This article will be credited by TMA within the scope of CME/CPD.

Oral health protection and restorative approaches in the puerperal period

Zeynep Yenen[1], Müfit Yenen[2]

[1]Department of Restorative Dentistry, University of Kyrenia Faculty of Dentistry, Kyrenia, Turkish Republic of Northern Cyprus

[2]Department of Obstetrics and Gynecology, University of Kyrenia Faculty of Medicine, Kyrenia, Turkish Republic of Northern Cyprus

Abstract

There is a growing need for dental treatments in women during the puerperal period as a consequence of hormonal and physiological changes that occur. There are effective methods that dentists can apply while treating patients in the puerperal period and while ensuring the maintenance of treatment. The framework of these methods covers a wide range of subjects, from the examination and diagnosis process of the dentist to the treatment protocols and the oral hygiene motivation of the patient. This review focuses on restorative treatment protocols that dentists would apply to patients in the puerperal period and the maintenance of these treatments. (J Turk Ger Gynecol Assoc. 2025; 26: 55-61)

Keywords: Breastfeeding, dental treatment, oral health, puerperium

Received: 05 August, 2024 **Accepted:** 10 February, 2025 **Publication Date:** 12 March, 2025

Introduction

The period that begins with the separation of the placenta and continues until the vanishing of physiological changes in the mother's body that occurred during pregnancy and the returning of the genital organs to their pre-pregnancy state is called the puerperium, and the mother in this period is called the "puerpera". The puerperium covers roughly 6-8 weeks after birth. This period is also important for oral health because of the many hormonal changes that may occur in pregnancy.

Postpartum women may encounter some problems with dental health and care due to hormonal changes during or after pregnancy or due to different circumstances, brought about by the new situation. In addition, most of the dental treatments needed during pregnancy are usually postponed until after birth. During pregnancy, practices, such as treatments of gestational gingivitis, which are anticipated not to lead to any problems, non-radical tooth extractions, and restorative treatments are frequently performed, but long-term treatments and radical treatments are generally avoided. Therefore, the postpartum period constitutes a time in which postponed procedures during pregnancy may be performed. Thus, determining the proper treatment strategies is important to provide the patient comfort and for the success of the treatment (1-5).

Gingivitis or bleeding tender gums is the most common dental problem and affects about 60-75% of pregnant women (2). During pregnancy, there is an increase in the gingival tissue inflammatory response to dental plaque biofilm due to the elevated levels of steroid hormones. Although it is believed that pregnancy-induced hormonal changes decline postpartum, periodontal tissues often do not revert to their pre-pregnancy state immediately, and oral inflammation may last up to three months postpartum (4,6).

Ensuring the oral health of women during the puerperal period is essential as it will also affect their general health status. However, mothers with poor oral hygiene and a high rate of

Address for Correspondence: *Zeynep Yenen*
e-mail: *zyenen@gmail.com* ***ORCID:*** *orcid.org/0000-0002-8280-3549*

DOI: *10.4274/jtgga.galenos.2025.2024-6-9*

Cite this article as: *Yenen Z, Yenen M. Oral health protection and restorative approaches in the puerperal period. J Turk Ger Gynecol Assoc. 2025; 26: 55-61*

cariogenic bacteria (especially, *Streptococcus mutans*) in the oral cavity may infect their newborn babies with cariogenic bacteria beginning from birth. The risk of caries formation increases in the period after tooth eruption in children who are infected with cariogenic bacteria during the early period. Studies have reported that bacteria that cause caries in children and bacteria samples from the mouths of mothers are approximately 70% similar (7).

There are many obstacles to the treatment of dental problems and ensuring oral care for women after childbirth. These obstacles range from spending less time on oral hygiene while caring for the baby to the anxiety that the diagnosis and treatment procedures to be applied may affect the baby (8,9). However, similar to the pregnancy period, it is possible to provide dental treatment and oral hygiene safely in the postpartum period (4).

