

Quantification of alcohol intake in patients with steatotic liver disease and excessive alcohol intake

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Table S1 Self-reported alcohol intake interview

GALA-RIF trial:
How many years have you had an excessive use of alcohol?*(1-5/6-10/11-20/21-30/+30)
Have you stopped drinking alcohol? (≥6 months).....(Yes/No)
If no, how much alcohol do you drink at the moment? (Units/day)** (Number)
ReFerm trial:
How many years have you had an excessive use of alcohol?* (Number)
Have you stopped drinking alcohol? (≥6 months).....(Yes/No)
If no, how much alcohol have you been drinking the last week? (Units/week)**(Number)

*Only asked at baseline.

** Categorized as abstinence ≥ 1 week, if zero consumption is reported

Table S2 Baseline participant characteristic between trials			
	Total	GALA-RIF	GALA-POSTBIO
	N=192	N=136	N=56
Age at inclusion, years	60 (55-66)	58 (53-65)	63 (57-67)
Sex, male	161 (84%)	114 (84%)	47 (84%)
Body mass index, kg/m ²	29 (25-33)	29 (25-33)	30 (25-33)
Smoking			
<i>Never smoker</i>	51 (26%)	41 (30%)	10 (18%)
<i>Previous smoker</i>	67 (35%)	42 (31%)	25 (45%)
<i>Current smoker</i>	68 (35%)	53 (39%)	15 (27%)
<i>Missing</i>	6 (3%)		6 (11%)
Diabetes type 2, n	34 (17%)	25 (18%)	9 (16%)
Cardiometabolic risk factors*, n	186 (97%)	133 (98%)	53 (95%)
<i>BMI ≥ 25, n</i>	148 (77%)	106 (78%)	42 (75%)
<i>Insulin resistance, n</i>	153 (80%)	108 (79%)	45 (81%)
<i>Hypertension, n</i>	100 (52%)	66 (49%)	34 (61%)
<i>Hypertriglyceridemia, n</i>	150 (78%)	128 (94%)	22 (40%)
<i>HDL-hypocholesterolemia, n</i>	155 (81%)	127 (93%)	28 (60%)
Alanine transaminase (ALAT), U/L	35.0 (24.0-56.0)	39.0 (26.0-60.0)	30.5 (21.5-51.5)
Gamma-glutamyltransferase (GGT), U/L	115 (54.5-291.5)	101 (50-246)	146 (68-411)
Alkaline phosphatase, U/L	72.5 (55.5-95.0)	80.5 (67.0 -99.0)	38.0 (26.0-55.0)
Bilirubin, U/L	11 (7-15)	11 (7-14)	12 (8-19)
Platelets, 10 ⁹ /L	202 (165-244)	222 (180-257)	153.5 (121-194)
INR	1.0 (1.0-1.1)	1.0 (0.9-1.1)	1.1 (1.0-1.2)
Albumin, g/L	43 (41-46)	43 (41-46)	44 (41-46)
Kleiner fibrosis stage:			
<i>F0</i>	7 (3.6%)	7 (5.1%)	0 (0%)
<i>F1</i>	37 (19.3%)	37 (27.2%)	0 (0%)
<i>F2</i>	67 (34.9%)	63 (46.3%)	4 (7.1%)
<i>F3</i>	38 (19.8%)	23 (16.9%)	15 (26.8%)
<i>F4</i>	39 (20.3%)	6 (4.4%)	33 (58.9%)
<i>Missing</i>	4 (2.1%)	0	4 (7.1%)
Transient elastography (FibroScan), kPa	11.4 (7.9-18.4)	9.0 (6.6-12.1)	21.1 (15.5-35.0)
CAP score, dB/m	304 (±60.6)	309 (±60.3)	294 (±60.4)
Alcohol			
Abstinence for ≥ 6 months before inclusion, n	32 (20%)	16 (12%)	16 (64%)
Alcohol intake for non-abstinent, grams/day	42.9 (24.0-68.6)	48.0 (24.0-85.7)	36.0 (12.0-51.4)
Years of excessive alcohol intake:			
1-5 years	19 (9.9%)	16 (11.8%)	3 (5.4%)
6-10 years	28 (14.6%)	19 (14.0%)	9 (16.1%)
11-20 years	49 (25.5%)	38 (27.9%)	11 (19.6%)
21-30 years	40 (20.8%)	31 (22.8%)	9 (16.1%)
>30 years	47 (24.5%)	31 (22.8%)	16 (28.6%)
Missing	9 (4.7%)	1 (0.7%)	8 (14.3%)
Phosphatidylethanol, μmol/L	0.5 (0.0-1.3)	0.5 (0.1-1.5)	0.2 (0.0-1.0)
Carbohydrate-deficient transferrin, %CDT	1.9 (1.6-2.3)	1.9 (1.6-2.3)	n/a
Participants with valid Phosphatidylethanol at baseline, n	175 (91%)	122 (90%)	53 (95%)

