

**The role of nurses in caring for pregnant women diagnosed with gestational diabetes***El papel de las enfermeras en el cuidado de las mujeres embarazadas con diagnóstico de diabetes gestacional**A atuação do enfermeiro no cuidado à gestante com diagnóstico de diabetes gestacional***Tatiane de Fátima Mariano<sup>1</sup>**

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**Abstract**

The aim was to describe the role of nurses in caring for pregnant women with the diagnosis of gestational diabetes, as well as presenting the risks for the binomial and proposing a care plan for nurses in Primary Health Care in the face of the diagnosis of gestational diabetes. Through an integrative literature review, the following guiding question was established: Does nursing care for pregnant women with gestational diabetes have an impact on reducing risks to the binomial? The final sample consisted of five Brazilian articles. From the results found, it is concluded that nurses have an important responsibility in carrying out prenatal care, especially regarding early diagnosis and treatment of gestational diabetes. It is essential to carry out tests and monitor the blood glucose level and other associated symptoms, since prevention and adequate treatment are essential for preventing, mainly, spontaneous abortion, arterial hypertension, infections and preterm births, fetal macrosomia, and prematurity. It was possible to build, as a proposal, a care plan for the Nurse in Primary Health Care facing the diagnosis of gestational diabetes.

**Descriptors:** Primary Health Care; Nursing Care; Gestational Diabetes; Pregnancy.**Resumen**

El objetivo fue describir el papel del enfermero en el cuidado de la gestante con diagnóstico de diabetes gestacional, así como presentar los riesgos del binomio y proponer un plan de atención al enfermero en Atención Primaria de Salud ante el diagnóstico de diabetes gestacional. A través de una revisión integradora de la literatura, se estableció la siguiente pregunta orientadora: ¿La atención de enfermería a la gestante con diabetes gestacional tiene un impacto en la reducción de riesgos al binomio? La muestra final estuvo constituida por cinco artículos brasileños. De los resultados encontrados se concluye que el enfermero tiene una importante responsabilidad en la realización de la atención prenatal, especialmente en lo que se refiere al diagnóstico y tratamiento precoz de la diabetes gestacional. Es fundamental la realización de exámenes y seguimiento del nivel glucémico y otros síntomas asociados, ya que la prevención y el tratamiento adecuado son fundamentales para la prevención, mayoritariamente, del aborto espontáneo, hipertensión, infecciones y partos prematuros, macrosomía fetal y prematuridad. Se pudo construir, a modo de propuesta, un plan de atención al Enfermero de Atención Primaria de Salud ante el diagnóstico de diabetes gestacional.

**Descriptores:** Primeros Auxilios; Cuidado de Enfermera; Diabetes Gestacional; Embarazo.**Resumo**

Objetivou-se descrever a atuação do enfermeiro no cuidado à gestante com o diagnóstico de diabetes gestacional, assim como, apresentar os riscos para o binômio e propor um plano de cuidados ao enfermeiro da Atenção Primária à Saúde frente ao diagnóstico de diabetes gestacional. Por meio de uma revisão integrativa de literatura, estabeleceu-se a seguinte questão norteadora: A assistência de enfermagem à gestante com diabetes gestacional tem impacto na redução de riscos ao binômio? A amostra final constou-se de cinco artigos brasileiros. A partir dos resultados encontrados, concluiu-se que o enfermeiro tem importante responsabilidade na realização do pré-natal, principalmente no que diz respeito ao diagnóstico precoce e tratamento do diabetes gestacional. É indispensável a realização de exames e monitoramento do nível glicêmico e dos demais sintomas associados, visto que a prevenção e tratamento adequado são primordiais para prevenção, majoritariamente, de aborto espontâneo, hipertensão arterial, infecções e partos pré-termos, macrosomia fetal e a prematuridade. Foi possível construir, como proposta, um plano de cuidados para o Enfermeiro na Atenção Primária à Saúde frente ao diagnóstico de diabetes gestacional.

