

Quality of Antenatal Care at the Referral Health Center of the Fourth Commune of Bamako District

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Abstract

Purpose: To contribute to the improvement of the quality of prenatal consultation at the reference health center of the commune IV of the district of Bamako. **Patients Methods:** This was a qualitative cross-sectional study to assess the quality of prenatal consultation that took place from December 1, 2017 to January 31, 2018. It included 139 pregnant women whose consultations were monitored by the investigator and then the women were interviewed upon discharge from the facility to collect their opinions on the services they received. **Results:** The age group of 20 to 29 years was the most represented with 60.44%. In our study, 50% of our patients were managed by midwives. Among the antecedents constituting the risk factors sought in pregnant women, scar uterus was more frequent with 33.93% followed by arterial hypertension with 14.28% and multiparity with 7.14%. **Conclusion:** This study shows that the evaluation of the quality of services is an absolute necessity for the improvement of services in integrated reproductive health care centers.

Keywords

Quality, Prenatal Consultation, Bamako, Mali

1. Introduction

The prenatal consultation (PNC) is a preventive medical procedure to detect and

treat possible complications during pregnancy. It also allows for dictating the route of delivery. According to the World Health Organization (WHO) [1], approximately 830 women die every day worldwide due to complications related to pregnancy or childbirth. The maternal mortality ratio in developing countries in 2015 was 239 per 100,000 births, compared to 12 per 100,000 in developed countries. According to the Mali V Demographic and Health Survey 2012-2013 [2], the maternal mortality ratio is 368 maternal deaths per 100,000 live births. In other words, the risk of maternal death in Mali is 1/42. According to TAKOU [3], it is estimated that in the world each year more than 3 million newborns die during the first month of life and 75% of these deaths occur during the first week of life. The WHO recommends at least four prenatal visits at regular intervals throughout pregnancy [4]. Thus, according to a WHO compilation [5] on prenatal coverage, 98% of pregnant women in developed countries attend prenatal visits, while this rate remains below 70% in most African countries, India and Asian countries.

In Mali, it is estimated that three out of four women (74%) attend ANC provided by qualified personnel. These consultations are carried out mainly by midwives or nurses in 36% of cases, by matrons in 33% of cases and only 1.4% of cases by doctors. In addition, according to the results of the ED SMV [2], in slightly less than 3 out of 10 cases (29%), the mothers did not perform any ANC. Prenatal consultations are one of the four pillars of safe motherhood. The other three are family planning, safe and healthy delivery, and essential obstetric care according to BERTHE [6]. In 2000, the Member States of the United Nations committed themselves to working towards the achievement of a series of Millennium Development Goals (MDGs), calling for, among other things, a three-quarters reduction in the maternal mortality ratio (MMR, number of maternal deaths per 100,000 live births) between 1990 and 2015.

The health center of reference of the commune IV has benefited from several actions aimed at improving the services offered. These actions consisted mainly of providing human resources (gynecologists and obstetricians, midwives, etc.), expanding capacities and reorganizing ANC services. This study is part of the evaluation of the quality of the services offered to the users in order to continuously take into account the probable insufficiencies that will be detected.

2. Methodology

This was a prospective cross-sectional study conducted from December 1, 2017 to January 31, 2018 on the quality of ANC performed in pregnant women who came to the CSREF of Commune IV of the Bamako district. Commune IV covers an area of 37.68 km² with an estimated population of 407,074 in 2018 or 89,556 women of reproductive age and 20,354 expected pregnancies. It has 9 functional health areas. The sample size was calculated according to the Schwartz formula with $p = 70\%$ (EDSM IV rate of pregnant women who attended antenatal consultations, provided by trained personnel) [2], α risk of 5%, i precision of 8% and a loss rate of 10%, *i.e.*, a minimum size of 139. Pregnant women who

came for consultation during the study period and who agreed to participate in the study were included. The variables studied were: socio-demographic characteristics; availability of facilities and resources; physical environment of care; organization and operation of NRPC services; NRPC procedures; interpersonal relationships; technical competence of health personnel; and mothers' opinions.

The survey form was developed under the supervision of the study's co-director. The tools were pre-tested at the CIV Health Reference Center and corrected before being used in the field.