Values are reported as mean ± standard deviation, counts (proportion), and median (IQR).
 *Cardiometabolic criteria as BMI ≥ 25 kg/m²; insulin resistance, fasting serum glucose ≥5.6 mmol/L or HbA1c ≥ 39 mmol/L or type 2 diabetes or treatment for type 2 diabetes; hypertension, blood pressure > 135/85 mmHg or antihypertensive drugs; hypertriglyceridemia, plasma triglycerides ≥1.70 mmol/L or lipid lowering treatment; hypercholesterolemia, Plasma HDL-cholesterol ≤ 1.0 mmol/L (male) and 1.3 mmol/L (female) or lipid lowering treatment. (3).
 Abbreviations: CAP, Controlled Attenuation Parameter; INR, international normalized ratio; n/a, not available.

Table S3 Agreement on abstinence between self-reported alcohol intake, PEth and CDT.

	Self-reported \geq 1 week abstinence	Self-reported \geq 6 months abstinence
PEth < 0.05	44 of 73 (60%)	27 of 32 (84%)
PEth \geq 0.05	29 of 73 (40%)	5 of 32 (16%)
CDT* < 1.7%	8 of 16 (50%)	18 of 40 (45%)
CDT* \geq 1.7%	8 of 16 (50%)	22 of 40 (55%)

*CDT measurements only available in GALA-RIF

Abbreviation: PEth, Phosphatidylethanol; CDT, Carbohydrate-deficient transferrin

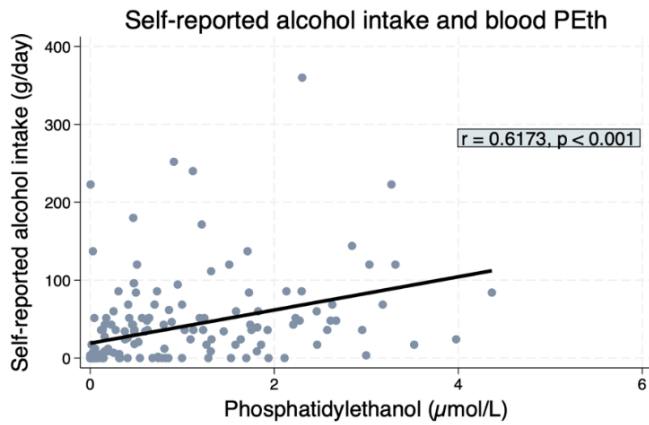
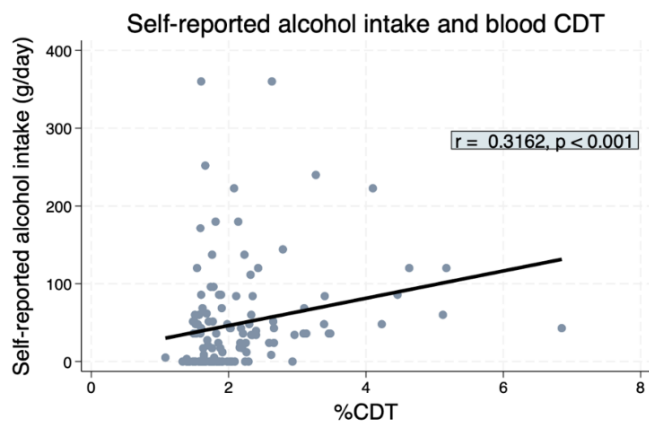
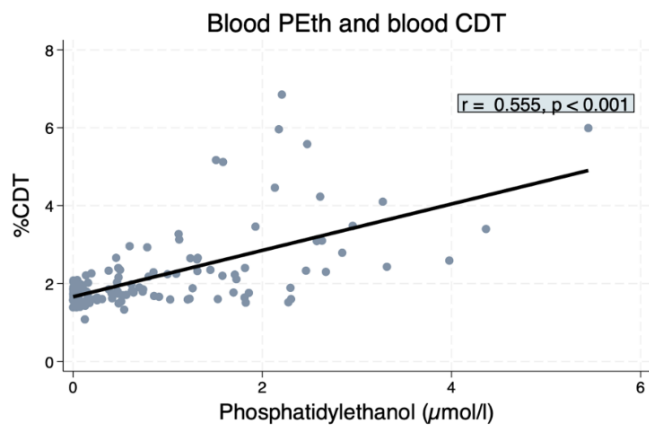
A**B****C**

