



# PREVALENCE OF HEPATITIS B AND C INFECTIONS AMONG PREGNANT WOMEN ATTENDING HEALTH CARE SERVICES IN GUMA L.G.A., BENUE STATE

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**Abstract:** Hepatitis B and C infections are significant public health concerns, particularly among pregnant women. This study aimed to determine the prevalence of Hepatitis B and C infections among pregnant women attending Health Care Services, Guma, Benue State. A cross-sectional study was conducted among 187 pregnant women attending the antenatal care services in Guma. Blood samples were collected and tested for Hepatitis B surface antigen (HBsAg) and Hepatitis C virus antibodies (anti-HCV) using enzyme-linked immunosorbent assay (ELISA). The overall prevalence of Hepatitis B infection was 18 (9.6%), while that of Hepatitis C infection was 9 (4.8%), the prevalence of co-infection with both Hepatitis B and C was 1.1%. The study highlights the need for routine screening of pregnant women for Hepatitis B and C infections to prevent mother-to-child transmission and ensure timely management.

## 1.0 Introduction

Hepatitis B and C infections are significant public health concerns worldwide, with an estimated 257 million and 71 million people infected respectively (WHO,2019). Pregnant women are particularly vulnerable to these infections, which can lead to severe consequences for both the mother and the newborn (WHO,2019). Infections by the hepatitis B or C virus are extremely common causes of acute and chronic liver disease, and coexistence of the two viruses in the same patient is not rare (CDC,2020).

## 2.0 Methods

A cross-sectional study was conducted among 187 pregnant women attending the antenatal care in Guma L.G.A., Benue State. A consent was obtained from Guma Health Department and informed consent was also obtained from all participants. Blood samples were collected and tested for Hepatitis B surface antigen (HBsAg) and Hepatitis C virus antibodies (anti-HCV) using enzyme-linked immunosorbent assay (ELISA).

## 3.0 Results

The overall prevalence of Hepatitis B infection was 9.6% that of Hepatitis C infection was 4.8% while prevalence of co-infection with both Hepatitis B and C was 1.1%. The prevalence of Hepatitis B, C, B&C of the study participants are presented in Table 1.

**Table 1. The overall prevalence of Viral Hepatitis B and C in pregnant women**

| Hepatitis  | Number Tested | Number Positive (%) |
|------------|---------------|---------------------|
| HBsAg      | 187           | 18(9.6)             |
| Anti- HCV  | 187           | 9(4.8)              |
| HBsAg &HCV | 187           | 2 (1.1)             |

**Table 2. Hepatitis B, C, B& C in pregnant women based on age**

| Age     | Number tested | HBsAg Positive (%) | Anti-HCV Positive (%) | HBsAg & Anti-HCV (%) |
|---------|---------------|--------------------|-----------------------|----------------------|
| >-19    | 29            | 3(10.3)            | 1(3.4)                | -                    |
| 20 – 29 | 84            | 11(13.1)           | 3(3.6)                | 1(3.4)               |
| 30 – 39 | 64            | 5(7.8)             | 2(3.1)                | 1(1.5)               |
| 40 – 49 | 6             | 1(16.7)            | 1(16.7)               | -                    |
| Total   | 187           | 20(10.6)           | 7(3.7)                | 2(1.1)               |

**Table 3. Hepatitis B and C based on family background**

| Family background | Number tested | HBsAg Positive (%) | Anti-HCV Positive (%) |
|-------------------|---------------|--------------------|-----------------------|
| Monogamy          | 106           | 12(11.3)           | 6(5.7)                |
| Polygamy          | 81            | 8(9.9)             | 3(3.7)                |
| <b>Total</b>      | <b>187</b>    | <b>20(10.7)</b>    | <b>9(4.8)</b>         |

#### **4.0 Discussion**

The prevalence of Hepatitis B and C infections among pregnant women in this study is comparable to previous reports from similar settings which agreed with the report that Nigeria as highly endemic area with prevalence greater than 4% HBV and is in agreement with prevalence of 4–25% in the WHO African region

The findings highlight the need for routine screening of pregnant women for these infections to prevent mother-to-child transmission and ensure timely management.

#### **5.0 Conclusion**

The study highlights the need for routine screening of pregnant women for Hepatitis B and C infections to prevent mother-to-child transmission and ensure timely management. Healthcare providers should be aware of the risk factors and take necessary precautions to prevent transmission.

#### **6.0 Recommendations**

1. Routine screening for Hepatitis B and C infections should be implemented for all pregnant women attending antenatal clinics.
2. Healthcare providers should be educated on the risk factors and prevention strategies for Hepatitis B and C infections.
3. Pregnant women with Hepatitis B and C infections should receive timely management and follow-up care to prevent mother-to-child transmission.

#### **7.0 Limitations of the Study**

The study had a limited sample size and was conducted in a single hospital setting. Further studies with larger sample sizes and multiple settings are needed to confirm the findings.

#### **References**

- 1. World Health Organization (2019).
- 2. Centers for Disease Control and Prevention. (2020).