RID Hep C 1-PAGE HCV TREATMENT GUIDE: version July 2015 Taylor Lynn E.

HCV Ab TESTING : Birth Cohort (1945-65) and Risk-based (IDU, intranasal drugs, blood transfusion pre 1992, Incr ALT, HIV+…)

HCV AB Negative: "You have not been infected by HCV, but you may be at risk" or consider acute

HCV AB positive: "You have been exposed to HCV and may have chronic HCV." Order : HCV viral load (vl). If detectable, order HCV genotype

Risk Reduction Counseling for ALL. Household transmission: "Don't share toothbrushes, razor blades, nail cutters; use gloves & bleach for cleaning blood spills. If IDU, "Don't share any injection equipment including syringes, needles, cookers, injection water, tourniquet." If current IDU refer to NEP ENCORE, MMP or BPN. No donation blood, body organs, semen. No UAI HIV+ MSM. Annual HCV testing recommended to persons who inject drugs and for all HIV + adults. Periodic testing should be offered to those with ongoing risk factors for exposure (AASLD, CDC)

HCV vl undetectable: "You do not have chronic HCV but could be re-infected in the future." If recent exposure possible, consider acute HCV , recheck HCV RNA

HCV vl detectable : "You have chronic HCV. There is treatment available that usually has > 95% cure rate. We need to evaluate you for treatment and to find out whether you have cirrhosis."

CHRONIC HCV EVALUATION

CBC w diff, liver panel, Chem 7, PT/INR, genotype/subtype, HIV, BHCG. HAV, HBS Ag, c Ab, S Ab: persons not immune, vaccinate.

Baseline labs: If patient will get ribavirin, obtain EKG for patient with DM, CAD, HTN (if >50 years). Rapid drop H/H risk cardiac, pulm complications.
Assess relevant comorbidities: Uncontrolled HIV (may need more adherence support re HCV meds); renal disease (assess GFR, needed for some DAAs)
Assess PMHx with focus on prior evaluations (labs OVER TIME, radiology, liver biopsy), specific HCV reatments, treatment outcome and medication intolerances. NEED HCV treatment hx to select DAA regimen and duration. If RBV assess for CAD, pulm disease, renal disease.
Assess all medications (prescribed, OTC): Assess all drug-drug interactions. Advise to avoid taking any new meds (including OTC and herbals) without checking with clinician
Assess for other causes liver dz: Ferritin, iron/transferrin saturation (hemochromatosis screen: follow-up w PCP for iron deficiency); Ceruloplasmin, Alpha 1 antitrypsin. ANA only based on PMHx, Fam Hx, PE. Cryoglobulins if renal disease, arthralgias, rash, etc. HOMA fatty liver dz.
Assess for active drug use: For IDU: Provide counseling on safe injection, reinfection. "Treatment of HCV should not be withheld from persons who currently use illicit drugs, alcohol who are on OST, provided they wish to take HCV treatment and are able and willing to maintain close monitoring and practice contraception." NIH, WHO, AASLD/IDSA
Assess alcohol use: Can use single-item screen: " How many times in the past year have you had X or more drinks in a day?" (for males X=5, for females X=4) Response of ≥ 1 = positive screen. (Smith 2009) . Counsel: "There is no known safe level of alcohol use. Alcohol use may make adherence more difficult and increase risk of liver cancer and cirrhosis." Beer=wine=hard liquor. Active drinkers can still be treated if unwilling/unable to achieve abstinence as long as adherent to appointments and medications. Equal SVR rates, much to gain since highest risk HCC, liver-related M and M. (Anand 2006, LeLan 2012).

1 question: Does this pt have cirrhosis? Be alert especially if plat < 160!

Calculate APRI (≤ 1 = not cirrhosis; > 1 advanced fibrosis, > 1.5 = cirrhosis):
(www.hepatitisc.uw.edu/page/clinical-calculators/apri)
Men (ULN=50):**AST X 2/plts**
Women (ULN=42):**AST X 2.38/plts**
Or use formula: **(AST X 100/AST ULN) / Platelets**

FIB-4 preferred but RI Medicaid uses APRI > 1:
Calculate FIB-4 (<1.45 not Stage 3/4; >3.25 Stage 3 /4)