**Descritores:** Atenção Primária à Saúde; Cuidados de Enfermagem; Diabetes Gestacional; Gravidez.

## Introduction

Diabetes is one of the most common problems in pregnancy, it is a metabolic problem that results in an increase in blood glucose due to the weight gain of the pregnant woman. Nursing has an essential role in health promotion because of its knowledge, through this, it contributes to effective actions that can reduce maternal and fetal mortality in the face of problems in pregnancy and postpartum, arising from Gestational Diabetes Mellitus (GDM)<sup>1</sup>.

GDM is a public health problem that affects many women, especially when there are risk factors present, such as hypertensive disease, short stature, overweight, recurrent abortions, obstetric antecedents such as macrosomia, among others<sup>2</sup>.

The nurse as an educator, should guide the pregnant woman about the disease, its symptoms and drug therapy, providing guidance on healthy habits, such as food and exercise, clarifying doubts during the evolution of pregnancy and encouraging it for self-care<sup>3</sup>.

The performance of prenatal care provides encouragement and awareness of patients to educational health actions, as well as to the monitoring of a healthy pregnancy and puerperium<sup>2</sup>.

Diabetes is a chronic disease in which the body does not produce insulin or, when produced, is unable to use it properly. Insulin is a hormone that controls the amount of glucose in the blood and our body needs this hormone to dispose of the glucose we get from food as a source of energy into the cell<sup>4</sup>.

According to the Brazilian Society of Diabetes<sup>4</sup>, when the individual has diabetes, the body suffers a disturbance in the manufacture of insulin and cannot use glucose properly, thus, the blood glucose level is high, leading to hyperglycemia. If this condition persists for a long period, there may be damage to organs such as nerves and blood vessels, causing blindness, kidney failure and cardiovascular injuries<sup>5</sup>.

The increase in glucose levels detected during pregnancy is GDM. Although pregnancy is a natural process, where the woman undergoes physiological, psychological, family, and economic changes, it is common for her to evolve without any complications. However, some pregnant women develop it, thus making it a high-risk pregnancy<sup>6</sup>.

In Brazil, approximately 7% of pregnant women are affected by GDM in the period of 24 and 28 weeks. Most of this metabolic alteration can be resolved after delivery, but it is possible for the woman to develop it and treatment for life is necessary<sup>6</sup>.

GDM is explained by the increase in insulin counter-regulating hormones that the body undergoes in pregnancy. The main hormone related during pregnancy is placental lactogenic and others such as cortisol, estrogen, progesterone, and prolactin, which are also hyperglycemic agents, and contribute to altering maternal glucose metabolism. It is considered the most frequent metabolic disease that affects pregnant women worldwide, its early diagnosis becomes essential to mitigate the risks to maternal and fetal health<sup>7,8</sup>.

Furthermore, this pathology can contribute to an increase in maternal and perinatal morbidity and mortality. Uncontrolled hyperglycemia can bring the following complications to the mother: cesarean sections, pre-eclampsia, risk of developing postpartum diabetes mellitus, congenital malformations, and abortion in the first trimester of pregnancy. The fetus, on the other hand, can evolve to prematurity, macrosomia, (excessive fetal growth), shoulder dystocia, hypoglycemia and perinatal death<sup>9</sup>.

The risk factors that contribute to the occurrence of GDM are overweight or obesity, high blood pressure or pre-eclampsia, age equal to or greater than 35 years, family history of diabetes in first-degree relatives, malformations, polycystic ovary syndrome, maternal height less than 1.5 meters, obstetric history of macrosomia, fetal or neonatal death<sup>2</sup>.

The Ministry of Health recommended, through the 2012 High Risk Pregnancy Manual, the use of clinical risk factors for GDM, associated with fasting blood glucose in early pregnancy (before 20 weeks or as soon as possible), for tracking GDM. Thus, in the presence of fasting blood glucose from 85mg / dL to 125 mg / dL or any clinical risk factor, pregnant women should perform the Oral Glucose Tolerance Test (TOTG) with 75g of glucose. Then, the diagnosis of GDM is established in view of at least two values greater than or equal to 95 mg / dL (fasting), 180 mg / dL (1st hour) and 155 mg / dL (2nd hour). Women who have two fasting blood glucose levels  $\geq 126$ mg / dL, also receive a confirmed diagnosis of GDM, without the need to perform the glucose overload test. If only an abnormal TOTG value of 75 grams is observed, the test should be repeated at 34 weeks<sup>10</sup>.

