

# Non-invasive tests (NITs) for detecting liver fibrosis resolution

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# MASLD & liver fibrosis

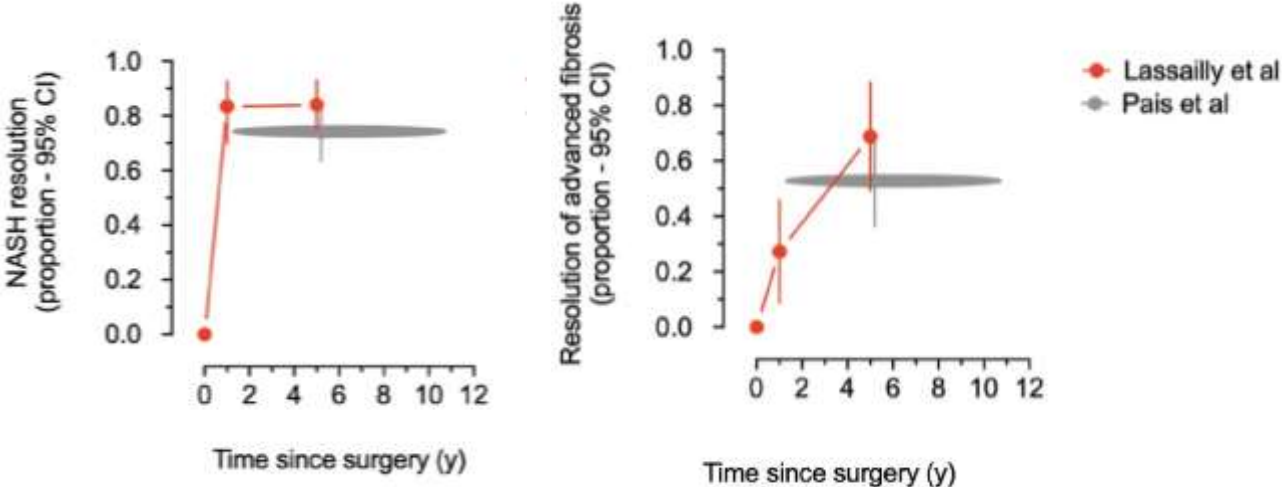


Biopsy-confirmed fibrosis ( $F \geq 2$ ) is associated with risk of **mortality** and **liver-related morbidity**

Taylor et al. *Gastroenterology* 2020

# Fibrosis resolution after bariatric surgery

5-year prospective cohort study with longitudinal histological results in 180 patients with biopsy proven NASH



Lassailly et al. *Gastroenterology* 2020

Pattou et al. *Hepatology* 2022

# Non invasive tests & fibrosis resolution ?

NFS, NAFLD fibrosis score.

FIB-4, Fibrosis-4 index;

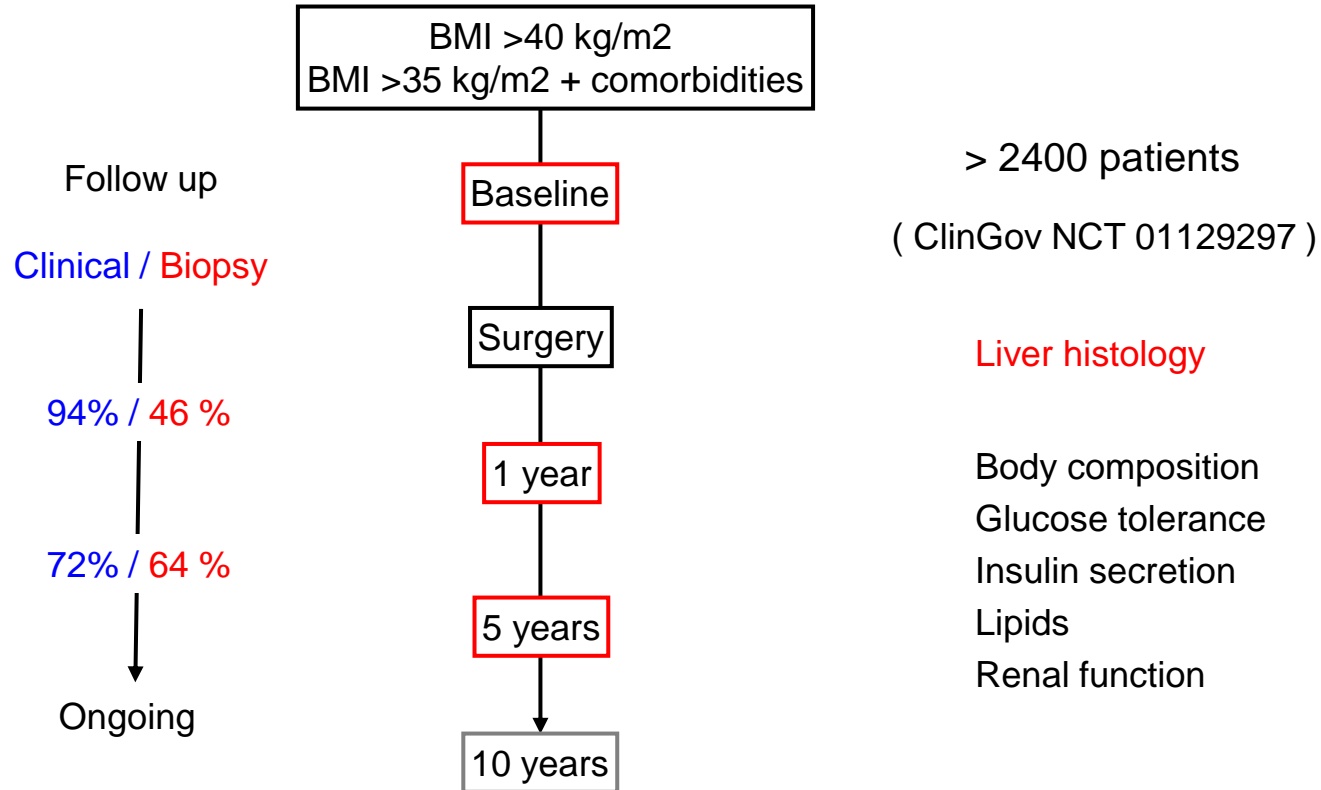
APRI, AST to platelet ratio index;

