

Cotrax[®]



**SAVING THE
MOTHERS' LIFE**



Carbetocin (Cotrax[®]) in the Prevention of Postpartum Hemorrhage

- Both oxytocin and carbetocin - uterotonics meant for prevention of post-partum hemorrhage (PPH) - are listed in the Essential Medicines List by the World Health Organization (WHO).
- Though, carbetocin seems to have certain advantages over the oxytocin.

Compared to oxytocin, carbetocin:¹⁻³

Has similar or superior effectiveness for the prevention of PPH

Reduces need for additional uterotonic use in women undergoing cesarean delivery

Reduces need for additional uterotonic use in women at high risk of PPH delivering vaginally

Reduces risk of postpartum blood transfusion in high-risk women undergoing cesarean delivery

Has a longer half life

Is heat-stable and does not require cold-chain transport and storage

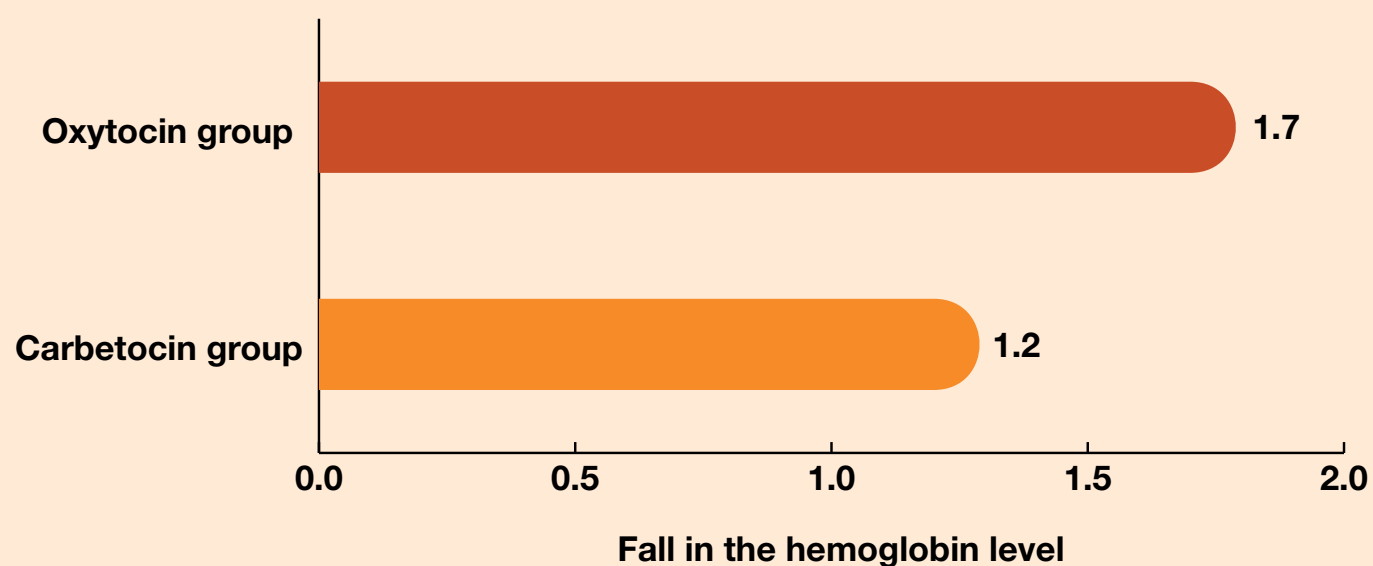
Conclusion

- Carbetocin (Cotrax[®]) effectively reduces the need for additional uterotonic use and postpartum blood transfusion in women at increased risk of PPH undergoing delivery.¹⁻³

Carbetocin (Cotrax[®]) vs. Oxytocin for Preventing PPH after Cesarean Section in Twin Pregnancy

- A prospective observational study compared the effectiveness of carbetocin and oxytocin for prevention of PPH when they are administered in twin pregnancies undergoing a cesarean section.⁴
 - » The study included 166 twin pregnancies at term undergoing elective or emergency cesarean section, and compared the effect of a single 100 µg dose of carbetocin with the use of oxytocin as a protocol (20 IU in Ringer lactate 500 ml in 10-15 min).
 - » Results showed that in the oxytocin group there was a greater fall in the hemoglobin level (1.7 vs. 1.2; figure 1).
 - » Use of carbetocin was associated with a reduction in the need to administer additional treatments (uterotonic and/or treatment for anemia) during the postpartum period compared with the use of oxytocin.

