# Key Takeaways: Identifying and Managing Patients with Cirrhosis - Compensated vs Decompensated Liver Disease (Video 4.0)



### What is cirrhosis and how is it measured?

- Cirrhosis is the end stage of chronic liver disease where there is extensive scarring1
- Approximately 5–25% of patients with chronic HCV infection will develop cirrhosis within 10–20 years<sup>2</sup>
- Cirrhosis can be classified as compensated, or decompensated, depending on the extent of liver damage<sup>1-3</sup>



# Child-Turcotte-Pugh scoring to assess severity once the presence of cirrhosis has been established

Child-Turcotte-Pugh score is obtained by adding points for each of the five clinical assessments<sup>2-4</sup>

| Total bilirubin<br>(mg/dL) | Serum albumin<br>(g/L) | INR                                  | Ascites                            | Hepatic encephalopathy                         |
|----------------------------|------------------------|--------------------------------------|------------------------------------|--|
| <2                         | >35                    | <1.7                                 | None                               | None   |
| 2-3                        | 28–35                  | 1.71-2.3                             | Mild                               | Grade I–II (or suppressed with medication)     |
| >3                         | <28                    | >2.3                                 | Moderate to severe                 | Grade III-IV (or refractory)                   |
|                            | (mg/dL)<br><2<br>2–3   | (mg/dL) (g/L)<br><2 >35<br>2–3 28–35 | (mg/dL)     (g/L)     INR       <2 | (mg/dL)     (g/L)     INR     Ascites       <2 |

CTP-A (5–6 points): compensated cirrhosis; CTP-B (7–9 points) and CTP-C (10–15 points): decompensated cirrhosis





### Model for End-Stage Liver Disease (MELD)

 Estimates survival probability using four clinical measures: serum bilirubin, INR, serum creatinine, and serum sodium<sup>5,6</sup>

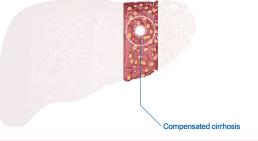
| MELD score | 3-month mortality, % |  |  |
|------------|----------------------|--|--|
| <9         | 1.9                  |  |  |
| 10–19      | 6.0                  |  |  |
| 20–29      | 19.6                 |  |  |
| 30-39      | 52.6                 |  |  |
| 40         | 71.3                 |  |  |



### Compensated vs decompensated cirrhosis

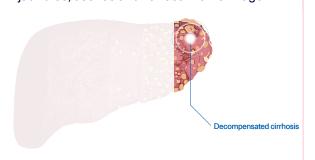
# Compensated cirrhosis

- · CTP-A (5-6 points)
- Usually asymptomatic<sup>7</sup>
- Median survival >12 years¹
- Increased risk of developing liver cancer and hepatic decompensation<sup>2</sup>



## **Decompensated cirrhosis**

- CTP-B (7-9 points) and CTP-C (10-15 points)
- The liver can no longer function properly<sup>1</sup>
- Median survival is approximately 2 years<sup>2</sup>
- Symptoms include hepatic encephalopathy, jaundice, ascites and variceal hemorrhage<sup>1</sup>



Patients with advanced fibrosis should be linked to a healthcare practitioner who is prepared to provide comprehensive management, including surveillance every 6 months for liver cancer<sup>3</sup>
Patients with HCV infection who have decompensated cirrhosis should be referred to a medical practitioner with expertise in that condition, ideally in a liver transplant center<sup>3</sup>
Not all HCV treatments are FDA-approved for use in decompensated cirrhosis<sup>3</sup>



### References

1. US Department of Veterans Affairs. Viral Hepatitis and Liver Disease https://www.hepatitis.va.gov/cirrhosis/patient/decompensated.asp. Accessed July 2020 2. CDC. Hepatitis C Questions and Answers for Health Professionals. Updated July 2019. https://www.cdc.gov/hepatitis/hcv/hcvfaq.htm. Accessed August 2019 3. AASLD and IDSA. HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C. Last updated May 2020. http://www.hcvguidelines.org. Accessed July 2020 4. Poynard T, et al. Semin Liver Dis 2000;20:47–55 5. Kamath PS, Kim WR. Advanced Liver Disease Study Group. The model for end-stage liver disease (MELD). Hepatology 2007;45:797–805 6. Hepatitis C Online. Model for End-stage Liver Disease (MELD) for Ages 12 and Older. https://www.hepatitisc.uw.edu/page/clinical-calculators/meld. Accessed September 2020 7. Hepatitis C Online. Evaluation and Prognosis of Patients with Cirrhosis. https://www.hepatitisc.uw.edu/go/evaluation-staging-monitoring/evaluation-prognosis-cirrhosis/core-concept/all. Accessed July 2020

