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Patterns of antiemetic use in pregnancy: a population-based cohort study

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Abstract

Background and Aims: Nausea and vomiting in pregnancy is common in pregnancy and guidelines recommend several pharmacological interventions. In severe forms, such as Hyperemesis gravidarum (HG) can be debilitating and associated with significant morbidity and adverse obstetric outcomes. We aimed to describe the patterns of antiemetic medication use during pregnancy in NSW.

Design and Methods: In this population-based study, we included all pregnancies with the last menstrual period between July 2012 & April 2020, among adult women in New South Wales. We used the MedIntel Data platform, to identify pregnancies and outcomes, based on linked emergency department and hospital admissions, Medicare and Pharmaceutical Benefit Scheme (PBS) claims data. We estimated the rate of antiemetics (metoclopramide, ondansetron and prochlorperazine) dispensed during pregnancy.

Results: We identified 1,179,555 pregnancies; 15% (171,272) of pregnancies had a dispensing of an antiemetic. Antiemetic use during pregnancy increased from 12% to 16% over the period. The most commonly dispensed antiemetics were metoclopramide (12.6%), ondansetron (3.1%) and 2% of women were dispensed more than one medication. Most women (70%) had only one dispensing of metoclopramide, while only 34% of women had only one dispensing of ondansetron. Women who were dispensed ondansetron and prochlorperazine had higher rates of either an admission to hospital or emergency department visit for HG (18% & 15%) than those dispensed metoclopramide (8.4%) or those with no antiemetics (0.7%) dispensing.

Conclusions: Antiemetic use during pregnancy in NSW remained relatively stable across the study period and is similar to international trends. While guidelines recommend off-label use of ondansetron as second-line therapy for women with severe nausea and vomiting, it is not listed on the PBS for subsidy for this

indication therefore we likely underreport the true use of this medicine. Our work shows there is a clinical need for affordable antiemetics in pregnancy. Current work is underway to look into the safety of antiemetics in pregnancy including early pregnancy outcomes.