

# ASSOCIATION BETWEEN THE USE OF ANTENATAL STEROIDS FOR LUNG MATURATION AND HYPOGLYCAEMIA IN NEWBORNS BETWEEN 26 AND 34 6/7 WEEKS OF GESTATION.

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## Introduction

There is controversy of hypoglycaemia in preterm infants exposed to antenatal steroids for lung maturation

## Objective

To determine if there is a difference in the incidence of hypoglycaemia in preterm infants exposed *in utero* to steroids for lung maturation versus unexposed

## Methods

This was a prospective cohort study of preterm infants who were born between 2017 and 2018 at a gestational age of 26 to 34 6/7 weeks. This study was endorsed by Industrial University of Santander and Hospital Universitario de Santander ethic committees. The information was analyzed with STATA 12.0.

## Results

173 preterm infants were evaluated. There were no statistically significant difference between the characteristics of the population (Table 1.)

The incidence of hypoglycaemia during the first 48 hours of life was 28.6% in unexposed versus 25.0% in exposed [RR: 0.852, IC 95% 0.410 - 1.774]; while incidence density of hypoglycemia was 8.80 and 6.36 [HR: 0.721, IC 95% 0.304 - 1.710], respectively (adjusted by maternal age, nuliparity, pre-gestational and gestational diabetes and gestational age at delivery) (Figure 1.)

## Conclusion

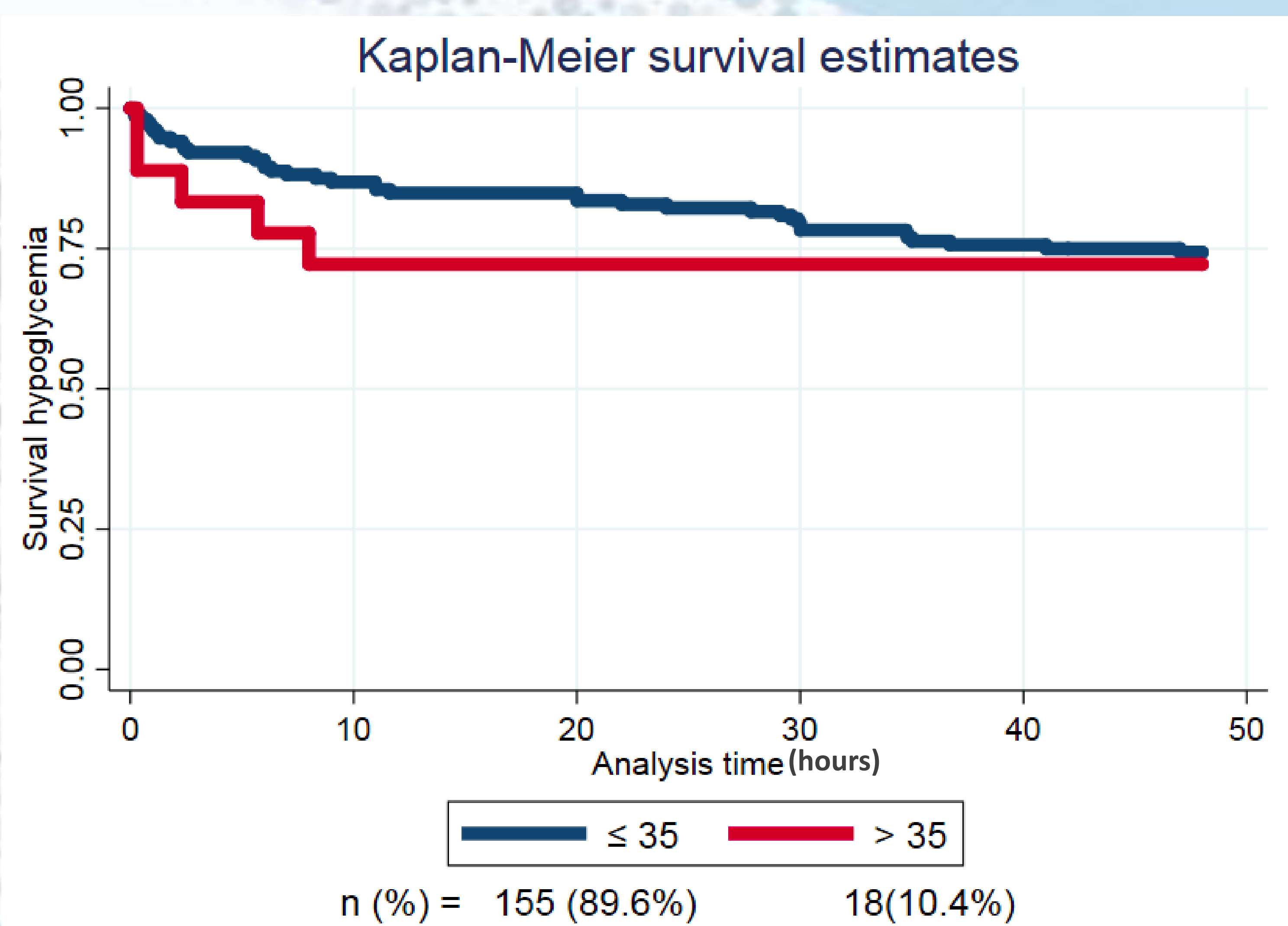
There was no significant difference between the incidence of hypoglycaemia among infants exposed versus unexposed to antenatal corticosteroid for lung maturity.

Table 1. Clinical features of cohorts

Maternal variables	Lung maturation		P Value
	No (n=21)	Yes (n=152)	
Maternal age	24 (20 - 28)*	24 (20 - 30)*	0.459
Nulliparity	6 (28.6%)	52 (34.1%)	0.608
Hypertensive disorders during pregnancy	5 (23.8%)	47 (30.9%)	0.505
Gestational Diabetes	1 (4.8%)	13 (8.5%)	0.550
Preterm labor	13 (61.9%)	84 (55.3%)	0.565
Premature rupture of membranes	6 (28.6%)	46 (30.3%)	0.874
Chorioamnionitis	2 (9.5%)	18 (11.8%)	0.755
Other infections	9 (42.9%)	52 (34.2%)	0.437
Neonatal variables			
Female sex	11 (52.4%)	76 (50.3%)	0.860
Gestational age	33.0 (31.0 - 34.0)*	33.0 (31.3 - 34.0)*	0.301
Birth weight	1725 (1540 - 2180)*	1910 (1457 - 2222)*	0.730
Apgar 1min < 7	10 (47.6%)	55 (36.2%)	0.310
Apgar 5 min < 7	2 (9.52%)	10 (6.58%)	0.619
Methabolic flux	6.17 (6.10 - 6.20)*	6.18 (5.75 - 6.24)*	0.696

\*Median and interquartile range

Figure1. Kaplan-Meier survival estimates by maternal age.



## References

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- Spencer G, et al. Association between antenatal corticosteroids and neonatal hypoglycemia in indicated early preterm births, *The Journal of Maternal-Fetal & Neonatal Medicine.* 2017

Topic: Fetal, neonatal endocrinology and metabolism (to include hypoglycaemia)