

# Care Taking of Obstetric Emergencies in the Department of Gynaecology and Obstetrics at Donka National Hospital, University Teaching Hospital (CHU) of Conakry, Guinea

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## Abstract

**Objectives:** The objectives of this work were to calculate the frequency of obstetrical emergencies, to describe the socio-demographic profile of women admitted for obstetric emergencies, to identify the main emergencies, to describe the care taking of emergencies and to establish the maternal foetal prognosis of obstetric emergencies. **Methodology:** It was a 6-month descriptive prospective study conducted in the Obstetrics and Gynaecology Department of the Donka National Hospital, CHU Conakry, Guinea. The study took place from July 1st to December 31st, 2005. The data collected were entered and corrected using the Word and Excel 2010 software and then transferred to the Epi Info software version 7 for analysis. The results are presented in the form of tables, figures and texts using Word and Excel software, commented on, discussed and compared to current literature data. **The limitations of the study:** The poor filling of the partograph has been the main problem of our study. **Results:** The frequency of obstetric emergencies was 19% in the Department. The socio-demographic profile was that of a woman aged 15 to 24 (46.4%), married (92%), housewives (38.1%), out of school (49.5%), nulliparous (34.3%), without prenatal follow-up (47.37%), coming from home (56%), evacuated (44%). The main emergencies are dominated by haemorrhage (34.5%) followed by HTA Arterial hypertension and eclampsia (25.7%). The therapeutic attitude was based on clinical data and was dominated by

caesarean section (70%). General anaesthesia was performed in 75% of cases and 1.6% benefited from local anaesthesia. The demand for blood was honoured in 19% of the cases. The maternal morbidity was dominated by anaemia (66.7%) and a lethality of 4%. After the 5th minute, 47% of the newborns had APGAR greater than 7. The neonatal mortality rate was 21%. **Conclusion:** To avoid and/or reduce obstetric emergencies, it is necessary to detect and treat risk factors during referrals, properly monitor child labor, refurbish providers of basic facilities, promptness in the management of the admission of emergencies and the availability of blood products.

## Keywords

Obstetric Emergency, Care Taking

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## 1. Introduction

Obstetric emergencies are accidents that occur suddenly during pregnancy and in the aftermath of diapers exposing women to serious risks and whose evolution is sometimes fatal [1].

The most common complications are: haemorrhage, dystocia, SFA (sharp fetal suffering), eclampsia and pre-eclampsia.

However, safe motherhood remains the major challenge for any action to improve maternal and child health [2].

Obstetric emergencies are common in developing countries.

In Benin in 2013, at the University Hospital of Parakou, obstetric emergencies accounted for 31.8% with a maternal lethality of 0.4% and a foetal rate of 9.2% [3].

In Mali in 2007, 12.24% of obstetric emergencies are at the reference health centre of the commune IV with a maternal lethality of 1% and foetal mortality of 23.9% [4]. And in the same country in the health district of Nara/Koulikoro Region in 2009, obstetric emergencies represented 23.52% with a foetal lethality of 18% [5].

In Guinea, at the Labe Regional Hospital in 2013, obstetric emergencies represented 14.75% with a maternal lethality of 2.5% and foetal malnutrition of 3% [6].

Thus, we conducted this study with the objectives of calculating the frequency of obstetric emergencies, describing the socio-demographic profile of women admitted for obstetric emergencies, identifying the main emergencies, describing the management of emergencies and establishing the maternal-foetal prognosis of obstetric emergencies.

## 2. Methodology

It was a 6-month descriptive prospective study conducted at the maternity of the

DONKA National Hospital, which is a 3<sup>rd</sup> level referral facility in Guinea.

The study focused on a continuous series of 633 obstetric emergencies. All patients admitted for an obstetric emergency in the Department were included in the study. Patients who died on admission, patients with no obstetric emergencies and those who did not consent to the study were excluded from the study.

The study took place from July 1st to December 31st, 2005.

The data collected were entered and corrected using the Word and Excel 2010 software and then transferred to the Epi Info software version 7 for analysis. The results are presented in the form of tables, figures and texts using Word and Excel software, commented on, discussed and compared to current literature data.

The limitations of the study: The poor filling of the partograph has been the main problem of our study.

The variables studied were: epidemiological, clinical, para-clinical, therapeutic and prognostic.

### **3. Results**

#### **3.1. Frequency**

During our study period we recorded 633 obstetric emergencies for a total of 3396 admissions, equivalent to a frequency of 19%.

