

The Use of Prescription Medications and Non-prescription Health Products by Breastfeeding Mothers in a Prospective Cohort Study

Youstina Soliman¹, Uma Yakandawala^{2,3}, Christine Leong³, Emma S. Garlock⁴, Fiona S.L. Brinkman⁴, Geoffrey L. Winsor⁴, Anita Kozyrskyj⁵, Allan B. Becker^{1,6,11}, Piushkumar J Mandhane⁵, Stuart E. Turvey⁷, Theo J. Moraes⁸, Padmaja Subbarao⁸, Malcolm R. Sears⁹, Nathan Nickel,^{10,11} Kellie Thiessen¹², Meghan B Azad^{1,6,11}, Lauren E Kelly^{1,2,6,10,11}

1. Department of Pediatrics and Child Health, University of Manitoba, Winnipeg, Manitoba, Canada; 2. George and Fay Yee Centre for Healthcare Innovation, Winnipeg, Manitoba, Canada; 3. College of Pharmacy, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Manitoba, Canada; 4. Department of Molecular Biology and Biochemistry, Simon Fraser University, British Columbia, Canada; 5. Department of Pediatrics, Faculty of Medicine & Dentistry, University of Alberta, Edmonton, Alberta, Canada; 6. Children's Hospital Research Institute of Manitoba, Winnipeg, Manitoba, Canada; 7. Department of Pediatrics, University of British Columbia, Vancouver, Canada; 8. Department of Pediatrics, Hospital for Sick Children, University of Toronto, Toronto, Canada; 9. Department of Medicine, McMaster University, Hamilton, Canada; 10. Department of Community Health Sciences, University of Manitoba, Winnipeg, Manitoba, Canada; 11. Manitoba Interdisciplinary Lactation Centre (MILC), Winnipeg, Manitoba, Canada; 12. College of Nursing, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Manitoba, Canada

Introduction

- Exclusive breastfeeding for the first six months is recommended by many organizations including Health Canada.¹ In Canada, breastfeeding initiation rates in hospital are high at 89% (reported in 2011/12), however, continued rates of breastfeeding post-discharge are much lower, as only 26% of mothers reported breastfeeding exclusively for six months or more.²
- Medication use is a potential barrier to breastfeeding due to risks of infant exposure through breastmilk. Medication transfer and safety during lactation are rarely studied during drug development^{3,4} and for most medications, further knowledge is required to understand the effects during breastfeeding.
- In order to analyze the risk of infant exposure to drugs in breastmilk, the type and extent of medication use by lactating women requires investigation.

Objectives

- The primary aim of the present study is to identify the most commonly used medications among breastfeeding mothers in a Canadian prospective cohort study.
- The secondary aim is to characterize patterns of medication use in breastfeeding versus non-breastfeeding women.

Methods

Study Population

- Data were collected from the Canadian CHILD Cohort Study.⁵ Pregnant women in their second and third trimester were recruited between 2008 and 2012 at 4 sites across Canada.⁵ Our analysis was approved by the Health Research Ethics Board of the University of Manitoba.

Medication Classification and Breastfeeding Status

- Each participant was asked to complete a questionnaire at 3, 6 and 12 months postpartum identifying any prescription medications or non-prescription health products used and their breastfeeding status. Medications were classified as prescription medications or non-prescription health products, based on the Drug Product Database online query from Health Canada. Prescription medications and non-prescription health products were then further classified based on their therapeutic class according to Lexicomp.

Statistical Analysis

- Fisher's Exact test was used to analyze categorical differences in the usage patterns of prescription medication and other health care products for breastfeeding and non-breastfeeding women at each time point. A one-tailed P value was calculated based on this test.
- To correct for multiple comparisons using Bonferroni correction, we used an alpha level of 0.0003 for all statistical tests which was tailored to the total number of comparisons conducted in our analysis.

Results

- A total of 3413 mother-infant dyads were recruited to the CHILD study, of which 2906 at 3 months (87.4%).
- Almost half of breastfeeding women (41.9%) used at least one prescription medication during the 3 months postpartum period.
- Breastfeeding women took the same number of prescription medications at 3 months postpartum as non-breastfeeding women, however breastfeeding women took more non-prescription health product.

Figure 1: 10 most common prescription medications used by mothers while breastfeeding at 3 months (n=2540). Usage was compared to non-breastfeeding mothers at 3 months (n=366).

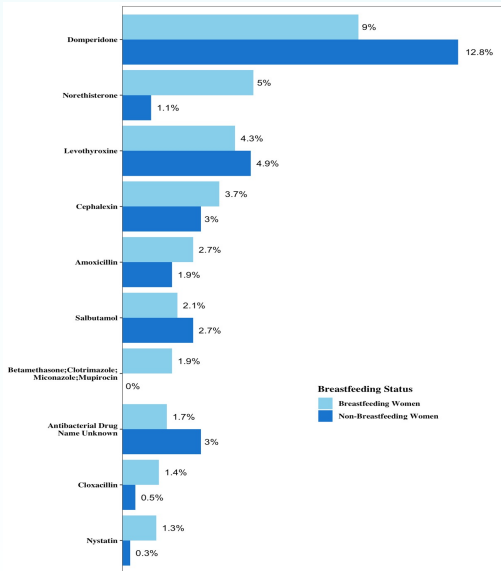
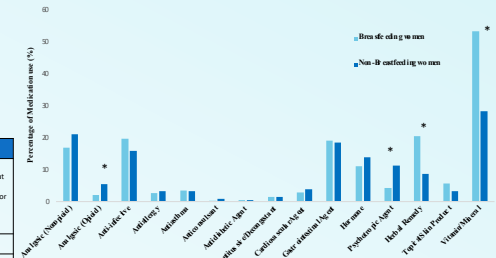


Table 2: 10 most common prescription medications used by mothers while breastfeeding at 3 months (n=2540) compared to non-breastfeeding mothers with most common reasons for medication use.

Prescription Medication	Breastfeeding Mothers		Non-Breastfeeding Mothers	
	Reported Reason for Use*	Mothers that used medication for specified reason.	Reported Reason for Use*	Mothers that used medication for specified reason.
Domeperidone	Lactation Disorder	97.25	Lactation Disorder	100
Norethisterone	Contraception	99.22	Contraception	100
Levothyroxine	Hypothyroidism	97.22	Hypothyroidism	88.89
Cephalexin	Infection	16.92	Reason Not Given	100
Amoxicillin	Bladder Infection	10.77	Reason Not Given	100
Salbutamol	Asthma	79.25	Asthma	70
Betamethasone/Cloxacillin/Miconazole/Mupirocin	Reason Not Given	95.92	Reason Not Given	100
Oxacillin	Infection	23.53	Reason Not Given	100
Nystatin	Candidiasis Prevention	42.42	Reason Not Given	100

Table 5: Prescription medication and non-prescription health product use at least once by breastfeeding and non-breastfeeding women at 3 months.



Conclusion

- Almost half of breastfeeding women used at least one prescription medication during the 3 months postpartum period.
- This analysis collectively provides an important description of medications and supplements being used during breastfeeding, which lays the groundwork for future studies.

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University of Manitoba

Rady Faculty of Health Sciences