Fig. S1: Self-reported alcohol intake and blood-based biomarkers of alcohol intake. A-C) Scatter-plots showing Spearman's correlation between (A) self-reported alcohol intake and PEth, (B) Self-reported alcohol intake and CDT, (C) PEth and CDT. Abbreviations: CDT, Carbohydrate-deficient transferrin; PEth, Phosphatidylethanol

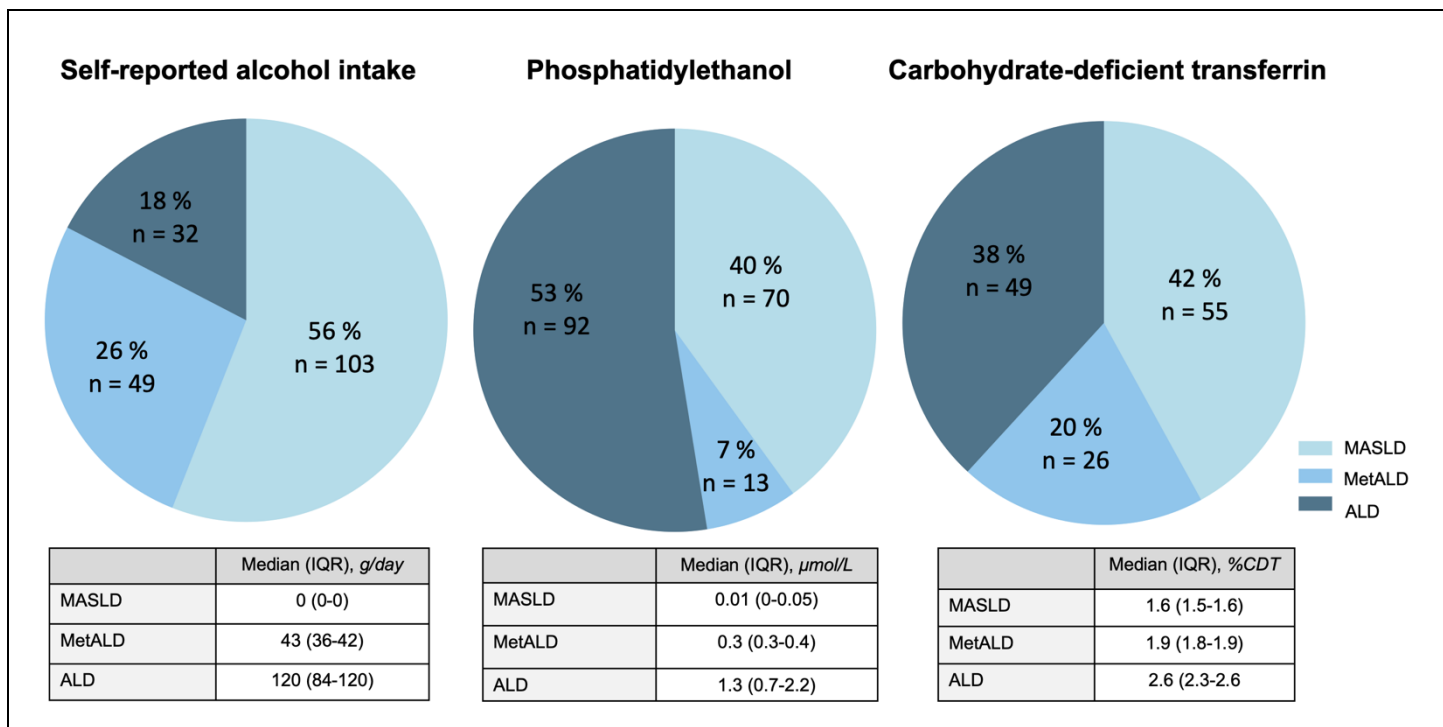


Fig. S2 Distribution of participants in the defined groups of each assessment of alcohol intake at baseline. Self-reported alcohol intake ($\frac{\text{g}}{\text{day}}$), $<20/30 / \geq 20-50/30-60 / >50/60$ g/day. Phosphatidylethanol $<0.21 / \geq 0.21-0.42 / >0.42$ $\mu\text{mol/L}$. Carbohydrate-deficient transferrin, $<1.78 / \geq 1.78-2.08 / >2.08$ %CDT.