Examination and treatment approaches in postpartum patients

The dentist who examines the puerperal patient must embrace the following three major principles:

1. Dental caries does not only impact oral health. Oral health is an integral part of general health status;
2. In the puerperal period, the mother's health status is directly associated with the health of her breastfed baby;
3. A multidisciplinary team approach (dentist, obstetrician, pediatrician) is the safest and most effective way to provide the patient with appropriate dental treatment. Achieving good communication between the team members treating the patient(s) is vital to developing an appropriate treatment plan and ensuring coordination during the treatment process.

First of all, it should be kept in mind at the stage of informing the patient that the puerpera feels unease about whether the chemicals to be used in the treatments will pass from breast milk to the baby, whether the breast milk will be affected by the radiographic methods used, and whether the drugs to be used during the treatment may affect the baby. Another factor that should be considered is that the time of the mother who comes to the clinic after entrusting her baby to a caregiver is limited. Therefore, these patients may request that their treatments are administered within a limited duration, and their appointments are arranged according to the nursing and sleeping times of the baby.

In the puerperal period, if the patient does not have time for treatment in the clinic or if regular visits to the clinic would pose an issue, other care and treatment methods that can be applied at home may be recommended. Some of these recommendations are also valid for patients who cannot sit on the dental chair for a long time due to their health conditions. If the patient cannot move with ease or sit comfortably due to extensive episiotomy or various degrees of vaginal or perineum lacerations but also needs urgent dental treatment, it may be necessary to provide ergonomic solutions, such as an orthopedic sitting ring. Besides, there is a tendency to postpone dental treatments to the time after the breastfeeding period in this patient group (8-12). The factors affecting the tendency of postponing dental treatment to the time after the breastfeeding period in puerpera are given in Table 1.

Treatment modalities

When planning treatment modalities, it will be more appropriate to apply the rules of minimally invasive dentistry, especially in the first session, concerning the patient's limited time. The prevention of tooth decay in the puerperal period is important because it is difficult for puerpera to attend recurring clinical appointments (13). Coronal and root caries, gingival and periodontal diseases, or soft tissue lesions can be seen in women who have had frequent vomiting during pregnancy and neglected oral hygiene due to extreme nausea. The methods used in the prevention and control of caries are shown in Table 2 (14-17).

Table 1. Factors affecting the tendency of postponing dental treatment to the time after breastfeeding period in puerpera

• Absence of a person to take care of the baby during the treatment procedure.
• The anxiety of the mother concerning the harmful effects of the X-ray beam to be exposed for diagnosis processes may be passed on to the baby through breastfeeding.
• The mother getting tired more quickly due to hormonal changes in the puerperal period.
• The mother getting tired more quickly during this period due to irregular sleep and intense activity.
• The mother's anxiety that she may carry harmful microorganisms from the outer environment to her baby.
• The anxiety of the mother that the anesthetic agents to be administered may pass to the baby through breastfeeding.
• The anxiety of the mother that the chemicals used during treatment could be passed to the baby through breastfeeding.
• The mother's anxiety that the drugs administered before and after the treatment can be passed to the baby through breastfeeding.
• Postpartum depression.

Table 2. The methods used in the prevention and control of caries

The methods used in the prevention and control of the caries
• Elimination of cariogenic factors with dietary control and good oral hygiene.
• Elimination of cariogenic microorganisms using anti-cariogenic agents.
• Topical application of proper agents to reclassify the partially decalcified dentin matrix and provide resistance to later decalcifications.
• Removal of dentine showing signs of active cariosity.
• Protection of intact dentine, which is at risk with restorative procedures.

Covering the fissures that are prone to the formation of caries on the posterior teeth by the dentist with hard and waterproof plastic material (fissure sealant) prevents the emergence of caries. Furthermore, da Costa et al. (18) reported that there was a significant increase in the amount of mercury in breast milk when a large number of amalgam fillings are applied during the restorative treatment.

Opening minimal cavities with a laser may be preferred, as it will shorten the duration of the process. In addition, this method can be used to provide resistance to caries formation. Of note, epulis gravidarum can be removed by laser without bleeding if it has not regressed spontaneously after birth. During pregnancy, dentine sensitivity may occur due to mineral loss in the neck of the teeth due to increased gastroesophageal reflux and improper brushing. This sensitivity can be alleviated using laser applications (19).

