Portal Hypertension & Varices in Cirrhosis

Diagnosis of CSPH, primary/secondary prophylaxis, acute variceal hemorrhage management, gastric/ectopic varices, portal hypertensive gastropathy, and special populations.

2023 AASLD Practice Guidance
Risk Stratification and Management of Portal Hypertension and Varices in Cirrhosis
Hepatology 2024;79:1180–1211

FORMAT *58 numbered guidance statements — narrative consensus format (not GRADE-rated); grouped by clinical theme.*

1 Definitions & Diagnosis of CSPH

GS	STATEMENT
1	Carvedilol is the preferred NSBB for portal hypertension in cirrhosis
2	Carvedilol maintenance dose 6.25–12.5 mg/day (single or divided); may increase for nonhepatic indications
3	HVPG measurement is the gold-standard method to assess portal pressure
4	CSPH is defined as HVPG ≥10 mmHg
5	HVPG may underestimate portal pressure in obesity and NASH-related cirrhosis
6	Clinical decompensation, varices on endoscopy, or portosystemic collaterals/hepatofugal flow on imaging is sufficient to diagnose CSPH
7	Noninvasive CSPH by LSM (TE) + platelets: LSM ≥25 kPa (any platelets); LSM 20–24.9 kPa + platelets <150K; LSM 15–19.9 kPa + platelets <110K
8	Annual LSM + platelets is prognostic in cACLD without baseline CSPH with active/uncontrolled disease

2 Compensated Cirrhosis Without CSPH

GS	STATEMENT
9	NSBB not recommended without CSPH — no benefit for preventing decompensation
10	Lifestyle modification + treatment of underlying liver disease to prevent CSPH progression

3 Compensated Cirrhosis With CSPH — Primary Prophylaxis

GS	STATEMENT
11	Goal of therapy: prevent clinical decompensation
12	NSBB (preferably carvedilol 12.5 mg/day) to prevent decompensation in cACLD with CSPH
13	Avoid NSBB in asthma, advanced heart block, bradyarrhythmia; use caution with relative contraindications
14	CSPH candidates for NSBB should be treated — obviates need for screening endoscopy
15	If TE unavailable/NSBB contraindicated: endoscopic surveillance; no varices → repeat q2y (active disease) or q3y (quiescent); any varices → start NSBB
16	If TE unavailable, endoscopy not needed on NSBB; may switch selective→nonselective BB to obviate endoscopy
17	CSPH without varices + BB contraindication/intolerance: surveillance endoscopy q2y (uncontrolled) / q3y (controlled)
18	CSPH with unbled varices + BB contraindication/intolerance: surveillance endoscopy q1y (uncontrolled) / q2y (controlled)
19	Primary prophylaxis with EVL if high-risk varices and cannot receive NSBB
20	Band ligation repeated q2–4wk until obliteration, then endoscopy at 6 months and then annually
21	TIPS should NOT be used for primary prophylaxis or prevention of decompensation

4 Decompensated Cirrhosis — Primary Prophylaxis

GS	STATEMENT
22	Decompensated, not on NSBB, never bled → annual endoscopic screening
23	High-risk varices detected → NSBB or EVL; preference for NSBB
24	Dose-reduce/stop NSBB if SBP <90 mmHg or severe AEs; discontinuation → endoscopic evaluation for band ligation

5 Acute Variceal Hemorrhage — Initial Management

GS	STATEMENT
25	Vasoactive therapy + IV antibacterial ASAP for suspected cirrhosis with acute GI bleed
26	Continue vasoactive therapy 2–5 days if portal-hypertensive bleeding confirmed
27	IV antibacterial tailored to local resistance (typically ceftriaxone 1g/24h up to 5d); stop once bleeding controlled/no active infection
28	RBC transfusion target hemoglobin ~7 g/dL
29	No FFP/platelet transfusion based on INR/platelet-count targets — no benefit; FFP has potential harm
30	Upper endoscopy within 12 hours of presentation
31	Confirmed esophageal variceal bleeding → EVL
32	CTP-B >7 with active bleeding, or CTP-C 10–13 → preemptive TIPS within 72h (ideally 24h) absent contraindications
33	No TIPS → start NSBB at discontinuation of vasoactive therapy
34	Covered esophageal stents or balloon tamponade as bridge to TIPS in uncontrolled AVH
35	TIPS for uncontrolled AVH ("salvage") or rebleeding despite vasoactive therapy + EVL ("rescue")
36	Enteral feeding once AVH controlled; variceal bands don't contraindicate feeding tube
37	Discontinue PPIs once AVH confirmed as bleeding source (absent other indication)

6 Secondary Prophylaxis After AVH

GS	STATEMENT
38	No preemptive/in-admission TIPS → secondary prophylaxis with NSBB + EVL
39	TIPS for secondary prophylaxis if additional TIPS indication present (e.g., refractory ascites)

7 Gastric & Ectopic Varices

GS	STATEMENT
40	Gastric/ectopic varices imply CSPH — consider NSBB; investigate for portal vein thrombosis
41	High-risk cardiofundal varices + NSBB contraindication/intolerance → primary prophylaxis with endoscopic cyanoacrylate injection (ECI)
42	No TIPS/BRTO to prevent first hemorrhage in unbled fundal varices
43	Initial management of bleeding same as esophageal variceal bleeding
44	Contrast-enhanced cross-sectional imaging to define collateral anatomy/thrombosis
45	Acute gastric/ectopic hemorrhage: ECI, TIPS, or retrograde obliteration first-line; retrograde preferred if TIPS contraindicated
46	ECI as main therapy → add NSBB to prevent rebleeding; repeat treatment q2–4wk until obliteration plus long-term surveillance
47	Isolated splenic vein thrombosis bleeding → evaluate splenectomy/splenic vein stenting/splenic artery embolization

8 Portal Hypertensive Gastropathy

GS	STATEMENT
48	>Mild PHG presumed CSPH → consider prophylactic NSBB
49	Acute severe PHG bleeding: vasoactive therapy for 2–5 days
50	NSBB to prevent rebleeding from PHG and PH-related polyps
51	Transfusion-dependent PHG bleeding despite NSBB → consider TIPS

9 Special Populations — HCC, Pregnancy & Perioperative

GS	STATEMENT
52	AVH/decompensation prevention and treatment in HCC follows same principles as non-HCC
53	NSBB for primary VH prophylaxis in HCC with CSPH/varices (absent contraindications)
54	Occlusive bland/malignant PVT: EGD to assess varices; NSBB or EVL if present (preference NSBB)
55	Planning pregnancy with cirrhosis/noncirrhotic PH: EGD within 1 year of conception
56	Unscreened pregnant patients: EGD early in second trimester
57	Routine EGD before TEE is not recommended
58	Preoperative TIPS case-by-case before nonhepatic surgery, weighing surgical benefit vs. HE/liver failure risk

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