ORIGINAL ARTICLE

Anaes practice guidelines for vaccination against hepatitis B virus: Impact on general practitioners

Quel a été l’impact sur les médecins généralistes des recommandations pratiques de l’Anaes sur la vaccination contre le virus de l’hépatite B?

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Summary

Introduction. — In September 2003, Agency for Accreditation and Evaluation in Health (Anaes) published its consensus recommendations for vaccination practices against hepatitis B virus (HBV), one objective of which was to decrease the risk of HBV transmission to those in the environments of patients who are carriers of the HBs antigen. The aim of our survey was to measure the awareness and application of these recommendations among general practitioners (GPs) in the Loiret region.

Patients and methods. — This retrospective survey analysed the decisions, using a semi-directed interview, made by all consenting GPs who, in 2004, had referred newly diagnosed HBs antigen-positive patients to the liver unit of the hospital of Orleans.

Results. — Of the contacted GPs, 83% agreed to participate. Although only one-third of them were familiar with the recommendations, all identified the sexual partners and people living under the same roof as the patient targets for screening and/or vaccination. Also, 75% of the GPs had a consultation with some or all of the identified at-risk individuals in their patient’s environment, but only 58% succeeded in vaccinating these at-risk people. Among the interviewed GPs, 71% were in favour of mass vaccination practices against HBV and all were in favour of vaccination targeting the at-risk individuals.

Conclusion. — Dissemination of the Anaes recommendations needs to be improved, even though the majority of the GPs included in the present study were in favour of mass vaccination against HBV and all were in favour of vaccination of at-risk individuals. However, one-third of the identified at-risk individuals eluded screening and/or vaccination, indicating the need for a specific organized program to make contact with these prone populations.

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Résultats. — Quatre-vingt-trois pour cent des médecins généralistes contactés ont accepté de participer. Un tiers seulement d’entre eux connaissait les recommandations, mais tous désignaient les partenaires sexuels et les personnes vivant sous le même toit que le cas incident comme la cible du dépistage. Soixante-quinze pour cent de ces médecins généralistes ont vu tout ou partie des proches exposés en vue d’un dépistage, mais 58 % seulement ont réalisé des vaccinations. Parmi les médecins généralistes, 71 % étaient favorables à une vaccination de masse et tous à la vaccination ciblée des sujets à risque.

Conclusion. — La communication des recommandations doit être améliorée, même si la totalité des généralistes inclus dans ce travail était favorable à la vaccination des sujets à risque et une majorité d’entre eux à la vaccination de masse contre le VHB. Un tiers des sujets exposés échappe à ce dépistage et à la vaccination, ce qui souligne la nécessité d’une organisation des soins spécifique pour entrer en contact avec ces populations précaires.

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Introduction

Hepatitis B constitutes a major public health problem. It is estimated that more than 350 million people around the world are carriers of the hepatitis B virus (HBV) and two million of them die every year because of complications associated with the infection. HBV ranks second, after tobacco, on the list of known carcinogenic agents affecting humans [1–3]. Worldwide, hepatocellular carcinoma represents 5.6% of all cancers, with 564,000 new cases and 549,000 deaths per year [4]. HBV infection constitutes the first etiology of hepatocellular carcinoma, especially in South-East Asia and sub-Saharan Africa. In 2001, the number of yearly deaths in France attributed to HBV was 1327 [5]. Recently, hepatocellular carcinoma became the number-one indication for hepatic transplantation on an international level [6].

It has been demonstrated that, in high HBV endemic areas, a universal vaccination campaign can significantly decrease hepatocellular carcinoma in children [7,8]. Yet, despite World Health Organization (WHO) recommendations for international and national vaccination campaigns [9], the controversy over the possible relationship between HBV vaccination and demyelinating disease has not subsided in France [10], with the result that vaccination coverage among young children remains incomplete.

A recent study by the National Institute of Health Surveillance estimated that the prevalence of HBs antigen in France was around 0.68%, which means that around 280,000 adults in metropolitan France are carriers of HBV [11]. In addition, the decrease in vaccination practices in France leaves a large part of the population exposed [12], notably the youngest, who have the highest risk of infection.