Data were collected through non-participant observation of the practitioner before and during the consultation while completing the questionnaire and administering a questionnaire to every other pregnant woman on their opinions of the services received. A data collection form was used to observe the equipment, the physical environment, and the organizational and operational elements to assess compliance with standards. The providers were also interviewed to assess their working conditions and to gather their opinions on the services provided. To complete this information, we examined the stock records of certain essential drugs (sulfadoxine-pyrimethamine, iron/folic acid, mebendazole and tetanus vaccine) to ensure that they were available at the CSRef sales warehouse/pharmacy.

The ANC quality rating scale is as follows:

- Level IV: 95% - 100% of the dimension gestures are performed.
- Level III: 75% to 94% of the actions in the dimension are completed.
- Level II: 50% to 74% of the gestures in the dimension are performed.
- Level I: Less than 50% of the actions in the dimension are performed.

The administrative and health authorities were informed of the survey through a request for authorization to collect data. The completed tools were reviewed at the end of each day to correct any errors. The forms were anonymous and the confidentiality of the information collected was guaranteed with access restricted to members of the research team.

In order to make our study more successful, a questionnaire containing 87 items was developed (see **Appendix**).

- The quality of ANC is considered very good if it is level IV (95% to 100%): the risk factors have been researched, the medical procedures have been well performed, the satisfaction of the pregnant woman has been obtained:
- The quality is considered good if it is level III (75% to 94%)
- Quality is considered good if it is level II (50% to 74%)
- Quality is considered poor if it is level I (less than 50%)

3. Results

The age group of 20 to 29 years was the most represented in our study with 60.44%.

The vast majority of the pregnant women surveyed were married, *i.e.* 98.56% of the cases.

The pregnant women were residents of the study commune (commune IV) with 77.70%.

The Bambara ethnic group was the most represented with 37.44% of the cases, followed by the Malinkés with 22.32%.

The primary level was the most common with 40.29% of the cases against only 8.63% of pregnant women with a higher level.

Pauci pares were the most common with 28.78% followed by nullipares with 23.02% while large multipares represented only 6.48%.

Multigestations were the most common with 48.92% followed by primigravidas with 23.02%.

Concerning the course of the ANC, its average duration was between 15 - 20 minutes in 92.81% of cases; the age of pregnancy was determined in 92.81% of the pregnant women, the APD in 90.65% and the date of the last menstrual period in only 55.57%.

Regarding the reception, the consultant was asked to sit down in 100% of the cases, the greetings were in accordance with social etiquette in 97.84% of the cases and the tone was kind in 98.56% of the cases.

As for the history, the notion of abortion and caesarean section was reported respectively in 20.86% and 19.42% of the pregnant women; sexually transmitted infections in 44.64% of the cases and a history of diabetes in 0.72% of the pregnant women.

Obstetrical history of caesarean section was known in 19.42% of cases, while obstetrical history of vacuum/forceps and eclampsia was known in only 2.16% and 0.72% of cases respectively.

Concerning the realization of the gestures related to the hygiene of the consultation, the practitioners wore gloves or a fingernail in 100% of the cases, the material was changed at the end of the physical examination (gloves, fingernail) in 100% of the cases, a cloth was put on the examination table in 100% of the cases and the practitioner washed his hands before the examination in 99.28%. We noted a hygiene error committed by the practitioners in 3.60% of cases.

Midwives were the most frequently encountered with 58.27% of the providers.

Rhesus grouping and Borde Wassermann (BW) test were the most requested (100%) compared to only 45.32% for rubella and toxoplasmosis serology.

The analysis of this table shows that the interaction between the pregnant providers was 100% quality.

4. Discussions

We collected data for 139 pregnant women who came to ANC. We did not record any cases of refusal.

Sociodemographic characteristics

In our study, the age group 20 to 29 years was the most represented with a rate of 60.44% with extreme ages ranging from 15 to 45 years, 16.55% of the pregnant women were between 15 and 19 years old and 10% were over 30 years old (**Table 1**).

Table 1. Distribution according to socio-demographic characteristics of pregnant women.

