

# High-Risk Abortions at University Hospital Bogodogo: A Comprehensive Study in Ouagadougou, Burkina Faso

## Abstract

**Objective:** To study high-risk abortions at the University Hospital Bogodogo (UTH-B) in Ouagadougou.

**Patients and methods:** We conducted a prospective, descriptive, cross-sectional survey over 12 months from June 2021 to May 2022. Our study included 111 patients admitted to the obstetrics and gynecology department during the study period and diagnosed as **having** an unsafe abortion at the end of the clinical examination.

**Results:** The frequency of high-risk abortions was 1 in 47 deliveries, and the average age of the patients was 23.6 years, with extremes of 15 and 45 years. There were 62 primigravidas (55%). Hemorrhage was the main reason for admission in 78 patients (74.77%). Induced abortion was **identified** in 18 patients (16.21%). Complications were dominated by endometritis in 10 patients (10.80%), anemia in 6 patients (5.4%) and hepatonephritis in 6 patients (5.4%). The case fatality rate was 24%

**Conclusion:** The epidemiological profile of a patient who has undergone an unsafe abortion is that of a young primigravida, unmarried and not gainfully employed. Complications are mainly haemorrhage and infection. Strengthening preventive activities, reproductive health education and the dissemination of contraceptive methods should help to reduce this scourge.

**Key words:** unsafe abortion, CHU-Bogodogo

## 1-Introduction

Unsafe abortion, responsible for numerous complications including maternal mortality, is still a public health concern in many developing countries [1,3,18,19].

According to the WHO, every year nearly 20 million women undergo unsafe abortion, with more than 100,000 deaths in developing countries. In Africa, unrestricted abortion is authorised in only 4 countries: Tunisia, South Africa, Cape Verde and Zambia [10]. In Burkina Faso, abortion is legal if it is performed either for a documented medical reason or for a social reason such as rape or incest [4]. This legislative constraint leads to resorting to clandestine induced abortion, which has thus become a real public health problem, abortion being the third leading cause of maternal mortality according to EDS 2015 [11,18,20].

With a view to achieving the sustainable development objectives, the fight against maternal mortality could be revitalised by repositioning the fight against clandestine induced abortion. So, 13 years after the introduction of Post Abortion Care (PAC) services and the promotion of Family Planning, we felt it necessary to carry out this study in order to determine the current profile and prognosis of women who are victims of unsafe abortion at the University Hospital Bogodogo (UTH-B).

## **2-Patients and methods**

Our study was conducted in the gynecology and obstetrics department of the University Hospital Bogodogo (UTH-B) in Ouagadougou. It was a prospective descriptive study conducted over a 12-month period from 1 June 2021 to 30 May 2022. Our study included all patients seen during the study period and for whom the diagnosis of unsafe induced abortion was accepted. Any abortion that occurred under the following conditions was considered to be an unsafe abortion:

- ✓ when there was an admission of abortive manoeuvres ;
- ✓ when there were genital lesions indicating abortive manoeuvres or signs of intoxication suggesting a manoeuvre involving the ingestion of drugs or beverages.

- ✓ when the abortion was carried out clandestinely, without any medical supervision.

An individual data collection form was used to collect data for each case selected. The data collection form was filled in either by direct interview or from clinical records, depending on the patient's clinical condition. The data were entered into EPI data and then transferred to EPI info version 3.3.2 and Excel 2007 for analysis.

### 3-Results

#### 3.1- Frequency

During the study period, we recorded 5264 deliveries and 461 abortions, including 111 cases of unsafe abortion, i.e. a ratio of 1 unsafe abortion for every 47.40 deliveries and 1 unsafe abortion for every 4.15 spontaneous abortions.

#### 3.2- Socio-demographic characteristics

##### ➤ Age

The distribution of patients by age group is shown in Table 1.

**Table 1:** Distribution of patients by age group

Age group	number	Percentage(%)
[15-24]	75	67.57
[25-34]	28	25.23
[35-44]	7	6.31
45 & above	1	0.90
<b>Total</b>	<b>111</b>	<b>100</b>

The average age of the patients was 23.6 years, with extremes of 15 and 45 years.

##### ➤ Marital status

There were 82 unmarried women (73.87%) and 33 married women (26.13%).

### ➤ Main occupation

The distribution of patients according to their main occupation is shown in Table 2.