Following the French health agencies meeting for a consensus on vaccination practices against HBV in September 2003, the French Agency for Accreditation and Evaluation in Health (Anaes; Agence nationale d’accréditation et d’évaluation en santé) published the consensus recommendations. One objective was to decrease the risk of HBV transmission to those in the environments of patients who are carriers of HBs antigen [13]. The aim of the present study was to evaluate the impact of these recommendations on the clinical practices of general practitioners (GPs) in the Loiret region who had referred newly diagnosed patients to the department of hepatogastroenterology of the regional hospital center of Orleans and to analyse the reasons behind any identifiable gaps in the application of the recommendations in order to propose corrective actions.

Methods

Study population

Every new HBs antigen-positive patient consulted or hospitalised at the department of hepatogastroenterology between 1st January and 31st December 2004 was considered eligible for the study and their GPs constituted the study population.

Conduct of the study and evaluation criteria

This was a retrospective survey analysing the decisions taken by all consenting GP who, in 2004, had received notification from the hepatogastroenterology department informing them of the HBs antigen-positive status of one of their patients. The GPs were also asked to make a plan for preventative measures to be taken concerning exposed individuals in the affected patient’s environment.

Data was acquired in May 2005 through a direct 20-min meeting between a general medicine intern and each consenting GP. The meeting was treated as a semi-directed
Results

Box 1 summarizes how the present study was conducted. An extensive analysis of all files in the active database of the hepatology department for the year 2004 identified 43 HBV cases who were being followed by 29 GPs, of whom 24 (83%) agreed to participate in the May 2005 interviews. The reasons given for non-participation were refusal of the interview (n = 3), retirement (n = 1) and the physician was not a GP (n = 1). The final participants were 16 men and eight women, with an average age of 48 years (range 39–61 years), who had been practicing GPs for an average of 18 years (range 8–31 years).

Of these GPs, 15 (62.5%) were unaware of the Anaes recommendations. Of the nine who were aware of the recommendations, four had been informed through official releases from national health agencies (such as Anaes), three from national medical-professional journals, one from a medical representative and one through continued medical training. Only six (25%) had read through all of the recommendations, of whom two said they had consequently modified their screening and vaccination practices, while four confirmed that they had already been applying the recommended measures.

Since the beginning of their clinical practice, the interviewed GPs had followed 15 HBs antigen-positive patients on average (range 1–100). In 2004, their active patient files (total number of HBs antigen-positive patients followed) numbered 2.7 (range 1–10) and the number of new cases for each of these physicians was 1.3 (range 1–5).

In the environments of the newly diagnosed patients, all interviewed GPs were unanimous in designating those living under the same roof as the patient and his/her sexual partner(s) as persons at risk. The number of individuals identified as being at risk was estimated to be five people on average (range 1–17).

Of the 24 GPs involved, 21 were able to inform their patients that the at-risk people in their environments also needed to come in for a consultation, while three were unable to do so because their patients were lost to follow-up.

Nine (37.5%) of the 24 GPs had a consultation with all the identified at-risk individuals, nine others (37.5%) saw some of their patient’s relatives/partners and six (25%) failed to see any relatives/partners (three due to loss of their patient for follow-up, and three because no relatives came for a consultation despite continued patient follow-up).

Of the 18 GPs who saw their patient’s relatives/partners for consultation, 16 performed systematic screenings on the consulting individuals; one GP did not as those at risk were already vaccinated against HBV and one GP did not by omission.

The serological markers prescribed for screening were: HBs antigen and anti-HBs and anti-HBc antibodies (11 GPs); HBs antigen and anti-HBs antibodies (two GPs); HBs antigen only (two GPs); and HBs antigen and HBe antigen, anti-HBs, anti-HBc and anti-HBc antibodies and aspartate and alanine aminotransferases (one GP).

Among those at-risk who were screened, serological markers were found in seven, anti-HBs and anti-HBc antibodies in five and anti-HBc antibodies in two.

Twelve (50%) of the 24 GPs estimated having vaccinated all exposed persons in the environments (relatives/partners) of their patient. Two (8%) GPs vaccinated only some of the exposed people, as the rest were already immunized and, in one case, an individual refused vaccination for fear of acquiring demyelinating disease, which is an unconfirmed side effect of HBV vaccination. Ten physicians (42%) did not vaccinate because either family members were lost to follow-up (n = 7) or had previously been vaccinated (n = 2) or, in one case, by omission. None of the interviewed GPs rejected the idea of offering vaccination to exposed individuals in the shared environment of their infected patients.

