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Antenatal corticosteroids for prevention of neonatal respiratory distress syndrome multiple vs simple doses

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ABSTRACT: *Objective:* To analyze the major outcomes comparing single versus multiple courses of antenatal corticosteroids (ACS) therapy in women at high risk of premature delivery. *Methods:* This systematic review analyzed 20 articles that were selected from “Biblioteca Virtual em Saúde” of Pan American Health Organization. The terms “multiple courses” and “antenatal corticosteroids” were used to search in databases: MEDLINE, LILAC, CUMED and IBECs. Another 4 relevant articles outside this search and fit our inclusion criteria were added. *Results:* There is no consensus in literature about whether multiple doses of ACS are beneficial or harmful for the infant and women. The majority of the reviewed articles positioned against multiple corticosteroid therapy, due to possible neurological effects to the newborn and the no outstanding results compared to single dose. Although some studies demonstrated that multiple ACS might have benefits greater than harms. Independently of those opinions, there is one major difficulty to establish the benefits of multiple ACS: insufficient long-term evaluation of these infants. For this reason, there are several neutral articles. *Conclusion:* The different criteria of each study (e.g. gestational age, dosage of ACS, sample size), made it difficult to analyze the articles in a standard format. There might be advantages in corticoid therapy in lower gestational age. However, there is a lack of long-term studies with exposed infants, besides insufficient studies about the best methods to administer the ACS (dosage, number of doses, rescue dose, gestational age). More long-dated follow-up and studies about methodologies are necessary to conclude this hypothesis.

Keywords: Glucocorticoids; Administration and dosage; Perinatal care; Pregnancy; Respiratory distress syndrome.