Hep C/HHARM ECHO

Cirrhosis and Its Complications

Gia Landry, MD, MPH

Slides provided by PA Jennifer Scheuermann with Dr. Gia Landry edits and updates

Cirrhosis

ALL patients with cirrhosis need:

- *Initial assessment* to see if **well compensated or decompensated**
- *Long term monitoring* to assess liver function and progression of disease with CBC, CMP, INR
- *Hepatocellular carcinoma (HCC) screening* every 6 months indefinitely with U/S and AFP
- *Referral to GI / Hepatology provider***
- *Screening / management of varices* (EGD)

***HCV treatment can be initiated prior to referral if WELL compensated and NO evidence of HCC.*

Well compensated cirrhosis

- **Normal or near normal labs and imaging**

- **No symptoms** indicating decreased liver function

  No jaundice, variceal bleeding, ascites, or hepatic encephalopathy

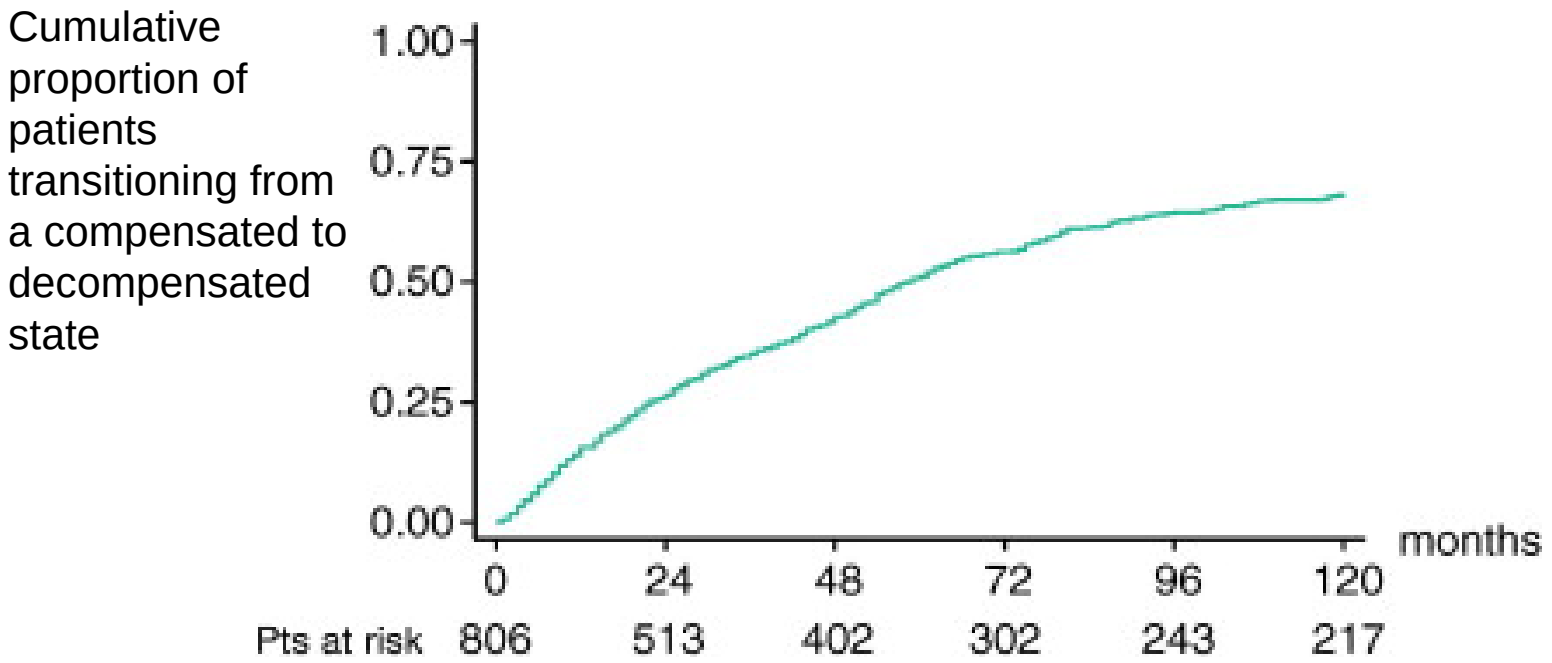
- **Child Pugh Classification A** (Child-Turcotte-Pugh)

