Aim: To evaluate the positive predictive value of the NS3 HCV epitope in 2 sub-populations of Malian women. Patients and Methods: two prospective studies were held in Bamako (Malian capital). They concerned 1000 pregnant women selected between May 26th and Jun 16th 2009 in six reference health centers and 231 women > 50 years old who frequented the general practitioners in two hospital between October 25 and December 24th 2010. Blood collection and samples preparation/storage were performed in good conditions. HCV screening was performed by using Monolisa Ab/Ag Ultra and Innotest Ab IV. HCV-LIA was used as confirmation test. PCR HCV-RNA analysis and LiPA Genotyping Assay were performed. Results: Among 17 HCV-LIA positive profiles, NS3, C1 and C2 were clearly predominant (94.1%, 94.1% and 88.2%). There was an obvious association between the intensity of the NS3 HCV band and HCV viraemia and this association was highly significant when the NS3 intensity band was $\geq 3$ ($P < 0.001$) and then between HCV viraemia and the coexistence of HCV C1/NS3 bands when the band intensity was $> 2$ ($P < 0.01$). One sample with a TR $> 5$ with both HCV EIA tests exhibited an isolated NS3 band ($4+$) was concluded as “indeterminate” according to the manufacturers’recommendations but was however found PCR(+). Conclusion: These results indicate that intense reactivity on the NS3 epitope of the HCV-LIA is predictive of HCV viraemia; this also support the hypothesis that reactivity of isolated NS3 band intensity $\geq 0.5$ may be indicative of HCV seroconversion.