

# STUDY OF THE IMMUNE RESPONSE AFTER VACCINATION AGAINST HEPATITIS B IN SUBJECTS WITH CHRONIC RENAL FAILURE VACCINATION UNIT SEMEP EHU ORAN-2017

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## Abstract

*Our work consists of a descriptive study whose objective is to describe the profile of a group of patients suffering from renal insufficiency and who has come to the consultation for a vaccination against hepatitis B. A scheme adapted to the case is decided after interrogation and a check of his serology. During this year, 184 cases (all pathologies taken together) were treated at the level of the vaccination unit. 92 cases (50%) were referred by the nephrology department and 81 cases (44%) by the gastroenterology department. The middle age of the patients is  $46.9 \pm 2.4$  years.*

*There are 96 cases of patients with renal failure whose middle age is  $52.1 \pm 3.4$  years. 39 cases (47.0%) are already at the stage of end-stage renal disease and are on dialysis. 25% of female cases are under 38 and 44 for male. An intensified double dose regimen was indicated in 65 cases (71.4%), while 26 (28.6%) received a standard double dose regimen. Among the immune responses in our sample, 26 cases had an antibody level higher than 100 IU and 6 cases with a level between 10 and 99 IU. The study of the immune response in our study group remains difficult given the large number of people lost to follow-up.*

**Keyword: renal insufficiency, hepatitis B, vaccination, immune response, EHUO**

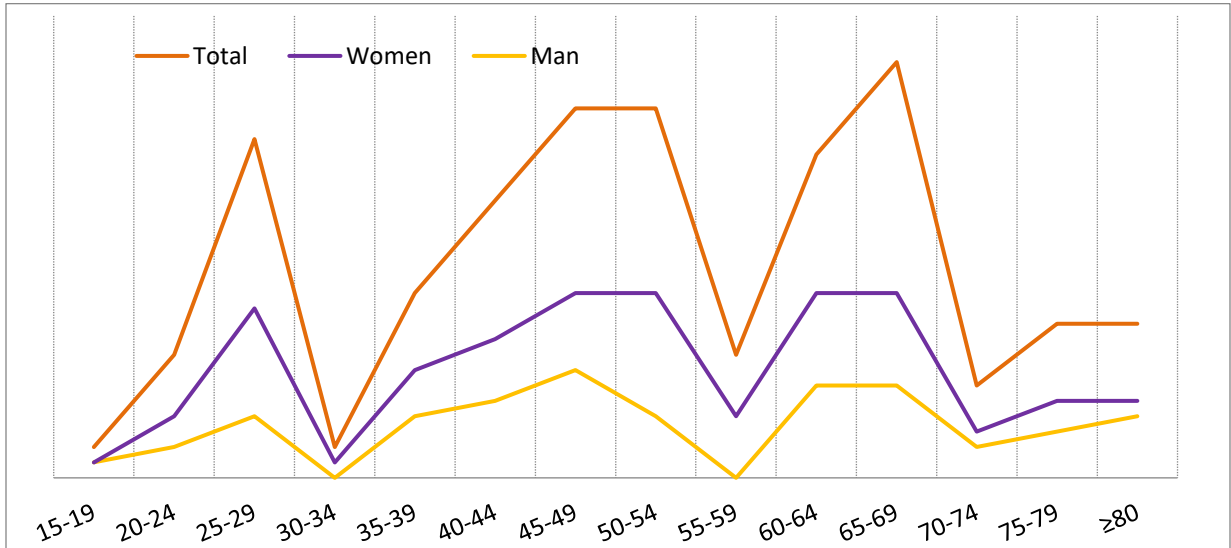
## 1.INTRODUCTION

As part of the assessment of the annual activity of the vaccination unit of the epidemiology and preventive medicine service, a study is carried out with the aim of describing the vaccination activity in patients with kidney failure who are referred to our unit for hepatitis B vaccination.