HFS, hepamet fibrosis index;

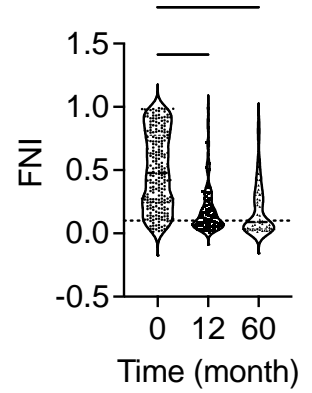
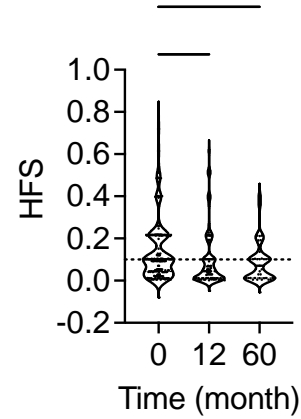
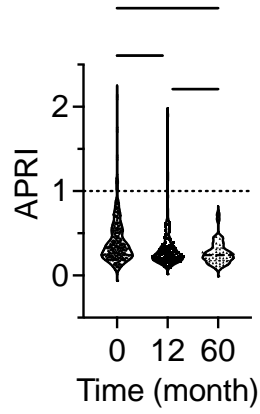
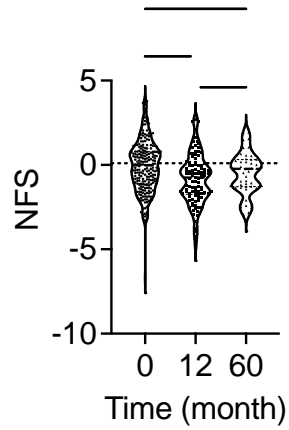
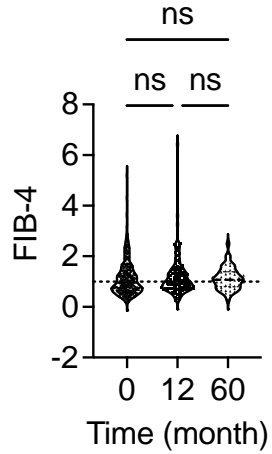
FNI, fibrotic NASH index;

Non-invasive test	FIB-4	NFS	APRI	HFS	FNI
First author, year of publication (# ref)	Sterling, 2006 (27)	Angulo, 2007 (28)	Wai, 2003 (29)	Ampuero, 2020 (30)	Tavaglione, 2023 (31)
Reference lower cut-off	1.3	-1.445	1	0.12	0.1
<b>Variables</b>					
Age	X	X		X	
Gender				X	
BMI		X			
AST	X	X	X	X	X
ALT	X	X			
Albumin		X		X	
Platelets	X	X	X	X	
HbA1c					X
Type 2 diabetes		X		X	
HOMA-IR				X	
HDL cholesterol					X

