

Note: This is Online Appendix 1 of Mashilo A, Mompoti I, Ramakatane R, et al. Knowledge, attitudes and practices to hepatitis B among South African primary healthcare staff. *Afr J Prm Health Care Fam Med.* 2025;17(1), a4646. <https://doi.org/10.4102/phcfm.v17i1.4646>

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Data A: Questionnaire

**Study title: Knowledge and practices of hepatitis B virus amongst healthcare workers at primary healthcare clinics in Bloemfontein**

You have been asked to participate in a research study. Please note that by completing this questionnaire you are voluntarily agreeing to participate in this research study. You will remain anonymous and your data will be treated confidentially at all times. You may withdraw from this study at any given moment during the completion of the questionnaire. The results of the study may be published.

*Kindly please complete all sections in legible writing or circle the correct answer where necessary*

**Section A: General**

<b>Date:</b>			
<b>Age in years:</b>			
<b>Gender:</b>	<b>Male</b>	<b>Female</b>	
<b>Occupation:</b>	<b>Professional Nurse</b>	<b>Medical Doctor</b>	<b>Other:</b>
<b>Years of experience:</b>	<b>&lt;1</b>	<b>1-4</b>	<b>4-8</b> <b>&gt;8</b>

**Section B: Hepatitis B Epidemiology**

<b>Hepatitis B is common in South Africa</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>
<b>Hepatitis B can be transmitted sexually</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>
<b>Hepatitis B can be transmitted from mother to child (perinatal)</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>
<b>Healthcare workers are at risk for hepatitis B from needle stick injuries</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>
<b>Patients are at risk for hepatitis B from infected healthcare workers if universal precautions are not adhered to</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>
<b>Hepatitis B transmission can occur horizontally through household/close contact</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>
<b>A person may be infected with both HIV and hepatitis B</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>

**Section C: Clinical picture**

Hepatitis B infection is rarely asymptomatic	Yes	No	Unsure
Hepatitis B infection can lead to liver cancer	Yes	No	Unsure

**Section D: Laboratory diagnosis**

Hepatitis B can clinically be differentiated from other causes of hepatitis	Yes	No	Unsure
Hepatitis B surface antigen test is used to diagnose infection	Yes	No	Unsure
Hepatitis B surface antibody test is used to diagnose infection	Yes	No	Unsure
Hepatitis B surface antigen is a marker of immunity	Yes	No	Unsure
Hepatitis B surface antibody is a marker of immunity	Yes	No	Unsure
Hepatitis B core IgM antibody is present during an acute infection	Yes	No	Unsure
Chronic hepatitis B infection is when the hepatitis B surface antigen is present for at least 6 months	Yes	No	Unsure
Hepatitis B viral load testing is available	Yes	No	Unsure
Patients with HIV should be tested for hepatitis B co-infection	Yes	No	Unsure

**Section E: Management**

Acute hepatitis B must be treated with an antiviral drug such as Tenofovir	Yes	No	Unsure
Chronic hepatitis B can be treated with an antiviral drug such as Tenofovir	Yes	No	Unsure
Hepatitis B is curable	Yes	No	Unsure
Patients co-infected with HIV and hepatitis B should have Tenofovir in their ARV regimens	Yes	No	Unsure
It is important to know a pregnant woman's hepatitis B status	Yes	No	Unsure

**Section F: Prevention**

<b>Hepatitis B is vaccine preventable</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>
<b>All healthcare workers should be vaccinated for hepatitis B</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>
<b>Protective immunity is an antibody titer above 10 IU/ml</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>
<b>Infants are currently given the hepatitis B vaccine as part of the EPI</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>
<b>Babies born to mothers with hepatitis B infection require a birth dose vaccine and hepatitis B immunoglobulin</b>	<b>Yes</b>	<b>No</b>	<b>Unsure</b>

**Thank you for your participation!**

**Information Document**

**Study title:** Knowledge and practices of hepatitis B virus among healthcare workers at primary healthcare clinics in Bloemfontein

Good day

We are medical students from the University of the Free State. We are doing research on hepatitis B virus, together with the Division of Virology. Hepatitis B is found in South Africa and it is assumed that all healthcare workers know and remember everything they have learnt about the virus in Nursing or Medical school. In this project we want to take a few minutes of your time to complete a questionnaire on hepatitis B, so that we can gain information about how much healthcare workers know about the virus, its presentation, diagnosis and management.

**Invitation to participate:** We are inviting all healthcare workers at primary healthcare clinics in Bloemfontein to participate in this research study.

**What is involved in the study:** We are inviting all healthcare workers at primary healthcare clinics in Bloemfontein, to complete one, anonymous questionnaire, which is available in English, on 1 occasion.

**Risks:** There are no foreseeable risks of being involved in the study.

**Benefits:** There are no direct benefits to you as a participant. The information that we get from the questionnaire will allow us to see if there are any gaps in what is known about hepatitis B. This may help to plan future training.

**Participation is voluntary** and refusal to participate will involve no penalty; the subject may discontinue participation at any time.

**Reimbursements:** We will not provide any reimbursement for any participant in this study. **Cost:**

Participants will not pay any costs to participate in the study.

**Confidentiality:** the questionnaires are anonymous so the information you provide will not be traceable back to you. The results may be published in a medical journal and/or presented at a medical congress/meeting.