Abbreviation: IQR, Interquartile range; ALD, alcohol-related liver disease; MetALD, metabolic dysfunction and ALD; MASLD, metabolic-dysfunction associated steatotic liver disease

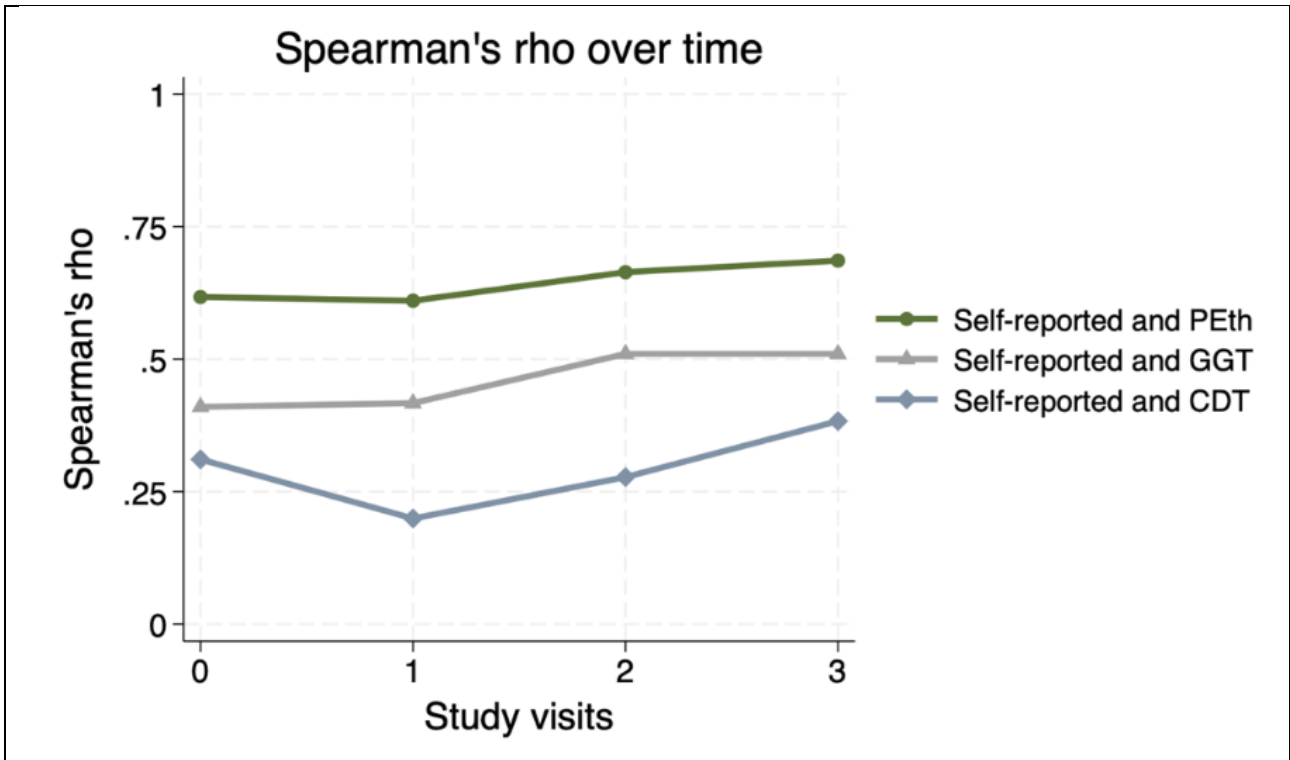


Fig. S3 Correlation over visits by Spearman's correlation between self-reported alcohol intake and PEth, self-reported alcohol intake and CDT and self-reported alcohol intake and GGT.
 Abbreviations: PEth, Phosphatidylethanol; CDT, Carbohydrate-deficient transferrin; GGT, Gamma-glutamyltransferase