



Perinatal Services BC

An agency of the Provincial Health Services Authority

A population-based study of antenatal corticosteroid prophylaxis for preterm birth

A Perinatal Services BC Surveillance Abstract

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Abstract

Background: National and international clinical practice guidelines, based on the meta-analysis of randomized trials, recommend antenatal corticosteroid (ACS) prophylaxis for threatened preterm delivery. We carried out a study to determine the extent to which current clinical practice in British Columbia, Canada, adheres to these guidelines.

Methods: Data were obtained from the British Columbia Perinatal Data Registry, a comprehensive provincial registry containing detailed information on all births in the province. All preterm live births between 2000 and 2009 were included in the study. The rate of ACS administration in each of three gestational age groups (26-32 weeks, 33-34 weeks, and 35-36 weeks) was assessed. Determinants of ACS administration (such as maternal characteristics and obstetric factors) were also studied. The frequency of ACS prophylaxis was estimated using rates and exact 95% confidence intervals (CI) and associations were assessed using odds ratios (OR) and 95% confidence intervals.

Results: Among 35,862 preterm births in British Columbia, the rate of ACS administration was 56.0% in the 26-32 week group (95% CI 54.7%-57.4%), 19.4% in the 33-34 group (95% CI 18.5%-20.4%) and 2.0% in the 35-36 group (95% CI 1.8%-2.2%). Rates were reasonably consistent between 2000 and 2009 and by region of residence in British Columbia. Women with hypertension (OR 1.51, 95% CI 1.32-1.72), gestational diabetes (OR 1.21 95% CI 1.05-1.40) and iatrogenic deliveries (OR 1.34, 95% CI 1.22-1.47) were significantly more likely to receive ACS.

Interpretation: Despite explicit clinical guidelines, fewer than 20% of preterm births at 33-34 weeks' gestation in British Columbia received ACS.