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# Consensus Statements:

## Session 1—Screening and Surveillance

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## Definition of Compensated Advanced Chronic Liver Disease (cACLD)

- The introduction of transient elastography in clinical practice has allowed the early identification of patients with chronic liver disease (CLD) at risk of developing clinically significant portal hypertension (CSPH) (1b;A).
- For these patients, the alternative term “compensated advanced chronic liver disease (cACLD)” has been proposed to better reflect that the spectrum of severe fibrosis and cirrhosis is a continuum in asymptomatic patients and that distinguishing between the two is often not possible on clinical grounds (5; D).
  - Currently, both terms “cACLD” and “compensated cirrhosis” are acceptable (5; D).
  - Patients with suspicion of cACLD should be referred to a liver disease specialist for confirmation, follow-up, and treatment (5;D).

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## Criteria to Suspect cACLD

- Liver stiffness by transient elastography is sufficient to suspect cACLD in asymptomatic subjects with known causes of CLD (1b;A).
- Transient elastography often has false-positive results; hence, 2 measurements on different days are recommended in fasting conditions (5;D).
- TE values <10 kPa in the absence of other known clinical signs rule out cACLD; values between 10 and 15 kPa are suggestive of cACLD but need further test for confirmation; values >15 kPa are highly suggestive of cACLD (1b;A).

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## Criteria to Confirm cACLD

- Invasive methods are employed in referral centers in a stepwise approach when the diagnosis is in doubt or as confirmatory tests.
- Methods and findings that confirm the diagnosis of cACLD are:
  - Liver biopsy showing severe fibrosis or established cirrhosis (1a;A); collagen proportionate area (CPA) measurement on histology provides quantitative data on the amount of fibrosis and holds prognostic value (2b;B), and its assessment is recommended (5;D).
  - Upper GI endoscopy showing gastroesophageal varices (1b;A).
  - Hepatic venous pressure gradient (HVPG) measurement; values >5 mmHg indicate sinusoidal portal hypertension (1b;A).

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## **Diagnosis of Clinically Significant Portal Hypertension (CSPH) in Patients with cACLD**

- HVPG measurement is the gold-standard method to assess the presence of clinically significant portal hypertension, which is defined as HVPG  $\geq 10$  mmHg (1b;A).
- By definition, patients without CSPH have no gastroesophageal varices and have a low 5-year risk of developing them (1b;A).
- In patients with virus-related cACLD, noninvasive methods are sufficient to rule in CSPH, defining the group of patients at risk of having endoscopic signs of PH. The following can be used (2b; B):
  - Liver stiffness by TE ( $\geq 20$ – $25$  kPa; at least two measurements on different days in fasting condition; caution should be paid to flares of ALT; refer to EASL guidelines for correct interpretation criteria), alone or combined to Plt and spleen size.
- The diagnostic value of TE for CSPH in other etiologies remains to be ascertained (5;D).
- Imaging showing collateral circulation is sufficient to rule in CSPH in patients with cACLD of all etiologies (2b;B).

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## **Identification of Patients with cACLD Who Can Safely Avoid Screening Endoscopy**

- Patients with a liver stiffness  $< 20$  kPa and with a platelet count  $> 150,000$  have a very low risk of having varices requiring treatment and can avoid screening endoscopy (1b;A).
- These patients can be followed up by yearly repetition of TE and platelet count (5;D).
- If liver stiffness increases or platelet count declines, these patients should undergo screening EGD (5;D).

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## **Surveillance of Esophageal Varices**

- In compensated patients with no varices at screening endoscopy and with ongoing liver injury (e.g., active drinking in alcoholics, lack of SVR in HCV), surveillance endoscopy should be repeated at 2-year intervals (5;D).
- In compensated patients with small varices and with ongoing liver injury (e.g., active drinking in alcoholics, lack of SVR in HCV), surveillance endoscopy should be repeated at 1-year intervals (5;D).

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- In compensated patients with no varices at screening endoscopy in whom the etiological factor has been removed (e.g., achievement of SVR in HCV, long-lasting abstinence in alcoholics) and who have no cofactors (e.g., obesity), surveillance endoscopy should be repeated at 3-year intervals (5;D).
  - In compensated patients with small varices at screening endoscopy in whom the etiological factor has been removed (e.g., achievement of SVR in HCV, long-lasting abstinence in alcoholics) and who have no cofactors (e.g., obesity), surveillance endoscopy should be repeated at 2-year intervals (5;D).

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### **Cost Considerations**

- Whatever policy and method is adopted for screening and surveillance, cost should be taken into account in future studies (5;D).

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### **Research Agenda**

- Future studies should explore the possibility to stop surveillance after 2 controls showing no varices.
- Long-term data are needed concerning the benefits of screening and surveillance programs.