

The Fatty Liver Assessment in Germany (FLAG) cohort study identifies large heterogeneity in NAFLD care

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Table S1. Overview of the investigated non-invasive fibrosis markers

Test	Calculation method	Upper cutoff	Lower cutoff	Reference
NFS	$-1.675 + 0.037 \times \text{age}(\text{years}) + 0.094 \times \text{BMI}(\text{kg}/\text{m}^2) + 1.13 \times \text{diabetes}(\text{yes}=1) + 0.99 \times \text{AST}/\text{ALTRatio} - 0.013 \times \text{platelet}(\times 10^9/\text{l}) - 0.66 \times \text{albumin}(\text{g}/\text{dl})$	0.676 irrespective of age	-1.455	[1]
FIB-4 score	Age x AST/platelet count ($\times 10^9/\text{l}$) x radical(ALT)	2.67 3.25 3.25	1.3 1.3 1.45	[2] [3] [4]
APRI	$[(\text{AST}/\text{ULN AST}) / \text{Platelets}(\times 10^9/\text{l})] \times 100$	1.5	0.5	[5]

- [1] Angulo P, Hui JM, Marchesini G, Bugianesi E, George J, Farrell GC, et al. The NAFLD fibrosis score: a noninvasive system that identifies liver fibrosis in patients with NAFLD. *Hepatology* 2007;45:846-854.
- [2] Shah AG, Lydecker A, Murray K, Tetri BN, Contos MJ, Sanyal AJ, et al. Comparison of noninvasive markers of fibrosis in patients with nonalcoholic fatty liver disease. *Clinical gastroenterology and hepatology : the official clinical practice journal of the American Gastroenterological Association* 2009;7:1104-1112.
- [3] McPherson S, Stewart SF, Henderson E, Burt AD, Day CP. Simple non-invasive fibrosis scoring systems can reliably exclude advanced fibrosis in patients with non-alcoholic fatty liver disease. *Gut* 2010;59:1265-1269.
- [4] Sterling RK, Lissen E, Clumeck N, Sola R, Correa MC, Montaner J, et al. Development of a simple noninvasive index to predict significant fibrosis in patients with HIV/HCV coinfection. *Hepatology* 2006;43:1317-1325.
- [5] Wai CT, Greenson JK, Fontana RJ, Kalbfleisch JD, Marrero JA, Conjeevaram HS, et al. A simple noninvasive index can predict both significant fibrosis and cirrhosis in patients with chronic hepatitis C. *Hepatology* 2003;38:518-526.

Table S2. Baseline characteristics and demographics according to health care level

	office-based practice (n=360)	academic site (n=147)
gender (men)	191 (53%)	78 (53%)
age (years)	52.6 ± 13.8	53.7 ± 13.7
BMI	30.6 ± 5.2	31.6 ± 5.5
T2DM (%)	25%	45%
Arterial hypertension	49%	61%
Former CVE	4%	11%
LSM (kPa, n=251)	9.7 ± 10.1	10.6 ± 10.4
no significant fibrosis (<8.2kPa)	117 (66%)	49 (65%)
indeterminate (8.2 – 9.6kPa)	12 (7%)	5 (7%)
advanced fibrosis (>9.6kPa)	47 (27%)	21 (28%)
FIB-4 (upper cut off >2.67, n=507)		
no significant fibrosis	234 (65%)	90 (61%)
indeterminate	89 (25%)	41 (28%)
advanced fibrosis	37 (10%)	16 (11%)
NAFLD fibrosis score		
no significant fibrosis	123 (53%)	11 (8%)
indeterminate	66 (28%)	44 (33%)
advanced fibrosis	44 (19%)	78 (59%)

Data shown as mean unless indicated otherwise. LSM, liver stiffness measurement; T2DM, type 2 diabetes mellitus; CVE, cardiovascular event. LSM were available in 176 and 75 patients from office-based practices and academic sites, respectively. The NAFLD fibrosis score was available in 233 and 133 from office-based practices and academic sites, respectively.



Fig. S1. Shows sites across Germany and gives information about secondary (private practice) and tertiary (academic site) health care level as well as the total number of patients included for the present analysis per site.