Age (year)	Number	Percentage (%)
15 - 19	23	16.55
20 - 24	42	30.22
25 - 29	42	30.22
30 - 34	17	12.23
35 - 39	10	7.19
40 - 44	3	2.16
45 and over	2	1.44
Marital status		
Married	137	98.56
Single	2	1.44
Residence		
Commune IV	108	77.70
Other communes	31	22.30
Ethnicity		
Bambara	52	37.44
Malinké	31	22.32
Peulh	22	15.84
Sonrhäi	5	3.60
Soninke	13	9.36
Dogon	4	2.88
Other	12	8.64
Education		
Not in school	28	20.14
Primary	56	40.29
Secondary	16	11.51
Higher	12	8.63
Koranic education	27	19.42
Total	139	100

The majority of our pregnant women had no schooling or were at the primary level, *i.e.* 39.56% and 40.29% respectively (**Table 2**). These rates are different from those of COULIBALY [7] who found 54.2% of pregnant women at ASACOBOUL II who were not enrolled in school and 27% who had completed primary school. According to the World Fertility Survey, fertility is inversely proportional to women's level of education; women with no education have on average twice as many children as those who have had 7 or more years of schooling.

Knowledge of obstetrical history is essential in the management of pregnant women, as it determines the course of action to be taken for a favorable outcome

Table 2. Distribution of pregnant women according to obstetrical history (parity and gestation).

Characteristics	Number (n = 139)	Percentage
Parity		
Nulliparous	32	23.02
Primipara	30	21.58
Pauci pare	40	28.78
Multiparous	28	20.14
Large multiparous	9	6.48
Gesity		
Primigeste	32	23.02
Paucigest	30	21.58
Multigeste	68	48.92
Large multigeste	9	6.47
Total	139	100

of the pregnancy. Obstetrical history was sought in all our pregnant women. Thus, 23.02% of them were primigravida (**Table 2**), a lower rate than that of COULIBALY at ASACOBOL II [7] and GUINDO at CSRéf of Kati [8] with respectively 25% and 24.03%. The large multiple gestations represented 6.4% of the sample, a lower rate than in COULIBALY [7] and GUINDO [8] with 8.2% and 12.40% respectively. Nulliparous women represented 23.02% of the sample (**Table 2**), a lower rate than that of COULIBALY [7] with 28.6% but higher than that of GUINDO [8] with 22.5%. Finally, large multiparous cows represented 06.48% of the pregnant cows, this result is higher than that of COULIBALY [7] with 4.6% but lower than that of GUINDO [8] with 13.95%. This component is very important to determine because perinatal mortality is lowest for the 2nd, 3rd and 4th pregnancies. It is higher for the 1st pregnancy and increases from the 5th pregnancy onwards according to the WHO.

4.1. Conduct of ANC

According to WHO standards [9], the first ANC should be performed by a doctor (gynecologist-obstetrician) to confirm the diagnosis of the pregnancy and to manage the one that involves risks. In our study, ANC activities were performed by midwives in 58.27% of cases and 41.01% by a doctor, which could be explained by the high number of midwives in this facility (**Figure 1**).

In 92.81% of the cases, the ANC was done between 15 and 20 minutes; in 5.76% of the cases it lasted less than 15 minutes, none of our ANC lasted less than 5 minutes (IV). The duration of a consultation highlights its quality; it means that the steps were respected. Generally speaking, we would say that the duration of the ANC was better than that of COULIBALY [7] who had 71.5% of