- **SHOULD BE TREATED*** with goal of:
  - Curing HCV (SVR12)
  - Reducing liver-related adverse health consequences (end-stage liver disease, transplant and hepatocellular carcinoma)
  - Reducing all-cause mortality

**Patients with liver mass or elevated AFP need referral to GI/Hepatology provider BEFORE HCV TREATMENT to eval for HCC.*

Progression from Compensated to Decompensated Cirrhosis

****Occurs at a rate of 5–7% per year**



D'Amico et al. Journal of Hepatology 44 (2006) 217–231

Decompensated Cirrhosis: Cirrhosis + Portal Hypertension

- Hepatic impairment / liver function is compromised leading to:
  - **Abnormal lab and / or imaging studies**

    and / or
  - **Symptom development**

    Jaundice, variceal bleeding, ascites, or hepatic encephalopathy

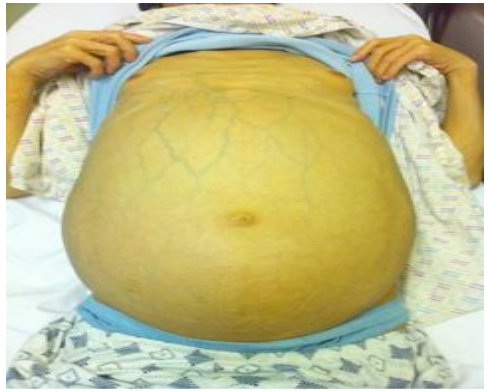
- **Child Pugh Classification B, C** (Child-Turcotte-Pugh)

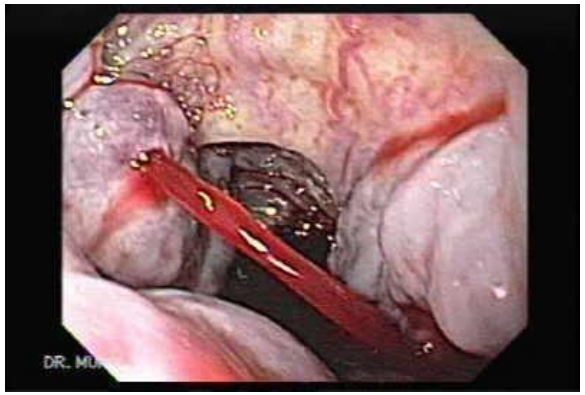
- **SHOULD NOT BE TREATED.**

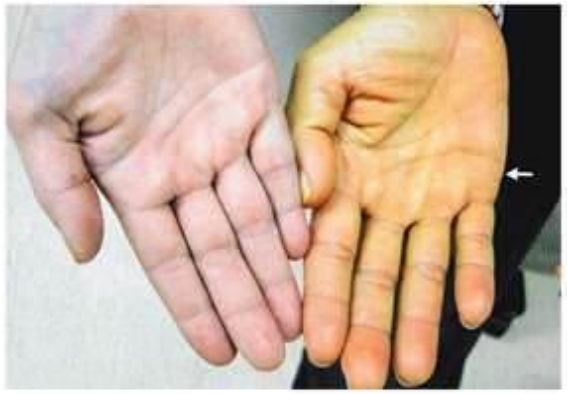
REFER to a medical provider with expertise in that condition, ideally in a liver transplant center

Decompensated Cirrhosis

It’s easy to recognize decompensated cirrhosis when these symptoms are present…







BUT we must also recognize decompensated cirrhosis when these symptoms are NOT present!

