**Supplementary Table 3. Demographic characteristics and clinical features of the training group and three validation groups**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Training group** **(n = 227)** | **Internal****validation group****(*n =*212)** | **External****validation group****(n = 84)** | **Prospective validation group****(n = 96)** | ***p-*value** |
| Age (yr) | 40.68 ± 10.43 | 40.38 ± 9.66 | 39.25 ± 10.46 | 39.35 ± 10.51 | 0.583 |
| Male, *n* (%) | 154 (67.8) | 143 (67.5) | 48 (57.1) | 54 (56.3) | 0.080 |
| BMI (kg/m2)  | 22.85 ± 2.37 | 22.72 ± 2.06 | 22.23 ± 3.00 | 22.94 ± 3.21 | 0.206 |
| TBIL (μmoL/L)  | 13.94 ± 6.49 | 15.43± 7.20 | 14.27 ± 5.82 | 14.10 ± 4.38 | 0.083 |
| ALB (g/L) | 43.42 ± 4.46 | 44.16 ± 3.06 | 44.29 ± 5.69 | 43.17 ± 2.20 | 0.062 |
| GLOB (g/L) | 28.57 ± 4.41 | 29.61 ± 4.44 | 29.28 ± 5.03 | 28.64 ± 3.83 | 0.072 |
| ALT (IU/L)  | 27.53 ± 8.33 | 25.56 ± 7.66 | 26.10 ± 5.50 | 26.53 ± 6.84 | 0.053 |
| AST (IU/L)  | 24.67 ± 5.78 | 23.98 ± 5.15 | 24.01 ± 4.92 | 24.23 ± 6.86 | 0.590 |
| GGT (IU/L) | 29.21 ± 13.17 | 26.10 ± 21.49 | 24.38 ± 26.49 | 23.96 ± 13.43 | 0.053 |
| ALP (IU/L) | 75.02 ± 21.63 | 69.99 ± 34.40 | 73.24 ± 20.70 | 69.54 ± 21.33 | 0.091 |
| PLT (109/L)  | 199.95 ± 51.09 | 210.04 ± 49.13 | 201.04 ± 49.86 | 211.32 ± 41.45 | 0.066 |
| HBsAg(log IU/mL) | 3.40 ± 1.03 | 3.10 ± 1.26 | 3.31 ± 0.99 | 3.40 ± 1.11 | 0.023 |
| HBeAg positive (%) | 105 (46.3) | 57 (26.9) | 34 (40.5) | 43 (44.8) | 0.001 |
| HBV DNA (logIU/mL) | 4.55 ± 2.21 | 3.93 ± 2.08 | 4.67 ± 1.98 | 4.66 ± 1.97 | 0.002 |
| PT (s) | 12.34 ± 0.90 | 12.77 ± 0.90 | 12.49 ± 0.84 | 12.53 ± 0.85 | 0.051 |
| LSM (kPa) | 7.54 ± 3.59 | 7.57 ± 3.79 | 6.75 ± 3.46 | 7.17 ± 3.63 | 0.275 |
| Inflammation1, *n* (%) |  |  |  |  | 0.068 |
| A0–1/A2/A3  | 119 (52.4)/95 (41.9) /13 (5.7) | 108 (50.9)/94 (44.3) /10 (4.7) | 47 (56.0)/32 (38.1) /5 (6.0) | 54 (56.3)/35 (36.5) /7 (7.3) |  |
| A ≥ 2 | 108 (47.6) | 104 (49.1) | 34 (40.5) | 42 (43.8) | 0.536 |
| Fibrosis stage1, *n* (%) |  |  |  |  | 0.051 |
| F0–1 / F2/ F3 / F4  | 125 (55.1)/55 (24.2) /31 (13.7)/16 (7.0) | 122 (57.5)/69 (32.5) /14 (6.6)/7 (3.3) | 44 (52.4)/20 (23.8) /7 (8.3)/13 (15.5) | 57 (59.4)/26 (27.1) /8 (8.3)/5 (5.2) |  |
| F ≥ 2 | 102 (44.9) | 90 (42.5) | 40 (47.6) | 39 (40.6) | 0.761 |

1According to METAVIR system, liver inflammation activity grade ranged from 0 to 3, and liver fibrosis stage ranged from 0 to 4. ALT, alanine aminotransferase; AST, aspartate aminotransferase; ALP, alkaline phosphatase; ALB, albumin; BMI, body mass index (kg/m2); GGT, gamma-glutamyl transpeptidase; GLOB, globulin; HBV, hepatitis B virus; HBsAg, hepatitis B surface antigen; HBeAg, hepatitis B envelope antigen; LSM, liver stiffness measurements; PLT, platelet count; PT, prothrombin time; TBIL, total bilirubin.