

## Antenatal Late Preterm Steroids (ALPS) Protocol

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**Purpose:** To ensure that eligible patients based upon the NICHD-MFMU Network trial are appropriately counseled and offered antenatal late preterm steroids.

**Process:** Guidelines were developed in collaboration between MFM physicians at Northwest Perinatal Center and neonatologists at Northwest Newborn Specialists in accordance with current national best practices, community standards, and the Providence System workgroup.

**Eligible Patients:** Pregnant patients with the following inclusion criteria:

- Gestational age between 34 0/7 – 36 5/7 weeks
- Preterm labor with cervix between 3 cm – 8 cm dilated OR  $\geq 75\%$  effaced
- Preterm rupture of membranes with  $< 6$  contractions per hour OR  $< 3$  cm dilated and oxytocin is withheld for 12 hours

**Exclusion criteria:** Patients should not be offered ALPS if any of the following exclusion criteria are present:

- Delivery is expected to occur in  $< 12$  hours
- Previously received betamethasone at any time in the pregnancy
- Pregestational diabetes (type 1 or type 2)
- Multiple gestation
- Major fetal anomalies present

\* Based upon the NICHD Maternal-Fetal Medicine Units Network trial (2016)<sup>1</sup>

### Important points of caution:

- Do NOT delay an indicated delivery in order to administer ALPS (i.e. chorioamnionitis, non-reassuring fetal status).
- Tocolysis SHOULD NOT be used after 34 0/7 weeks in an attempt to prolong gestation during ALPS administration.
- Patients with preeclampsia with severe features should not be managed expectantly while waiting to complete ALPS administration (i.e. begin the induction while administering steroids if therapy has been elected).

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### Patient counseling points:

- The benefit of ALPS is modest. Neonatal morbidity decreased from 14.4% to 11.6% in *composite respiratory complications* when betamethasone (BMZ) administration was compared to placebo. The NNT (number needed to treat) is 36 in order to prevent one case of a newborn needing immediate respiratory support.
- The majority of the benefit was due to fewer cases of TTN (transient tachypnea of the newborn) which is a self-limiting respiratory complication [6.7% with BMZ vs. 9.9% with placebo]. There was no improvement in the rates of RDS (respiratory distress syndrome) when evaluated as an individual outcome.
- ALPS is not without controversy. Some experts advocate against its widespread use until more data are available.
  - There are no outcome data currently available beyond neonatal discharge.
  - There are both human and animal data that demonstrate that higher doses of glucocorticoids are associated with IUGR (intrauterine growth restriction) and decreased head size – which could have postnatal impact.
  - The number needed to harm is unknown at this time, however concern has been raised regarding the potential risks (e.g. neonatal hypoglycemia requiring NICU admission).

**Recommendation:** It is important to avoid the overuse of ALPS in the presence of only a modest benefit. Care providers should 1) have discussion with their patients about the expected benefits and expressed concerns of ALPS, and 2) meticulously follow the stated eligibility and exclusion criteria presented.

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i Gyamfi-Bannerman C, Thom EA, Blackwell SC, et al. Antenatal betamethasone for women at risk for late preterm delivery. N Engl J Med 2016. DOI: 10.1056/NEJMoa1516783