In addition, many interventions that are postponed during pregnancy, such as complicated tooth extractions, tooth whitening procedures, and crown-bridge prostheses, may be performed safely during the puerperal period. Since the substances formed during the decomposition of carbamide peroxide, used in tooth whitening, are naturally contained in breast milk, there is no need to take special precautions or stop breastfeeding during their use (20).

There may be patients who cannot be mobilized due to various complications in the early puerperal period. In such cases, mobile dental units can be used for on-site diagnosis and treatment or atraumatic restorative treatment can be given.

Radiological examinations during pregnancy and puerperal periods.

Radiological examinations routinely used in dentistry practice do not lead to problems for puerpera. Thus, there should be no hesitation in using these imaging modalities to make a rapid and accurate diagnosis. While X-rays are taken, a radiation-protective apron should be provided to the puerpera, as for any patient.

In rare cases, if radiopharmaceuticals must be used, breastfeeding should be stopped for the half-life of the radiolabeled compounds. In such a case, the mother should feed the baby before the procedure, express and store her breast milk, make the subsequent feedings with stored milk, and keep the baby away from her own body (21,22).

Drug use in dental treatment during the puerperal period

It is possible that mothers may avoid dental treatment because of concerns that the drugs used during the breastfeeding period may pass into the milk and lead to adverse effects for her baby. Since most drugs are excreted into breast milk, the main problem here is whether the amount of the drug passed into breast milk is likely to cause a clinically significant adverse effect on the baby. Drugs with a relative infant dose below 10%, short half-life, high plasma protein binding and low-fat solubility are generally deemed to be usable in breastfeeding women. However, more detailed reviews for each drug to be used during the breastfeeding period can be found on the LactMed search engine (www.nlm.nih.gov Drugs and Lactation Database) (20). Usage information about frequently used drugs in the puerperal period is given in Table 3.

Since the gaps between the mammary gland alveolar cells are larger in the first two weeks after delivery, many drugs can pass into breast milk more easily during this period (23). Also, infants, especially those born prematurely or with low birth weight, are more susceptible to drug effects within the first two months, and therefore should be closely monitored for possible adverse effects.

Antibiotics

Maternal antibiotic use carries risks for the infant, such as allergic reactions, disruption of the intestinal flora, diarrhea, and candidiasis. For example, the use of maternal ampicillin frequently leads to diarrhea and candidiasis in the infant. Also, moxalactam, a third-generation cephalosporin, may cause gram-positive colonization and enterocolitis in the infant gastrointestinal system. In addition, metronidazole may often cause loose stools, feeding problems and candidiasis (24,25).

It has been shown that the use of fluoroquinolones and ciprofloxacin in particular, the most commonly used member of this group, causes arthropathy in newborn animals. In addition, this group of drugs may cause green teeth and pseudomembranous colitis. Thus, fluoroquinolones should be avoided as first-line treatment in breastfeeding women (26). Cotrimoxazole (trimethoprim/sulfamethoxazole) should not be

Table 3. Drugs used in dental treatment in puerperal period-modified from Suresh and Radfar (3)

Analgesics	Usability during the puerperal period
Acetaminophen	Yes
Aspirin	No
Ibuprofen	Yes
Naproxen	Yes
Codeine	Yes
Oxycodone	With caution
Hydrocodone	With caution
Morphine	Yes
Propoxyphene	Yes
Meperidine	Yes
Pentazocine	With caution
Antibiotics	
Amoxicillin	Yes
Metronidazole	Yes
Erythromycin	Yes
Penicillin V	Yes
Cephalosporins	Yes
Gentamycin	Yes
Clindamycin	Yes
Tetracycline	No
Chloramphenicol	No
Chlorhexidine	No data
Azithromycin	Yes
Antifungals	
Nystatin	Yes
Clotrimazole	Yes
Fluconazole	With caution
Ketoconazole	No
Local anesthetics	
Lidocaine	Yes
Mepivacaine	Yes
Prilocaine	Yes
Bupivacaine	Yes
Etidocaine	Yes
Corticosteroids	
Prednisolone	Yes
Sedative/hypnotics	
Nitrous oxide	Yes
Barbiturate	No
Benzodiazepines	No

used in babies younger than two months and nursing mothers of these babies due to the risk of kernicterus.