Treatment after the confirmed diagnosis includes individualized diet, use of medication and physical activity when there is no contraindication, and the prescription of pharmacological treatment is instituted when the normalization of blood glucose does not occur through diet and physical activity<sup>6,7</sup>.

In this sense, subcutaneous insulin therapy is considered the standard treatment. Since insulin does not cross the placental barrier, it is safe for the mother and the fetus and has a good effectiveness in controlling glycemic values. However, there is a low adherence by pregnant women due to unwanted weight gain. On the other hand, oral medications such as metformin, which has comparable effectiveness to insulin, are better accepted by pregnant women, have a lower rate of severe neonatal hypoglycemia, but have vomiting, nausea and abdominal discomfort as side effects<sup>6,7</sup>.

In prenatal care, pregnant women with GDM, it is essential for nurses to act because they are the first professional to receive this pregnant woman in the health service. This professional must be able to identify conditions or factors related to the risks of GDM both for the health of the woman and for the baby to obtain a positive outcome, promoting quality and humanized care, whether in primary care or at more complex levels<sup>9,11</sup>.

The nursing consultation allows identifying and implementing actions to promote, prevent and recover the health of pregnant women. In relation to Gestational



Diabetes, it is essential that nurses have knowledge of related symptoms such as polyuria, polydipsia, polyphagia, and spontaneous weight loss. From these symptoms, the pregnant woman needs to be evaluated carefully and with agility to investigate other manifestations that propitiate the clinical suspicion of GDM<sup>3,12</sup>.

Fatigue, weakness, lethargy, skin and vulvar itching and recurrent urinary infections may be some of these manifestations. The Nurse must also raise the current and previous history as to the risks that this injury can cause both the mother and the fetus. You should advise on the blood glucose tests that will be performed during pregnancy, glycemic annotation map, drug therapy and nutritional restriction<sup>3,12</sup>.

In addition, it guides and clarifies the pregnant woman about the natural and physiological course of pregnancy, with increased glucose and adipose tissue, which is why the importance of taking care of food, physical activity, and preventing possible complications in childbirth and the puerperium. The set of these actions contribute to the strengthening of the bond between the professional and the pregnant woman, which enables the desired search for self-care<sup>12</sup>.

The professional must also carry out an active search so that the pregnant woman performs all the prenatal consultations recommended by the MH. When prenatal care is performed early in pregnancy and on a continuous basis, it is beneficial for the health of the mother and baby, since any changes can be diagnosed early. The pregnant woman has the right to receive humane treatment in the planning of pregnancy, childbirth, and puerperium, as well, the child has the right to a healthy birth, development and safe growth<sup>13,14</sup>.

From the above, the objective of the study was to describe the role of the nurse in caring for pregnant women with the diagnosis of gestational diabetes, as well as presenting the risks for the binomial and proposing a care plan to the Primary Health Care Nurse in front to the diagnosis of gestational diabetes.

## Methodology

It is an integrative literature review, a method that allows synthesizing the knowledge produced in an orderly and systematized way, with the purpose of making significant the findings from the related study on a given subject, as well as including the analysis of researches that

support for the improvement of clinical practice This type of study contributes to the advancement of science as it allows the survey of possible gaps and the deepening of the theme<sup>15,16</sup>.

The following steps were followed: formulation of the study question, establishment of the inclusion and exclusion criteria, definition of the information to be extracted from the selected studies, analysis, and presentation of the review<sup>15,17</sup>.

The guiding question from the PICO strategy was: Does nursing care for pregnant women with gestational diabetes have an impact on reducing risks to the binomial?

To answer it, the research was carried out by two independent researchers between the months of April and May 2020 in the following online databases: Latin American and Caribbean Literature in Health Sciences (LILACS), Scientific Electronic Library Online (SCIELO), Google Scholar and PubMed.

