

CRITICAL REVIEW FORM FOR STUDY ABOUT THERAPY:

Citation: Gyamfi-Bannerman C, Thom EA, Blackwell SC, et al. Antenatal Betamethasone for Women at Risk for Late Preterm Delivery. *New England Journal of Medicine*. 2016;374(14):1311-1320.

Guide		Comments
I	How serious was the risk of bias?	
A	Did intervention and control groups start with the same prognosis?	
1	Were patients randomized?	
2	Was randomization concealed?	
3	Were patients in the study groups similar with respect to known prognostic factors?	
B	Was prognostic balance maintained as the study progressed?	
1	To what extent was the study blinded?	
2	Aside from the experimental intervention, were groups treated equally?	
C	Were the groups prognostically balanced at the study's completion?	
1	Was follow-up complete?	
2	Were patients analyzed in the groups to which they were randomized?	
3	Was the trial stopped early?	
II	What are the results?	
1	How large was the treatment effect?	
2	How precise was the treatment effect?	

III	How can I apply the results to my patient care?	
1	Were the study patients similar to my patient?	
2	Were all patient-important outcomes considered?	
3	Are the likely benefits worth the potential harms and costs?	

In summary, this is A large multicenter placebo-controlled randomized study with low risk of bias; evaluating the use of Betamethasone in 2831 pregnant women with threatened late preterm delivery to decrease composite neonatal respiratory outcomes. The study is showing significant treatment effect of relative risk reduction of 20% with good precision 95% CI (0.66 to 0.97) with NNT 36. The rate of the composite outcome of severe respiratory complications was also significantly lower in the betamethasone group than in the placebo group (8.1% vs. 12.1%; relative risk, 0.67; 95% CI, 0.53 to 0.84; $P < 0.001$). The number needed to treat to prevent one case of severe respiratory complication was 25 (95% CI, 16 to 56). It is recommended to monitor glucose levels of late preterm infants born to mothers who received Betamethasone.