Hepatitis B Management: easier than you think!

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Richard R. Andrews, MD, MPH
-- Former Co-chair, National Task Force on Hepatitis B
-- Advisory Panel, Hep B United

Richard.Andrews@HepatitisDoc.com

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Additional Disclosure

I am not being paid for this presentation

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Educational Objectives

- Given lab values & other clinical info in case studies determine which CHB patients need to be started on antiviral medications
- Differentiate between uncomplicated & complicated CHB patients, between compensated & decompensated cirrhosis, & coordinate appropriate higher level care
- Formulate an evidence-based liver cancer surveillance program for your patients with chronic hepatitis B

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My background

- Georgetown University Family Medicine residency
- Johns Hopkins Preventive Medicine residency
- Now in addiction medicine
- 2008 -- began w/ Hep B patients, Houston

Why bother with hep B?

- Less prevalent than hep C ? -- yes, a bit
- Wasn't everyone vaccinated as a kid? No
- Isn't it less dangerous than hep C? No
- Don't you have to be a specialist? No

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WHO Goal for Viral Hepatitis

- "Eliminate" Hep B and C by 2030
- Many countries doing well, even in prisons
- US – not doing as well, cases going up
- Opportunity to improve in incarcerated settings

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Before going any further …

- Other sessions on hep B & C, & cirrhosis
- Hep B screening: 3 tests, varies by state
- Hep B immunization: varies by state

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Urgent news bulletin !

- April 1st MMWR from the CDC
- *Universal* hep B immunization
- Ages: birth to 59
- Older adults with “risk factors”
- Incarceration: officially a risk factor

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Confirmed chronic hep B

- Documented CHB or …
- + HBsAg for 6 or more months
- 11.4% in some US prisons/jails
- Less in others
- Less than hep C, but significant

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Central issue in all hep B patients

- Should anti-viral meds be started?
- A “yes” answer: will rarely be questioned
- Might need to justify the “yes”
- Accurate history not always available

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The antiviral meds

- **Entecavir – either 0.5 or 1 mg daily**

  -- Some providers always start with 1 mg

- **Tenofovir, older form – 300 mg, one daily**

- **Tenofovir, newer form – 25 mg, one daily**

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Simple scoring method: (Tong et al)

ITEM	POINTS	Remarks (1)	Remarks (2)
Age > 39	1	HCC risk higher with age	HCC: hepatocellular carcinoma
ALT M/F > 35/25	1	Do NOT use ALT range from your lab	Hepatologist consensus
Gender – Male	1	Liver cancer risk greater in males	
Afr-Amer/African/Asian	1	Higher HCC risk in CHB patients	
Alcohol/smoke > 5 yrs	1	These factors raise HCC risk	
BMI >= 30	1	Risk of fatty liver/NASH	NASH raises risk of HCC
Alb OR plats<3.5/130	3	In a CHB patient, this means cirrhosis	
FHx HCC in 1st deg rel	3	1st degree relative: parent/full sibling	
BCP mutation	2	Basal core promoter mutation	Consider only if score < 3
ADD FOR TOTAL	____	If score >=3 and HBV/DNA > 0 start antiviral Rx	(Modifications by R. Andrews of Tong et al, 2011/2018)

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Why treat hep B with meds?

- Reduces cirrhosis & cancer risk
- Reduces transmission
- Let's dive into some cases

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Start antiviral?

Patient	Labs	Decision
22 y/o Hisp F w/o FHx HCC	ALT 24, Plt 190 Alb 4.2, DNA 13 mil.	Y or N
39 y/o AA M w/o FHx HCC	ALT 36, Plt 201 Alb 4.1, DNA 1100	Y or N
49 y/o W M w/o FHx HCC	ALT 32, Plt 129 Alb 3.6, DNA 100	Y or N

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What Makes Hep B Care "Easy" ? (1)	
1. Most patients w/o sx	5. Only 2 meds to choose
2. Most w/o cirrhosis	6. Meds work great
3. Refer complex ones	7. Meds well tolerated
4. … or co-manage them	8. Easy cancer surveillance

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What Makes Hep	B Care "Easy" ? (2)
9. Few labs to consider	ECHO as a resource: →
10. See pts 2x per year	→ HIPAA compliant → done by Zoom
11. Even hep B in pregnancy is easy…	→ offers FREE CME → emailed consult
12. … if HBV > 200,000 start tenofovir	→ 1 on 1 case consult → informal, supportive

What Makes CHB complicated ?

1. Anything you're not comfortable with

Examples: chronic kidney disease, HIV/AIDS, pregnancy, hep C co-infection, hep D

2. Decompensated cirrhosis, decompensated anything

3. With experience, & consults, you learn

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Diagnosis of Cirrhosis

- **Usually, just look at platelets and albumin**
- **Download the HepCalc app or similar: calculate APRI or FIB-4**
- **Sometimes still done by biopsy – hepatologist**
- **Imaging: best → CT or MRI; ultrasound can give good info**
- **Fibroscan or other LIVER STIFFNESS measurement**

