

Research Article

Adherence to the Guidelines for Prenatal Control in a Primary Care Unit in Tijuana

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Abstract

Background: Prenatal care reduces maternal and perinatal morbidity and mortality through the prevention, detection and timely treatment of complications. The World Health Organization in 2015 reported 303,000 deaths from causes related to pregnancy. The maternal mortality rate in developing countries in 2015 is 239 per 100,000 live births, while in developed countries it is 12 per 100,000.

Aim: The purpose of this study is to determine the percentage of adherence to the prenatal control guidelines in the family medicine unit #27 (FMU 27) in Tijuana, Mexico.

Design and Setting: Descriptive cross-sectional study.

Methods: A descriptive cross-sectional study was conducted in the FMU 27. The Maternal Process Evaluation test developed by the Instituto Mexicano del Seguro Social (IMSS) was applied to 395 electronic clinical records. We obtained general information registered in the prenatal control sheet of the electronic file to evaluate the adherence to the prenatal control guidelines in Mexico. For statistical analysis, we applied descriptive statistics; for qualitative variables frequencies and percentages were used and for quantitative variables mean and standard deviation.

Results: The adherence to the guidelines of prenatal control was 81%. The action with the highest attachment was to provide information on obstetric alarm signs (100%), blood pressure registration (99.49%) and health promotion (99.24%).

Conclusion: According to our result, we conclude that the FMU 27 has a good adherence to the clinical practice guide for prenatal control with a risk approach. We detect areas of opportunity to design strategies in continuing education and updating of health personnel.

Keywords: Prenatal control; Clinical Practice Guide; Pregnancy

Introduction

Prenatal control are the actions and procedures, systematic or periodic, aimed at the prevention, diagnosis and treatment of factors that can condition perinatal maternal morbidity and mortality. Maternal and child health care is a priority for health services, its main objective is timely detection and prevention of maternal complications in pregnancy through early, systematic and high quality prenatal care, which allows identifying and control the main obstetric and perinatal risk factors [1].

The World Health Organization (2016) defines the new model of antenatal care as the care provided to women by trained health professionals, with the aim of ensuring the best conditions for pregnant women. In this new model of antenatal care it is established that at least 8 medical visits be made throughout the pregnancy, in order to reduce perinatal deaths by up to 8 per 1000 births. This prenatal care program has 5 categories with 39 recommendations: nutritional intervention, maternal and fetal evaluation, preventive actions, interventions for common physiological symptoms and health interventions to improve the use and quality of antenatal control [2-4].

The WHO reported an approximate mortality of 830 women per day due to preventable causes related to pregnancy and childbirth, 99% of maternal mortality corresponds to developing countries more frequently in rural areas and in the poorest communities. The causes of maternal mortality reported worldwide during pregnancy and childbirth are conditions susceptible to prevention like urinary tract infection, preeclampsia, eclampsia, premature rupture of membranes, hemorrhage and sepsis, most of these deaths occur in developing countries indicating lack of access to health services [5].

In Mexico there are few studies related to the quality of prenatal control in primary care. There are two recent studies on this topic, the first one was carried out in the family medicine unit #80 from Morelia Michoacán by Álvarez-Huante (2017), they analyzed the adherence to the guide of clinical practice on prenatal control in adolescents, they found an adherence of 69% [6]; the second study was in Cancun, Mexico by Paz-Ramosa M (2014) in a primary care unit, they found an adherence to the guidelines of 42% [7]. According to the background, the main objective of the study is to determine the percentage of adherence to the prenatal control guidelines in the family medicine unit #27 (FMU 27) in Tijuana, Mexico.

Materials and Methods

Study design and population

A descriptive cross-sectional study was carried out, in the Family Medicine Unit #27 of the Instituto Mexicano del Seguro Social (IMSS), located in Tijuana, Mexico; the sample was calculated with the formula of one proportion [8] from the census of pregnant women registered as first-time appointments in January 2018. 836 electronic files were reviewed, 441 were excluded and 395 patient files were included that began their prenatal control in January 2018 and ended in October 2018.

Variables

The following variables were analyzed: adherence to prenatal control guidelines, gestational age at the start of prenatal control, days elapsed between the first and second medical evaluation with blood and urine tests, use of folic acid until week 12, rapid Human Immunodeficiency Virus (HIV) test, Venereal Disease Research Laboratory test (VDRL), blood count test at week 28, urine test between week 18-20 and 32-34, blood glucose between week 24-28, ultrasound before week 24, blood pressure at each visit, information on obstetric warning signs, priority appointment less than 30 days in patients with obstetric risk factors, health education by the department of social work, establish a contraceptive method according to risk reproductive and reference to second level of attention.

