

**Breakout Session I:
Diagnosis**

CASE SNAPSHOT

Ms. Sema

- 41-year-old female with PMHx of obesity who presents with elevated ALT
- BMI: 33 kg/m²
- US: shows fatty liver



Lab Values

ALT	44 U/L
AST	34 U/L
Platelets	313 × 10 ³ /mm ³

Does she have a high pre-test probability of MASH with fibrosis stage F2 or higher?



CASE SNAPSHOT

Mr. O'liver

- 29-year-old male with no significant PMHx presents to your office for a free FibroScan test that you offer
- BMI: 46.3 kg/m²



Lab Values

ALT	21 U/L
AST	13 U/L
Platelets	401 × 10 ³ /mm ³

Liver Assessments

VCTE	
CAP	392 (S3)
LSM	21 kPa (F4)
IQR	27%

What would you do next?



CASE SNAPSHOT

Ms. Tina

- 61-year-old Hispanic female with T2DM and obesity who presents for elevated liver enzymes
- Anti-hyperglycemic medication: semaglutide
- Abdomen US: smooth liver with normal spleen size



Lab Values

ALT	71 U/L
AST	56 U/L
Platelets	$265 \times 10^3/\text{mm}^3$

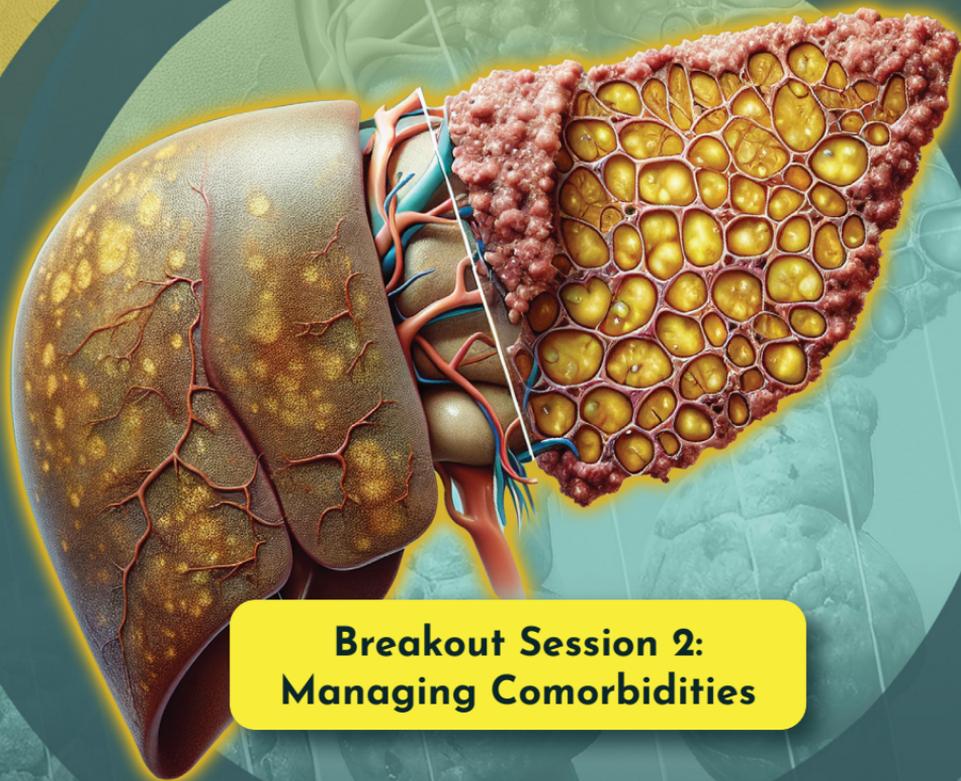
Liver Assessments

FIB4	1.53
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What would you do next?



Managing Comorbidities



Breakout Session 2: Managing Comorbidities

CASE SNAPSHOT



Mr. Jones

- 48-year-old male with dyslipidemia, obesity, and family history of CVD
- Told for many years that he needs to lose weight
- No significant alcohol use: max. 1-2 beers/week
- Current medications: none
- BMI: 36.2 kg/m²

Lab Values

ALT	64 U/L
AST	40 U/L
Platelets	310 × 10 ³ /mm ³

Lab Values

LDL	142 mg/dL
HDL	40 mg/dL
TG	190 mg/dL

- What would your first assessment be for this patient with risk factors for MASLD?
- What would you recommend as management?