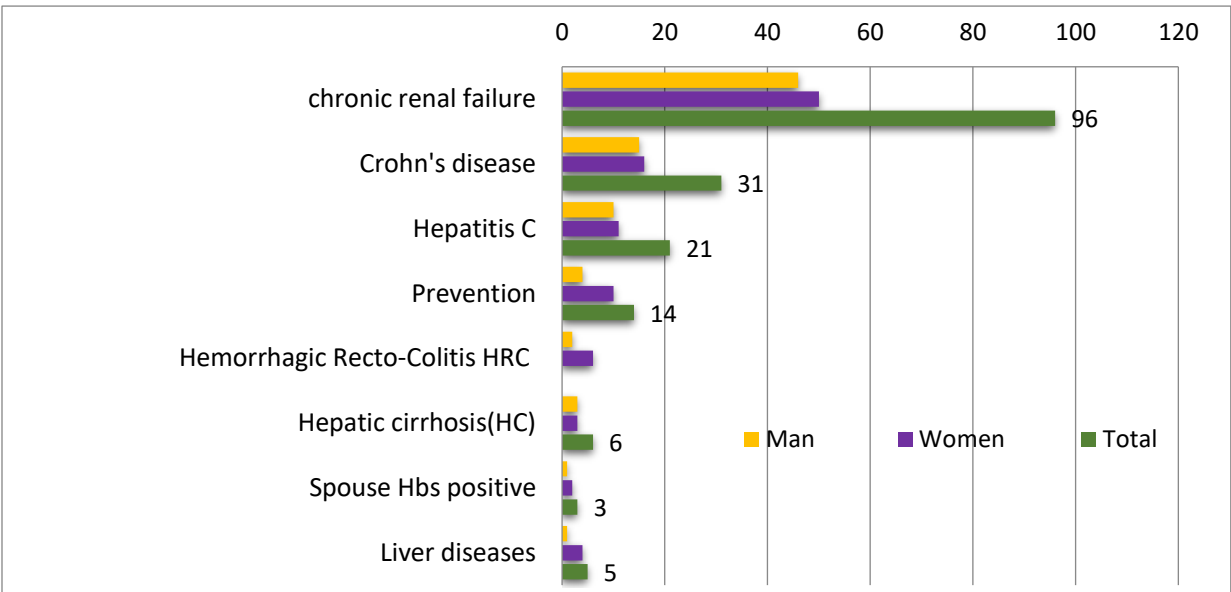
## 2. WORKING METHOD AND PATIENTS

To achieve the objective, an exhaustive descriptive study was undertaken. The cases are all patients, followed for chronic renal insufficiency or already hemodialysis in the medical nephrology department and who come to the consultation for a vaccination against hepatitis B. A first consultation is carried out to identify the vaccine status of the patient. A serology is requested then an information and follow-up file is established. Thus, a vaccination schedule is adapted to the case. A control serology is carried out to identify the type of immune response.

## 3. RESULTS



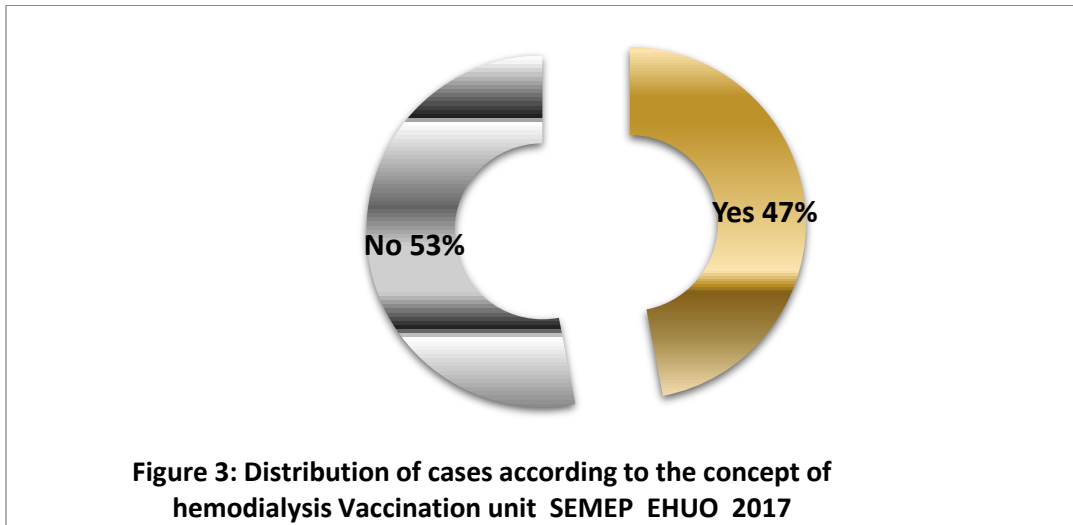
**Figure 1: Age and sex distribution of cases with chronic renal failure  
 Vaccination unit SEMEP EHUO 2017**