The descriptors used in the search for articles according to Health Sciences Descriptors (DeCS) and Medical Subject Headings (MeSH) were: Gestational Diabetes, Pregnancy, Nursing, Women Pregnant, Diabetes, Nursing. Boolean operators "OR" and "AND" were used.

As inclusion criteria, full articles, dissertations, and theses were established in Portuguese, English, and Spanish with no temporary limit to expand the search on this theme.

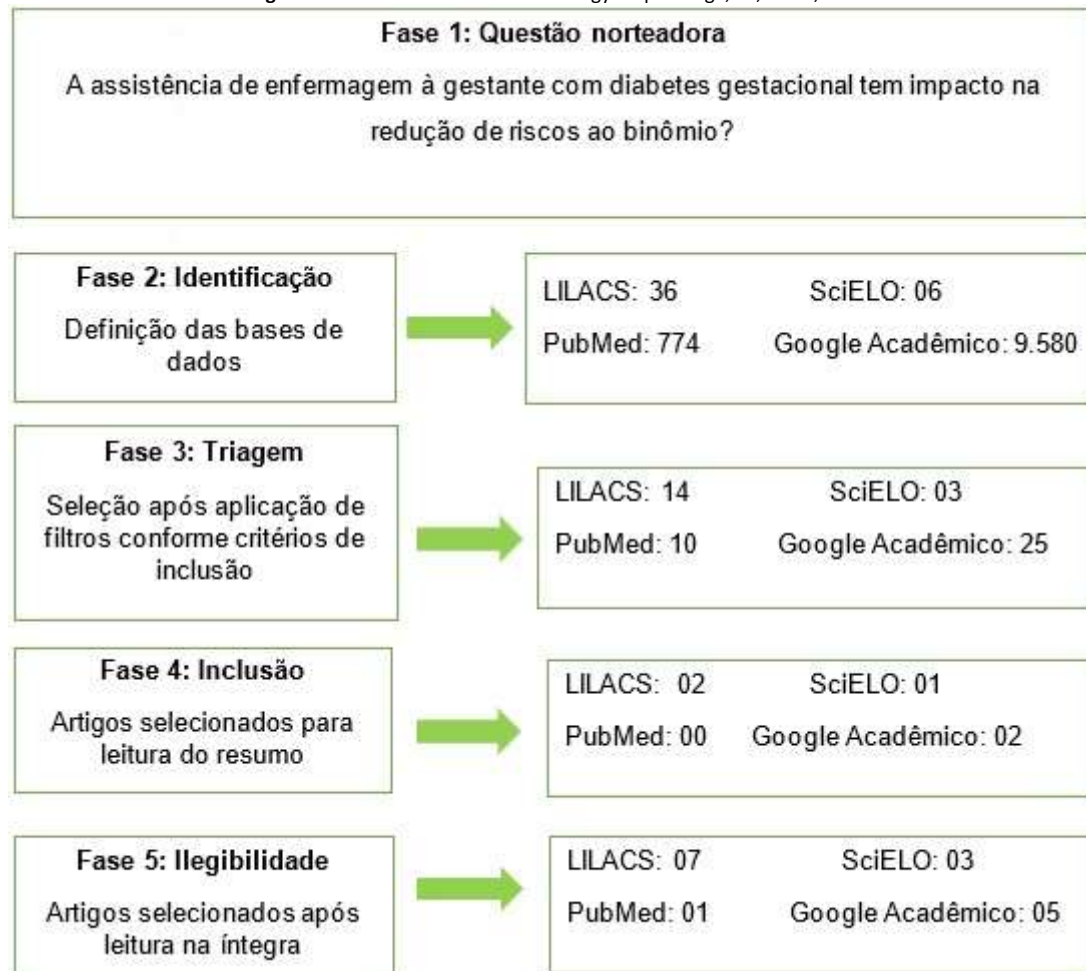
First, the title of the selected articles was read, followed by abstracts, those that did not match the proposed theme and study objectives were excluded. After this stage, the articles were read in full.

The information extracted from the studies were: authors' names, profession, publication date, country of origin, study objective, design, and main results, which were compiled into an Excel<sup>®</sup> spreadsheet.