**Table 2:** Breakdown of patients by main occupation

occupation	number	Percentage (%)
Students	50	45.04
Housewives	24	21.60
Informal sector	23	20.72
Civil servant	8	7.20
Shopkeeper	6	5.4
<b>Total</b>	<b>111</b>	<b>100</b>

### ➤ Number of previous pregnancies

The distribution of patients according to the number of previous gestures is presented in Table 3.

**Table 3:** Distribution of patients according to the number of previous pregnancies

Number of pregnancies	number	percentage
1	62	55.85%
1 - 3	38	34.23%
4 & above	11	9.92%
<b>Total</b>	<b>111</b>	<b>100%</b>

The mean number of pregnancies was 1.87, with extremes of 1 and 8.

### ➤ History of unsafe abortion

Of the patients admitted for unsafe abortion :

- ✓ 101 patients (90.99%) had no history of unsafe abortion;

- ✓ 8 patients had a history of unsafe abortion (7.20%)
- ✓ 2 patients had two previous unsafe abortions (1.81%).

### 3.3- Clinical aspects

#### ➤ Gestational age at the time of abortion

The average gestational age was 10.1 weeks of amenorrhea, with extremes of 6 and 16 weeks. 95.28% occurred in the first trimester of pregnancy.

#### ➤ Reason for admission to the obstetrics and gynecology department of the UTH-B

The distribution of patients according to the reason for admission is shown in Table 4.

**Table 4:** Breakdown of patients by main reason for admission

Reason for admission	number	Percentage (%)
Heavy bleeding	78	74.77
Pelvic infection	15	13.51
Clinical anaemia	7	5.41
State of shock	4	3.60
Retention of dead egg	4	3.60
Renal complications	2	1.80
<b>Total</b>	<b>111</b>	<b>100</b>

#### ➤ Abortion methods used

Abortion methods were identified in 18 cases (16.21%). It was modern chemical in 9 patients, traditional chemical in 3 patients and mechanical in 6 patients. Information about the abortion methods used was unavailable for the remaining patients

#### ➤ Qualification of the abortionist

The identity of the abortionist was specified in 17 cases. In 11 cases it was health workers, and self-abortion represented the 6 cases admitted.

### ➤ Hemoglobin level

Hemoglobin (HB) levels were obtained in all 51 cases. Of the 51 cases, 38 had severe clinical anemia requiring a blood transfusion (HB level < 6 gr/dl).

### 3.4 - Maternal prognosis

#### 3.4.1-Maternal morbidity

The distribution of patients according to maternal morbidity is presented in Table 5.

**Table 5:** Distribution of patients according to morbidity (n= 25)

Morbidities	Number of patients	%
Anemia	6	5.41
Endometritis	9	10.80
Sepsis	3	2.70
Comatose state	1	0.90
Hepatonephritis	4	3.60
Renal failure	2	1.80
<b>Total</b>	<b>25</b>	<b>100%</b>

### 3.4 2-Maternal deaths

During our study we recorded 6 maternal deaths related to abortion complications (n=25). The case fatality rate for high-risk abortions was 24%. The average duration of all maternal deaths was 4.5 days, with extremes of 2 and 12 days.

## 4- Discussion

### 4 .1- Frequency of abortion

We found that 24.07% of all abortions admitted were at risk. Our figure is similar to that of Lokossou in Benin [13] who reported a frequency of 27.6%. It is much lower than that of Baeta [2] in Togo, who found a frequency of 63.1% of clandestine induced abortions. The difference is probably related to the inclusion criteria, which vary from one author to another.

## 4.2- Socio-demographic characteristics

### ➤ Average age

The average age of patients admitted for unsafe abortion in our series was 23.6 years. Unsafe abortions are the preserve of unemployed adolescents and young adults, forced into abortion by the socio-familial context, refusal of maternity and economic difficulties [12].

In our study, 67.57% of patients who underwent an unsafe abortion were under 25 years of age. Our rate is close to that of Lokossou in Benin [13] in 2000, who reported a rate of 51.27% of patients under 25 years of age. However, it is lower than that of Rasch in Tanzania, who reported a rate of 88%. The difference could be explained by the very high proportion of students who perform unsafe abortions to avoid exclusion, a practice that is common in Tanzania [15].

### ➤ Number of pregnancies

Primary pregnancies accounted for 55.85% of patients admitted for unsafe abortions. Our rate is higher than that of Goyaux [8] who found 43.5% of primigravidas. Djanhan [7] at the Bouaké University Hospital in the Republic of Côte d'Ivoire also found a higher rate than ours, i.e. 70.8% of primigravidas. Socio-cultural barriers prevent young adolescents from accessing family planning services, as sexuality is not discussed within the family.

