Postnatal Betamethasone Decreases Respiratory Index in Ventilated Extremely Low Birth Weight Neonates Compared to Conventional Care

Yuanyi Murray  
*New York Medical College*

Sanjeet Panda  
*New York Medical College*

Dina Finkel  
*New York Medical College*, dina_finkel@nymc.edu

Vanessa Mercado  
*New York Medical College*, vanessa_mercado@nymc.edu

Edmund F. La Gamma  
*New York Medical College*, edmund_lagamma@nymc.edu

Follow this and additional works at: [https://touroscholar.touro.edu/nymc_fac_posters](https://touroscholar.touro.edu/nymc_fac_posters)

Part of the Pediatrics Commons, and the Respiratory Tract Diseases Commons

**Recommended Citation**


This Poster is brought to you for free and open access by the Faculty at Touro Scholar. It has been accepted for inclusion in NYMC Faculty Posters by an authorized administrator of Touro Scholar. For more information, please contact daloia@nymc.edu.
Why Betamethasone (BETA)?

- Antenatal BETA has been associated with a decreased risk of cystic periventricular leukomalacia (PVL) when compared to dexamethasone or the absence of glucocorticoid therapy (Baud O et al., N Engl J Med 1999; 341: 1190–1196).
- Betamethasone has been used in pregnancy for over 20 years with an unprecedented high level of safety and efficacy.
- The CNS penetration of BETA is lower compared to dexamethasone because of its better safety profile (DeCastro, et al. J Perinatol 29:297, 2009).
- The CNS penetration of BETA is lower compared to dexamethasone or hydrocortisone to decrease ventilator support in high risk neonates or the absence of glucocorticoid therapy (Baud O et al., N Engl J Med 1999; 341: 1190–1196).
- Betamethasone has been used in pregnancy for over 20 years with an unprecedented high level of safety and efficacy.
- The CNS penetration of BETA is lower compared to dexamethasone because of lower lipid solubility and higher binding to serum proteins. (Trenque T et al., Fundam Clin Pharmacol 1994; 8: 430–436)
- Single subcutaneous dose of 0.1 mg of BETA is 2- to 3-fold more potent than dexamethasone in accelerating fetal lung maturity without steroid controls. (Christensen HD et al., J Soc Gynecol Invest 1997; 4: 130–134)

Objectives

To determine whether low dose (0.125mg/kg IM), short course (every 24 hours for 3 days) BETA between 7-30 day postnatal age would reduce the respiratory index in ELBWs vs. receiving conventional care (SRX, no steroid controls).