The Use of Antenatal Corticosteroids

Background

- 1969 Liggins noticed that lambs given glucocorticoids were able to survive at an early gestation.

- 1972 Liggins and Howe publish landmark study of Betamethasone given to women at risk for preterm labor demonstrating improved survival of preterm infants

- 1994 NIH consensus panel concludes that a single course of corticosteroids reduces risk of death, RDS, and IVH

- 2016 ACOG stated that steroids may be considered at 23 weeks

- 2016 The Antenatal Later Preterm Steroids trial showed that betamethasone may benefit pregnancies between 34 0/7 to 36 6/7 weeks in terms of decreased need for respiratory support and a composite of respiratory outcomes as well as decreased time in the NICU.

Protocol

I. Women at a gestational age of 23 0/7 to 36 6/7 weeks who are at risk of delivery within 7 days may be given a course of antenatal corticosteroids.

II. The dose of antenatal steroids is:

   Betamethasone 12mg IM q24 hrs for 2 doses OR

   Dexamethasone mg IM q12 hrs for 4 doses
III. A repeat course, also called a rescue dose (2 doses separated by 24 hours) may be given to women who meet the following criteria:

1) < 34 weeks gestation
2) previous dose of steroids was more than 7 days ago
3) has had only one previous course of steroids
4) continues to be at risk of preterm delivery within 7 days

NOTES

A repeat course should not be given to women >34 weeks gestation

More than 2 courses should not be given

Before 34 weeks

Tocolyze to complete steroids unless contraindicated (chorioamnionitis, bleeding, severe preeclampsia, eclampsia, etc – this is not a complete list)

May give to women with diagnosis of chorioamnionitis – ACOG does not address this issue – however it is common practice to give steroids

After 34 weeks

Do not tocolyze to allow time to complete the steroids

Do not delay an indicated preterm birth to complete the steroids

Do not give to women with chorioamnionitis

Inform the pediatricians so the infant can be monitored for hypoglycemia

REFERENCES

ACOG Practice Bulletin Number 159 January 2016

ACOG Practice Advisory: Antenatal Corticosteroids Administration in the Late Preterm Period April 4, 2016