Figure 1: Fall in the hemoglobin level in women with twin pregnancies undergoing cesarean section and receiving oxytocin vs. carbetocin



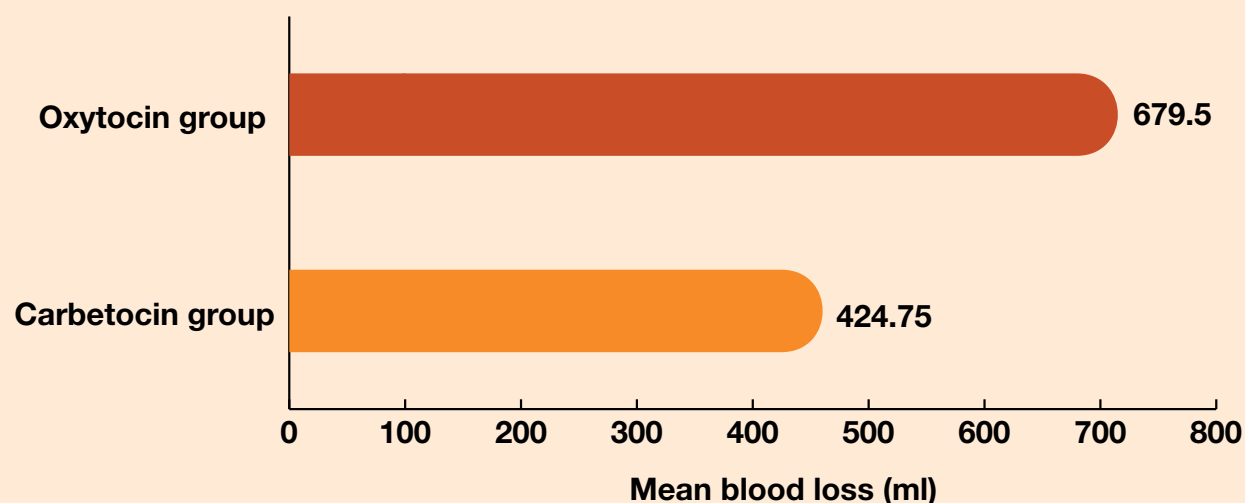
Conclusion

- Carbetocin (Cotrax[®]) appears more effective than oxytocin in preventing PPH in women with twin pregnancies delivered by cesarean section.⁴

Carbetocin (Cotrax[®]) vs. Oxytocin for Prevention of PPH in Hypertensive Women Undergoing Elective Cesarean Section

- In a randomized clinical trial designed to assess the efficacy and safety of carbetocin vs. oxytocin in prevention of PPH in hypertensive women, 160 hypertensive pregnant women undergoing cesarean section were randomized to receive either 100 µg carbetocin or 10 IU oxytocin.⁵
 - » The results showed that the postoperative hemoglobin was not different from preoperative levels in the carbetocin group, while it decreased significantly in the oxytocin group.
 - » Blood loss was significantly more among the oxytocin group (679.5 vs. 424.75 ml) than in the carbetocin group (figure 2).
 - » Furthermore, nausea, vomiting, and sweating were reported more significantly in the oxytocin group patients.