Initially, through the search with the descriptors mentioned, 36 studies were found in LILACS, six in SciELO, 9,580 in Academic Google and 774 in PubMed.

Based on the inclusion and exclusion criteria, articles were selected that focused on nurses' performance in the GDM for reading the abstract and after this stage, those that matched the objective of the study, were read in full. A total of 9,620 studies were excluded, which resulted in two studies in the LILACS database, one in SciELO, two Google Scholar and zero in PubMed according to the flowchart below (Figure 1).

Figure 1. Flowchart of the search strategy. Itapetininga, SP, Brazil, 2020



## Results

The final sample consisted of five publications that met the inclusion criteria. Chart 1 presents the information extracted from the selected studies to characterize them and later compose the discussion.

To this end, we sought to describe the authors of the studies, what their professions are, the date and country of publication, together with the objectives established by each study, what the design used in the research and finally, what were the main results obtained in each one of them.

Chart 1. Characterization of the selected studies in relation to the author, year of publication, country, objective, design, and main results. Itapetininga, SP, Brazil, 2020

Authors	Profession	Year	Country	Objective	Outline	Main results
Soares MS, Salomon IMM, Cirilio PB.	Nurses	2009	BR	To analyze how the nursing consultation has contributed to the improvement of glycemic control in women with a history of GDM and pre-pregnancy accompanied in a Program for Assistance to Pregnant Women with Diabetes, developed at the Hospital das Clínicas at UFMG.	Descriptive-exploratory study.	The results revealed a significant improvement in glycemic control in 70% of pregnant women in relation to the beginning of the follow-up, due to the educational and follow-up nature of the consultation, by strengthening the autonomy and actions aimed at self-care. It was found that the nursing consultation has contributed to sensitize and clarify women about the need to change their behavior towards their problem, with the purpose of leading them to act preventively, reducing the damage resulting from the natural evolution of the disease in the body. maternal and fetal and investing in the development and motivation to exercise self-care actions.
Vieira Neta FA, Crisóstomo VL, Castro RCMB, Pessoa SMF,	Nurses	2014	BR	Identify the sociodemographic, clinical-obstetric profile, as well as prenatal care for women with gestational diabetes mellitus.	Cross-sectional study.	The results revealed unsatisfactory care during prenatal care, such as the absence of checking blood pressure, uterine height, and ignorance of the glycemic value, which reinforces the professionals' unpreparedness in this performance, exposing the binomial to serious risks. There is a need to implement existing



Aragão MMS, Calou CGP.						health policies for early detection and adequate management of the disease, before and after pregnancy.
Pereira FC, Silva HD, Alves IMF, Nelson ICS, Medeiros SM, Paulino SC.	Nurses	2016	BR	Describe the role of nurses in prenatal care for the prevention and early diagnosis of pregnant women with diabetes.	Bibliographic survey of the type of literature review.	The nurse has a crucial role in primary action, as it is in prenatal care that research should be prioritized, thus bringing to the mother-child binomials, benefits related to quality of life and treatment variation.
Alves FLC, Castro EM, Souza FKR, Lira MCP, Rodrigues FLS, Pereira LP.	Nurses	2019	BR	Understand the importance of the group in the nursing care process for pregnant women at risk.	Qualitative, descriptive study.	The groups promote the sharing of experience, learning and reflection on the possibilities and limitations of the health-disease process, reducing anxiety and contributing to empowerment in decision-making.
Queiroz IS, Bertolin DC, Werneck AL <i>et al.</i>	Physicians	2019	BR	Describe the main complications and pre-existing diseases in pregnant women with Gestational Diabetes Mellitus.	Quantitative, analytical, cross-sectional study.	It was observed that the main complications in the sample of pregnant women with GDM are lower abdominal pain, hypertensive disease specific to pregnancy, leukorrhea, headache, urinary tract infection and dyspnea.

## Discussion

GDM, as contextualized above, is the most common problem in pregnancy. As it is a complex metabolic disease, it needs an early diagnosis and treatment. Faced with this theme, nursing care is discussed for this pregnant woman and the nurse as an educator and facilitator of this process, from the identification, treatment, and control of this health problem with an impact on reducing risks for the binomial.

