

# BREASTFEEDING WOMEN UNDER MEDICATION TREATMENT IN THE PUBLIC HEALTH NETWORK

## Lactantes em tratamento medicamentoso da rede pública de saúde

### *Lactantes en terapia medicamentosa de la red pública de salud*

Original Article

#### ABSTRACT

**Objective:** To analyse the medications used by breastfeeding women treated in the public health network, and correlated actions. **Methods:** Cross-sectional, quantitative and descriptive study carried out with 100 breastfeeding women, recruited through non-probabilistic convenience sampling, at the Municipal Hospital of Duque de Caxias, RJ, in 2012. A questionnaire was applied containing the following variables: prescribed medications, unwanted effects in nursing infants, and professionals involved in guidance on the education. The data was analysed through descriptive statistics, based on absolute and relative frequencies. **Results:** It was found that 46% (n=46) of the breastfeeding women were aged 21 to 30 years, 54% (n=54) were primiparae, 52% (n=52) had complete fundamental level, and 72% (n=72) received prenatal care. It was verified that 78% (n=78) of the sample were receiving some type of medicine and, among these, a significant percentage of nonsteroidal analgesic/anti-inflammatory medication, with 61.54% (n=48) of the breastfeeding women. All the prescribed medicines were in the category of compatible use with breastfeeding. The incidence of some unwanted symptoms was evidenced in 19.2% (n=15) of the breastfeeding women. Among the women undergoing medication therapy, 76.92% (n=60) received guidance during treatment, 55% (n=33) by doctors and 45% (n=27) by nurses. In this research, 100% of the breastfeeding women were satisfied with the acquired knowledge. **Conclusion:** It was noted a high percentage of breastfeeding women in the sample taking medicines, all compatible with breastfeeding. It stands out the limited engagement of the multidisciplinary team in the orientations.

**Descriptors:** Breast Feeding; Medication Treatment; Unified Health System.

#### RESUMO

**Objetivo:** Analisar os medicamentos das lactantes em tratamento na rede pública de saúde e as ações envolvidas. **Métodos:** Estudo transversal, quantitativo e descritivo realizado com 100 lactantes selecionadas através de amostragem não probabilística e por conveniência no Hospital Municipal de Duque de Caxias-RJ, no ano de 2012. Aplicou-se um questionário contendo as seguintes variáveis: informações sociodemográficas, medicamentos prescritos, efeitos indesejados nos lactentes, e profissionais envolvidos nas orientações quanto ao uso desses medicamentos. Analisaram-se os dados através da estatística descritiva, a partir de frequências absolutas e relativas. **Resultados:** Identificou-se que 46% (n=46) das lactantes tinham entre 21 e 30 anos, 54% (n=54) eram primíparas, 52% (n=52) tinham ensino fundamental completo e 72% (n=72) receberam o acompanhamento pré-natal. Verificouse que 78% (n=78) faziam uso de algum tipo de medicamento, dentre eles, um percentual significativo de analgésicos/anti-inflamatórios não esteroidais, com 61,54% (n=48) das lactantes. Todos os medicamentos prescritos estavam na categoria de uso compatível com a amamentação. Constatou-se presença de sintomas indesejados em 19,2% das lactantes (n=15). Das lactantes em terapia medicamentosa, 76,92 % (n=60) tiveram orientação durante o tratamento, sendo 55% (n= 33) por médicos e 45% (n=27) por enfermeiros. Nesta pesquisa, 100% das lactantes ficaram satisfeitas com o aprendizado. **Conclusão:** Observou-se número elevado de lactantes da amostra fazendo uso de medicamentos, todos compatíveis com a amamentação. Ressalta-se a participação restrita da equipe multidisciplinar nas orientações.