Figure 2: Mean blood loss in hypertensive women undergoing elective cesarean section and receiving carbetocin vs. oxytocin



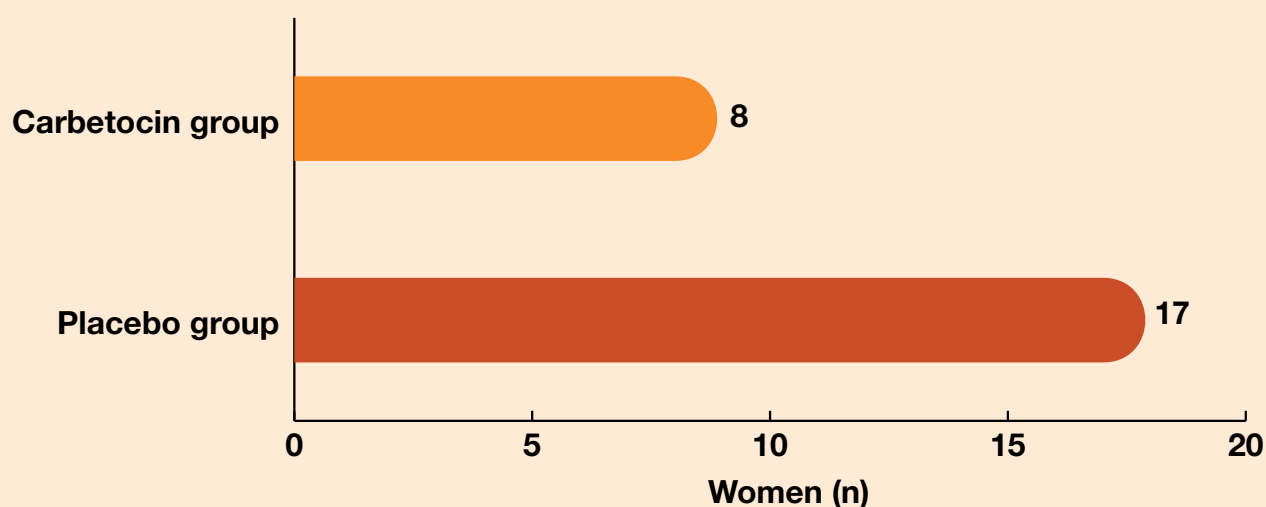
Conclusion

- Carbetocin (Cotrax[®]) was more effective than oxytocin in reducing intraoperative and postoperative blood loss in hypertensive women undergoing elective cesarean section.⁵

Carbetocin (Cotrax[®]) for Reducing Blood Loss During Abdominal Myomectomy

- A randomized, double-blind, placebo-controlled trial aimed to evaluate the efficacy of carbetocin 100 µg IV vs. placebo in decreasing intraoperative blood loss and the need for blood transfusion during abdominal myomectomy.⁶
 - » A total of 138 women with symptomatic leiomyoma, who were candidates for abdominal myomectomy, were randomized to carbetocin and placebo groups (n=69 in each group); carbetocin or placebo was administered slowly after induction of anesthesia.
 - » Results showed that the carbetocin group had significantly lower intraoperative blood loss compared with placebo.
 - » Eight women in the carbetocin group required blood transfusion compared with 17 in the placebo group (figure 3).

Figure 3: Women undergoing abdominal myomectomy and requiring blood transfusion: Carbetocin vs. placebo



Conclusion

- Carbetocin (Cotrax[®]) 100 µg IV given preoperatively is a simple, practical, and effective method of decreasing intraoperative blood loss and the need for blood transfusion during abdominal myomectomy, with tolerable, few, non-significant side-effects.⁶

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(Cotrax[®]) appears more effective than oxytocin in preventing PPH in women with twin pregnancies delivered by cesarean section.⁴

(Cotrax[®]) was more effective than oxytocin in reducing intraoperative and postoperative blood loss in hypertensive women undergoing elective cesarean section.⁵

(Cotrax[®]) 100 µg IV given preoperatively is a simple, practical, and effective method of decreasing intraoperative blood loss and the need for blood transfusion during abdominal myomectomy, with tolerable, few, non-significant side-effects.⁶

Direction of use

- Given only in a hospital under adequate medical supervision as an intravenous injection, immediately after child delivery by caesarean section under an epidural or spinal anesthetic.
- The dose is one vial (100 µg).

References

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3. Meshykhi LS, Nel MR, Lucas DN. The role of carbetocin in the prevention and management of postpartum haemorrhage. Int J Obstet Anesth. 2016;28:61-69.
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