According to a study<sup>9</sup>, the nursing consultation is a fundamental activity, exclusive to the nurse, focused on the comprehensive care of the patient. It consists of meeting all the needs demanded by the pregnant woman and not only the disease, but also promotes education, guidance, and clarification about what GDM is and the care during treatment. In addition, it provides instruction and guidance on risk pregnancy, care for the fetus, home self-monitoring together with the preparation, application, and care with insulin therapy, instructing her in the best way.

Researchers<sup>9</sup> emphasize the importance of health professionals being trained to offer adequate treatment, either in primary care or at more complex levels, so that risks are identified as early as possible. The commitment of a well-executed prenatal care is the responsibility of the nurse, so that interventions in the hospitalization process are carried out properly.

The gestational process involves physiological, psychological, family, and economic changes and the nurse stands out for the competence and ability to identify factors that may interfere with the educational process in health and self-care, especially when the patient develops any pathology related to pregnancy<sup>13</sup>.

Study<sup>11</sup> it also corroborates this finding when it emphasizes that nurses are qualified to identify factors or conditions for women's health risks, especially in GDM. The quality of prenatal care is linked to the quality of the health system, which performs early monitoring to prevent complications and especially maternal mortality. Therefore, there is a need to carry out an active search for high-risk pregnant women, offering comprehensive care, improving

knowledge of the flow of pregnant women in the health network, for the proper referral to specialized services, when necessary to minimize the risks to the fetus and future complications for pregnant women.

In a study<sup>9</sup> carried out with 17 pregnant women with GDM, it was observed that the main complications of pregnant women were DM2 (50%), spontaneous abortion (38.80%), arterial hypertension (27.70%), infections and preterm births (16, 60%). Noteworthy are pain in the lower abdomen (10.07%), hypertensive disease specific to pregnancy (4.32%), leukorrhea (4.32%), headache (3.60%), urinary tract infection (3, 60%) and dyspnea (3.60%). Faced with complications of the newborn, fetal macrosomia and prematurity stand out.

Approximately 7% of pregnancies are associated with maternal and fetal complications, resulting in more than 200,000 cases registered in the SUS per year due to GDM, which represents one of the main causes of maternal morbidity and mortality in the country<sup>11</sup>.

Corroborating with the other studies, a study<sup>3</sup> refers that nursing, within the context of care, leads this direct assistance, as it is closer to the pregnant woman, through the care practice and systematized in a holistic way. Thus, it has a fundamental role in the routine of these women, with the attribution of assisting and supporting them using simple language that contributes to the psycho-emotional process, promoting greater affinity between the pregnant woman and the nursing team, a welcoming and safe environment with quality and humanization.

Thus, early recognition of risk factors for GDM during prenatal care is related to the prevention of complications. In prenatal care, frequency of consultations, maternal metabolic control and maintenance of fetal well-being are essential. As recommended by the Ministry of Health (MS), consultations should be made every two weeks, from the diagnosis of GDM until the 32nd week, and, thereafter, weekly until delivery<sup>3,11</sup>.

By offering regular follow-up through consultations, providing an opportunity for pregnant women





to learn about what care they should take, there is an effective direction regarding therapy for the control of the glycemic profile. Studies on the GDM consider the practice of physical exercises, healthy eating, medication to treat the disease and, also, the monitoring of the newborn<sup>3,12</sup>.

In this care process, it is said that the nurse plays a leading role, as he can identify factors that interfere in the educational process, promoting direct assistance for being closer to the patient, using a holistic and multidisciplinary systematic care practice in this context. In this sense, it provides an active participation of women in the prevention of complications that may occur for themselves and their children<sup>12,13</sup>.

Continued care for women with GDM is essential to prevent complications. Thus, there is a need to implement existing health policies for early detection and adequate management of the disease, before and after pregnancy in PHC. Authors revealed a weakness in the quality provided to these patients, since there was a significant number of pregnant women who did not perform glycemic monitoring and the blood pressure check was unsatisfactory, as well as the lack of evaluation of uterine height and fetal heartbeat<sup>11</sup>.