The above variables are found in the Maternal Process Evaluation test developed by the Instituto Mexicano del Seguro Social (IMSS), this instrument measures the quality of prenatal control in primary care. Appropriate adherence was considered when at least 80% of the actions described in the test were met [8]. The other complementary variables were prenatal exams at the first consultation; reference to the departments of nutrition, stomatology, preventive medicine and social work; identification and stratification of obstetric risk; number of consultations during prenatal control; patient age and weight at the beginning of pregnancy.

Statistical analysis

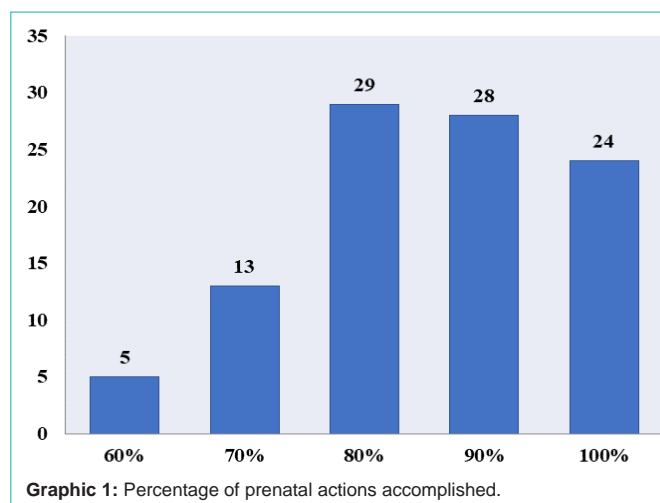
In the qualitative variables we use frequencies and percentages; for quantitative variables, mean and standard deviation. The normality of the data was performed using the Kolmogorov-Smirnov test. For data analysis, the IBM SPSS program, version 20 (Armonk, NY, USA) was used.

Ethics

The study was approved by the local health ethics and research committee number 204; with registration number R-2018-204-026. The research was conducted under the general health law on health research, the Helsinki declaration and bioethical principles.

Results

395 medical records were evaluated during January and October 2018 through the Maternal Process Evaluation test. The adherence to the prenatal control guidelines was 81%, 50% of the files evaluated complied with 90% of the prenatal actions required and the most frequent percentage was 80%. The percentages of the satisfactory actions were as follows (Graphic 1): 29% had at least 80% of actions, 28% had 90% and 24% had 100%. In 99% of the files the obstetric risk was staged with a distribution of 56% for low risk and 44% for high



risk. In the treatment with folic acid for trimesters of gestation, 37% had this treatment in the first trimester, 34% in the second and 29% in the third. The contraceptive methods selected by the patients were intrauterine device (20%), bilateral tubal occlusion (15%), subdermal implant (7%), injectable hormonal (2%), dermal patch (0.5%), male condom (0.8%), vasectomy (0.8%) and 20% of patients did not accept any family planning method.

References were made to the second level of attention in 67% of cases, 23% to obstetrics, 13% perinatology and 5% gynecological emergencies. The average age at the beginning of prenatal control was 26.3 years with a distribution of 15 to 41 years. The average number of medical consultations during the entire prenatal check-up was 8.3. The prenatal exams requested at the first visit were blood count, general urine test, rapid HIV test, VDRL, blood group with Rh and glucose in 91% of cases, 9% were partially requested. In the weight at the beginning of the prenatal control according to the WHO classification, it was distributed as follows: underweight 4%, normal weight 37%, overweight 31%, obesity grade I 16%, grade II 8%, grade III 4%. The average gestational age at the first prenatal control visit was 8.6 weeks.

When assessing prenatal actions independently, 93% gave the second attention within 7-10 days with prenatal tests, 83% performed the rapid HIV test, 97% performed ultrasound before the week 24, 100% measured blood pressure in each visit and explain the signs of obstetric alarm. The medical valuation for prenatal care was less than 30 days in 98% of cases when the woman was at high obstetric risk and 99% received health education from the social work department.

Discussion and Conclusion

The most important result of the research is the high level of adherence to prenatal control guidelines in Mexico in our family medicine unit. Our results in the adherence to the guidelines are higher than those reported by Álvarez-Huante (2017) in the FMU #80 of Morelia Michoacán where it was 69% [6] and much higher than that found by Paz-Ramosa in a primary care medical unit in Cancun, Mexico, where they found 42% attachment [7].

According to our result, we conclude that Family Medical Unit #27 has a good adherence to the prenatal control guidelines with a

risk approach. We detect areas of opportunity to design strategies in continuing education and updating of health personnel to improve the comprehensive management of prenatal control in this health center. We propose to create a pilot program of prenatal control with specific consulting rooms for pregnant women. We conclude that the Maternal Process Evaluation test is a useful tool for the family physician and allows the quality of the prenatal process to be evaluated. The present research met the objectives and answered the research question, we believe that it is necessary to create more instruments to measure the quality of prenatal control according to the criteria of detection, diagnosis and management for diseases that occur during pregnancy.

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