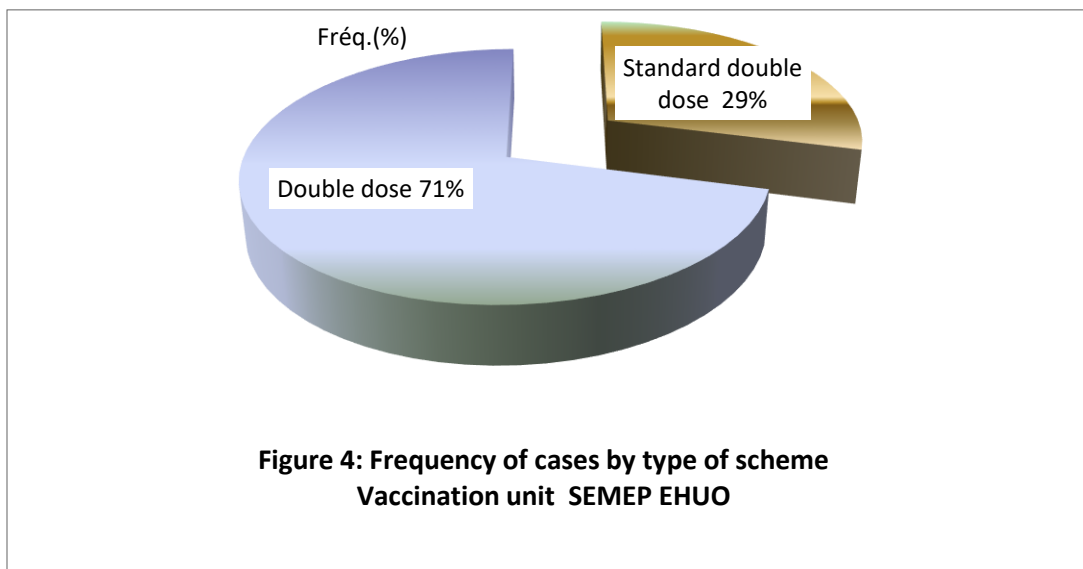
**Figure 2: Distribution of cases vaccinated against hepatitis B according to their pathologies  
 Vaccination unit SEMEP EHUO 2017**

