

Hepatitis B vaccination status in an at-risk adult population:

long-term immunity but insufficient coverage

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Background

HBV vaccine has been proposed in France to all infants since 1994, and to all children aged 11 from 1994 to 1998. Originating in the nineties, vaccine hesitancy may lead to incomplete vaccine coverage; at-risk adults may therefore not be protected. We aimed to determine HBV vaccine coverage of adults attending a free testing center for sexually transmitted infections.

Material/methods

Three classes of data were collected during 3 months: hepatitis B serologic tests; date and number of past anti-HBV immunization(s) (if any); and the risk of STI and blood-transmitted infections (BTI).

Results

Seven hundred and thirty-five subjects were included (27.9 ± 9.2 years; males 59.9%). According to health records (341 subjects), 56.6% and 67.2% had received at least 3 and 1 vaccine injection(s), respectively; 51.9% had received their last injection in the year 1995, 1996 or 1997, consistently with a highly active vaccine policy during these years in France (figure 1)

Figure 1: year of first vaccination injection

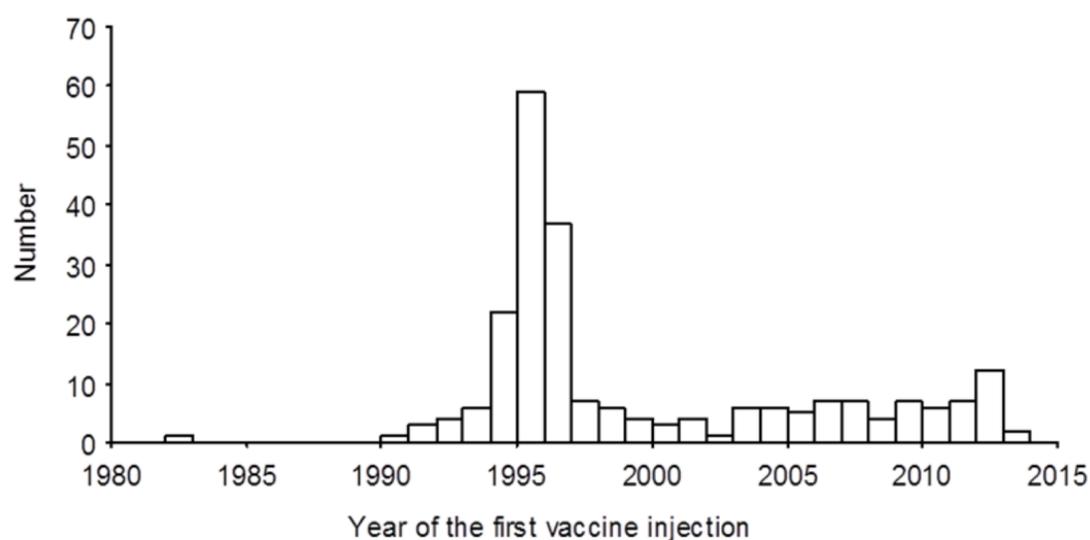
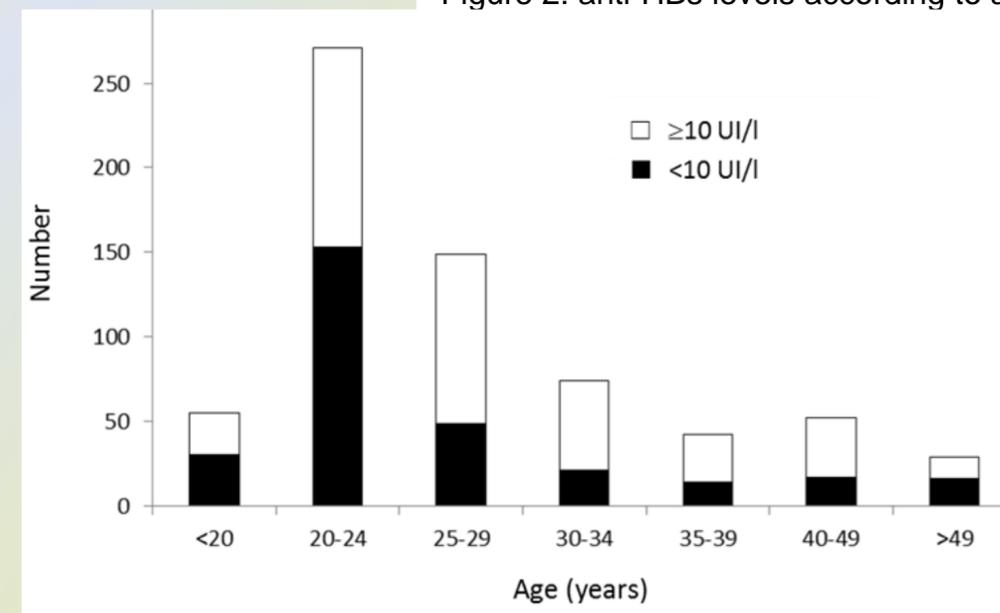


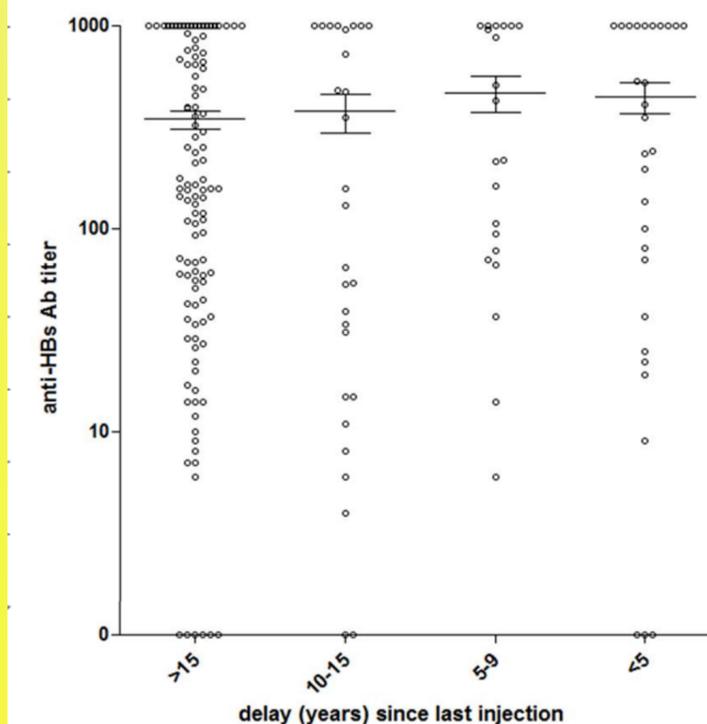
Figure 2: anti-HBs levels according to age



According to serologic test, 33/705 had evidence of past or active HBV infection; in the 672 others, 55.3% had anti-HBs antibody titer $\geq 10 \text{ UI/l}$ (figure 2). Seroprotection rate was not higher in subjects considered at risk for STI or BTI.

Figure 3: anti-HBs levels according to the delay since immunizations

The persistence of protective antibody titer was high: 90.5% and 60.3% of the subjects who received their last vaccine injection more than 15 years before had anti-HBs antibody concentration above 10 and 100 IU/ml respectively (figure 3).



Conclusions

Hepatitis B vaccine coverage is low in this population. Most of the vaccinated subjects were immunized in 1995-1997, suggesting a failure of catch-up immunization of adolescent and at-risk grown-up. Seroprotection has a high persistence, which should be mentioned when proposing the vaccine to at-risk adults.