

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

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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.

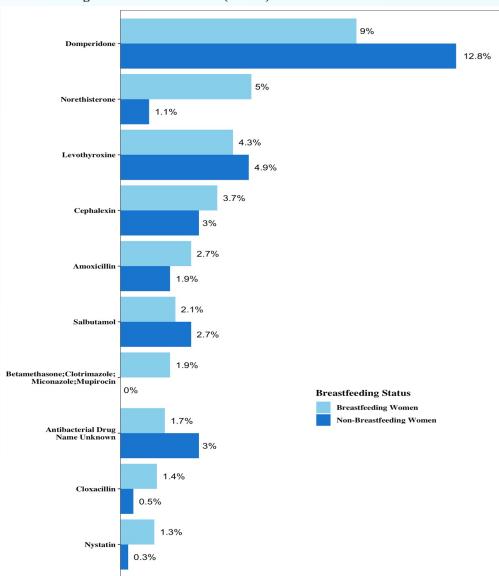
Medication Classification and Breastfeeding Status

- 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.

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).



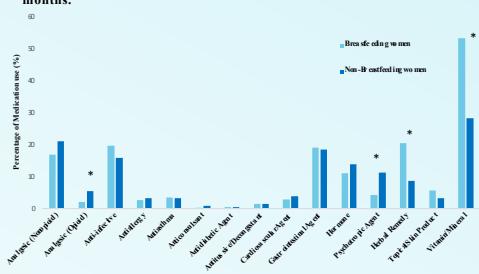
Results

- 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.

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
Domperidone	Lactation Disorder	97.25	Lactation Disorder	100
Norethisterone	Contraception	99.22	Contraception	100
Levthyroxine	Hypothyroidism	97.22	Hypothyroidism	88.89
Cephalexin	Reason Not Given	71.91	Reason Not Given	100
	Mastitis	14.61	Mastitis	100
	Infection	4.49	Infection	100
Amoxicillin	Infection	16.92	Infection	100
	Urinary Tract Infection	10.77	Urinary Tract Infection	10.77
	Bladder Infection	10.77	Bladder Infection	10.77
	Mastitis	9.23	Mastitis	100
Salbutamol	Asthma	79.25	Asthma	70
	Chest Infection	3.77	Chest Infection	20
Betamethasone; Chlorimazole; Miconazole; Mupirocin	Reason Not Given	95.92	Reason Not Given	100
Antibacterial Drug Name Unknown	Reason Not Given	100	Reason Not Given	100
Cloxacillin	Mastitis	52.94	Mastitis	100
	Infection	23.53	Infection	100
	Infection at Incision Site	5.88	Infection at Incision Site	100
Nystatin	Candidiasis Prevention	42.41	Candidiasis Prevention	100
	Candidiasis Infection	18.18	Candidiasis Infection	100
	Fungal Infection	15.15	Fungal Infection	100
	Nipple Abnormality	9.09	Nipple Abnormality	100

Table 5: Prescription medication and non-prescription health product usage 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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