**Descritores:** Aleitamento Materno; Tratamento Medicamentoso; Sistema Único de Saúde.

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## RESUMEN

**Objetivo:** Analizar los medicamentos de las lactantes asistidas en la red pública de salud y las acciones involucradas. **Métodos:** Estudio transversal, cuantitativo y descriptivo con 100 lactantes seleccionadas a través de muestreo no probabilístico y por conveniencia en el Hospital Municipal de Duque de Caxias-RJ en el año de 2012. Se aplicó un cuestionario con las siguientes variables: informaciones sociodemográficas, medicamento prescrito, efectos no deseados en las lactantes y profesionales involucrados con las orientaciones sobre el uso de estos medicamentos. Los datos fueron analizados a través de estadística descriptiva a partir de frecuencias absolutas y relativas. **Resultados:** Se identificó que el 46% (n=46) de las lactantes tenían entre 21 y 30 años, el 54% (n=54) eran primíparas, el 52% (n=46) tenían la educación secundaria completa y el 72% (n=72) realizaron el prenatal. Se verificó que el 78% (n=78) usaban algún tipo de medicamento, entre ellos, un porcentaje significativo de analgésicos/antiinflamatorios no esteroideo en el 61,54% (n=48) de las lactantes. Todos los medicamentos prescritos eran de uso compatible con la lactancia. Se constató la presencia de síntomas no deseados en el 19,2% (n=15) de las lactantes. De las que estaban en terapia medicamentosa el 76,92 % (n=60) tuvieron orientación durante el tratamiento siendo el 55% (n= 33) por médicos y el 45% (n=27) por enfermeros. En esta investigación El 100% de las lactantes se quedaron satisfechas con el aprendizaje. **Conclusión:** Se observó un elevado número de lactantes de La muestra en terapia medicamentosa compatible con la lactancia. Se destaca la participación restringida del equipo multidisciplinario en las orientaciones.

**Descriptor:** Lactancia Materna; Quimioterapia; Sistema Único de Salud.

## INTRODUCTION

The World Health Organization points out that breast milk is the ideal nourishment for the healthy growth and development of infants, and should be introduced soon after birth. Exclusive breastfeeding is recommended until six months of age and should continue up to two years of age or older, along with other foods

In Brazil, the Ministry of Health states that exclusive breastfeeding until six months of age can avoid 1.3 million annual deaths of children under five years. Human milk is composed of proper nutrients that provide immunological, cognitive, psychological and affective advantages, besides extending the time between pregnancies and reducing the incidence of some diseases in women<sup>(2,3)</sup>.

After delivery, the use of medicines is common among nursing women, due to the need for treatment to fight infections, depression, in addition to chronic diseases that require continuous medication<sup>(4-6)</sup>. It is known that over

50% of women who are breastfeeding use some type of medication<sup>(7,8)</sup>.

Generally, the concentration of drug that reaches the breast milk is reduced, with low relevance to the infant<sup>(9)</sup>. Despite that, many women are advised to stop breastfeeding due to the use of any medication<sup>(10,11)</sup>, which prevents the mother and the child from enjoying the breastfeeding benefits, leading to weaning. Nevertheless, the drug transfer from the plasma into the breast milk may result in drug intake and absorption by the gastrointestinal tract, with potential risk to the infant<sup>(1,3)</sup>.

In general, health professionals who work with drugs prescription to nursing mothers should be based on the risk/benefit relation and be aware of the drugs risk categories, ranging from the most secure to the contraindicated ones<sup>(12)</sup>. The lack of information, however, along with the complexity of various factors that determine the choice of a medicament for use during breastfeeding, reinforce concerns about self-medication and the interruption of breastfeeding under guidance from health professionals<sup>(13-15)</sup>. Breastfeeding should only be discontinued if there is evidence that the drug used by the lactating women is harmful to the infant, or when there is no information about the drug and it cannot be replaced by any other that is compatible with breastfeeding<sup>(3)</sup>.

Health professionals play a major role in promoting breastfeeding during the pharmacological treatment. These professionals' performance at healthcare facilities provides the necessary support for mothers to maintain breastfeeding and the proper drug therapy, reducing the risk to the infant<sup>(15)</sup>. Health workers should seek updated information to assess the risks and benefits of a particular drug being used by a woman who is breastfeeding. Caution in choosing the medicine to treat nursing women shall guarantee breastfeeding continuity and safety, without interruption<sup>(1)</sup>.

Aiming to contribute to health promotion among nursing mothers and infants of the Municipal Hospital of Duque de Caxias, Rio de Janeiro, and according to the principles proposed by the Ministry of Health in the manual 'Breastfeeding and use of drugs and other substances'<sup>(2)</sup> and the National Breastfeeding Program<sup>(16)</sup>, the objective of this study was to analyse the medications used by breastfeeding women treated in the public health network, and correlated actions.

## METHODS

Cross-sectional, quantitative and descriptive study carried out at the Xerem Municipal Maternity Hospital in Duque de Caxias, RJ, where public healthcare is provided for the lactating women of the municipality.

Non-probabilistic convenience sampling recruited 100 breastfeeding women, in the 15 to 40 years age range, selected in the hospital during postpartum follow-up visits, in the period from May to June 2012.

After selection, data collection was performed through the application of an adapted questionnaire<sup>(17)</sup> containing closed, standardized and easy-to-understand questions, directed to each nursing mother, without time limitation for the answering. The variables comprised in this study were: sociodemographic features, prescribed medications, unwanted effects in nursing infants, and professionals involved in guidance to the mothers. To minimize the occurrence of collecting bias, the researchers who applied the questionnaires were previously trained.