**Table 1: Characteristics of the age of the group studied  
 Vaccination unit SEMEP EHUO 2017**

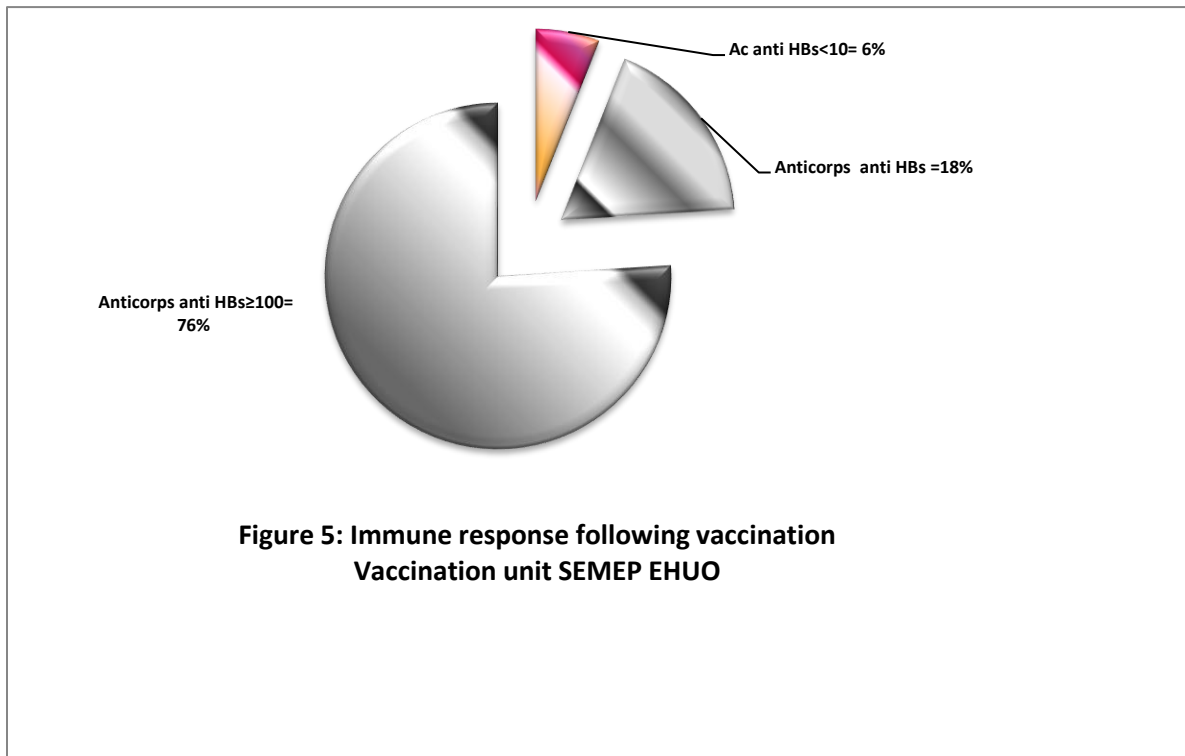
Age	Man	Women	Total
Middle age	53.8±5.3	50.5±5	52.1±3.4
The extend Way	18-87 26	21-81 27	18-87 42
Median	53	50	52
Percentile 25	44	39	42
Percentile 75	68	65	66



**Figure 3: Distribution of cases according to the concept of  
 hemodialysis Vaccination unit SEMEP EHUO 2017**



**Figure 4: Frequency of cases by type of scheme  
 Vaccination unit SEMEP EHUO**



#### 4. DISCUSSION

During this year, 184 cases were treated at the unit level, of which 92 cases (50%) were referred by the nephrology department and by the gastroenterology department 81 cases (44%). The middle age of the patients is  $46.9 \pm 2.4$  years (table 1). The distribution by pathology highlights the frequency of chronic renal failure, That is 96 (52.2%) of which 50 cases (52%) are women (figure 1). The middle age of people with kidney disease is  $52.1 \pm 3.4$  years. The latter is  $50.5 \pm 5$  years in women against  $53.8 \pm 5.3$  years. The 39 cases (47.0%) are already on dialysis (figure 2). Our observation that the pathology is frequent in young people, namely that 25% of the female cases have an age lower than 38 years and 44 years for the male sex. An intensified double dose regimen was indicated for 65 cases (71.4%), while 26 (28.6%) received a standard double dose regimen (figure 3,4). Among the immune responses of our sample, 26 cases had an immune response with an antibody level higher than 100 IU and 6 cases with a level between 10 and 99 IU (figure 5).

#### 5. CONCLUSION

Among the immunosuppressive diseases, renal failure is the pathology most encountered in our consultation. A vaccination schedule is indicated according to the profile of the patient whose interest is to guarantee a good immune response knowing that most patients land at the unit at an already advanced stage. Among the results received, the intensified double dose diet seems to prove its value for good immunity. The establishment of a serological surveillance system is imperative for a better evaluation of the immune response given the importance of patients lost to follow-up