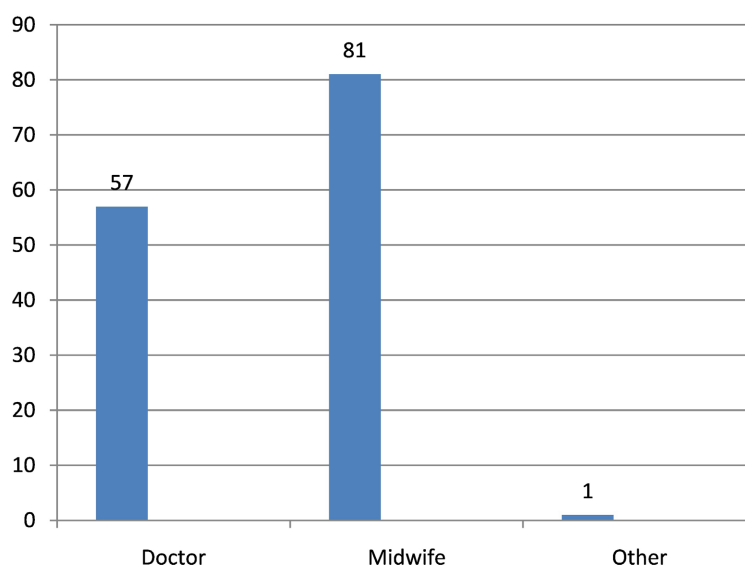


Figure 1. Distribution by provider qualification.

the ANC carried out between 5 - 10 minutes.

Knowledge of the DDR (date of last menstrual period) sometimes makes it possible to determine the age of the pregnancy and to better monitor its progress.

The knowledge of the EDD (Estimated Date of Delivery) allows the pregnant woman to foresee in time the financial resources for the delivery and to identify in time the items necessary for the delivery. The APD was known in 90.65% of the pregnant women, a rate higher than that of COULIBALY [7], which was 29.1%.

Concerning the physical examination, cardiopulmonary auscultation was performed in only 5% of cases (Table 3). This result is higher than that of COULIBALY [7] in whom this procedure was performed in only 3.1% of cases. The speculum examination was performed in 34.53%. This result is clearly superior to those of COULIBALY [7] at ASACOBOL II who found 2% and MAIGA [10] in 2008 at CS Réf CI who found 22.0%. The other elements of the physical examination such as height measurement, BP measurement, search for edema, examination of the conjunctiva, measurement of the uterine height, abdominal palpation, auscultation of the BDCF, and vaginal touch were performed in most of the pregnant women. These results are similar to those of COULIBALY [7].

Rhesus grouping, Emmel test, BW, albumin/sugar in urine were systematically requested at the first prenatal consultation. Urine albumin/sugar was requested in 85.61% of cases (Table 4), which is higher than the result of COULIBALY [7] which was 51.5%. Blood grouping/hesus was requested in 79.86% of the pregnant women. This result is lower than that of GOITA [11] at the reference health center of the Commune V who found 99%.

Ultrasound is now the most important means of pregnancy diagnosis and monitoring. It was requested in 98.56% of cases, a higher rate than that of COULIBALY [7] who found 74.5%. This high rate could be explained by the availability of

Table 3. Distribution of pregnant women according to the course of the consultation
Course of the consultation.

Conduct of the consultation	Number (n = 139)	Percentage
Explanation of the procedure	135	97.12
Measurement of the height	138	99.28
Weight measurement	138	99.28
Search for lameness	128	92.09
Examination of the conjunctiva	139	100
Breast examination	119	85.61
Measurement of the BP	138	99.28
Heart auscultation	7	5
Pulmonary auscultation	7	5
Measurement of the HU	137	98.56
Auscultation of the BDCF	130	93.53
Fetal position	132	94.96
Speculum examination	48	34.53
Vaginal touching	136	97.84
Examination of the pelvis	136	97.84
Search for edema	130	93.53
Assist to get on the table	68	48.92
Help to get off the table	69	49.64
Sufficient lighting	137	98.56
Examination out of sight	139	100

The steps of the consultation were respected except for the cardiopulmonary auscultation which was performed in only 5% of the cases.

Table 4. Distribution of pregnant women according to the complementary examinations prescribed.

Complementary examinations	Number (n = 139)	Percentage
Albumen/sugar (urines)	125	89.93
Emmel test	119	85.61
Rhesus grouping	139	100
Bordet Wasserman	139	100
Ultrasound	137	98.56
Toxoplasmosis serology	63	45.32
Rubella	63	45.32
Hemoglobin level	120	86.33
HIV serology	137	98.56
HbS Ag	119	85.61

ultrasound equipment in our facility (**Table 5**).

Almost all the pregnant women (97.81%) were prescribed iron and folic acid (**Table 6**). This rate is comparable to that of COULIBALY [7] who found 96.9%. Compared to intermittent preventive treatment (IPT) of malaria with SP (Sulfa-doxine Pyrimethamine), it was prescribed in 75.38% of pregnant women. This rate is lower than that of COULIBALY [7] which was 84.2%.