Child Pugh Classification

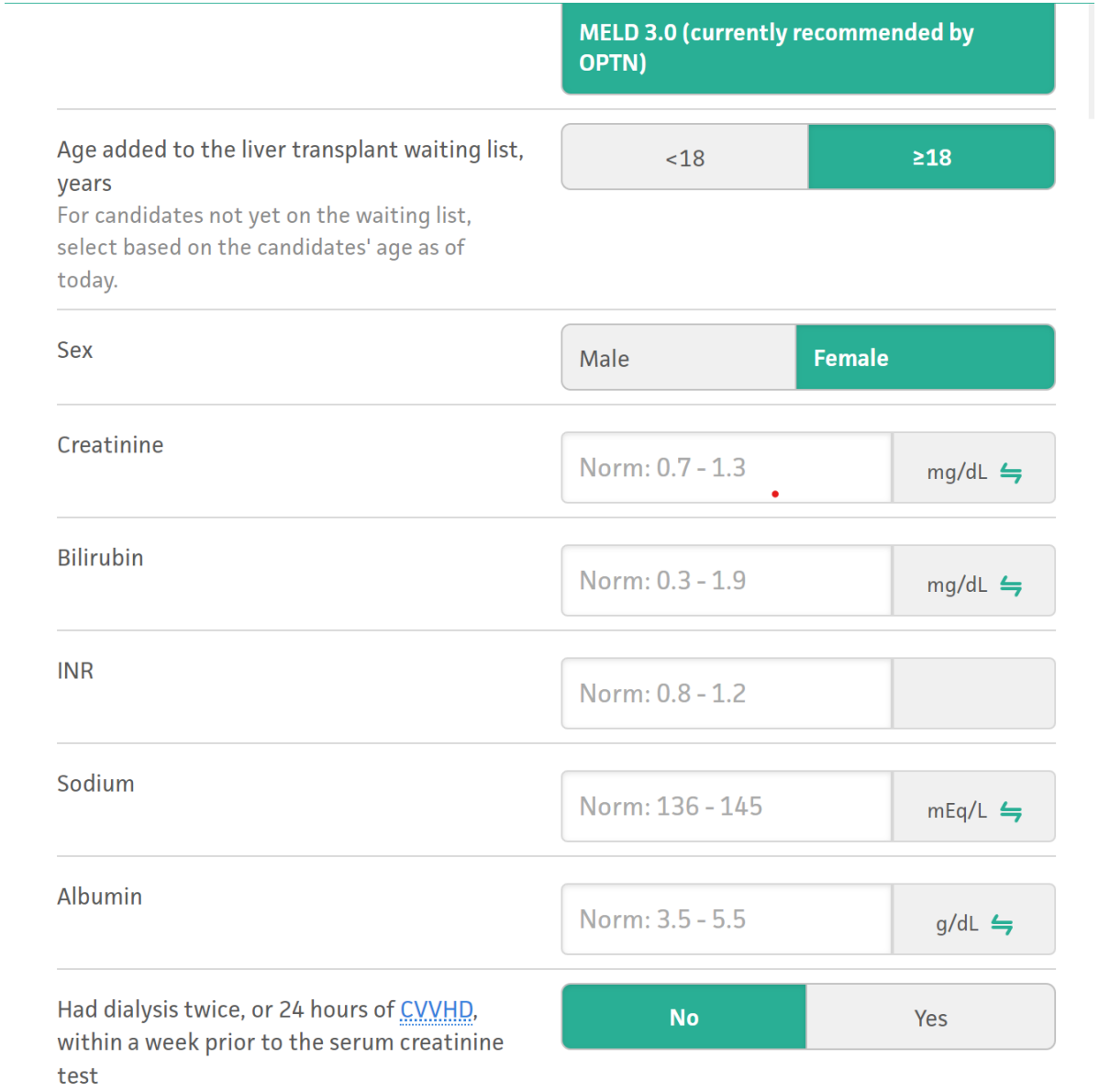
(Child-Turcotte-Pugh**)** **Can use online calculator.**

