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# Hepatitis B

somewhat  
different



A new calculator tool in hr | Ascent to streamline underwriting hepatitis B

## hr | Ascent's New Hepatitis B Calculator

hr | Ascent

The global guide for life underwriting

Hepatitis B infection has always been a difficult topic for underwriters, in large part because of the complexity of the disease. A serology with a confusing array of antigens and antibodies (surface antigen and antibody, core antibody, e antigen and antibody) that may or may not be present and which correlate with outcomes, characterizes the illness. Viral DNA is detectable with levels that have prognostic significance and that may modify the interpretation of the serology, but it is not always available. Liver function tests may or may not be elevated, and prognosis correlates with the pattern and degree of elevation of abnormal values. Disease outcome may vary depending on the age of onset of infection. Hepatitis C and D and alcohol consumption are important co-morbidities. Treatment may modify risk and may be still ongoing at the time of underwriting. However, it is not reliably effective in all cases, and there is the potential for relapse if ongoing therapy ceases. Evidence of fibrosis on liver biopsy or non-invasive tests and indicators of abnormal liver synthetic function indicate end organ damage and is of critical importance for accurate risk selection. In addition, attending physicians often apply clinical labels that are confusing and may not be accurate for assessing prognosis.

Given the complexity of hepatitis B and all of the associated risk modifiers, a text-based underwriting guideline is long and complicated in order to accommodate all the information needed. While complete, such guidelines are often difficult for underwriters to apply consistently and accurately.

Hannover Re recognizes the time and challenge associated with underwriting hepatitis B, so our hr | Ascent team has developed a new calculator tool as an alternative resource to lengthy text-based guidelines. The calculator contains all the critical risk elements noted above. To optimize efficiency and limit data entry, except for current age, all the data fields have default settings that are "unknown" or the answer most commonly encountered in underwriting. One exception is the hepatitis B surface antigen, the status of which is critical for accurate risk selection. Hence, the default is positive with the only other option, negative.

To use the calculator, an underwriter simply enters all the data that is available at the time of underwriting. Clinical labels do not matter. There is no need to make value judgments regarding interactions between factors as the calculator does that behind the scenes. For example, a DNA viral load has priority over the various antigens or antibodies; a liver biopsy result takes precedence over non-invasive tests.

The calculator takes into account all the information and provides the appropriate rating. In addition, it provides an evaluation of the clinical status of the case, for example, whether the applicant is a carrier, untreated or unsuccessfully treated, successfully treated, therapy

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completed, etc. In some cases, when the entered information is conflicting (e antigen positive but viral DNA undetectable) or the risk is uncertain, the action is to refer to medical director (RMD).

Information boxes in the calculator provide a list of treatments for hepatitis B with generic and brand names, details on viral DNA levels, a list of areas endemic for hepatitis B, test thresholds that indicate moderate or more fibrosis on Fibroscan and Fibrosure tests and values for serum albumin, prothrombin time and serum total cholesterol indicating reduced synthetic function.

After extensive internal testing with positive feedback, we are excited to bring a new tool to the life underwriting market. The newly created hepatitis B calculator is available now to all hr | Ascent users. It was designed by Hannover Re's leading medical experts as a resource that hr | Ascent users can leverage to underwrite hepatitis B faster, clearly and more consistently than referencing standard text-based guidelines. As we launch this new calculator and continue to develop innovative tools in hr | Ascent for the benefit of our clients and all hr | Ascent users, we welcome your feedback to help Hannover Re optimize our underwriting manual and deliver valuable solutions to the market.

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