The antibiotics that pass into breast milk at the highest rates are sulfapyridine, vancomycin, linezolid, metronidazole, and ciprofloxacin. Besides, antibiotics that pass into breast milk at a minimum rate are cefoperazone, sulbenicillin, benzylpenicillin, clarithromycin, and cefotaxime. The two antibiotics with the highest ratio of absolute infant dose/therapeutic infant dose, are metronidazole and vancomycin. Therefore, whether these antibiotics will be used or not should be decided by considering the benefit/harm ratio (27-29). Azithromycin is also one of the antibiotics preferred for use in the puerperium because it passes into breast milk at low levels and can be used at relatively high doses in neonates, it would not be expected to cause adverse effects in breastfed infants. A cohort study reported that hypertrophic pyloric stenosis was up to three times more common in breastfed infants of mothers using macrolide antibiotics. However, since this study used mostly erythromycin and azithromycin in only 7% of cases, the authors could not make a definitive prediction about which macrolides caused this increased risk (20,30).

Analgesics

Ibuprofen can be used as an analgesic in infants with doses up to 40 mg/kg/day. However, the dosage of ibuprofen the infant takes through breastfeeding is approximately 68 mcg/kg/day as ibuprofen has a breast milk excretion rate of 0.38%. Ibuprofen is the drug of choice among the non-steroidal anti-inflammatory drugs during breastfeeding since the total dose an infant receives through breastfeeding is far below the maximum pediatric dosage limit (23).

In cases where an anti-inflammatory effect is not required, paracetamol may be preferred as an analgesic in the first-line (29). The rate of paracetamol excretion into breast milk in maternal use is approximately 0.04-0.23%. The time for this drug to reach the peak amount in breast milk is approximately one hour and its half-life is 2.7 hours. There are no reported adverse effects in babies related to the usage of paracetamol in nursing mothers (26). Paracetamol becomes undetectable in the blood (<0.5 mg/L) 12 hours after the dose is administered. However, paracetamol should be used more carefully, mainly in breastfeeding mothers whose babies are born prematurely, born with low birth weight, or have severe medical conditions. It should also be noted that there are preparations of paracetamol combined with codeine on the market. Paracetamol preparations in combination with codeine or similar drugs should not be used during the breastfeeding period (31).

Methimazole (dipyrone) is not used in North America and some European countries due to its severe side effects, such as agranulocytosis. Therefore, information about the safety of this

compound in women who are breastfeeding is limited. The European Medicines Agency banned the use of methimazole in the last trimester of pregnancy and during breastfeeding with a regulation issued in 2018 (32).

Acetylsalicylic acid (aspirin) usage in high doses during lactation may cause adverse effects, such as thrombocytopenic purpura, metabolic acidosis, or gastrointestinal tract bleeding in the infant, so it is not considered safe. While the American Academy of Pediatrics recommends the use of aspirin with caution, the British Medical Association recommends against its use during breastfeeding due to the risk of Reye's syndrome (33). On the other hand, there are studies reporting that low dose (85-100 mg/day) use of aspirin is safe for the infant (34).

Antiseptics and oral rinsing solutions

Transient hypothyroidism may occur in the newborn due to the frequent or liberal use of povidone-iodine solutions close to birth and during breastfeeding. This adverse effect is more commonly encountered in countries and regions with endemic iodine deficiency. Although povidone-iodine solutions are absorbed in small amounts through intact adult human skin, it is absorbed from skin wounds, and oral and vaginal mucosa much more easily. Therefore, it should not be applied to large surface areas and for a long time, and repeated administrations should be avoided (35,36).

No toxicity associated with the maternal use of chlorhexidine solutions has been reported in breastfed infants. Its topical use in breast cleansing, especially before and after breastfeeding, and its usage in oral rinsing in the mother did not appear to adversely affect the breastfed infants (20).