### ➤ Marital status

In our study 73.6% of patients admitted for unsafe abortion lived alone.

Our rate is close to that of Lokossou in Benin [13], who found a rate of 62.7%, and of Baeta [2] in Togo, who in 2001 found a rate of 67.1% of single women among patients who had undergone an unsafe abortion. It is also close to that of Djanhan at the Bouaké University Hospital [7] and Diallo in Guinea [5], who found 83.4% and 75% respectively to be unmarried. However, Rasch in Tanzania [15] found a rate of 93.1% of women living alone among those who had an unsafe abortion.



### ➤ Professional activity

In our study, we found that patients without gainful employment were particularly exposed to unsafe abortion (63.6%) compared with patients with gainful employment (36.4%). Our rate is similar to that of Traoré [17] who found 66.10%. The predominance of unsafe abortions in patients without gainful employment could be explained by various reasons [16]:

- financial inability to support the pregnancy and the upbringing of the unborn child;
- exposure to risky sexual behaviour in order to improve their financial situation, with pregnancy being an incidental event in the process;
- financial inaccessibility to modern contraception.

### 4.3-Abortifacient methods

Abortive methods were found in 18 of the 111 cases recorded, including 9 cases of modern chemical methods, 3 cases of traditional chemical methods and 6 cases of mechanical methods. The majority of abortion methods were not admitted by the patients.

Various methods of abortion are used in Africa, and modern medical abortion is virtually non-existent. The methods used are either traditional pharmacopoeia, pharmaceutical products used improperly, or mechanical and traumatic methods. The most risky methods are those based on plants and the insertion of objects into the uterus (blunt objects, crushed glass, chemicals).

Surgical methods, sometimes performed by inadequately qualified health workers, are not exempt from risk because they are performed by insufficiently qualified workers in poorly hygienic conditions. These are essentially abortions carried out by dilation and curettage (with or without anesthetic) and rarely by manual aspiration [9].

### 4.4-Complications

Hemorrhage was the major complication found in almost all patients (74.77%), followed by infection (13.59%). The survey carried out by Cissé in Senegal also shows that complications

after abortion were essentially hemorrhage and infection [5,19,20]. Although metrorrhagia is the main symptom of abortion, its appearance does not necessarily indicate uterine evacuation. They may indicate a simple threat of abortion, hence the importance of ultrasound in assessing embryonic vitality.

In our series, 74.51% of patients who were able to have their hemoglobin level measured had required a blood transfusion. High-risk abortions are associated with hemorrhagic complications due to trauma to a healthy egg, and cervico-vaginal lesions are very common. The problems associated with blood transfusion in our context, such as the availability of blood products and questionable transfusion safety, make the management of high-risk abortions even more problematic.

Among the infectious complications or during clandestine induced abortions, we recorded 9 cases of endometritis and 4 cases of septicaemia. Our figure is lower than that of Djanhan [7] in the Republic of Côte d'Ivoire and Diallo in Mali [6] who found respectively 31.7% and 33.3% of infectious complications. The preponderance of infectious complications in these patients could be explained by the poor aseptic conditions, the lack of infection prevention and the lack of qualification of the staff performing the manoeuvre.

#### **4.5-Lethality of abortions**

In the course of our study, we observed 6 maternal deaths out of 25 cases of complications, giving a case-fatality rate of 24%. In our study, these were 4 deaths due to hepatonephritis and 2 deaths due to septicaemia. Diallo in Mali [6] in 2000, in a study of complications of illegal abortions in Bamako, found a case-fatality rate of 10%. Compared with the acceptable lethality threshold of 1% cited by the WHO, the lethality rate in the various studies was too high overall. This is undoubtedly a major obstacle to achieving the sustainable development objectives

#### **5- Conclusion**

Despite dissuasive and repressive legislation, unsafe abortions are fairly frequent at the CHU-B. The epidemiological profile of the victim of an unsafe abortion is that of a young woman, primigravida, nulliparous, unmarried and without gainful employment. Complications are mainly hemorrhage and infection. To reduce the incidence of this practice, preventive activities, reproductive health education and the dissemination of contraceptive methods need to be stepped up.

## **Consent**

As per international standards or university standards, patient(s) written consent has been collected and preserved by the author(s).

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