Another point addressed in studies on this theme is about the group dynamics with pregnant women, which favor the approach to the nurse, resulting in moments of action-reflection for the identification of care needs, collaborating in the planning and implementation of assistance. Group work allows pregnant women to experience opportunities for strengthening, coping and encouragement, allowing the establishment of effective communication, the expression of concepts and emotions, minimizing tension and anxieties, understanding the stages of pregnancy until the postpartum period<sup>13</sup>.

In study<sup>13</sup>, the implementation of a health practice for pregnant women based on a dialogical approach through interactive groups, stimulated active participation, support and the exchange of experiences between the participants, as well as learning and coping strategies during hospitalization.

And it is noteworthy that, in obstetrics, nursing care should be directed to women as the subject of their birth,

requiring care and not control, respecting privacy and security in the birth process<sup>13</sup>.

## Conclusion

Therefore, it can be concluded that the nurse has an important responsibility in carrying out prenatal care, especially about the early diagnosis and proper treatment of GDM. It is essential to carry out tests and monitor the blood glucose level and other associated symptoms, since prevention and early treatment are essential regarding maintaining the health of the pregnant woman and the child.

Considering the risks of GDM for the binomial, we observed that the most frequent complications are spontaneous abortion, hypertension, infections, and preterm births, with emphasis on lower abdominal pain, hypertensive disease specific to pregnancy, leukorrhea, headache, urinary tract infection and dyspnea. Regarding the complications of the newborn, fetal macrosomia and prematurity stand out.

As a proposal for a care plan for Nurses in Primary Health Care in view of the diagnosis of Gestational Diabetes Mellitus to prevent risks to the binomial, it stands out:

- Nursing consultation with an educational role and emphasis on the pregnant woman's autonomy and self-care, also encouraging healthy eating and physical activity.
- Conducting multiprofessional consultations.
- Conducting conversation groups to promote action-reflection.
- Training the team for early identification and appropriate treatment.
- Active search for high-risk pregnant women.
- Promote welcoming, providing holistic and humanized care.
- Referral to specialized services when necessary.
- Monitoring blood glucose, systemic blood pressure, checking uterine height, checking BCF.
- Woman as the subject of her birth.

## References

1. Pitta LM. Descrevendo a atuação de enfermeiras nos cuidados à gestante com diabetes gestacional. [Trabalho de Conclusão de Curso] Universidade Federal do Recôncavo da Bahia. Santo Antônio de Jesus, 2019. 54f
2. Guerra JVV, Alves VH, Valette COS, et al. Diabetes gestacional e assistência pré-natal no alto risco. Rev enferm UFPE online [Internet]. 2019 fev [acesso em 24 abr 2021];13(2):449-54. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1010227>
3. Paulino TS, Silva HD, Medeiros SM, Pereira FC, Nelson ICS, Alves IMF. Cuidados de enfermagem na consulta de pré-natal à gestante diagnosticada com diabetes gestacional. Revista Humano Ser – UNIFACEX [Internet]. 2016 [acesso em 24 abr 2021];1(1):13-23. Disponível em: <https://periodicos.unifacex.com.br/humanoser/article/view/798>
4. Sociedade Brasileira de Diabetes (SBD). Diretrizes da Sociedade Brasileira de Diabetes 2019-2020.
5. Zhang C, Olsen SF, Hinkle SN, et al. Diabetes & Women's Health (DWH) Study: an observational study of long-term health consequences of gestational diabetes, their determinants and underlying mechanisms in the USA and Denmark. BMJ Open. 2019;9:e025517. doi:10.1136/bmjopen-2018-025517
6. Weinert LS, et al. Diabetes gestacional: um algoritmo de tratamento multidisciplinar. Arq Bras Endocrinol Metab. 2011;55(7). <https://doi.org/10.1590/S0004-27302011000700002>



