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SMFM Consult Series #58: Need for a clear evidence base to guide expanded use of antenatal corticosteroids for individuals at risk for late preterm delivery

Check for updates

TO THE EDITORS: We read with heightened anticipation the Society for Maternal-Fetal Medicine (SMFM) Consult Series #58.[1] In this timely document, it is acknowledged that because of the emerging concerns for adverse long-term neurodevelopmental outcomes in exposed children,[2] the practice of administering late preterm corticosteroids is controversial and expert guidelines may vary. For example, support for the administration of late preterm corticosteroids was included in the European guidelines in 2016 but was subsequently reconsidered and removed in 2019.

We were therefore surprised that the SMFM #58 elected to answer the posited question, "Should patients continue to be offered antenatal late preterm steroids?" by suggesting that the only uncertainty is the extent to which beneficence will be experienced ("Given the potential benefit, we recommend select patients continue to be offered late preterm antenatal corticosteroids with the understanding of limitations in the evidence for efficacy to date"). We are concerned about the underlying assumption that any suggestion of potential efficacy in the face of limited evidence would only be hampered by an unknown degree of benefit, rather than true equipoise or harm. In this era of evidence-based medicine, all guidelines should appropriately acknowledge uncertainty in our profession's framework of beneficence, nonmaleficence, and assumption of equipoise. Indeed, there is a growing body of evidence on the long-term risk among offspring exposed to antenatal corticosteroids, especially when ultimately delivered at term.[2,3] While awaiting anticipated data from several trials, we would argue that any recommendations to expand fetal exposure to antenatal corticosteroids ought not to overly rely on shared decision-making as a substitute for informed decision-making. This would notably concern select populations excluded from the Antenatal Late Preterm Steroids (ALPS) trial in which most of the gestations will deliver after 37 weeks' gestation (including twin gestations with a reduction at >14 weeks gestation and gestations categorized into the overly broad category of fetal anomalies). The likelihood that clear and unequivocal communication of largely theoretical long-term and, as yet, poorly defined neurodevelopmental concerns may occur is about as apt as our ability to precisely predict spontaneous delivery within 7 days as a condition for treatment.

Sadly enough, the horse may already have left the barn.[4] We ardently encourage the SMFM #58 to be reframed and to reconsider late preterm corticosteroids in patients excluded from the ALPS trial. It is unprecedented in the current era to assume that the absence of efficacy data is indicative of beneficence when the potential for long-term harm has been experimentally vetted and raised. ■

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Society for Maternal-Fetal Medicine Consult Series #58: Use of antenatal corticosteroids for individuals at risk for late preterm delivery: a response

The Society for Maternal-Fetal Medicine (SMFM), Publications Committee appreciates Dr Vidaeff and colleagues' interest in the SMFM Consult Series #58, "Use of antenatal corticosteroids for individuals at risk for late preterm delivery,"[1] which reviews the available and often conflicting evidence regarding potential long-term neurodevelopmental risks of antenatal corticosteroids. We recommend that "patients at risk of late preterm delivery be thoroughly counseled regarding the potential risks and benefits of antenatal corticosteroid administration and be advised that the long-term risks remain uncertain," which is correctly acknowledged by Dr Vidaeff. We recommend offering antenatal corticosteroids to patients who meet the antenatal late preterm steroids (ALPS) trial criteria and against offering late preterm corticosteroids to patients with pregestational diabetes mellitus and those unlikely to deliver before 37 weeks of gestation.

Dr Vidaeff's concern is offering antenatal corticosteroids to "select populations" excluded from the ALPS trial, "where the overwhelming majority of gestations will deliver after 37 weeks." Specific populations were excluded from the ALPS trial to reduce the complexity of assessing the relationship between the intervention and main outcome, which may have been impacted directly by the qualifying conditions, not because of the expectation of different biologic mechanisms or potential harm with these populations. However, the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) 2C recommendation was recognized as weak with low-quality, indirect evidence for which there is significant uncertainty in the estimates of benefits, risks, and burdens. When making clinical decisions, it is critical to consider the GRADE of each recommendation.

We agree that the risks associated with antenatal late preterm corticosteroids may be higher for term neonates. We recommended that "clinicians should carefully select candidates for late preterm corticosteroids who are likely to deliver preterm,"[1] even if all other criteria for steroid administration are met. After applying these strict criteria, the rate of term delivery in the ALPS trial was only 16.4%.[2]

We believe that the ALPS trial demonstrated respiratory benefits. These findings were supported in a systematic review and meta-analysis.[3] Therefore, we disagree with the assertion that there is "absence of efficacy data." We believe that despite the limitations in the available data, the demonstrated benefits of antenatal late preterm steroids outweigh the as yet unproven risks. Lastly, we respectfully disagree with the suggestion that providers are not likely to adequately communicate the potential risks of late preterm corticosteroids. However, we believe that providers can and should review the available evidence with their patients, to make a shared and informed decision. ■

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