*Absolute confidentiality cannot be guaranteed. Personal information may be disclosed if required by law. Organizations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the Ethics Committee for Medical Research.*

**Contact details of study doctors:**

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You may contact the Secretariat of the Ethics Committee of the Faculty of Health Sciences, UFS at telephone number (051) 4017794 if you have questions about your rights as a research subject.

Table S1: Participants' KAP regarding the epidemiology of hepatitis B virus

<b>Statement/Question</b>	<b>Correct % (number)</b>	<b>Incorrect % (number)</b>	<b>Unsure % (number)</b>	<b>Unanswered number</b>
1. Hepatitis B is common in South Africa	62.07 (54)	13.79 (12)	24.14 (21)	1
2. Hepatitis B can be transmitted sexually	76.74 (66)	16.28 (14)	6.98 (6)	2
3. Hepatitis B can be transmitted from mother to child (perinatal)	74.71 (65)	8.05 (7)	17.24 (15)	1
4. Healthcare workers are at risk for hepatitis B from needle stick injuries	93.10 (81)	2.30 (2)	4.60 (4)	1
5. Patients are at risk for hepatitis B from infected healthcare workers if universal precautions are not adhered to	82.76 (72)	8.05 (7)	9.20 (8)	1
6. Hepatitis B transmission can occur horizontally through household/close contact	42.05 (37)	37.50 (33)	20.45 (18)	-
7. A person may be infected with both HIV and hepatitis B	96.51 (83)	-	3.49 (3)	2

Table S2: Participants' KAP regarding the clinical picture of hepatitis B virus

<b>Statement/Question</b>	<b>Correct % (number)</b>	<b>Incorrect % (number)</b>	<b>Unsure % (number)</b>	<b>Unanswered % (number)</b>
1. Hepatitis B infection is rarely asymptomatic	24.10 (20)	62.65 (52)	13.25 (11)	5
2. Hepatitis B infection can lead to liver cancer	70.59 (60)	9.41 (8)	20.00 (17)	3

Table S3: Participants' KAP regarding the laboratory diagnosis of hepatitis B virus

<b>Statement/Question</b>	<b>Correct % (number)</b>	<b>Incorrect % (number)</b>	<b>Unsure % (number)</b>	<b>Unanswered % (number)</b>
1. Hepatitis B can clinically be differentiated from other causes of hepatitis	9.64 (8)	61.45 (51)	28.92 (24)	5
2. Hepatitis B surface antigen test is used to diagnose infection	63.75 (51)	8.75 (7)	27.50 (22)	8
3. Hepatitis B surface antibody test is used to diagnose infection	28.40 (23)	44.44 (36)	27.16 (22)	7
4. Hepatitis B surface antigen is a marker of immunity	31.33 (26)	46.99 (39)	21.69 (18)	5
5. Hepatitis B surface antibody is a marker of immunity	57.83 (48)	10.84 (9)	31.33 (26)	5
6. Hepatitis B core IgM antibody is present during an acute infection	57.50 (46)	3.75 (3)	38.75 (31)	8
7. Chronic hepatitis B infection is when the hepatitis B surface antigen is present for at least 6 months	56.79 (46)	7.41 (6)	35.80 (29)	7
8. Hepatitis B viral load testing is available	44.71 (38)	20.00 (17)	35.29 (30)	3
9. Patients with HIV should be tested for hepatitis B coinfection	90.24 (74)	2.44 (2)	7.32 (6)	6

Table S4: Participants' KAP regarding the management of hepatitis B virus

<b>Statement/Question</b>	<b>Correct % (number)</b>	<b>Incorrect % (number)</b>	<b>Unsure % (number)</b>	<b>Unanswered % (number)</b>
1. Acute hepatitis B must be treated with an antiviral drug such as Tenofovir	13.10 (11)	58.33 (49)	28.57 (24)	4
2. Chronic hepatitis B can be treated with an antiviral drug such as Tenofovir	54.76 (46)	10.71 (9)	34.52 (29)	4
3. Hepatitis B is curable	17.86 (15)	76.19 (64)	5.95 (5)	4
4. Patients co-infected with HIV and hepatitis B should have Tenofovir in their ARV regimens	72.29 (60)	7.23 (6)	20.48 (17)	5
5. It is important to know a pregnant woman's hepatitis B status	80.72 (67)	4.82 (4)	14.46 (12)	5



Table S5: Participants' KAP regarding the prevention of hepatitis B virus

<b>Statement/Question</b>	<b>Correct % (number)</b>	<b>Incorrect % (number)</b>	<b>Unsure % (number)</b>	<b>Unanswered % (number)</b>
1. Hepatitis B is vaccine preventable	92.77 (77)	3.61 (3)	3.61 (3)	5
2. All healthcare workers should be vaccinated for hepatitis B	96.34 (79)	-	3.66 (3)	6
3. Protective immunity is an antibody titer above 10 IU/ml	62.96 (51)	3.7 (3)	33.33 (27)	7
4. Infants are currently given the hepatitis B vaccine as part of the EPI	88.10 (74)	4.76 (4)	7.14 (6)	4
5. Babies born to mothers with hepatitis B infection require a birth dose vaccine and hepatitis B immunoglobulin	63.86 (53)	6.02 (5)	30.12 (25)	5