Local anesthetics

Lidocaine passes into breast milk at a low rate, even after high doses are administered as a local anesthetic. At the same time, lidocaine is poorly absorbed by the infant's gastrointestinal tract. Therefore, maternal use of lidocaine as a local anesthetic is not expected to cause adverse effects in breastfed infants and no specific precautions are required (37,38).

Recommendations for maintaining oral health

Frequent dental check-ups and continuous evaluation of the patient's functional status are necessary to determine new treatment and recommendation needs. Unfortunately, it is not always possible for these check-ups to be performed frequently. Recommendations to be made for the maintenance of oral health of the puerperal patient can be examined in two parts; home care and nutritional guidance.

Home care to support clinical treatment is of the utmost importance in these cases. Examples of home applications for care and protection are basic oral hygiene practices, antimicrobial gels, toothpaste, dental floss applications, carbonated water or mouthwashes, and sugar-free gums. Electric toothbrushes may also be recommended in this context.

Regular toothbrushing with fluoride toothpaste is the principal, non-professional intervention to prevent caries (39). In one study, sodium fluoride added to water was shown to pass into breast milk and have a detrimental effect on learning and memory in mouse pups (40). However, this study was conducted with high doses of fluoride (100 mg/L). This dose is well above the dose accepted by the Food & Drug Administration to be found in toothpastes (41,42). No human studies were found on the effect of fluoride transferred from breastmilk via maternal toothbrushing to the infant.

Periodontal diseases may negatively impact oral health-related quality of life (OHRQoL) of puerpera. Most studies assessing the impact of periodontal diseases on OHRQoL of pregnant women use clinical assessments, such as probing depth and clinical attachment loss to examine the periodontal status. This can be challenging and time-consuming to perform, especially for new breastfeeding mothers early postpartum (4,6). Therefore, plaque elimination by the dentist and strict adherence by the patient to their own oral hygiene procedures are needed to support periodontal health.

Another issue to be considered in the puerperal period is nutrition. The major cause of tooth decay is sugary foods that may easily stick to the teeth. Therefore, consumption of foods containing plenty of sugar or carbohydrates between meals should be avoided. It has been reported that drugs used for various reasons during this period, especially drugs in the form of syrup, contributed to the formation of caries due to their sweetener content. In these cases, rinsing the mouth with water following the use of the drug is an appropriate preventive practice.

Although their use is not very common during this period, some drugs, such as antihistamines, antidepressants, diuretics and psychotherapeutics, may cause a decrease in saliva secretion. Furthermore, salivary secretion may decrease due to dysfunction of the salivary glands in cases with hypertension, diabetes, or chronic depression. Thus, a tendency to caries formation occurs. In these cases, sugar-free chewing gum, carbonated mouthwash, and artificial saliva preparations can be used to relieve dry mouth, or water and other liquids may be recommended to be consumed abundantly and frequently (15-17).

Conclusion

Oral care is an integral part of overall health for women in the postpartum period, as it is for every individual. The puerperal period is more important than other times since oral and dental

care severely affects general health when neglected. If good oral hygiene is provided for these patients, their general health and their quality of life will be maintained or even improve. Oral health awareness should not be neglected in women who are in the postpartum period. At the same time, there is a need for special training for dentists and allied health professionals who will provide the oral health services to postpartum patients.

Footnotes

Author Contributions: *Surgical and Medical Practices: Z.Y., M.Y., Concept: Z.Y., M.Y., Design: Z.Y., M.Y., Data Collection or Processing: Z.Y., M.Y., Analysis or Interpretation: Z.Y., M.Y., Literature Search: Z.Y., M.Y., Writing: Z.Y., M.Y.*

Conflict of Interest: *No conflict of interest is declared by the authors.*

Financial Disclosure: *The authors declared that this study received no financial support.*