CASE SNAPSHOT



Mr. Ramirez

- 52-year-old male
- PMHx: T2DM diagnosed 8 years ago, HTN, hyperlipidemia, Crohn's disease
- Medications: metformin, lisinopril, atorvastatin, adalimumab
- SH: rare EtOH use, nonsmoker
- No FH of liver disease
- BMI: 33 kg/m²

Lab Values

ALT	78 U/L
AST	62 U/L
AP	92 U/L
TB	0.8 mg/dL

Lab Values

LDL	139 mg/dL
HDL	36 mg/dL
TG	210 mg/dL
A1c	7.0%

- What additional workup would you do for this patient?**
- What weight loss targets would you recommend?**
- Would you recommend other medications to treat T2DM and obesity?**
- How often would you assess fibrosis risk?**



A1c: glycosylated hemoglobin; ALT: alanine aminotransferase; AP: alkaline phosphatase; AST: aspartate aminotransferase; BMI: body mass index; EtOH: alcohol; FH: family history; HDL: high-density lipoprotein; HTN: hypertension; LDL: low-density lipoprotein; PMHx: past medical history; SH: social history; T2DM: type 2 diabetes mellitus; TB: total bilirubin; TG: triglycerides.

CASE SNAPSHOT



Mr. Johnston

- 35-year-old male
- PMHx: OSA, GERD
- Medications: omeprazole
- SH: works in IT, sedentary, 1-2 beers/weekend, no smoking
- FH: T2DM
- BMI: 39 kg/m²
- Abdomen US: fatty infiltration of liver

Lab Values

ALT	42 U/L
AST	36 U/L
TB	0.6 mg/dL
A1c	5.7%

Lab Values

LDL	142 mg/dL
HDL	32 mg/dL
TG	240 mg/dL

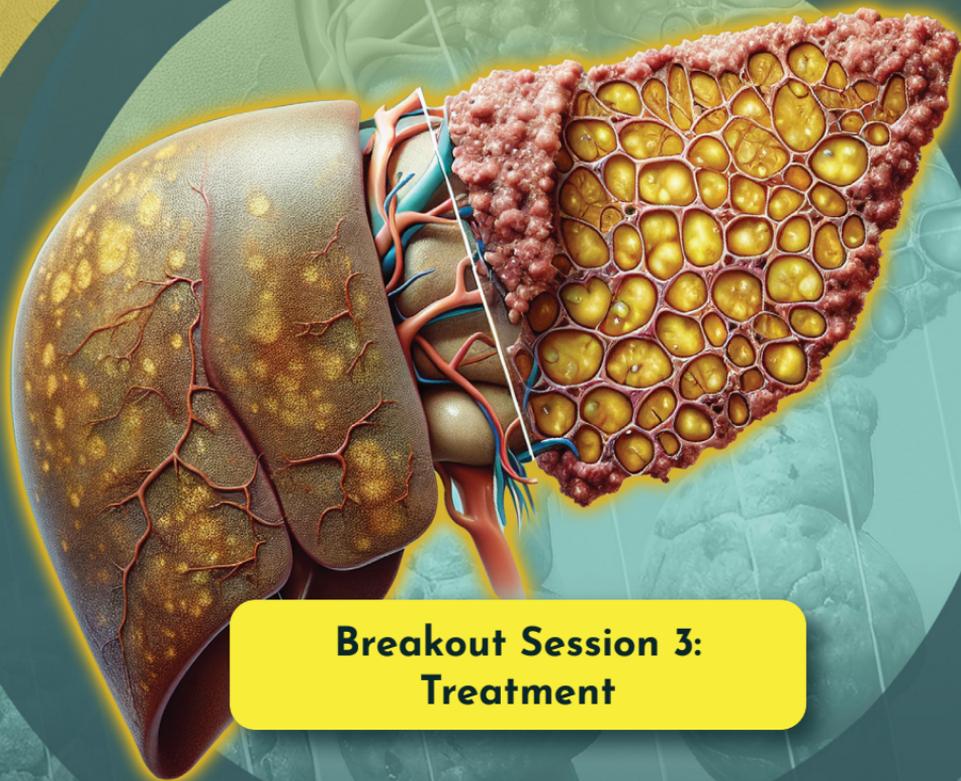
Liver Assessments

FIB4	0.8
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- Would you recommend elastography or further fibrosis assessment at this stage?
- How would you approach weight loss counseling and management?
- What do you recommend to reduce cardiovascular risk?