Child-Turcotte-Pugh Classification for Severity of Cirrhosis			
Clinical and Lab Criteria	**Points***		
	1	2	3
Encephalopathy	None	Mild to moderate (grade 1 or 2)	Severe (grade 3 or 4)
Ascites	None	Mild to moderate (diuretic responsive)	Severe (diuretic refractory)
Bilirubin (mg/dL)	< 2	2-3	>3
Albumin (g/dL)	> 3.5	2.8-3.5	<2.8
Prothrombin time			
Seconds prolonged	<4	4-6	>6
International normalized ratio	<1.7	1.7-2.3	>2.3
*Child-Turcotte-Pugh Class obtained by adding score for each parameter (total points)			
Class A = 5 to 6 points (least severe liver disease)			
Class B = 7 to 9 points (moderately severe liver disease)			
Class C = 10 to 15 points (most severe liver disease)			

Child Pugh Class B & C are decompensated. NEED REFERRAL. DON'T TREAT HCV.

http://www.hepatitisc.uw.edu/page/clinical-calculators/ctp

Model for End Stage Liver Disease Score (MELD)



Interpretation:

MELD (Original, Pre-2016) and MELD Na (UNOS/OPTN)

MELD Score	Mortality
≤9	1.9%
10–19	6.0%
20–29	19.6%
30–39	52.6%
≥40	71.3%

More Info: OPTN/UNOS Documentation on MELD and PELD

MELD 3.0

Estimated 90-day survival = $0.946^{\exp(0.17698*\text{MELD 3.0} - 3.56)} * 100$

MELD ≥15 warrants transplant evaluation; refer out

https://www.mdcalc.com/calc/10437/model-end-stage-liver-disease-meld

Child Pugh & MELD score & Symptoms

- The three assessments *may not always agree*.

If symptoms OR Child Pugh B/C OR MELD > 15:
DON'T TREAT. REFER.

- If unsure can always review case with GI/Hepatology specialist or review here through Echo.

Case #1

55 y/o male establishing care, hasn't seen doctor in many yrs.

HPI: Birth cohort HCV screening positive. Genotype 1a

Risks for HCV: IVDA in 1980s, incarcerated x 10 yrs in past

Feels well overall. (+) fatigue. (+) wt loss but unable to quantify. Denies icteric illnesses, abdominal distention, LEE, confusion, slowed mentation, hematemesis, melena, skin rashes.

PMH: none Meds: none

Social Hx: 2 ppd cigarettes, Fifth of whiskey daily for "long time" but has cut back, now drinks fifth of whiskey once a week

Case #1

Pertinent for spider telangiectasias on upper chest, palmer erythema. Trace ankle edema.

Notable labs:

Platelets 144, AST 73, ALT 65, Tbili 1.4, Albumin 3.0,

Cr 0.9, Na 139, INR 1.3

HCV FibroSURE (0.78) F3, APRI 1.27, FIB-4 3.46

Imaging: U/S w/ unremarkable liver, spleen 12.5cm. Trace perihepatic ascites.

No access to FibroScan.

Is he well compensated or decompensated?

Should he be treated? Or referred to specialist?

- No jaundice, ascites, HE, variceal bleeding in history
- Trace ascites on imaging
- MELD 3.0: 11 (Tbili 1.4, Cr 0.9, INR 1.3, Na 139)

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No HE: **+1**

Trace ascites: **+2**

Tbili 1.4: **+1**

Albumin 3.0: **+2**

INR 1.3: **+1**

- No jaundice, ascites, HE, variceal bleeding in history
- **Trace ascites on imaging**
- MELD-NA: 11 (Tbili 1.4, Cr 0.9, INR 1.3, Na 139)

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No HE: **+1**

Trace ascites: **+2**

Tbili 1.4: **+1**

Albumin 3.0: **+2**

INR 1.3: **+1**

Patient needs REFERRAL TO SPECIALIST. Should NOT BE TREATED.

QUESTIONS