Appendix 1: Questionnaire of chronic hepatitis B disease for the clinical trial registered in the Chinese Clinical Trial Register [ChiCTR-DCD-15006000]

Identification Number: _________________________________
Time of enrollment (DD/MM/YY): ______________________

Part 1. Socio-demographic characteristics of the participants:
1.1 Name: _____________; Age: _____________ in years.
1.2 Gender: male/female
1.3 Date of birth (DD/MM/YY): ______________________
1.4 Occupation: Employed, specify ________________; Unemployed ______________
1.5 Address: City __________________; Sub-city _______________; Woreda ________________
1.6 Phone number 1: _____________; Phone number 2: _____________
1.7 Education status: illiteracy [1]/primary school [2]/middle school [3]/junior college [4]/university and above [5]
1.8 Family's monthly income: __________________________
1.9 Number of family members: __________________________

Part 2. Diagnosis at the first interview:
2.1 HBV DNA positive: Yes/No. If yes, when was it diagnosed? _______________ weeks. The name of health center at diagnosis _______________, HBV DNA level _______________
2.2 HBsAg positive: Yes/No. If yes, when was it diagnosed? _______________ weeks. The name of health center at diagnosis _______________, HBsAg level _______________
2.3 Hepatic decompensation. Yes/No, gastric or esophageal varices bleeding, spontaneous bacterial peritonitis, hepatic encephalopathy, hepatopulmonary syndrome, hepatorenal syndrome, liver failure. If yes, when was it diagnosed? _______________ weeks. The name of health center at diagnosis _______________
2.4 Hepatocellular carcinoma Yes/No. If yes, when was it diagnosed? _______________ weeks. The name of health center at diagnosis _______________

Part 3. Medical history:
3.1 History of present illness: _____________________________________________________________________
If yes, when was it diagnosed? _______________ weeks. The name of health center at diagnosis _______________
3.2 Previous medical history: ______________________________________________________________________
If yes, when was it diagnosed? _______________ weeks. The name of health center at diagnosis _______________
3.3 The drug was taking _______________
3.4 The history of surgery and blood transfusion: __________________________
3.5 The history of drinking: never/occasionally/frequently, drinking for _______ years, _______ g alcohol/week, abstinence for _______ years
3.6 The history of smoking: never/have (<10 cigarettes a day/10–20 cigarettes a day/>20 cigarettes a day), smoking for _______ years, quitting for smoking for _______ years
3.7 Family history:
   Hepatitis B: Yes/No, father/mother/brothers and sisters/children _______________
   Fatty liver: Yes/No, father/mother/brothers and sisters/children _______________
   Obesity: Yes/No, father/mother/brothers and sisters/children _______________
   Hypertension: Yes/No, father/mother/brothers and sisters/children _______________
   Diabetes mellitus: Yes/No, father/mother/brothers and sisters/children _______________
   Coronary heart disease: Yes/No, father/mother/brothers and sisters/children _______________
   Others: _______________
Part 4. Anthropometric indices:

4.1 Blood pressure _____/_____/________mmHg (left/right arm) ____________ Time
4.2 Height _____cm; Weight _____kg; BMI (body mass index) = weight (kg)/height (m²) = ________
4.3 Waist circumference _____cm; Abdomen circumference _____cm; Hip circumference _____cm; Waist-hip ratio _____
4.4 Grip _____kg

Figure S1 Representative images of two-dimensional shear-wave elastography (2D-SWE) exhibit liver stiffness measurements in a 65-year-old female with decompensated cirrhosis caused by chronic hepatitis B. Rectangular elasticity box (4 cm × 3 cm) was placed 1–2 cm under liver capsule in parenchyma area free of large vessels. Circular region of interest was 2 cm in diameter and was positioned in center of 2D-SWE elasticity box possibly. The operators aimed to achieve homogeneous color filling of the SWE ROI placed on the most homogeneous, stable elastogram area. (A) Before antiviral treatments; (B) increased liver stiffness after antiviral treatment for 3 years. Representative images of 2D-SWE exhibit liver stiffness measurements in another 58-year-old female; (C) before antiviral treatments; (D) decreased liver stiffness after antiviral treatment for 1 year.