In this study, advice on warning signs, the date of the next consultation and the progress of the pregnancy were given to pregnant women in 91.37%, 98.56% and 99.28% of cases respectively. This result is superior to that of COULIBALY [7] in relation to advice on the date of the next consultation, which was given in 29.1%, 95.4% and 15.3% respectively.

4.2. Results of ANC

In the history constituting the risk factors sought in the pregnant women, scar uterus was the dominant risk factor with 33.93% followed by arterial hypertension and high multiparity which were found respectively in 14.28% and 7.14% of cases (**Table 7**). In the other cases, prolonged pregnancy, rhesus-negative and cerclage were the most common with 5.3%; at this level, COULIBALY [7] found scarred uterus in first position with 30%, then dystocic delivery and arterial hypertension with 12%, and major multiparity with 10%.

At the end of each consultation, the health worker should draw a conclusion. During our survey, 40.29% of the pregnant women were classified in a risk group, of which 50% were referred to the gynecological clinic; 89.29% of these pregnant women classified as at risk had received information on the risk factors, which means that the practitioners communicated a lot with the pregnant women (**Table 7**). Sangho H. *et al.* [12]; found at the MIPROMA Health Center in Bamako that only 0.9% of pregnant women were classified in a risk group.

Quality of services

ANC was performed partly by midwives but also by general practitioners and gynecologists (qualified personnel). During the clinical examination, certain parameters such as cardiac and pulmonary auscultation and pelvic assessment in the third trimester were under-explored during ANC, hence the classification of the Center as level III.

Table 5. Discriminatory analysis of the quality of the pregnant provider interaction.

Pregnant Provider Interaction	Number (n = 139)	Percentage
Pleasant reception	110	79.14
Order of passage respected	100	71.94
Comfortable waiting	105	75.54
Confidentiality respected	139	100
Attention paid	139	100
Pregnant women's satisfaction	135	97.12

Table 6. Distribution according to the prescription of preventive treatment.

Prescription of preventive treatments	Number (139)	Percentage
Iron/folic acid	135	97.12%
Sulfadoxin Pyrimethamin	133	95.68%
Tetanus vaccine	138	99.28%

Preventive treatments were administered.

Table 7. Distribution of pregnant women by provider conclusion.

Provider's conclusion	Number	Conclusion
Non-risk group	83	59.71%
Group at risk	56	40.29%
Information to the pregnant woman on the risks	50	89.29%
Referral to the gynecologist's office	28	50%
Announcement of the DPA Number	132	94.96%

At the end of the conclusion: the pregnant women were classified in a risk group in 40.29% of the cases and 89.29% of the pregnant women classified in a risk group were informed.

Discriminatory analysis of the different ANC variables reveals that the CSRef CIV is level IV for reception, physical and psychological respect, respect for intimacy, confidentiality and human relations, advice given and hygiene during the consultation.

In short, the CSRef CIV is classified as level IV structurally, but as in other studies [7] [13], shortcomings were observed in terms of procedures, namely the failure to carry out certain important physical examination gestures.

5. Conclusions

Our study of 139 cases at the Reference Health Center in the CIV commune of the Bamako district allowed for an analysis of the structure and, above all, the observation of ANC.

It emerged from this study that the evaluation of the quality of services is an absolute necessity for the improvement of services in integrated reproductive health care centers.

Following these findings, our results can be used to improve the quality of care at the CSRef CIV.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Abbreviations/Cygles

SOMAGO: Malian Society of Gynecology and Obstetrics
FMPOS: Faculty of Medicine, Pharmacy and Odontostomatology
WHO: World Health Organization
EDSM: Mali Demographic and Health Survey
CSCOM: Community Health Center
CS Réf CIV: Health Center of Reference of the IV Commune
ASACO: Community Health Association
ORL: Otorhinolaryngology
DAT: Anti-Tuberculosis Department
USAC: Care and Support Unit
NV: Live Birth
IIG: Inter-Genital Interval
CPN: Pre-Natal Consultation
IVG: Voluntary Interruption of Pregnancy
BDCE: Fetal Heartbeat
DIC: Disseminated Intravenous Coagulation
EOC: Emergency Obstetric and Neonatal Care
SONUB: Basic Emergency Obstetric and Neonatal Care

