Supplementary table 1: Calculations of steatosis indices

Steatosis indices	Formulae
FLI [1]	$(e^{0.953 \times \text{Loge (triglyceride, mg/dL)} + 0.139 \times \text{BMI (kg/m2)} + 0.718 \times \text{Loge (GGT, U/L)} + 0.053 \times \text{waist circumference (cm)} - 15.745})/ (1 + e^{0.953 \times \text{Loge (triglyceride, mg/dL)} + 0.139 \times \text{BMI (kg/m2)} + 0.718 \times \text{Loge (GGT, U/L)} + 0.053 \times \text{waist circumference (cm)} - 15.745}) \times 100$
FSI [2]	x = -7.981 + 0.011 × age (years) − 0.146 × sex (female=1, male=0) + 0.173 × BMI (kg/m2) + 0.007 × triglycerides (mg/dl) + 0.593 × hypertension (yes=1, no=0) + 0.789 × diabetes (yes=1, no=0) + 1.1 × ALT/AST ratio ≥ 1.33 (yes=1, no=0); predicted risk = $e^x/(1+e^x)$
ZJU [3]	BMI (kg/m2) + Fasting glucose (mmol/L) + triglyceride (mmol/L) + (3 × ALT/AST Ratio) (+2, If Women)
LAP [4]	(waist circumference, cm − 58) × (triglyceride, mmol/L for Women); (waist circumference, cm − 65) × (triglyceride, mmol/L for Men)
HSI [5]	8 × (ALT/AST Ratio) + BMI (kg/m2) (+2, If Women; +2, If diabetes)
VAI [6]	[waist circumference, cm /(39.68 + 1.88 × BMI, kg/m2)] × (triglyceride, mmol/L /1.03) × (1.31/HDL, mmol/L) for Men; [waist circumference, cm /(36.58 + 1.89 × BMI, kg/m2)] × (triglyceride, mmol/L /0.81) × (1.52/HDL, mmol/L) for Women

Notes: BMI: body mass index; GGT: gamma-glutamyl-transferase; ALT: alanine aminotransferase; AST: aspartate aminotransferase; HDL: high-density lipoprotein; FLI: fatty liver index; FSI: Framingham Steatosis Index; ZJU, Zhejiang University index; LAP, lipid accumulation product; HSI: hepatitis steatosis index; VAI: visceral adiposity index

References

1. Bedogni, G., Bellentani, S., Miglioli, L., Masutti, F., Passalacqua, M., Castiglione, A., *et al*. The Fatty Liver Index: a simple and accurate predictor of hepatic steatosis in the general population. BMC Gastroenterol. 2006;6:33.

2. Long, M. T., Pedley, A., Colantonio, L. D., Massaro, J. M., Hoffmann, U., Muntner, P., *et al*. Development and Validation of the Framingham Steatosis Index to Identify

Persons With Hepatic Steatosis. Clin Gastroenterol Hepatol. 2016;14(8):1172-1180.e2.

3. Wang, J., Xu, C., Xun, Y., Lu, Z., Shi, J., Yu, C., *et al*. ZJU index: a novel model for predicting nonalcoholic fatty liver disease in a Chinese population. Sci Rep. 2015;5:16494.

4. Kahn HS. The "lipid accumulation product" performs better than the body mass index for recognizing cardiovascular risk: a population-based comparison [published correction appears in BMC Cardiovasc Disord. 2006;6:5]. BMC Cardiovasc Disord. 2005;5:26.

5. Lee, J. H., Kim, D., Kim, H. J., Lee, C. H., Yang, J. I., Kim, W., *et al*. Hepatic steatosis index: a simple screening tool reflecting nonalcoholic fatty liver disease. Dig Liver Dis. 2010;42(7):503-508.

6. Amato, M. C., Giordano, C., Galia, M., Criscimanna, A., Vitabile, S., Midiri, M., *et al*. Visceral Adiposity Index: a reliable indicator of visceral fat function associated with cardiometabolic risk. Diabetes Care. 2010;33(4):920-922.