

# Knowledge Attitude and Practice of Viral Hepatitis B and C Screening by General Practitioners in Brazzaville

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## Abstract

The involvement of general practitioners in the early detection of viral hepatitis B and C must be paramount. The objectives of this work were to assess GPs' knowledge, attitude and practice with regard to screening for viral hepatitis B and C. We carried out a cross-sectional analytical study among GPs recruited by simple random sampling from the list of GPs in the city of Brazzaville. The judgement criteria were knowledge and practice of screening for viral hepatitis B and C, assessed according to a Likert scale divided into 3 categories: very good, good and bad. One hundred and twenty-one general practitioners were included, including 48 women and 73 men, with a sex ratio of 1.52; the average age was 33 years; 52.89% of them worked in the private sector with an average period of activity of 4 years. The majority of the doctors had a good knowledge (69.42%) and a bad practice (56.20%) of screening for viral hepatitis B and C. The duration of activity was the factor linked to knowledge of viral hepatitis B and C ( $p = 0.006$ ) while age was the factor linked to the practice of screening for viral hepatitis B and C ( $p = 0.0366$ ). In conclusion, in Brazzaville, general practitioners' knowledge of screening for viral hepatitis B and C is good in general, but the practices are poor and require targeted in-service training.

## Keywords

Viral Hepatitis B and C, Screening, General Practitioners, Brazzaville

## 1. Introduction

Viral hepatitis B and C are cosmopolitan infections representing a real public health problem [1]. Their most often asymptomatic carrier explains the often late diagnosis at the stage of complications such as cirrhosis and liver cancer [2] [3]. This situation implies an early diagnosis of viral hepatitis B and C. For this reason, the role that general practitioners must play in the management of chronic viral hepatitis is essential. This role is performed exclusively by gastroenterologists and infectious diseases specialists in our country. It is in this context that we have conducted this study in order to evaluate the level of knowledge of general practitioners, their attitude and their practice with regard to the screening and management of viral hepatitis B and C; to investigate the factors associated with the level of knowledge and practice of screening for viral hepatitis B and C among general practitioners.

## 2. Population and Methods

This was a cross-sectional analytical study conducted from January to July 2016, *i.e.* over 7 months, among general practitioners working in public and private health centres in the city of Brazzaville. The inclusion criteria were registration with the national council of the medical order and consent to the study. A simple random sampling was carried out from a sampling frame of general practitioners registered with the Ministry of Health and Population. The prevalence of General Practitioners was not well known, therefore the sample size was not calculated. Data was collected on a pre-established direct questionnaire containing epidemiological variables (age, sex, length of practice, sector of activity) and clinical, biological and therapeutic variables relating to management (risk factors for contamination, screening circumstances, screening tests, pre-therapeutic check-ups, treatment of hepatitis B and C and patient follow-up) from which we defined our criteria for judgement: overall knowledge and practice. Knowledge and practice were assessed according to a Likert scale in 3 categories: very good when the number of correct answers was greater than or equal to 7, good when the correct answers ranged from 4 to 6 and bad when there were less than 4 correct answers. Excel and Epi info software were used for data entry and processing. The Chi-square test was used to compare the percentages. The significance threshold was 5%.

## 3. Results

During the study, 121 GPs had given their consent and were included in the study. Of these, 48 were female (39.67%) and 73 were male (0.33%), giving a sex ratio of 1.52. The average age was  $33 \pm 7.73$ ; the extremes were 24 and 61. Sixty-four doctors (52.89%) worked in the private sector and 57 (47.11%) in the public sector. The average duration of medical activity was 4 years  $\pm$  5.19; the extremes were 1 to 32 years. **Table 1** illustrated the knowledge of the different clinical-biological and therapeutic variables related to viral hepatitis B and C.

Overall knowledge of viral hepatitis B and C was very good in 13 cases (10.75%), good in 84 cases (69.42%) and poor in 24 cases (19.83%). The factors related to the knowledge of viral hepatitis B and C were illustrated in **Table 2**. It can be seen that the duration of medical activity was the only factor statistically linked to knowledge of hepatitis B and C.

**Table 3** illustrated the practice of screening and therapeutic management of hepatitis B and C by general practitioners. The practice of screening for viral hepatitis B and C was good in 53 cases (43.80%) and bad in 68 cases (56.20%). We did not find any cases of very good practice in the management of viral hepatitis B and C. Search for a relationship between the overall practice of general practitioners and the epidemiological variables was illustrated in **Table 4**. The age of the GPs was the only factor related to the practice of screening for viral hepatitis B and C with GPs.

