CORTICOSTEROIDS

Corticosteroids: Late Preterm

SUMMARY: A single course of corticosteroids is recommended for pregnant women with a singleton fetus who are between 34 0/7 weeks and 36 5/7 weeks of gestation and at risk of imminent preterm delivery between 24 hrs and 7 days from high risk presentation.

Rationale: Infants who are born at 34 0/7 to 36 6/7 weeks of gestation (late preterm) account for 70% of all preterm births and are at greater risk for adverse respiratory and other outcomes than those born at 37 weeks of gestation or later. ALPS (Antenatal Late Preterm Steroids) is a multicenter, randomized trial involving women with a singleton pregnancy at 34 0/7 weeks to 36 5/7 weeks of gestation who were at high risk for delivery during the late preterm period (34 0/7 weeks to 36 6/7 weeks). Antenatal administration of betamethasone to women at risk for late preterm delivery decreased the need for substantial respiratory support during the first 72 hours after birth. Betamethasone administration also resulted in reduced rates of severe neonatal respiratory complications, transient tachypnea of the newborn, and bronchopulmonary dysplasia along with reduced rates of surfactant use, resuscitation and prolonged stay in a special care nursery. There were no significant between-group differences in the incidence of chorioamnionitis or neonatal sepsis. Of note, neonatal hypoglycemia was more common in the betamethasone group than in the placebo group although no adverse events related to this were observed.

Eligible patients: Administer corticosteroids (preferably B-methasone) at 34 0/7-36 5/7 weeks if the risk for late preterm delivery within the next 24 hours to 7 days appears substantial. Patients with a singleton pregnancy and intact membranes as well as those with PPROM are eligible for late preterm corticosteroid use.

Contraindications:

- Allergy to steroids.
- Prior course(s) of antenatal corticosteroids during the pregnancy.
- Chorioamnionitis.
- Multiple gestation.
- Pregestational diabetes.
- Delivery anticipated within 12 hours.
- Nonreassuring fetal status.
- Cervical dilation of 8 cm or more.
- Major non-lethal fetal congenital anomaly.
- Maternal candidate for stress dose corticosteroids because of chronic steroid therapy.

Technique: Administer Betamethasone 12 mg IM q 24 hrs x 2 doses. This is considered one course of steroids.

Special Considerations:
- Rescue doses of antenatal corticosteroids should not be used in the late preterm period.
- Tocolysis is not indicated and should not be used in patients presenting in the late preterm period even to afford time for corticosteroid administration.
- Indicated delivery such as for chorioamnionitis or preeclampsia with severe features should not be delayed to administer antenatal corticosteroids in this gestational age group.
- In women with preterm labor symptoms in the late preterm period, evidence of preterm labor was defined in ALPS as cervical dilatation of at least 3 cm or effacement of at least 75% in order to minimize overtreatment in women who would likely deliver at term.
- Women with pregestational diabetes are not candidates for late preterm steroids due to heightened concerns about neonatal hypoglycemia.
- It may be reasonable to delay delivery for administration of corticosteroids in women with PROM who are not laboring or infected and in whom fetal status is reassuring when they present between 34 0/7 and 36 5/7 weeks.

References:

Gyamfi-Bannerman et al for the NICHD MFMU Network, *Antenatal Betamethasone for Women at Risk for Late Preterm Delivery*, NEJM, 2016

ACOG Practice Advisory: Antenatal Corticosteroid Administration in the Late Preterm Period, April 2016


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