The medications prescribed in this study were compared with their risk category, from the handbook of the Ministry of Health<sup>(2)</sup>, that identifies whether the drugs present compatibility with breastfeeding.

The data was analysed through descriptive statistics, with absolute and relative frequencies expressed by ESTAT software.

The research followed the guidelines stated by the National Health Council in Resolution No. 196/96<sup>(19)</sup>. The

research was approved by the Research Ethics Committee of the University of Rio Grande (Opinion No. CAEE.00750512.1.0000.5283).

Before starting the study, both the volunteers and the legal guardians of underage nursing mothers signed the Free and Informed Consent Form.

## RESULTS

The general characterization of the sample showed that, of the interviewed mothers, 46% (n=46) were aged between 21 and 30 years, 54% (n=54) had only one child (primiparae), 52% (n=52) studied up to primary education, 81% (n=81) stated not developing any professional occupation and 72% (n=72) received prenatal care (Table I).

As for the lactating women who used medications after delivery, 78% (n=78) confirmed the use of any medicine. Analgesics and nonsteroidal anti-inflammatory drugs accounted for 61.54% (n=48) of that percentage. All medications prescribed for nursing mothers were in the category of use compatible with breastfeeding, including antibiotics and antihypertensive agents (Table II).

Table I – Distribution of lactating mothers according to age range, number of children, level of education, occupation and follow-up during prenatal period, at Xerem Municipal Maternity Hospital. Duque de Caxias-RJ, 2012.

	Lactating mothers (n=100)	%
<b>Age range (years)</b>		
15-20	40	40
21-30	46	46
31-40	14	14
<b>Number of children</b>		
Up to 1	54	54
2 or 3	33	33
4 or more	13	13
<b>Level of education</b>		
Elementary School (1° to 5° year)	24	24
Elementary School (6° to 9° year)	28	28
High School	46	46
Higher Education	2	2
<b>Occupation</b>		
No	81	81
Yes	19	19
<b>Follow-up during prenatal period</b>		
Yes	72	72
No	28	28

Table II - Distribution of lactating mothers according to percentage of reported medications usage, grouped by therapeutic classes, at Xerem Municipal Maternity Hospital. Duque de Caxias-RJ, 2012.

Classes Terapêuticas	Lactating mothers (n=78)	%
<b>Nonsteroidal Analgesics and Anti-inflammatory</b>		
Yes	48	61.54
No	30	38.46
<b>Antibiotics</b>		
Yes	19	24.36
No	59	75.64
<b>Vitamins</b>		
Yes	16	20.51
No	62	79.49
<b>Antispasmodics</b>		
Yes	10	12.82
No	68	87.18
<b>Antihypertensive agents</b>		
Yes	5	6.41
No	73	93.59

Tabela III - Distribution of symptoms observed in infants after the use of medications by lactating mothers at Xerem Municipal Maternity Hospital. Duque de Caxias-RJ, 2012.

Possible Unwanted Symptoms	Infants (n=15)	%
Colic	5	33.33
Sleepiness	1	6.67
Emesis	4	26.67
Insomnia	2	3.33
Others*	5	33.33

\*Fever, diarrhea and reflux

Regarding the possible unwanted symptoms in infants, 19.2% (n=15) had at least one after maternal ingestion of medications, especially colic (Table III). This analysis took into consideration whether or not the symptoms observed in infants are due to medicines ingested by mothers, since there were no checking tests. Considering only the lactating whose children had possible undesirable symptoms, 40% (n=6) discontinued treatment. Only 33.3% (n=2) of that percentage exchanged the drug - one by reason of allergy to medication and the other for a reason not declared by the mother.

When investigating whether the 78 lactating undergoing pharmacological treatment received guidance on the use of medicines during breastfeeding, it was found that 76.92% (n=60) gave positive answers. Among the nursing mothers

who did receive guidance on the use of medications, 55% (n=33) reported that the physicians had provided them, and 45% (n=27) said that nurses provided information on the use of prescribed drugs. They declared they had not received guidance from other health professionals, such as pharmacists and nursing technicians.

## DISCUSSION

The breastfeeding period is associated with some positive factors such as age and educational level, and with negative ones, like the absence of family support, women being inserted in the labour market and the realization of cesarean delivery<sup>(19,20)</sup>.