A1c: glycosylated hemoglobin; ALT: alanine aminotransferase; AST: aspartate aminotransferase; BMI: body mass index; FH: family history; FIB4: Fibrosis-4; GERD: gastroesophageal reflux disease; HDL: high-density lipoprotein; IT: information technology; LDL: low-density lipoprotein; OSA: obstructive sleep apnea; PMHx: past medical history; SH: social history; T2DM: type 2 diabetes mellitus; TB: total bilirubin; TG: triglycerides; US: ultrasound.



**Breakout Session 3:
Treatment**

CASE SNAPSHOT

Mrs. Layla

- 60-year-old female
- PMHx: prediabetes, hypothyroidism, osteoarthritis
- Medications/Supplements: levothyroxine, vitamin D
- EtOH: 2-3 glasses of wine/week
- FH: brother with cirrhosis from MASLD
- BMI: 26 kg/m²



Lab Values	
ALT	58 U/L
AST	52 U/L
Platelets	135 × 10 ³ /mm ³
TB	0.9 mg/dL
A1c	6.1%

Lab Values	
Lipids	128 mg/dL
TG	175 mg/dL

Liver Assessments	
VCTE	12 kPa
FIB4	3.2

- What specialists should be involved in the patient's care?
- How would you counsel this patient on alcohol use?
- Would you recommend pharmacologic treatment with semaglutide or resmetirom at this time?



A1c: glycosylated hemoglobin; ALT: alanine aminotransferase; AST: aspartate aminotransferase; BMI: body mass index; EtOH: alcohol; FH: family history; FIB4: Fibrosis-4; MASLD: metabolic dysfunction-associated steatotic liver disease; PMHx: past medical history; TB: total bilirubin; TG: triglycerides; VCTE: vibration-controlled transient elastography.

CASE SNAPSHOT

Ms. Tina

- 61-year-old Hispanic female with T2DM and obesity who presents for elevated liver enzymes
- Anti-hyperglycemic medication: semaglutide
- Abdomen US: smooth liver with normal spleen size



Lab Values

ALT	71 U/L
AST	56 U/L
Platelets	$265 \times 10^3/\text{mm}^3$

Liver Assessments

VCTE	
CAP	371 (S3)
LSM	16.4 kPa (F4)

Liver Assessments

FIB4	1.53
AGILE 4	0.21 (low probability for cirrhosis)
AGILE 3	0.86 (high probability for F3)
ELF	10.2

Given her ongoing liver abnormalities, what is your strategy for pharmacologic treatment?

- Optimize her semaglutide dose?
- Switch to or add on resmetirom?



ALT: alanine aminotransferase; AST: aspartate aminotransferase; CAP: controlled attenuation parameter; ELF: enhanced liver fibrosis; FIB4: Fibrosis-4; LSM: liver stiffness measurement; T2DM: type 2 diabetes mellitus; US: ultrasound; VCTE: vibration-controlled transient elastography.

CASE SNAPSHOT

Mr. Remy

- 61-year-old Hispanic male
- PMHx of T2DM, obesity, dyslipidemia, myocardial infarction 2 years ago (currently taking clopidogrel), and OSA
- He presents with elevated liver enzymes



Lab Values	
ALT	68 U/L
AST	65 U/L
Platelets	$387 \times 10^3/\text{mm}^3$

Liver Assessments	
FIB4	1.24 (low <1.3)
VCTE	
CAP	356 (S3)
LSM	12.1 kPa (F3)

Given the patient's metabolic profile (T2DM, obesity), CVD, and MASH with F3 fibrosis, what treatment options would you consider?