#### **3.2. Socio-Demographic Profile**

- 1) Age. The age group of 15 to 24 is the most concerned (45.8%) (n = 290) with an average age of 25.38 years and extremes of 14 and 44 years.
- 2) Profession: Housewives were the most met (38.1%).
- 3) Level of education: The majority of our patients were illiterate 49.5%.
- 4) Matrimonial status: Married women accounted for 91.6% of patients.

#### **3.3. Clinic and Para-Clinic**

- 1) Admission Mode: 353 patients came directly from their home (56%) and 280 were evacuated or referred by the other health structures (44%).
- 2) Evacuation reasons:  
Evacuated patients were admitted without evacuation papers (49.64%), while 21.42% of patients were discharged for HTA and eclampsia and 7.5% for HRP.
- 3) Reasons for consultation: The main emergencies are dominated by bleeding (34.5%) followed by hypertension and eclampsia (28.6%).
- 4) Parity: Nulliparous women represented 34.3% of our patients followed by pauciparas 26.1%.
- 5) Prenatal follow-up: Patients without prenatal care accounted for 47.37%.

#### **3.4. Therapeutics**

The therapeutic attitude was based on clinical data. Caesarean section was performed immediately in 70.6% of cases, vaginal delivery in 10% and laparotomy in 4% of our patients. 19% of our patients benefited from a blood transfusion.

General anesthesia was performed in 75% of our obstetric emergencies and 1.6% benefited from local anesthesia.

### 3.5. Prognosis

#### 3.5.1. Maternal Prognosis

- 1) **Morbidity:** 6% of our patients developed complications during the delivery.
- 2) **Types of maternal complications:** These complications are dominated by anemia (66.7%) followed by infections (33.3%).
- 3) **Maternal lethality:** We recorded 24 cases of maternal deaths, a frequency of 4% of our obstetric emergencies.
- 4) **Causes of maternal deaths:** The main causes of these deaths were hemorrhage 37.5%, followed by eclampsia 20.8%.

#### 3.5.2. Fetal Surgery

- 1) **APGAR Score:** 60% of newborns had APGARs between 7 - 9 in the 1<sup>st</sup> minute, while in the 5<sup>th</sup> minute 47% had APGARs between 7 - 9 and only 2% had APGARs between 4 to 6.
- 2) **Neonatal mortality:** 120 cases of fetal death (115 cases of dying born and 5 cases of fetal deaths) were recorded out of a total of **571 births**, *i.e.* a frequency of 21%.

#### 3.5.3. The Duration of Hospitalization of Patients

56.7% of our obstetric emergencies took between 1 to 4 days of hospitalization while 0.6% performed between 21 to 24 days of hospitalization.

## 4. Discussion of the Findings

### 4.1. Frequency

We collected 633 cases of obstetric emergencies out of a total of 3396 admissions, *i.e.* a frequency of 19%. This result is included the one found by CISSE SA [7] in Mali (28.24%) and TOURE [6] (12.75%) in Labé (Guinea) in 2013. This high frequency in our study could be explained by the fact that the service constitutes a national reference service.

### 4.2. Sociodemographic Profile

- 1) **Age:** The age group 15 to 24 is the most concerned (45.8%) (N = 290) with an average age of 25.38 years and extremes of 14 and 44 years. 0.15% of our patients were under 15 years old. This young age could be explained by the psychological immaturity of young age patients and/or early marriage. GUINDO SB [8] finds in his study that the age group of 20 to 34 years was the most represented (63.8%) whereas CISSE SA [7] reports that the age group of 25 to 29 years was the most representative (32%).
- 2) **Profession:** Housewives were the most met (38.1%), similar to TOURE.I [6] (58.5%) in Labé (Guinea) in 2013.
- 3) **Level of education:** The majority of our patients were illiterate 49.5%. This

rate of women who did not go to school is in line with that of the general population in Guinea, where 74% of illiterates are women, 85.3% of whom are women, according to the Guinean DHS4 [9].

4) Matrimonial status: Married people accounted for 91.6% of patients. This result is superimposed on that found by TOURE.I [6] (96.6%) in Labé (Guinea) in 2013. This would be linked on one hand to polygamy and on the other hand to the fact that in our regions, marriage is the only legal way to give birth.

### 4.3. Clinic and Para-Clinic

1) Mode of admission: 353 patients came directly from their houses (56%) and 280 were evacuated or referred to other health facilities (44%) This result is similar to that of BLAISE A.T. *et al.*, in Benin [3] in 2013 and THIAM O. and COLL [10] in 2011 in Senegal with respectively 48.5% and 41.2% of patients evacuated /referred.