Assess every 6 months, track and trend, rise over time

Test for cirrhosis	Cutoff	Sens	Spec	AUROC	+LR	-LR
Plt	<140-155	0.78	0.87	0.89	6.0	0.25
APRI	≥1.0	0.77	0.75	0.84	3.1	0.31
APRI	≥2.0	0.48	0.94	NA*	8.0	0.55
FIB-4	>1.45	0.90	0.58	0.87	2.1	0.17
FIB-4	>3.25	0.55	0.92	NA*	6.9	0.49
Fibrotest	>0.56	0.85	0.74	0.86	3.3	0.20
Fibrotest	>0.75	0.56	0.81	NA*	2.9	0.54

*<3 studies

Characterized histologically by regenerative nodules surrounded by fibrous tissue. Compensated vs. Decompensated
Liver Biopsy when: Evaluating for other forms liver disease (e.g diagnostic bx for autoimmune, NASH). +Size does matter, liver bx only as good as the adequacy of the specimen, small sample size will understage disease. Less important prior to HCV treatment, as cure rate increases, noninvasive markers improving. US, CT, MRI useful in cirrhosis but not useful to stage dz, better if portal HTN
Elastography when not available on-site indicated when:
1) Results will change treatment decision or surveillance for HCC, varices
2) Discordance between PE, hx, labs, APRI/FIB4.

Liver wellness for all pts w HCV: Quit smoking. Avoid daily cannabis. Healthy BMI. Acetaminophen: Stable liver dz wo cirrhosis: limit 2 g/d. Cirrhosis: limit 1 g/d & avoid NSAIDS. Vit D supp to maintain 25-hydroxyvit D >= 20 ng/mL, may require 2000-4000 IU/d nutritional vit D. No iron supplement unless Fe defic anemia. Complementary/alternative meds: Insufficient evidence to support use.

PRIOR AUTHORIZATIONS TIPS
Only Stage 3 or 4 may be covered. (RI Medicaid) .Some plans have the following exceptions: DM, Chronic HBV, HIV, debilitating fatigue impacting QOL, extrahepatic manifestations eg renal disease, cryoglobulinemia
AASLD 2014: Evidence clearly supports treatment in all HCV-infected persons, except those with limited life expectancy (<12 months).
May need to stage with every tool to obtain meds
1) APRI > >1
2) FIB-4 > 3.25
3) Fibroscan ≥ 9.5 kPa
4) Liver biopsy Metavir 3-4) highest risk death w DAAs so avoid (unless diagnostic re other causes liver dz)
5) Imaging: liver nodularity, left lobe/caudate lobe hypertrophy, splenomegaly, recanalization of umbilical vein, collaterals, ascites

If discordance between tests, use best test, dual algorithm, clinical judgment. Reheck numbers.

STAGE AND MANAGE CIRRHOSIS

Child-Pugh Score Calculator

Parameter	Points: (score is obtained by adding points for each parameter)		
	1	2	3
Ascites	None	Mild/Moderate (diuretic responsive)	Severe (diuretic refractory)
Hepatic encephalopathy	None	Grade 1-2 precipitated	Grade 3-4 chronic
Bilirubin mg/dL	<2	2-3	>3
Albumin g/dL	>3.5	2.8- 3.5	<2.8
INR	<1.7	1.7- 2.3	>2.3
Class A : 5-6 (well compensated) Class B 7-9: (significant functional compromise) Class C : 10-15 35% 1 yr mortality.			

Stage with Child-Pugh Calculator: http://globalrph.com
Calculate MELD score: http://www.mayoclinic.org/meld/mayomodel6.html
Child-Pugh B (≥7) or MELD score ≥ 12 merits transplant (tx) consideration.
Refer all cirrhotic pts to GI for EGD. SAME GI doc saw for colonoscopy etc!
Screen for HCC q6 mos with US with Doppler (AASLD) even after SVR. Screen for encephalopathy: assess asterixis and/or use "connect the numbers test" for minimal hepatic encephalopathy. Weissenborn J Hep May 2011. Protein restriction not recommend. Evaluate for precipitants.
When to refer to hepatology/tx? Decompensated cirrhosis (Child-Pugh B/C, ascites, encephalopathy, variceal bleed), HCC, tx evaluation. Ascites: admit to hospital for tap if new-onset ascites OR pts with known ascites who have: Alteration mental status (hepatic encephalopathy), fever, Increasing abdominal girth, abd pain, hospital admission for any reason. Daily weights, salt restriction. Diuretics start aldactone 50 qd / lasix 20 qd. Encephalopathy: lactulose 2-3 soft BMs/ day; 2nd line rifaximin 550 bid. Varices: propanol / nadolol / carvedilol(titrate HR 55-60 and as tolerated).