References

1. George A, Dahlen HG, Reath J, Ajwani S, Bhole S, Korda A, et al. What do antenatal care providers understand and do about oral health care during pregnancy. BMC Pregnancy Childbirth. 2016; 16: 382.
2. Silk H, Douglass AB, Douglass JM, Silk L. Oral health during pregnancy. Am Fam Physician. 2008; 77: 1139-44.
3. Suresh L, Radfar L. Pregnancy and lactation. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2004; 97: 672-82.
4. Yenen Z, Ataçağ T. Oral care in pregnancy. J Turk Ger Gynecol Assoc. 2019; 20: 264-8.
5. Yenen Z, Gorucu J. Approach to disabled patients in office practice. Diş Hekimliği Dergisi. 2004; 57: 40-3.
6. Badewy R, Cardoso E, Glogauer M, Sgro M, Connor KL, Lai JY, et al. Oral health-related quality of life among women early postpartum: a cross-sectional study. J Periodontol. 2023; 94: 1475-84.
7. Hartnett E, Haber J, Krainovich-Miller B, Bella A, Vasilyeva A, Lange Kessler J. Oral health in pregnancy. J Obstet Gynecol Neonatal Nurs. 2016; 45: 565-73.
8. Herbert P. Support of first-time mothers in the first three months after birth. Nurs Times. 1994; 90: 36-7.
9. Hung CH, Chung HH. The effects of postpartum stress and social support on postpartum women's health status. J Adv Nurs. 2001; 36: 676-84.
10. Ilett KF, Kristensen JH. Drug use and breastfeeding. Expert Opin Drug Saf. 2005; 4: 745-68.
11. Hotham N, Hotham E. Drugs in breastfeeding. Aust Prescr. 2015; 38: 156-9.
12. Eyal S. Use of therapeutics in pregnancy and lactation. Pharm Res 2018; 35: 107.
13. Jingarwar MM, Bajwa NK, Pathak A. Minimal intervention dentistry - a new frontier in clinical dentistry. J Clin Diagn Res. 2014; 8: ZE04-8.
14. Villa A, Abati S, Pileri P, Calabrese S, Capobianco G, Strohmenger L, et al. Oral health and oral diseases in pregnancy: a multicentre survey of Italian postpartum women. Aust Dent J. 2013; 58: 224-9.
15. Featherstone JD, Doméjean S. Minimal intervention dentistry: part 1. From 'compulsive' restorative dentistry to rational therapeutic strategies. Br Dent J. 2012; 213: 441-5.
16. Roberson MT, Lundeen TF. Cariology. In: Roberson MT, Heymann H, Swift EJ, editors. Sturdevants operative dentistry. 4th ed. Missouri: Mosby; 2002. p. 109-30.
17. Van Amerongen JP, Van Loveren C, Kidd EAM. Caries management. In: Summitt JB, Robbins JW, Hilton TJ, editors. Fundementals of operative dentistry. 3th ed. Illinois: Quintessence Publishing; 2006. p. 81-100.
18. da Costa SL, Malm O, Dórea JG. Breast-milk mercury concentrations and amalgam surface in mothers from Brasília, Brazil. Biol Trace Elem Res. 2005; 106: 145-51.
19. Goharkay K, Moritz A. Caries prevention. In: Moritz A, editor. Oral laser application. Berlin: Quintessenz Verlags-GmbH. 2006; p. 193-239.
20. Drugs and Lactation Database (LactMed). (Accessed: September 01, 2020). Available from: https://www.ncbi.nlm.nih.gov/ books/ NBK501370/Drugs and Lactation Database.
21. Groen RS, Bae JY, Lim KJ. Fear of the unknown: ionizing radiation exposure during pregnancy. Am J Obstet Gynecol. 2012; 206: 456-62.
22. Committee Opinion No. 723: Guidelines for diagnostic imaging during pregnancy and lactation. Obstet Gynecol. 2017; 130: e210-6.
23. Newton ER, Hale TW. Drugs in breast milk. Clin Obstet Gynecol. 2015; 58: 868-84.
24. Chin KG, McPherson CE, Hoffman M, Kuchta A, Mactal-Haaf C. Use of anti-infective agents during lactation: part 2--aminoglycosides, macrolides, quinolones, sulfonamides, trimethoprim, tetracyclines, chloramphenicol, clindamycin and metronidazole. J Hum Lact. 2001; 17: 54-65.
25. Chin KG, Mactal-Haaf C, McPherson CE. Use of anti-infective agents during lactation: Part 1--Beta-lactam antibiotics, vancomycin, quinupristin-dalfopristin, and linezolid. J Hum Lact. 2000; 16: 351-8.
26. Bar-Oz B, Bulkowstein M, Benyamini L, Greenberg R, Soriano I, Zimmerman D, et al. Use of antibiotic and analgesic drugs during lactation. Drug Saf. 2003; 26: 925-35.
27. Trimethoprim and sulfamethoxazole tablets product information. Rev 13, June 2013. (Accessed: September 30, 2020). Available from: http://www.accessdata.fda.gov
28. van Wattum JJ, Leferink TM, Wilffert B, Ter Horst PGJ. Antibiotics and lactation: an overview of relative infant doses and a systematic assessment of clinical studies. Basic Clin Pharmacol Toxicol. 2019; 124: 5-17.
29. Stultz EE, Stokes JL, Shaffer ML, Paul IM, Berlin CM. Extent of medication use in breastfeeding women. Breastfeed Med. 2007; 2: 145-51.
30. Lund M, Pasternak B, Davidsen RB, Feenstra B, Krogh C, Diaz LJ, et al. Use of macrolides in mother and child and risk of infantile hypertrophic pyloric stenosis: nationwide cohort study. BMJ. 2014; 348: g1908.
31. Can I take paracetamol while I'm breastfeeding? reviewed: 28 February 2018. (Accessed September 20, 2020). Available from: http://www.nhs.ukCommonhealthquestions/Medicines
32. European Medicine Agency. EMA recommends aligning doses of metamizole medicines and their use during pregnancy and breastfeeding. Press release 14/12/2018. (Accessed: September 22, 2020). Available from: https://www.ema.europa.eu/documents/ press-release/ema-recommends-aligning-doses-metamizole-medicines-their-use-during-pregnancy-breastfeeding_en.pdf
33. British Medical Association and Royal Pharmaceutical Society of Great Britain. British National Formulary. (Accessed: September 30, 2020). Available from: https://www.bnf.org.2003Appendix