# Lille bariatric liver cohort



# NITs before and after surgery

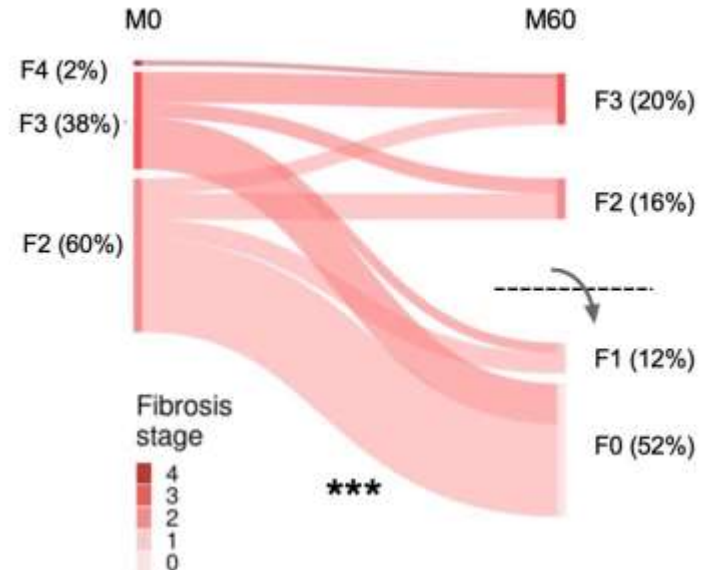
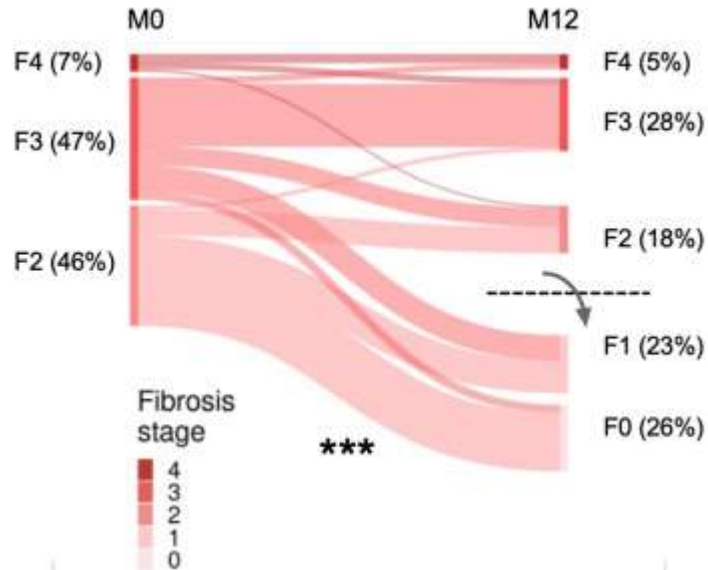


# Diagnosing significant fibrosis after surgery

Non-invasive tests	AUC M0	AUC M12	AUC M60
<b>FIB-4</b>	0.71 (0.67-0.74)	0.75 (0.69-0.80)	0.69 (0.59-0.80)
<b>NFS</b>	0.68 (0.64-0.72)	0.68 (0.61-0.75)	0.75 (0.67-0.83)
<b>APRI</b>	0.75 (0.72-0.79)	0.75 (0.69-0.80)	0.73 (0.61-0.84)
<b>HFS</b>	0.74 (0.70-0.78)	0.72 (0.64-0.80)	0.82 (0.74-0.91)
<b>FNI</b>	0.79 (0.76-0.82)	0.74 (0.68-0.80)	0.84 (0.77-0.92)

Numbers in brackets are 95% CI.

# Resolution of liver fibrosis (F $\geq$ 2)



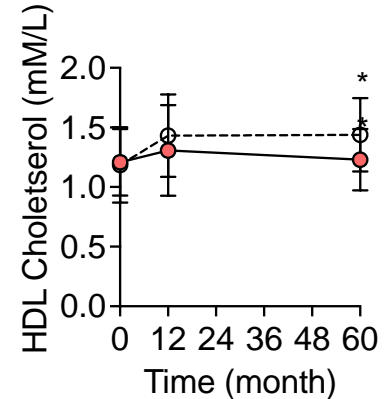
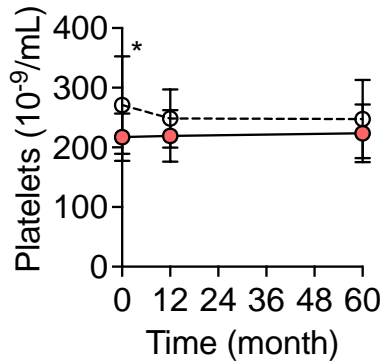
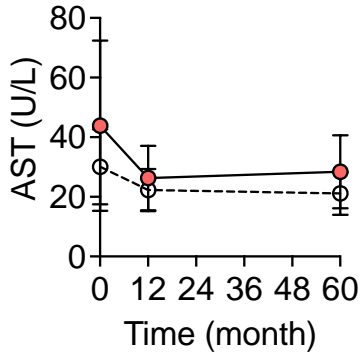
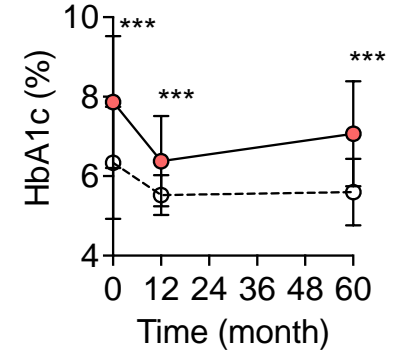
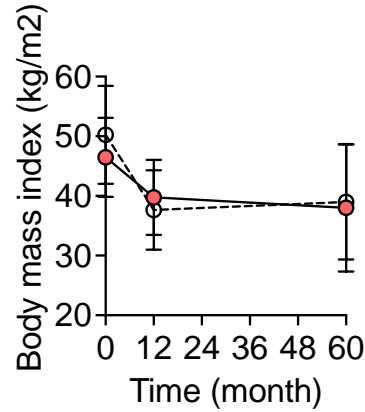
# NITs and resolution of significant fibrosis

