Rajesh Reddy, MD

Examining antenatal corticosteroid administration at a single center via a new proposed quality metric

Introduction

The Society for Maternal-Fetal Medicine (SMFM) proposed a new quality metric in 2022 to increase the rate of ACS provision for early preterm deliveries and minimize ACS for pregnancies ending in term deliveries. This study evaluates compliance with this quality metric and examines which delivery indications are associated with suboptimal ACS timing.

Methods

This is a single center retrospective cohort of patients receiving ACS from January 2017 to September 2022. The primary outcome, measuring compliance with the SMFM ACS quality metric, is the proportion of all early preterm deliveries that received optimally timed ACS (1 dose of ACS within 6 hours to 7 days before birth). The secondary outcome is the proportion of term deliveries that had previously received ACS compared to all patients who received ACS. A sample of convenience of 500 patients was investigated to determine the indication for ACS.

Results

Of the 36,080 deliveries between 2017-2022, 2022 patients received ACS (initial or rescue) and delivered at this center. There were 3720 early preterm deliveries. Of early preterm deliveries, 14.67% received ACS in the optimal window. Of all the patients that received ACS, 20.9% delivered at term. ACS were more optimally dosed for hypertension RR 1.71 (95% CI 1.36-2.14) and PPROM RR 2.08 (95% CI 1.67-2.59).

Conclusion/Implications

Based on the SMFM quality metric, rates of optimal ACS administration remain lower than minimum realistic benchmarks. Continuing efforts are needed to optimize ACS administration for preterm deliveries. In order to meet these goals, institutions may examine which clinical situations lead to suboptimal ACS.