34. Datta P, Rewers-Felkins K, Kallem RR, Baker T, Hale TW. Transfer of low dose aspirin into human milk. J Hum Lact. 2017; 33: 296-9.
35. Casteels K, Pünt S, Brämswig J. Transient neonatal hypothyroidism during breastfeeding after post-natal maternal topical iodine treatment. Eur J Pediatr. 2000; 159: 716-7.
36. Koga Y, Sano H, Kikukawa Y, Ishigouoka T, Kawamura M. Effect on neonatal thyroid function of povidone-iodine used on mothers during perinatal period. J Obstet Gynaecol. 1995; 21: 581-5.
37. French CA, Cong X, Chung KS. Labor epidural analgesia and breastfeeding: a systematic review. J Hum Lact. 2016; 32: 507-20.
38. Giuliani M, Grossi GB, Pileri M, Lajolo C, Casparrini G. Could local anesthesia while breast-feeding be harmful to infants? J Pediatr Gastroenterol Nutr. 2001; 32: 142-4.
39. Walsh T, Worthington HV, Glenny AM, Marinho VC, Jeroncic A. Fluoride toothpastes of different concentrations for preventing dental caries. Cochrane Database Syst Rev. 2019; 3: CD007868.
40. Sun Z, Zhang Y, Xue X, Niu R, Wang J. Maternal fluoride exposure during gestation and lactation decreased learning and memory ability, and glutamate receptor mRNA expressions of mouse pups. Hum Exp Toxicol. 2018; 37: 87-93.
41. https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=355&showFR=1
42. American Dental Association Council on Access, Prevention, and Interprofessional Relations, 2006. (Accessed: November 21, 2023). Available from: https://ebusiness.ada.org/Assets/docs/2313.pdf