In the group of nursing women interviewed in this study, there was predominance of those under 30 years. In a study conducted at the Public Hospital of the Federal District, in Brasilia, 76.47% of the women were aged from 20 to 29 years<sup>(20)</sup>. Younger women, especially under 20, when the physiological and emotional maturity has not been fully achieved yet, have a tendency to breastfeed for a shorter period<sup>(21)</sup>. Older women, on the other hand, breastfeed their children for a longer period<sup>(22,23)</sup>.

Analysing whether the lactating women had a professional occupation, 81% of the total were found unemployed. In a study conducted at the Public Hospital of the Federal District, in Brasilia, 52.94% of the lactating worked outside the home<sup>(20)</sup>. A research has shown that mothers who work indoors breastfeed more easily their children<sup>(24)</sup>. However, another study reported that breastfeeding can increase among mothers who work outside the home<sup>(25)</sup>. Another point to be highlighted is that women who work outside the home begin to feed their children with bottle earlier, for being concerned about the possibility that the child does not adapt to artificial feeding<sup>(26)</sup>.

With regard to the level of education, this survey revealed that only 2% had a college degree. Most achieved elementary school or complete high school, and none was illiterate. This result corroborates a similar study, which revealed that the highest percentage of lactating had completed high school<sup>(20)</sup>. That might impair prenatal learning, impeding or facilitating breastfeeding, since the higher school level can increase the women's participation in the labour market<sup>(27)</sup>.

The achievement of prenatal care may reduce mortality through the diagnosis and treatment of diseases in the affected mother, which avoid complications. In addition, prenatal increases mother's knowledge and confidence on breastfeeding<sup>(28,29)</sup>. It was observed that 72% of the women received prenatal care. This can be confirmed in the study that revealed guidance on breastfeeding provided for 64.71% of the lactating during prenatal care<sup>(20)</sup>. The lack of medical care during pregnancy can pose risks to the lives of mothers and babies, since its goal is prevention, guidance, clarification and diagnosis of any change in the pregnant woman's and/or the baby's health.

The lack of information about new drugs transfer into breast milk, and of data on their security, are factors that hinder the use of those substances in breastfeeding mothers<sup>(1)</sup>. It was found that 78% of lactating used drugs under medical prescription. Nonsteroidal analgesics and anti-inflammatories were the most commonly prescribed therapeutic class, followed by antibiotics, vitamins,

antispasmodics and antihypertensives. After analysing the risk category according to the Ministry of Health<sup>(1)</sup>, it was observed that all medicines prescribed for lactating were classified as compatible use with breastfeeding. In contrast, another study showed that medications prescribed to lactating had unknown and significant effects in some infants<sup>(13)</sup>. A study attributed that fact to the lack of information (especially on the part of the doctors), conflicting information in the medicine package leaflets, and also little scientific evidence on their use during breastfeeding<sup>(12)</sup>.

Another fact evidenced in this study was that, of the 78 women who used some medication, 76.92% received guidance on the use of drugs by doctors or nurses, being mentioned by the lactating women the absence of guidance from other health professionals such as pharmacists.

The pharmacist is the professional who works with medications within the hospital, and the absence of their guidance on the correct use of medication can cause harm to breastfeeding women's and infant's health. The direct interaction between the pharmacist with the nursing mother is beneficial for the rational use of medication and leads to results targeted to improve quality of life<sup>(30)</sup>. The damage due to the misuse of drugs goes beyond breastfeeding mother and can reach the child, through the transfer of drugs into breast milk and absorption by the infant, resulting in unwanted effects<sup>(31)</sup>. One study suggested that guidance provided by professionals of the Family Health Program and Community Health Workers conducting home visits does not eliminate the importance of consultation with the pharmacist and the doctor<sup>(15)</sup>.

In the present research, there were reports of unwanted symptoms in 19.2% of the babies after the use of drugs. It should be noted, however, that the prescribed drugs were compatible with breastfeeding<sup>(2)</sup>. Additionally, prescribers chose medicines whose effects are described in the literature, little excreted into breast milk and offering no risk to infant health, as discussed in other work<sup>(14)</sup>. For confirming the association of these symptoms with the prescribed medications, specific tests would be needed.

Health professionals play a key role in promoting breastfeeding and guidance on medicines that bring therapeutic benefits to maternal health, without risk to infant health<sup>(32)</sup>, being crucial that nursing mothers understand the breastfeeding relevance and the cautious use of medications during breastfeeding<sup>(33)</sup>. Further researches involving medication prescription to breastfeeding women and the monitoring of reactions in nursing infants should thus be stimulated.

## CONCLUSION

There was a high number of lactating mothers taking medications, all compatible with breastfeeding. The restricted participation of the multidisciplinary team in the guidance stands out.

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