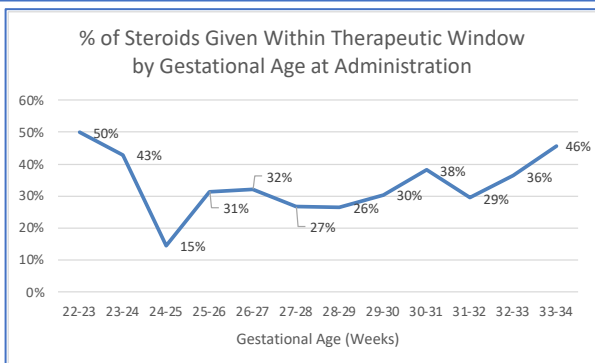


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## BACKGROUND

Antenatal corticosteroids represent one of the most important interventions in the prevention of morbidity and mortality in the preterm infant. When given appropriately, steroids reduce the risk of perinatal death, neonatal death, respiratory distress syndrome and the risk of intraventricular haemorrhage. An optimal window of benefit exists between 24 hours and 7 days between the administration of steroids and delivery of the preterm infant. Incorrect administration of antenatal corticosteroids however may have significant consequences on the neurodevelopment of the exposed child. This study aims to examine the timing of use of antenatal corticosteroids by indication and subsequent delivery.

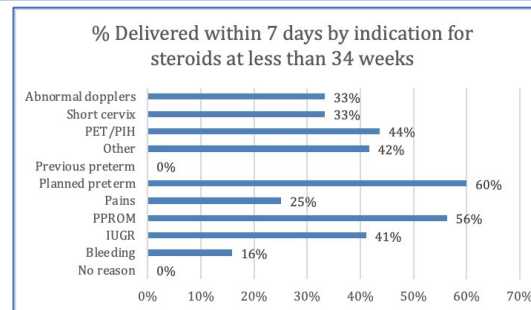


## METHODS

Retrospective cohort study of all patients who received antenatal corticosteroids (ANS) in anticipation of preterm birth between January 2019 and June 2022, at the National Maternity Hospital Dublin. Patients who received ANS were identified by the hospital pharmacy via the electronic healthcare record. Medical records were then reviewed to gather clinical data on indication for use. This study was done so with the approval of the hospital Research Ethics Committee.

## RESULTS

1551/26181 (5.9%) pregnant women received ANS in the antepartum between January 2019 and June 2022. Of the preterm infants (<34 weeks), 21% received steroids within 48 hours of delivery, 14% between 48hrs and 7 days of delivery with the remaining 65% delivering after 7 days. Pains and bleeding were among the most common indications for steroids. Patients less than 34 weeks who received steroids for these indications delivered within the therapeutic window in 25% and 15% respectively. None of the patients who received steroids for previous preterm delivery delivered within the therapeutic window.



## CONCLUSION

Accurate prediction of preterm birth is a clinical challenge. Incorrect administration of antenatal corticosteroids may have significant consequences and where the safety of antenatal corticosteroids was previously believed to be absolute, recent large scale studies have challenged this perception. Thus, efforts should be made to reduce the disproportion between administration of corticosteroids and actual time of birth