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Hepatology Highlights

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Hepatitis A vaccination in healthcare personnel

Guturu P, *et al.* Despite the readily available vaccine, hepatitis A (HAV) continues to cause significant preventable morbidity and mortality. In particular, healthcare personnel (HCP) in contact with bodily fluids are at higher risk. Guturu, *et al.* assessed HAV immunoprotection status amongst HCP at their centre at the University of Texas Medical Branch, Galveston TX, via anonymous surveys. 499 surveys were sent. Among the 207 (41.4%) subjects who responded, 60 (28.9%) were vaccinated. Of those, 35 (58.9%) received the full three-dose series and 15 (24.7%) were tested for post-vaccination immunity. Among the respondents, up to 22.4% reported a prior healthcare-related HAV exposure event. A statistically significantly higher vaccination rate was found in US-born respondents compared to foreign-born respondents (34.3 *vs.* 19.3%, p = 0.0324). Although the incidence of HAV is expected to decrease, HAV vaccination rate among HCP at the author's centre remains suboptimal when compared to mandatory vaccines. Of interest is the fact that influenza vaccine during approximately the same period of time at the authors' institution was 90% suggesting that HCP will get vaccines if motivated. Better HCP education as to the risks of HAV may be warranted in the future in order to enhance voluntary rates of vaccination. Further studies should be conducted to determine the cost-effectiveness of mandating HAV vaccination in all HCP.

Hepatitis B virus prevalence and vaccination response in health care workers and students at the Federal University of Bahia, Brazil

Carvalho P, *et al.* Hepatitis B (HBV) is prevalent throughout the world and HBV vaccination is highly effective in providing long-term protection. Carvalho, *et al.* evaluated HBV seroprevalence in selected students and healthcare professionals (HCP) during a HBV vaccination campaign. Of the 766 volunteers, 13 (1.7%) individuals had natural immunity. In the remaining 753 volunteers, 710 (94.3%) attained immunity via vaccination and 43 (5.7%) were susceptible to HBV. The seroprevalence for previous contact with HBV was 17.6 times higher in HCP (8.8%) than in students (0.5%). The seroconversion rate was at least 94-98% after the full three-dose vaccination series. A lower seroconversion rate was found in HCP. This study highlights the importance of raising awareness of HBVand using vaccination as a means of minimizing risks, especially among HCP. It also reinforces the need for proper monitoring and vaccination programs.

Is there an association between the measurement of qualitative HBsAg and virologic response in chronic HBV infection?

Altinbas A, *et al.* Close laboratory monitoring is important during the antiviral treatment of chronic Hepatitis B (HBV). HBV DNA level remains the gold standard for assessing the virologic response to treatment. Altinbas, *et al.* explored the utility of qualitative Hepatitis B surface antigen (HBsAg) and Hepatitis B envelope antibody (HBeAb) titers as predictors for treatment response.

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This retrospective study included 70 chronic HBV patients with primarily genotype D. Antiviral therapy consisted of peginterferon, lamivuidne, tenofovir or entecavir. With virologic response to treatment, HBsAg level was found to increase in the first three months. This was statistically significantly different when comparing treatment responders to non-responders ($p = 0.054$). HBeAb titer also increased significantly in the first six months. This was also an important predictor of response in the first year ($p = 0.025$). However, these differences were no longer evident in subsequent follow-up visits. These study findings appear to contradict previously published data exploring the utiity of HBsAg as a monitoring tool. The precise reasons for this contradictory finding is not explained by the authors and the study can be considered a negative one. However, this study demonstrates a real-world dilemma in balancing the need to monitor disease response to therapy and differing new modalities of laboratory monitoring. What occurs in the ideal world of the prospectively designed study may not be replicated in the real world of clinical practice especially if variables include different commercial assays of laboratory tests etc. Further studies are required to determine the utility of HBsAg as a monitoring tool in the clinical setting. For the time being, serum HBV DNA appears to remain the gold-standard for virologic monitoring of treatment response.