramuscular Oxytocin in the Active Management of Third Stage of Labour. *Nepal Journal of Obstetrics & Gynaecology*. 2015;10(1):76-80.

<https://login.ezproxy.lib.uwf.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=109506044&site=eds-live>. Accessed November 14, 2018.

Low, L. K., Bailey, J. M., Sacks, E., Robles, C., & Medina, L. (2012). Reduced postpartum hemorrhage after implementation of active management of the third stage of labor in rural Honduras. *International Journal of Gynecology and Obstetrics*, (3), 217. Retrieved from

<https://login.ezproxy.lib.uwf.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN321368047&site=eds-live>

Miranda, J. E., Rojas-Suarez, J., Paternina, A., Mendoza, R., Bello, C., & Tolosa, J. E. (2013). Clinical article: The effect of guideline variations on the implementation of active management of the third stage of labor. *International Journal of Gynecology and Obstetrics*, 121, 266-269. <https://doi-org.ezproxy.lib.uwf.edu/10.1016/j.ijgo.2012.12.016>

Orhan E. O., Dilbaz, B, Aksakal, S. E., Altınbas, S., Erkaya, S. (2014). Clinical article: Prospective randomized trial of oxytocin administration for active management of the third stage of labor. *International Journal of Gynecology and Obstetrics*.2014;127:175-179. doi:10.1016/j.ijgo.2014.05.022.

Raams, T. M., Browne, J. L., Festen-Schrier, V. J. M. M., Klipstein-Grobusch, K., & Rijken, M. J. (2018). Task shifting in active management of the third stage of labor: a systematic review. *BMC Pregnancy and Childbirth*, (1). <https://doi-org.ezproxy.lib.uwf.edu/10.1186/s12884-018-1677-5>

Rahim, A. Y. H. A., Ounsa, M. A. A. G. E., Albarakati, R. G., Mohamed, E. Y., & Abdalla, S. M. (2018). Comparison between oxytocin, ergometrine and misoprostol in active management of the third stage of labour: a randomized controlled trial. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, (6), 2076. <https://doi.org/10.18203/2320-1770.ijrcog20182313>

Roy, P., Sujatha, M. S., Bhandiwad, A., Biswas, B., & Chatterjee, A. (2016). Placental Blood Drainage as a Part of Active Management of Third Stage of Labour After Spontaneous Vaginal Delivery. *Journal of Obstetrics and Gynecology of India*, (1), 242. Retrieved from <https://login.ezproxy.lib.uwf.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN379177954&site=eds-live>

Saccone, G., Caissutti, C., Ciardulli, A., Abdel-Aleem, H., Hofmeyr, G., & Berghella, V. (2018). Uterine massage as part of active management of the third stage of labour for preventing postpartum haemorrhage during vaginal delivery: a systematic review and meta-analysis of randomised trials. *BJOG: An International Journal of Obstetrics and Gynaecology*, (7), 778. <https://doi-org.ezproxy.lib.uwf.edu/10.1111/1471-0528.14923>

Saurabh, S., Rohan, A., Mondai, A., & Pati, S. (2017). A comparative study on oxytocics in the active management of third stage of Labour. *Journal of Evolution of Medical and Dental Sciences*, (43), 3395. <https://doi.org/10.14260/jemds/2017/735>

Sheldon, W. R., Durocher, J., Winikoff, B., Blum, J., & Trussell, J. (2013). How effective are the components of active management of the third stage of labor? *BMC Pregnancy & Childbirth*, 13(1), 1-8. <https://doi-org.ezproxy.lib.uwf.edu/10.1186/1471-2393-13-46>

Shorn, M.N., Dietrich M.S., Donaghey, B., & Minnick, A.F. (2017). US Physician and Midwife Adherence to Active Management of the Third Stage of Labor International Recommendations. *Journal of Midwifery and Women's Health*, (1), 58. <https://doi-org.ezproxy.lib.uwf.edu/10.1111/jmwh.12586>

Tenaw, Z., Yohannes, Z., & Amano, A. (2017). Obstetric care providers' knowledge, practice and associated factors towards active management of third stage of labor in Sidama Zone, South Ethiopia. *BMC Pregnancy and Childbirth*, Vol 17, Iss 1, Pp 1-7 (2017), (1), 1. <https://doi-org.ezproxy.lib.uwf.edu/10.1186/s12884-017-1480-8>

Vasconcelos, F. B., Katz, L., Coutinho, I., Lins, V. L., & de Amorim, M. M. (2018). Placental cord drainage in the third stage of labor: Randomized clinical trial. *PLoS ONE*, 13(5), 1-10. <https://doi-org.ezproxy.lib.uwf.edu/10.1371/journal.pone.0195650>

World Health Organization. (2009). Guidelines for the Management of Postpartum Haemorrhage and Retained Placenta. Geneva: World Health Organization. Evidence and recommendations. Retrieved from <https://login.ezproxy.lib.uwf.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=cmedm&AN=23844453&site=eds-live>

Abstract Summary:

Postpartum hemorrhage is the leading cause of maternal mortality. Postpartum hemorrhage occurrences remain high despite guidelines in effect. The purpose of this review was to identify effectiveness of current interventions used during third stage of labor to decrease postpartum hemorrhage occurrences.

Content Outline:

Content Outline: Background/significance, clinical question, search strategy, synthesis of evidence, findings, implications for practice, summary, references.

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