Figure S2 The cumulative rates of remaining free from the occurrence liver related events in Chronic hepatitis B related decompensated cirrhosis. The two dashed lines represent the 95% confident interval of the survival curves.
## Table S1 Characteristics of patients with HBV-related decompensated cirrhosis at the last measurement of 2D-SWE and serum fibrosis markers

| Characteristic                          | Without liver-related events developed after follow-up (N=96) | With liver-related events developed after follow-up (N=53) | P value |
|-----------------------------------------|---------------------------------------------------------------|------------------------------------------------------------|---------|
| HBV DNA >20 IU/mL, %                    | 0                                                             | 1.9                                                        | 0.600   |
| HBeAg positive, %                       | 20.8                                                          | 30.2                                                       | 0.120   |
| HBsAg, log_{10} IU/mL                   | 2.6±1.1                                                       | 2.4±1.2                                                    | 0.320   |
| Time to HBV virus control, months       | 6.8±4.2                                                       | 7.2±5.5                                                    | 0.220   |
| AFP, ng/mL                              | 5.1 (2.9–14.3)                                                | 6.0 (3.3–10.8)                                             | 0.330   |
| ALT, IU/L                               | 26.0 (19.0–34.0)                                             | 29.0 (22.0–36.0)                                           | 0.097   |
| AST, IU/L                               | 26.5 (22.0–35.2)                                             | 35.0 (25.8–52.0)                                           | 0.088   |
| GGT, IU/L                               | 28.5 (22.0–43.5)                                             | 45.0 (27.0–70.0)                                           | 0.010   |
| ALP, IU/L                               | 79.7±25.2                                                    | 83.4±61.0                                                  | 0.076   |
| Albumin, mg/L                           | 33.9±6.2                                                     | 32.1±7.8                                                   | 0.960   |
| Globulin, mg/L                          | 28.8±4.9                                                     | 30.1±10.0                                                  | 0.240   |
| Total bilirubin, μmol/L                 | 16.7 (11.2–21.7)                                             | 22.1 (12.1–33.9)                                           | 0.052   |
| Creatinine, μmol/L                      | 81.5 (60.4–103.6)                                            | 110.8 (64.3–138.4)                                         | 0.088   |
| Platelets, 10^3/μL                      | 155.0±83.1                                                   | 130.9±77.1                                                 | 0.670   |
| Prothrombin activity, %                 | 93.2±16.7                                                    | 78.1±22.6                                                  | 0.053   |
| Serum fibrosis markers                  |                                                               |                                                            |         |
| Fibronecin, mg/L                        | 178.6±31.9                                                   | 180.1±33.0                                                 | 0.820   |
| HA, ng/mL                               | 91.8 (33.0–174.3)                                            | 103.8 (37.5–169.7)                                         | 0.110   |
| PIIINP, ng/mL                           | 6.1±2.5                                                      | 8.5±3.7                                                    | <0.001  |
| LN, ng/mL                               | 64.2±33.5                                                    | 101.2±55.3                                                 | <0.001  |
| CIV, ng/mL                              | 48.6±29.4                                                    | 84.2±58.7                                                  | <0.001  |
| HP, g/L                                 | 0.6±0.4                                                      | 0.5±0.4                                                    | 0.160   |
| 2D-SWE, kPa                              | 11.8±6.6                                                     | 16.8±9.0                                                   | <0.001  |

Normally and non-normally distributed variables were expressed as mean ± standard deviation or median (25–75% quantiles), respectively. 2D-SWE, two-dimensional shear wave elastography; AFP, alpha-fetoprotein; ALP, alkaline phosphatase; ALT, alanine aminotransferase; AST, aspartate transaminase; BMI, body mass index; CIV, collagen type IV; GGT, glutamyl transferase; HA, hyaluronic acid; HBeAg, hepatitis B envelope antigen; HBsAg, hepatitis B surface antigen; HBV, hepatitis B virus; HP, haptoglobin; LN, laminin; LRE, liver-related event; PIIINP, procollagen III amino terminal propeptide.