Rationale

According to the Mali Demographic and Health Survey V 2012-2013 [2], the maternal mortality rate is very high at 368 maternal deaths per 100,000 live births. In other words, the risk of maternal death in Mali is 1/42. The main factors that aggravate this risk are:

- The poverty of the population;
- Delays in access to health care;
- Lack of knowledge of the dangers involved;
- The behavior of the health workers in charge of the care of pregnant women (poor reception...);

Given all these factors, we wanted to determine through this study the share of each determinant on the quality of prenatal consultations.

Appendix

Survey Sheet:

1) Observation of Cpn

Structure: File no.:No. CPN file or book:

Q1 Date of observation:

Q2 Time of visit:

Q3 Duration of the visit: a: start time b: end time:

Characteristics of the pregnant woman (if requested)

Last name:; First name:

Q4 Age (years): years

Q5 Ethnicity: 1 = Bambara; 2 = Peulh; 3 = Malinké; 4 = Bozo; 5 = Sonhrai; 6 = Soninké; 7 = Dogon; 8 = Other (specify).....

Q6 Occupation: 1 = housekeeper; 2 = saleswoman; 3 = civil servant; 4 = Housekeeper; 5 = Tradewoman; 6 = Other:

Q7 Level of education: 1 = No schooling; 2 = primary; 3 = secondary; 4 = higher education; 5 = Koranic education

Q8 Marital status: 1 = single; 2 = married; 3 = widowed; 4 = divorced

Q9 Residence:

Q10 Number of ANC performed:

Characteristic of the person who took care of the parturient

Q11 Qualification: 1 = Doctor; 2 = Midwife; 3 = Matron; 4 = Nurse; 5 = Other (specify):

t-Hello:

Q12 Socially appropriate greeting: 1 = yes; 2 = no

Q13 Was consultant asked to sit: 1 = yes; 2 = no

Q14 Request for previous pregnancy logbook: 1 = yes, present; 2 = no, absent

Interrogation:

Q15 Determination of date of last period: 1 = Know; 2 = Unknown

Q16 Determination of age of pregnancy: 1 = Known; 2 = Unknown

Q17 Determination of probable date of delivery: 1 = Know; 2 = Unknown

Obstetrical history

Q18 Gestité: 1 = Yes; 2 = No

R =

Q19 Parity: 1 = yes; 2 = no

R =

Q20 Miscarriage: 1 = yes; 2 = no

R =

Q21 Alive: 1 = yes; 2 = no

R =

Q22 Stillbirths: 1 = yes; 2 = no

R =

Q23 Deceased: 1 = yes; 2 = no

R =

Q24 Causes of death: 1 = Neonatal infection; 2 = Malaria; 3 = Other.

R =

Q25 Age of death:

Q26 Caesarean section: 1 = Yes; 2 = No

R =

Q27 Forceps or vacuum: 1 = yes; 2 = no

R =

Q28 Eclampsia: 1 = yes; 2 = no

R =

Q29 Other:

Medical history:

Q30 Urinary tract infection: 1 = yes; 2 = no

R =

Q31 High blood pressure: 1 = yes; 2 = no

R =

Q32 Diabetes: 1 = yes; 2 = no

R =

Q33 Cardiac condition: 1 = yes; 2 = no

R =

Q34 Tuberculosis: 1 = yes; 2 = no

R =

Q35 STI: 1 = yes; 2 = no

R =

Q36 Sickle cell disease: 1 = yes; 2 = no

R =

Q37 Other: 1 = yes; 2 = no

R =

Q38 If other details:

xx-Clinical examination:

Q39 Explanation of how the consultation was conducted? 1 = yes; 2 = no

R =

Q40 Weighing: 1 = yes; 2 = no

R =

Q41 Height measurement: 1 = yes; 2 = no

R =

Q42 Search for lameness: 1 = yes; 2 = no

R =

Q43 Helping to get on the table: 1 = yes; 2 = no

R =

Q44 Examine conjunctiva: 1 = Pale; 2 = Moderately colored; 3 = Colored

R =

Q45 Breast examination: 1 = Yes; 2 = No

R =

Q46 BP measurement: cm 1 = yes; 2 = no

R =

Q47 Cardiovascular examination: 1 = yes;

