Appendix Table 1. Comparison of summary statistics between first vs. second VCTE exam

	First exam	Second exam	Mean (First, Second) exam	Difference (First – Second) exam
LSM – kPa				
N	385	375	393	367
Mean	10.9	11.0	11.0	-0.2*
SD	10.9	11.4	11.0	4.4
CAP – dB/m				
N	358	352	358	352
Mean	319	320	319	0†
SD	50	52	48	36

*P-value from t-test of Difference=0 is 0.32

†P-value from t-test of Difference=0 is 0.97

Appendix Table 2. Comparison of diagnostic performance between first vs. second VCTE exam

Predictor	Outcome	AUROC		P-value
		First exam	Second exam	
LSM	Fibrosis stage 0 vs 1-4	0.74	0.76	0.72
	Fibrosis stage 0-1 vs 2-4	0.80	0.79	0.78
	Fibrosis stage 0-2 vs 3-4	0.84	0.83	0.70
	Fibrosis stage 0-3 vs 4	0.93	0.94	0.53
CAP	Steatosis grade 0 vs 1-3	0.78	0.76	0.86
	Steatosis grade 0-1 vs 2-3	0.70	0.68	0.64
	Steatosis grade 0-2 vs 3	0.61	0.56	0.25

Appendix Table 3. Linear regressions of Liver Stiffness Measurement (LSM) on NAFLD Activity Score (NAS) stratified by fibrosis stage

		kPa / NAS		
Fibrosis stage	**N**	**Slope**	**95% CI**	**P-value**
0	94	-1.7	-3.1, -0.3	0.02
1	99	0.6	0.1, 1.0	0.01
2	73	0.2	-0.4, 0.8	0.56
3	91	1.2	0.3, 2.2	0.01
4	36	-4.1	-7.8, -0.3	0.03

Note: P-value for test of interaction of fibrosis stage by NAS on LSM < 0.001

Appendix Table 4. Area under the receiver operating characteristic (AUROC) for liver stiffness measurement assessing fibrosis stage and controlled attenuation parameter assessing steatosis grade by body mass index* (BMI)

		AUROC			
Outcome	**Non-event vs event comparison**	**BMI < 30 kg/m^2**	**BMI ≥ 30 & < 35 kg/m^2**	**BMI ≥ 35 kg/m^2**	**P-value†**
Fibrosis stage		N=107	N=118	N=163	
	0 vs 1-4	0.75	0.81	0.68	0.22
	0-1 vs 2-4	0.80	0.84	0.72	0.08
	0-2 vs 3-4	0.89	0.85	0.77	0.06
	0-3 vs 4	0.96	0.91	0.94	0.50
Steatosis grade		N=104	N=104	N=145	
	0 vs 1-3	0.79	0.90	0.68	0.20
	0-1 vs 2-3	0.80	0.64	0.71	0.07
	0-2 vs 3	0.68	0.55	0.61	0.29

*5 participants had missing bmi data

†Based on test of equality of AUROCs across 3 bmi categories (ROC analysis of independent samples; Stata 15.1, 2017)

TRIPOD Checklist: Prediction Model Validation

Section/Topic	Item	Checklist Item	Page
Title and abstract			
Title	1	Identify the study as developing and/or validating a multivariable prediction model, the target population, and the outcome to be predicted.	1
Abstract	2	Provide a summary of objectives, study design, setting, participants, sample size, predictors, outcome, statistical analysis, results, and conclusions.	3
Introduction			
Background and objectives	3a	Explain the medical context (including whether diagnostic or prognostic) and rationale for developing or validating the multivariable prediction model, including references to existing models.	4-5
	3b	Specify the objectives, including whether the study describes the development or validation of the model or both.	5
Methods			
Source of data	4a	Describe the study design or source of data (e.g., randomized trial, cohort, or registry data), separately for the development and validation data sets, if applicable.	5-7
	4b	Specify the key study dates, including start of accrual; end of accrual; and, if applicable, end of follow-up.	6
Participants	5a	Specify key elements of the study setting (e.g., primary care, secondary care, general population) including number and location of centres.	6
	5b	Describe eligibility criteria for participants.	5-6
	5c	Give details of treatments received, if relevant.	n/a
Outcome	6a	Clearly define the outcome that is predicted by the prediction model, including how and when assessed.	7
	6b	Report any actions to blind assessment of the outcome to be predicted.	6
Predictors	7a	Clearly define all predictors used in developing or validating the multivariable prediction model, including how and when they were measured.	7-8
	7b	Report any actions to blind assessment of predictors for the outcome and other predictors.	n/a
Sample size	8	Explain how the study size was arrived at.	n/a
Missing data	9	Describe how missing data were handled (e.g., complete-case analysis, single imputation, multiple imputation) with details of any imputation method.	5-7
Statistical analysis methods	10c	For validation, describe how the predictions were calculated.	7
	10d	Specify all measures used to assess model performance and, if relevant, to compare multiple models.	7
	10e	Describe any model updating (e.g., recalibration) arising from the validation, if done.	n/a
Risk groups	11	Provide details on how risk groups were created, if done.	n/a
Development vs. validation	12	For validation, identify any differences from the development data in setting, eligibility criteria, outcome, and predictors.	n/a
Results			
Participants	13a	Describe the flow of participants through the study, including the number of participants with and without the outcome and, if applicable, a summary of the follow-up time. A diagram may be helpful.	7-8
	13b	Describe the characteristics of the participants (basic demographics, clinical features, available predictors), including the number of participants with missing data for predictors and outcome.	6-7
	13c	For validation, show a comparison with the development data of the distribution of important variables (demographics, predictors and outcome).	7-8
Model performance	16	Report performance measures (with CIs) for the prediction model.	8-11
Model-updating	17	If done, report the results from any model updating (i.e., model specification, model performance).	n/a
Discussion			
Limitations	18	Discuss any limitations of the study (such as nonrepresentative sample, few events per predictor, missing data).	13
Interpretation	19a	For validation, discuss the results with reference to performance in the development data, and any other validation data.	11-12
	19b	Give an overall interpretation of the results, considering objectives, limitations, results from similar studies, and other relevant evidence.	11-13
Implications	20	Discuss the potential clinical use of the model and implications for future research.	13
Other information			
Supplementary information	21	Provide information about the availability of supplementary resources, such as study protocol, Web calculator, and data sets.	n/a
Funding	22	Give the source of funding and the role of the funders for the present study.	2

We recommend using the TRIPOD Checklist in conjunction with the TRIPOD Explanation and Elaboration document.