Population-Based Measurement of Adherence to Progesterone Supplementation Guidelines to Prevent Recurrent Preterm Birth

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Background: Preterm birth is the leading cause of neonatal morbidity and mortality in the U.S. Progesterone supplementation decreases the risk of recurrent spontaneous preterm birth. Limited data exist as to the success of at-risk patients receiving and adhering to progesterone supplementation.

Objectives: To assess the rate of women with recurrent preterm birth having been offered, receiving, and adhering to progesterone supplementation guidelines and to ascertain reasons for failure to follow guidelines.

Design/Methods: Charts of infants who were products of recurrent spontaneous preterm singleton birth were reviewed at four Akron Children's Hospital NICUs. Mothers of identified infants were interviewed and charts abstracted to determine: if progesterone supplementation was offered; acceptance of progesterone supplementation; compliance with progesterone supplementation; and reasons why progesterone was declined.

Results: 128 mothers with a recurrent spontaneous preterm singleton birth with an infant currently in the NICU were identified and 98 consented to participate. 62.2% (61/98) had been offered progesterone. 82% (50/61) offered progesterone accepted and 49/50 received progesterone. 18.4% (9/49) patients reported compliance failure, missing at least one dose of progesterone. 11/61 (18.0%) mothers offered progesterone declined. Reasons given by patients for refusal of progesterone included cost (27%; 3/11), insurance did not cover progesterone (18%; 2/11), inconvenience (9%; 1/11), perceived side effects to the women (18%; 2/11), perceived side effects to the fetus (9%; 1/11), and caregiver did not think it was necessary (18%; 2/11). Of the 49 mothers who did not receive progesterone, 75.5% (37/49) were not offered progesterone. In 89% (33/37) of mothers not offered progesterone, the care provider was aware of the patients' prior preterm delivery.

Conclusions: Only 50% of mothers that were candidates for progesterone supplementation received treatment. The main reason for mothers not receiving treatment was not being offered progesterone by their caregiver. Improved education of caregivers regarding indications for progesterone supplementation and providing them with tools to improve compliance is needed.

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700+ charts in Akron Children's, Summa, and AGMC's NICU/Special Care Nurseries have been reviewed by NPs

128 moms with a premature baby met clinical criteria (previous pre-term delivery) and were eligible to complete survey

98 moms completed survey

49 moms received progesterone