7. Tanure LM, Alves SS, Leite HV, Cabral ACV, Brandão AHF. Uso de hipoglicemiantes orais em pacientes com Diabetes Mellitus gestacional. FEMINA [Internet]. 2014 [acesso em 24 abr 2021];42(6):261-264. Disponível em: <http://bases.bireme.br/cgi-bin/wxislind.exe/iah/online/?IsisScript=iah/iah.xis&src=google&base=LILACS&lang=p&nextAction=lnk&exprSearch=749146&indexSearch=ID>
8. Farris C. Diagnóstico e rastreamento do diabete melito gestacional. Arq. Catarin. Med [Internet]. 2012 [acesso em 24 abr 2021]; 41(1): 68-71. Disponível em: <http://bases.bireme.br/cgi-bin/wxislind.exe/iah/online/?IsisScript=iah/iah.xis&src=google&base=LILACS&lang=p&nextAction=lnk&exprSearch=664905&indexSearch=ID>
9. Queiroz IS, Bertolin DC, Werneck AL et al. Complicações e doenças pré-existentes em gestantes com diabetes mellitus. Revenferm UFPE online [Internet]. 2019 mai [acesso em 24 abr 2021];13(5):1202-7. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1024126>
10. Organização Pan-Americana da Saúde, Ministério da Saúde, Federação Brasileira das Associações de Ginecologia e Obstetrícia (BR). Sociedade Brasileira de Diabetes Rastreamento e diagnóstico de diabetes mellitus gestacional no Brasil. Brasília, DF: OPAS, 2016. 32p.: il. ISBN: 978-85-7967-118-0
11. Vieira Neta FA, Crisóstomo VL, Castro RCMB, Pessoa SMF, Aragão MMS, Calou CGP. Avaliação do perfil e cuidados no pré-natal de mulheres com diabetes mellitus gestacional. Rev Rene [Internet]. 2014 set/out [acesso em 24 abr 2021];15(5):823-31. Disponível em: [http://www.repositorio.ufc.br/bitstream/riufc/10657/1/2014\\_art\\_cgpcalou.pdf](http://www.repositorio.ufc.br/bitstream/riufc/10657/1/2014_art_cgpcalou.pdf)
12. Soares MS, Salomon IMM, Cirilio PB. A consulta de enfermagem na assistência a mulheres com história de diabetes gestacional: uma proposta junto ao Programa de Humanização do Hospital das Clínicas da Universidade Federal de Minas Gerais. Rev Med Minas Gerais [Internet]. 2009 [acesso em 24 abr 2021];19(4 Supl 2):S5-11. Disponível em: <http://rmmg.org/artigo/detalhes/1127>
13. Alves FLC, Castro EM, Souza FKR, Lira MCPS, Rodrigues FLS, Pereira LP. Grupo de gestantes de alto-risco como estratégia de educação em saúde. Rev Gaúcha Enferm [Internet]. 2019 [acesso em 24 abr 2021];40:e20180023. Disponível em: <https://www.scielo.br/pdf/rgenf/v40/1983-1447-rgenf-40-e20180023.pdf>
14. Pérez EAM, Sánchez AR, Hernández ARP, Martínez MAL y col. Diabetes gestacional. Diagnóstico y tratamiento em el primer nivel de atención. Med Int Méx [Internet]. 2017 [acesso em 24 abr 2021];33(1):91-98. Disponível em: [http://www.scielo.org.mx/scielo.php?script=sci\\_arttext&pid=S0186-48662017000100091](http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0186-48662017000100091)
15. Whittemore R, Knaf K. The integrative review: updated methodology. J Adv Nurs. 2005;52(5):546-53. <https://doi.org/10.1111/j.1365-2648.2005.03621.x>
16. Pereira VFR, Maciel CM, Costa BCP, Dázio EMR, Nascimento MC, Fava SMCL. Cuidado de enfermagem às pessoas com deficiência na Atenção Primária à Saúde. Glob Acad Nurs. 2020;1(1):e7. <https://dx.doi.org/10.5935/2675-5602.20200007>
17. Sousa KHJF, Damasceno CKCS, Almeida CAPL, Magalhães JM, Ferreira MA. Humanização nos serviços de urgência e emergência: contribuições para o cuidado de enfermagem. Rev Gaúcha Enferm. 2019;40:e20180263. <https://doi.org/10.1590/1983-1447.2019.20180263>