2) Evacuation reasons:

Evacuees were admitted without evacuation papers (49.64%), while 21.42% of patients were discharged for HTA and eclampsia and 7.5% for HRP. In his study, CISSE S.A [7] in Mali reported 12.74% of patients evacuated without evacuation papers, 16.18% evacuated for eclampsia and pre-eclampsia and 15.69% for HRP.

3) Reasons for consultation: The main emergencies are dominated by haemorrhage (34.5%) followed by hypertension and eclampsia (28.6%). This rate of haemorrhage is lower than that found by TOURE I. [6] in Labé (Guinea) and CISSE SA [7] in Mali with 44.8% and 35.59% respectively. This high frequency of haemorrhage is explained by the place of haemorrhage in causes of death.

4) Parity: Nulliparous women represented 34.3% of our patients followed by pauciparas 26.1%. This result is superior to that found by TOURE I. [6] in Labé (Guinea) with 29.7% among nulliparas and 25.4% among pauciparas.

5) Prenatal follow-up: Patients without prenatal care accounted for 47.37%. This result is similar to that found by CISSE SA [7] in Mali, *i.e.* 45.7%. WHO has recommended, since 1998, a minimum of 4 CPN during pregnancy. However, it should be noted that the number of prenatal care does not put pregnant women away from complications and deaths but rather the quality of it and especially the period in which they are performed. This high frequency could be explained by the fact that these patients are unaware of the benefits of prenatal care and also for economic and socio-cultural reasons (unwanted pregnancies, low literacy levels).

### 4.4. Therapeutics

The therapeutic attitude was based on clinical data. Caesarean section was performed immediately in 70.6% of cases, vaginal delivery in 10% and laparotomy in 4% of patients. 19% of our patients received a blood transfusion. General

anesthesia was performed in 75% of our obstetric emergencies and 1.6% benefited from local anesthesia. Our cesarean section rate is intermediate like that found by CISSE SA [7] 73.67% and those reported by CISSE B [11], GUINDO S.B [8], and TOURE I [6] with respectively 48.2%; 49.22% and 63.6%. This high proportion of caesareans would be due to the fact that it is the last resort for the obstetrician to help parturients 2 or 3 times evacuated with dynamic failures refractory to medical treatment.

## 4.5. Prognosis

### 4.5.1. Maternal Prognosis

- 1) Morbidity: 6% of our patients developed complications during the delivery.
- 2) Types of maternal complications: These complications are dominated by anemia (66.7%) followed by infections (33.3%) Our anemia rate is intermediate between that found by CISSE B. [11] 86%, 5% and those reported by BALLO B. [12], SALIHOU A. [13] and COULIBALY D [4] with 8.5%; 22.2% and 40%.
- 3) Maternal lethality: We recorded 24 cases of maternal deaths, a frequency of 4% of our obstetric emergencies. This result is similar to that of GUINDO S.B [8] 3.96% and lower than those reported by SALIHOU A. [13] and CISSE SA [7] with respectively 6.3% and 11.03%.
- 4) Causes of maternal deaths: The main causes of these deaths were hemorrhage 37.5%, followed by eclampsia 20.8%. The finding is similar in the studies of Dellagi RT [14] in Tunisia and Horo [15] in Cote d'Ivoire with lower proportions. However, for Benmouhoud [16] in Algeria in 2011, hemorrhages ranked 2<sup>nd</sup> with 16.60%.

### 4.5.2. Fetal Surgery

- 1) APGAR Score: 60% of newborns had APGARs between 7 - 9 in the 1st minute, while in the 5th minute 47% had APGARs between 7 - 9 and only 2% had APGARs between 4 to 6.
- 2) Neonatal Mortality: We recorded **120** cases of fetal deaths (115 cases of dead born and 5 cases of fetal deaths) out of a total of 571 births, a frequency of 21%. These deaths could be explained by the delay in referral or evacuation. Some unforeseeable complications (HRP, PP, UK, SFA) and delay in promptness of emergency care.

### 4.5.3. The Duration of Hospitalization of Patients

56.7% of our obstetric emergencies took place between **1 to 4** days of hospitalization while 0.6% performed between 21 to 24 days of hospitalization. CISSE SA [7] reports 24.56% of patients who were hospitalized between 5 to 8 days and 1.42% hospitalized for 16 days or more.

## 5. Conclusion

To avoid and/or reduce obstetric emergencies, it is necessary to identify and

treat risk factors during referrals, properly monitor childbirth, refurbish providers of basic facilities, readiness for the care taking of the emergencies and the availability of blood products.

### Conflicts of Interest

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

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