Of the 24 GP, 15 contacted a specialist for advice on preventative measures to protect their patients’ relatives/partners. A total of 17 GP (71%) were in favour of mass vaccination campaigns against HBV, two (8%) were against it and five (21%) offered no opinion on the subject. Of the lattermost seven GPs, six thought that, as vaccination was not obligatory, the choice was up the patient, while the seventh GP feared the possibility of demyelinating disease.

Discussion

In metropolitan France, recent epidemiological studies have re-evaluated the increase in the number of HBV carriers, a potential source of contamination [11]. The results suggest that, despite being the country that developed the HBV vaccine [14], France finds itself paradoxically exposed to an HBV epidemic. The situation is mostly due to a decrease in vaccination uptake, particularly among the young, who remain the population group most at risk of exposure [12]. However, as a means of reducing the number of deaths per year and considering the oncogenic potential of HBV, vaccination remains the preferred method of prevention.
The present study was carried out at a time when vaccination practices were the subject of polemical discussion in France [12] and when the efficacy of anti-HBV treatments was limited [15]. Nowadays, despite the recent advances in therapy and its efficacy [16], screening and ways to prevent the disease are still of key importance.

The participation of 83% of the approached GPs in the present study demonstrates their interest in the anti-HBV vaccination. Among the interviewed GPs, 71% were in favour of mass vaccination practices against HBV and all were in favour of vaccination targeting the at-risk individuals. These results are in agreement with those of a 2003 survey by the National Institute of Prevention and Education for Health (INPES; Institut national de prévention et d’éducation pour la santé) that concluded that “globally, even if less numerous in 2003 that in 1993, the majority of GPs remain very favourable or somewhat favourable of vaccination against the HBV for the whole population (76.9% in 1993, 59.4% in 2003)”.

Although limited to a sample population comprising motivated physicians who referred HBV-positive patients, only one of the at-risk subjects refused vaccination for fear of secondary adverse effects. This illustrates the limited impact of the anti-vaccination viewpoint on the population of Loiret targeted by this survey in 2004.

However, the fact that only one-third of our participating GPs knew of the existence of the Anaes recommendations and only one-fourth had read through it demonstrates a disconnect between public health messages and/or their methods of dissemination and their targeted medical population. This issue requires further evaluation in a larger medical population to determine more efficient communication strategies to increase the effectiveness and benefits of continued medical education.

Nevertheless, in the present study, all at-risk individuals were identified by GPs and, in general, the procedures used for screening, prevention and vaccination were similar to those recommended by the Anaes. Also, in cases of doubt, GPs frequently consulted a fellow specialist for advice on what measures to take.

One-third of the families of patients and three of the patients were lost to follow-up. A study following patients using a multidisciplinary approach (social workers, psychologists, a departmental ‘hepatitis’ network and an SOS-Hepatitis patients association) is currently underway in an attempt to determine patients’ reasons for vaccine refusal and to establish an effective information and communication strategy. The results of this new study will be the topic of a subsequent report. Given the difficulties we faced on attempting to contact patients lost to follow-up and according to the data collected in patient files, we believe that the insecurities of the patients’ social environment are probably behind their refusal to be vaccinated. Recent epidemiological studies have shown that, in France, the socially precarious populations were more than three times more often carriers of HBV compared with the general population. This suggests that what are needed are specific projects aimed at contacting these prone populations to offer them HBV screening and prevention.

In conclusion, the majority of the GPs in the Loiret region who were included in the present study were in favour of mass vaccination against HBV and all were in favour of vaccination of the individuals at risk living in the environments of the affected patients and, especially, their close relatives. HBV screening and preventative measures were frequently and adequately already in place, although only one-third of the interviewed GPs had read the Anaes recommendations. This observation suggests the need to review the methods of dissemination of this type of information. Also, one-third of the at-risk individuals who were offered screening and/or vaccination did not follow through with the GP’s advice. Our currently ongoing study leads us to believe that the social precariousness of the population at risk that refuses vaccination constitutes an important obstacle to the medical care on offer and, thus, needs to be taken into consideration for the successful implementation of any corrective measures.

Conflicts of interest

The authors have no conflicts of interest to declare.

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References