Non-invasive tests	AUC M12	AUC M60
<b>FIB-4</b>	0.69 (0.59-0.78)	0.70 (0.54-0.85)
<b>NFS</b>	0.59 (0.47-0.70)	0.70 (0.55-0.85)
<b>APRI</b>	0.67 (0.58-0.77)	0.72 (0.57-0.87)
<b>HFS</b>	0.68 (0.57-0.69)	0.83 (0.71-0.96)
<b>FNI</b>	0.67 (0.56-0.77)	0.83 (0.71-0.95)

Numbers in brackets are 95% confidence intervals . *Abbreviations:* APRI, AST to platelet ratio index; AUC, area under the receiver operating characteristic curve; FIB-4, Fibrosis-4 index; FNI, fibrotic NASH index; HFS, hepamet fibrosis score; M12, 12-month; M60; 60-month; NFS, NAFLD fibrosis score.

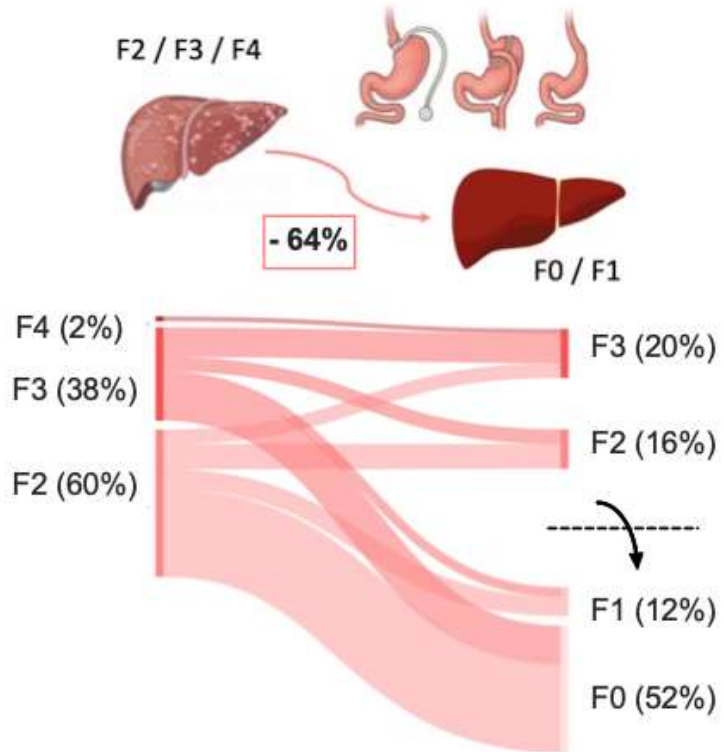
# Individual variables and fibrosis resolution

- No resolution
- Resolution

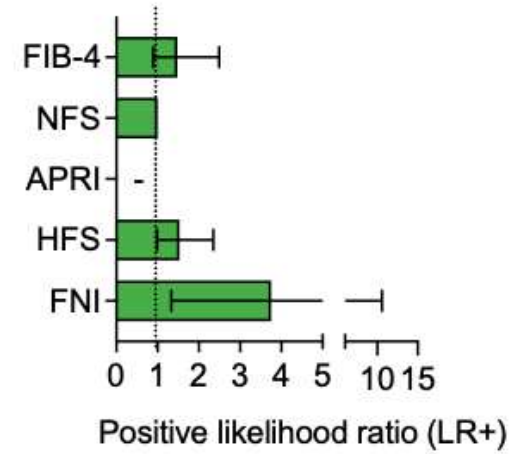


# Take home messages

## 5-year outcome of significant liver fibrosis after bariatric surgery



## Diagnosis of 5-year resolution of significant fibrosis with non invasive tests



# Thank you !

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Participants and researchers at the Lille open day in February

