

ANTENATAL CORTICOSTEROIDS

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1. STEROIDS USED: Betamethasone and Dexamethasone

2. DOSAGE AND ROUTE OF ADMINISTRATION

- Betamethasone acetate phosphate: Two 12-mg doses of betamethasone given intramuscularly 24 hours apart
- Dexamethasone sodium phosphate: four 6-mg doses of dexamethasone administered intramuscularly every 12 hours (plain betamethasone phosphate salt available in India and most parts of world)
- The benefit of corticosteroid administration is greatest at 2–7 days after the initial dose

3. PURPOSE

- Antenatal maternal administration of steroids in premature labour reduces the incidence of respiratory distress syndrome (RDS), necrotising enter colitis and intra-ventricular haemorrhage in neonates resulting in reduced perinatal mortality and morbidity rates.
- RDS is known to affect 40-50% of babies born before 32 weeks gestation.
- The efficacy of neonatal surfactant therapy is enhanced by antenatal exposure to corticosteroids

4. INDICATIONS FOR ANTENATAL CORTICOSTEROIDS

- Threatened pre-term labour

- Antepartum haemorrhage if considered to be at risk of preterm delivery
- Preterm rupture of membranes

5. ANTENATAL STEROIDS ACCORDING TO GESTATIONAL AGE

- 24w to 33w+6/7d: A single course of corticosteroids is recommended for pregnant women between 24 0/7 weeks and 33 6/7 weeks of gestation, and may be considered for pregnant women starting at 23 0/7 weeks of gestation who are at risk of preterm delivery within 7 days
- 34w to 36w+6/7d: A single course of betamethasone is recommended for pregnant women between 34 0/7 weeks and 36 6/7 weeks of gestation at risk of preterm birth within 7 days, and who have not received a previous course of antenatal corticosteroids

6. RESCUE DOSE

- Two doses of 12 mg betamethasone or four doses of 6 mg dexamethasone
- Consider a single repeat course for women under 34 0/7 weeks if they are at risk of preterm birth within seven days and
- Their previous course was more than 14 days ago.
- A rescue course can be provided as early as seven days after the prior dose if indicated by the clinical situation.

7. ELECTIVE LSCS: elective caesarean section is planned prior to 38+6 weeks of gestation after discussing with parents

8. DEXAMETHASONE: Dexamethasone sodium phosphate is preferred over betamethasone

- Efficacy similar to betamethasone
- Widely available, low cost, and often prioritized in some guidelines
- More rapid onset and shorter duration of action
- More stable
- Also prevents Intraventricular haemorrhage

CONCLUSION: Dexamethasone sodium phosphate is preferred over betamethasone

REFERENCES

RCOG-Antenatal corticosteroids to reduce neonatal morbidity and mortality (Green-top Guideline No. 74), Use of antenatal steroid for preterm labour-FOGSI, ACOG - antenatal steroid therapy

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Guideline accepted date	January 2026
Guideline review date	January 2028

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