**Table 1.** Knowledge of screening for viral hepatitis B and C.

	Knowledge	
	Yes	No
Contamination risk factor	111 (91.74%)	10 (8.26%)
Circumstances screening	64 (52.89%)	57 (47.11%)
HBV screening tests	118 (97.52%)	3 (2.48%)
HVC screening test	98 (81.67%)	22 (18.33%)
Therapeutic assessment	18 (14.88%)	103 (85.12%)
HBV treatment	67 (55.37%)	54 (44.63%)
HCV treatment	16 (13.22%)	105 (86.78%)

**Table 2.** Factors related to overall knowledge of hepatitis.

		Global knowledge			P
		Very good	Maid	Bad	
Age	<30 years old	5	19	3	0.1927
	>30 years old	8	65	21	
Sex	Female	7	33	8	0.4725
	Male	6	51	16	
Activity sectors	Public	5	43	16	0.2218
	Private	8	41	8	
Activity duration	<5 years	12	38	11	0.0006
	>5 years	1	46	13	

**Table 3.** Practice of screening for viral hepatitis B and C.

	Practice	
	Yes	No
Search contamination risk factors	84 (69.42%)	37 (30.58%)
HBC testing	79 (65.29%)	42 (34.71%)
HCV testing	59 (48.76%)	62 (51.24%)
Puncture hepatic biopsy	1 (0.83%)	120 (99.17%)
Fibrosis tests	8 (6.72%)	111 (91.28%)
Comorbidity research	92 (76.67%)	28 (23.33%)
Prescription treatment	51 (42.15%)	70 (57.85%)
Follow-up of screened patients	3 (2.48%)	118 (97.52%)

**Table 4.** Factors related to overall practice hepatitis B and C screening.

		Overall practice			<i>P</i>
		Very good	Maid	Bad	
Age	<30 years old	-	16	11	0.0366
	>30 years old	-	37	57	
Sex	Female	-	22	26	0.3594
	Male	-	31	42	
Activity sectors	Public	-	30	34	0.2389
	Private	-	23	34	
Activity duration	<5 years	-	27	34	0.4597
	>5 years	-	26	34	

#### 4. Discussion

Our study focused on general practitioners registered with the Medical Council, which may constitute a selection bias given that not all doctors practising in Brazzaville are registered with the Medical Council. However, this limitation does not affect our results for a large sample size. The male predominance of general practitioners (GPs) is in line with some studies [4] [5] [6]. This can be explained by the low school enrolment rate among girls in developing countries. In the literature [4] [7] [8] [9] [10], GPs know 98% of the risk factors for viral hepatitis B and C infection. Large-scale awareness campaigns organised in many countries may explain this trend. However, GPs are less familiar with the circumstances of discovery, the necessary biological examinations, the pre-treatment

check-up and treatment [6] [9] [10] [11] [12]. This is also the case in our study. Knowledge of fibrosis tests and antiviral C treatment is poor in some African studies [13] [14]. This trend is also found in our study. These figures reveal the training needs of general practitioners, targeted at pre-treatment check-ups and the treatment of hepatitis B and C. Overall knowledge is 60% - 75% in developing countries [5] [6] [13] [14], and 90% in developed countries [4] [10] [11] [12]. The lack of awareness and training of General Practitioners in countries with limited resources may be the explanation. In developed countries, on the other hand, campaigns to disseminate recommendations for the management of viral hepatitis to doctors are frequently carried out, which explains the very high level of knowledge [11]. In Brazzaville, such campaigns will help to improve general practitioners' overall knowledge of screening for hepatitis B and C in our country. In practice, at the end of this study, the prescription of the fibrosis check-up and antiviral treatment by GPs was rare. This is probably explained by the fact that these tests and treatments are considered to be specialist tests and treatments. In France, antiviral treatment is prescribed by 58% of GPs and 17% - 30% of them follow their patients over the long term [4] [9] [10] [12]. In France and Canada, the obstacles identified to the practice of screening and treatment by general practitioners are the patient's refusal and the fear of treatment complications [4] [15] [16]. In our study, age was the factor limiting the practice of therapeutic management of viral hepatitis B and C by general practitioners.

## 5. Conclusion

General practitioners, who are the first line in the doctor-patient relationship, play a key role in the screening and treatment of viral hepatitis B and C. Our study shows a good level of knowledge and poor practice of General Practitioners in the screening and treatment of hepatitis B and C. The length of medical activity and age are the factors linked to the knowledge and practice of screening for hepatitis B and C by General Practitioners. It is therefore necessary to ensure that the capacities of general practitioners are strengthened through continuous training.

## Conflicts of Interest

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

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