Q48 Pulmonary examination: 1 = yes; 2 = no

R =

Q49 Palpation of the abdomen: 1 = yes; 2 = no

R =

Q50 Measurement of HU (uterine height): 1 = yes; 2 = no

R =

Q51 Auscultation of fetal heart sounds: 1 = yes; 2 = no

R =

Q52 Fetal position: 1 = Head; 2 = Siege; 3 = Transverse; 4 = Other

Q53 Speculum examination: 1 = yes; 2 = no

R =

Q54 Vaginal touch: 1 = Yes; 2 = No

R =

Q55 Pelvic examination: 1 = yes; 2 = no

R =

Q56 Search for edema: 1 = yes; 2 = no

R =

Q57 Helping to descend: 1 = yes; 2 = no

R =

Q58 Was the lighting sufficient: 1 = yes; 2 = no

R =

Q59 Examination out of sight: 1 = yes; 2 = no

R =

Para-clinical examinations

Q60 Were any para-clinical examinations requested: 1 = yes; 2 = no

R =

Q61 If yes, which ones? 1 = NFS; 2 = Hemoglobin level; 3 = Rhesus group

4 = BW; 5 = HIV; 6 = Toxoplasmosis; 7 = Emmel test; 8 = Echography;

9 = Sugar albumin; 10 = Other (please specify):

Q62 Was it explained why: 1 = yes; 2 = no

Q63 If yes, was it explained where to go? 1 = yes; 2 = no

Preventive care

Malaria prophylaxis: 1 = yes; 2 = no

Iron and folic acid supplementation: 1 = yes; 2 = no

VAT: 1 = yes; 2 = no

Human relations

Q64 Kindness of tone: 1 = Good; 2 = Poor

Q65 Did she give customary greetings upon leaving? 1 = Yes; 2 = No

Q66 During or after the examination was the pregnancy progress explained to the pregnant woman? 1 = Yes; 2 = No

Q67 Did he ask the consultant to return? 1 = yes; 2 = no

Q68 Did he tell her when: 1 = yes; 2 = no

Counseling

Q69 Was advice given: 1 = no; 2 = on rest; 3 = diet; 4 = Family planning; 5 = STD/AIDS; 6 = Other:

Q70 Were the warning signs explained and what to do in case of: 1 = yes; 2 = no

Q71 If yes, what warning signs were explained: 1 = Metrorrhagia; 2 = Intense abdominal pain; 3 = Fluid loss; 4 = Other (please specify)

Consultation hygiene

Q72 Is a cloth placed on the examination table? 1 = yes; 2 = no

Q73 If yes, is it provided by the center? 1 = yes; 2 = no

Q74 If yes, is it different from that of previous women: 1 = yes; 2 = no

Q75 Did the practitioner wash his or her hands before the examination?
1 = yes; 2 = no

Q76 Did the provider use gloves: 1 = yes; 2 = no

Q77 At the end of the consultation, is the equipment changed? 1 = yes; 2 = no

Q78 Is the equipment properly cleaned? 1 = yes; 2 = no

Q79 Is the equipment properly disinfected? 1 = yes; 2 = no

Q80 Did the practitioner commit a hygiene error? 1 = yes; 2 = no

Q81 If yes, which one? 1 = Soiled equipment; 2 = Other

Conclusion

Q82 Did the practitioner reach a conclusion? If yes, which one?
1 = RAS; 2 = Classification in a risk group: if yes which one
a) Age under 16 years old; b) elderly primiparous; c) large multiparous; d) hypertension; e) high blood pressure

Q83 If she belongs to an at-risk group, did he tell her? 1 = yes; 2 = no

Q84 Referral to another facility: 1 = yes; 2 = no

Q85 Name of referring facility:

Q86 Did the practitioner tell the pregnant woman about the APD: 1 = yes; 2 = no

Q87 Preparation of a delivery plan? 1 = yes; 2 = no