ANTENATAL CORTICOSTEROIDS

Recommendations:

Imminent Preterm Birth:
A single course of corticosteroids is recommended for pregnant women between 24 0/7 weeks of gestation and 33 6/7 weeks of gestation who are at risk of preterm delivery within 7 days, including those with ruptured membranes and multiple gestations. It may be considered for pregnant women starting at 23 0/7 weeks of gestation who are at risk of preterm delivery within 7 days. (ACOG, 2017; reaffirmed 2020)

A single repeat course of antenatal corticosteroids should be considered in women who are less than 34 0/7 weeks who are at risk of preterm delivery within 7 days, and whose prior course of steroids was administered more than 14 days previously. Rescue corticosteroids could be provided as early as 7 days from the prior dose based on clinical scenario (ACOG, 2017; reaffirmed 2020)

Imminent Late Preterm Birth
A single course of betamethasone is recommended for pregnant women between 34 0/7 weeks and 36 6/7 weeks at risk of preterm birth within 7 days, and who have not received a previous course of corticosteroids. (ACOG, 2017; reaffirmed 2020)

Notes:
Not recommended if:
- Diagnosis of clinical chorioamnionitis
- It is not recommended to delay delivery with tocolysis in order to administer antenatal corticosteroids in the late preterm period
- It is not recommended to delay indicated late preterm delivery (such as for preeclampsia with severe features) in order to administer betamethasone

The Antenatal Late Preterm Steroids (ALPS) trial did not include women with multiple gestation, pre-gestational diabetes, previous exposure to corticosteroids during pregnancy, and women who gave birth by cesarean at term.
- Benefit in these populations is unknown

Neonatal hypoglycemia was more common in infants exposed to betamethasone, however, there were no reported adverse events related to hypoglycemia and it did not result in an increased length of hospital stay. Monitoring of neonatal blood glucose is recommended for late preterm infants since late preterm is a risk factor for neonatal hypoglycemia.
CORTICOSTEROIDS FOR PRETERM PRELABOR RUPTURE OF MEMBRANES
-A single course of antenatal corticosteroids is recommended for women with PROM between 24 0/7 weeks and 33 6/7 weeks of gestation and may be considered for pregnant women as early as 23 0/7 weeks who are at risk for preterm delivery within 7 days. (ACOG, 2017; reaffirmed 2020)

-Insufficient evidence to make recommendation regarding whether to administer a repeat or rescue course with preterm prelabor rupture of membranes (ACOG, 2017; reaffirmed 2020).

References:


### CORTICOSTEROID

#### DOSAGE AND ADMINISTRATION

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<th>CORTICOSTEROID</th>
<th>DOSAGE AND ADMINISTRATION</th>
<th>EFFECT / WHEN GIVEN</th>
<th>SIDE EFFECTS / LONG-TERM EFFECTS</th>
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<td>Betamethasone (Celestone)</td>
<td>Given to mother 12mg IM x 2 doses (24 hours apart)</td>
<td><strong>Effect on fetus</strong>&lt;br&gt;▪ Enhance maturity of fetal lungs by stimulating the production of surfactant&lt;br&gt;▪ Decrease chances of neonatal RDS and periventricular hemorrhage&lt;br&gt;<strong>Some evidence shows that Corticosteroids</strong>&lt;br&gt;▪ Decrease necrotizing enterocolitis&lt;br&gt;▪ Decrease neonatal death</td>
<td><strong>Maternal</strong>&lt;br&gt;▪ Increases blood glucose&lt;br&gt;▪ May cause adrenal suppression&lt;br&gt;▪ May suppress the immune system&lt;br&gt;▪ Transient rise in platelet and WBC’s that lasts 72 hours (WBC above 20,000 rarely due to steroids)</td>
<td><strong>Monitor contractions</strong>&lt;br&gt;<strong>Monitor blood sugars</strong>&lt;br&gt;<strong>Be alert to development of ketoacidosis, especially in diabetic women</strong>&lt;br&gt;<strong>Educate patient/family regarding the purpose, effects &amp; expected side effects of medication</strong></td>
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<tr>
<td>Dexamethasone</td>
<td>6 mg IM x4 doses (12 hours apart)</td>
<td><strong>When given</strong>&lt;br&gt;▪ See recommendations on next page</td>
<td><strong>Fetal</strong>&lt;br&gt;▪ Transient reduction in fetal breathing and body movements lasting 48 to 72 hours after last dose (more common with betamethasone)</td>
<td><strong>Monitor contractions</strong>&lt;br&gt;<strong>Monitor blood sugars</strong>&lt;br&gt;<strong>Be alert to development of ketoacidosis, especially in diabetic women</strong>&lt;br&gt;<strong>Educate patient/family regarding the purpose, effects &amp; expected side effects of medication</strong></td>
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**Contraindications**
None documented, currently being researched.

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Current research indicates the benefits of corticosteroids appear to outweigh the risks, especially with a single course.