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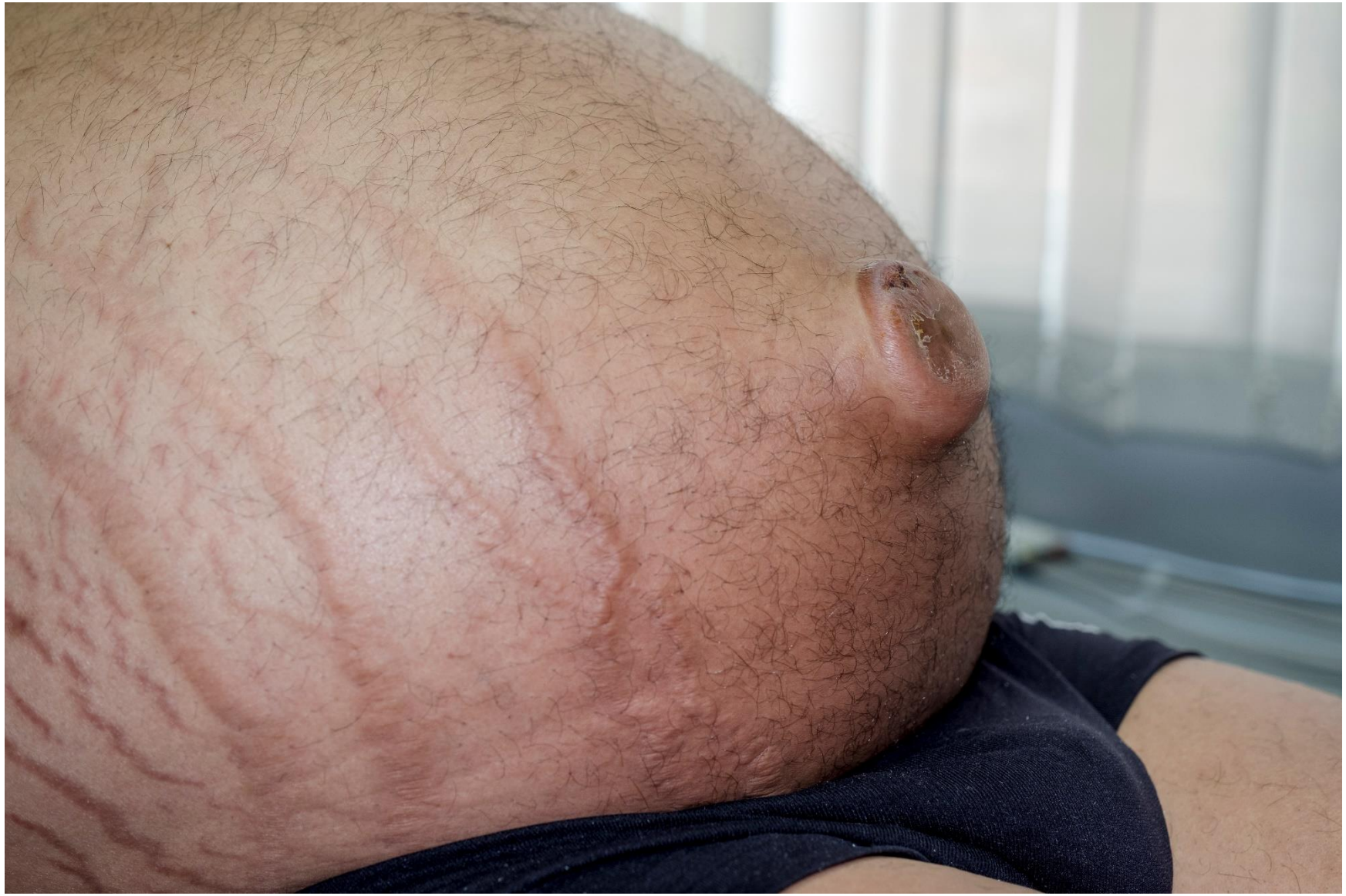

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Cirrhosis patients

- ALL should be on antiviral med
- ALL should see GI/hepatology, EGD for varices check

- Criteria for decompensated cirrhosis:

H/o bleeding varices, ever	Jaundice	Hepatorenal syndrome
Hepatic encephalopathy	Ascites	Spontaneous bacterial peritonitis

- → automatic hepatology referral (or ER) ←

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"Surveillance" for liver cancer

PATIENT GROUP	START SURVEILLANCE	REMARKS
Any African ancestry	Age 21 (or 30)	Check AFP and liver u/s every 6 months; CT/MRI if needed
All other patients	Age 40	Check AFP and liver u/s every 6 months; CT/MRI if needed

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Resource for Hep B treating clinicians

ECHO Project - "all teach, all learn"

Begun in 2003 by a hepatologist First used to help rural primary care clinicians treat hepatitis C	https://hsc.unm.edu/echo/ https://echo.unm.edu/dashboards/
Video-based (like Zoom) Case-based specialist consultation Now in 45 countries Informal, friendly, supportive	Free to participate Present a case (optional) Simple pre-filled case format Consult note emailed in 24 hrs
Anyone (usually an institution) can start a new "hub" Participate by mobile or laptop As often as weekly, or as needed	For information, write or call: —--> ECHO@salud.unm.edu Tel 505-750-3246

Check for other hepatitis

- "Know your ABCD's"
- Hep A antibody (total or IgG)
- Hep C/D antibody, reflex PCR
- Refer any Hep D PCR +

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Epidemiology – acute hep B

- Actual (estimated) cases 6x higher than reported
- Decreasing in much of the world
- *Was* decreasing in USA too
- Since 2014: new cases are stable or increasing

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Epidemiology – chronic Hep B

ETHNICITY	PREVALENCE	IMMUNIZED
ASIAN	21.1 %	31.4 %
AFR-AMER	10.8 %	23.2 %
HISPANIC	3.8 %	19.9 %
WHITE	2.1 %	26.6 %

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Epidemiology – chronic Hep B

- Undercounted, roughly 2 million
- Asian-Americans: 6% of pop., half of the hep B
- African-Americans – next highest in prevalence
- African immigrants have high hep B prevalence also

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