Removing “Alcoholic” from Alcohol-Related Liver Disease

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Presented at ASAM State of the Art Course 2022

Disclosure Information

Geetanjali Chander, MD MPH

- No Disclosures

Session Learning Objectives

At the end of the session, you will be able to:

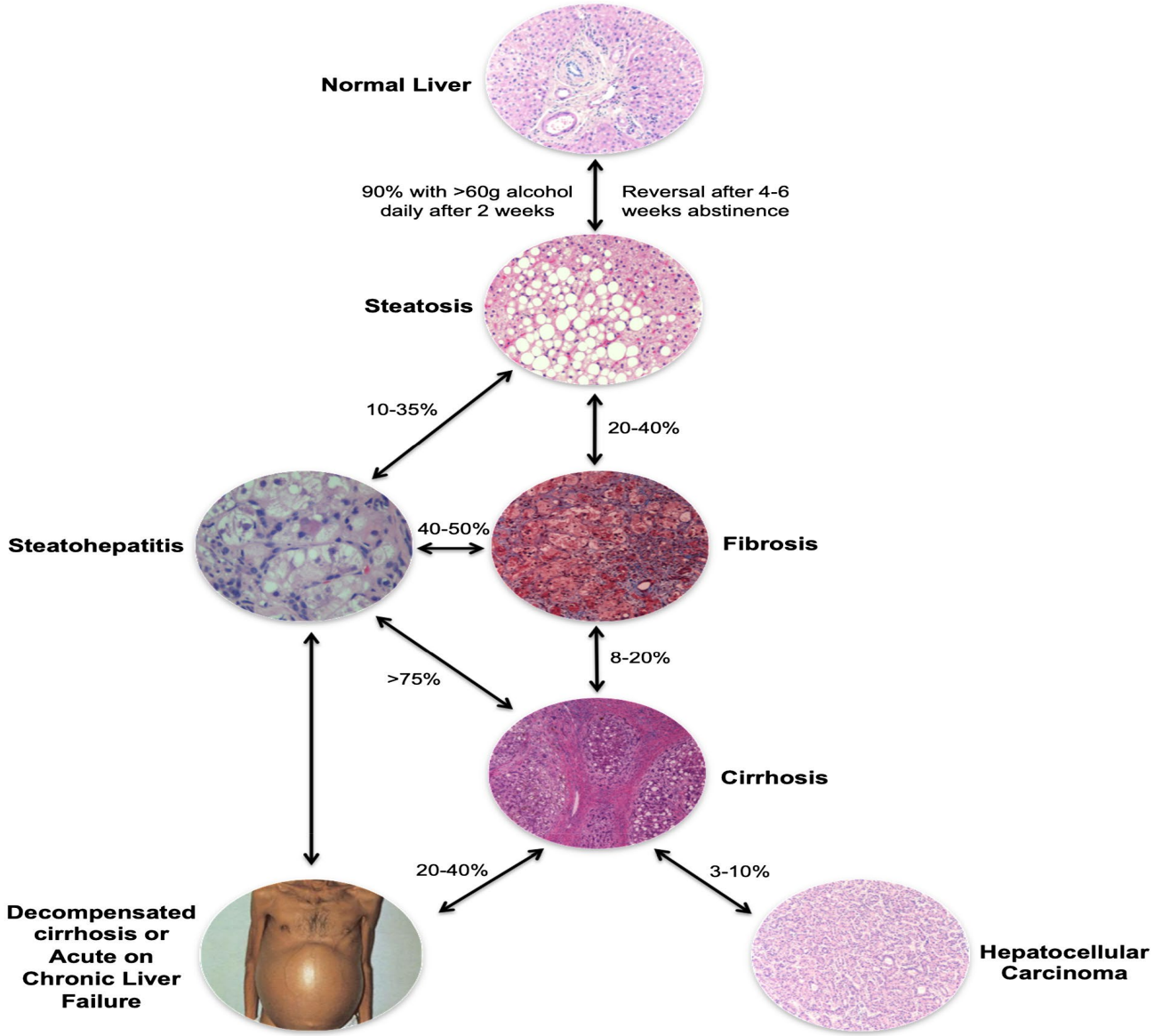
- Describe rising trend in alcohol-related liver disease (ALD) and etiology/pathology ALD.
- Discuss treatments for ALD including early liver transplant.
- Discuss integrated alcohol treatment strategies for persons with ALD.


Alcohol Related Liver Disease
Alcohol Use Disorder

Alcohol Related Liver Disease

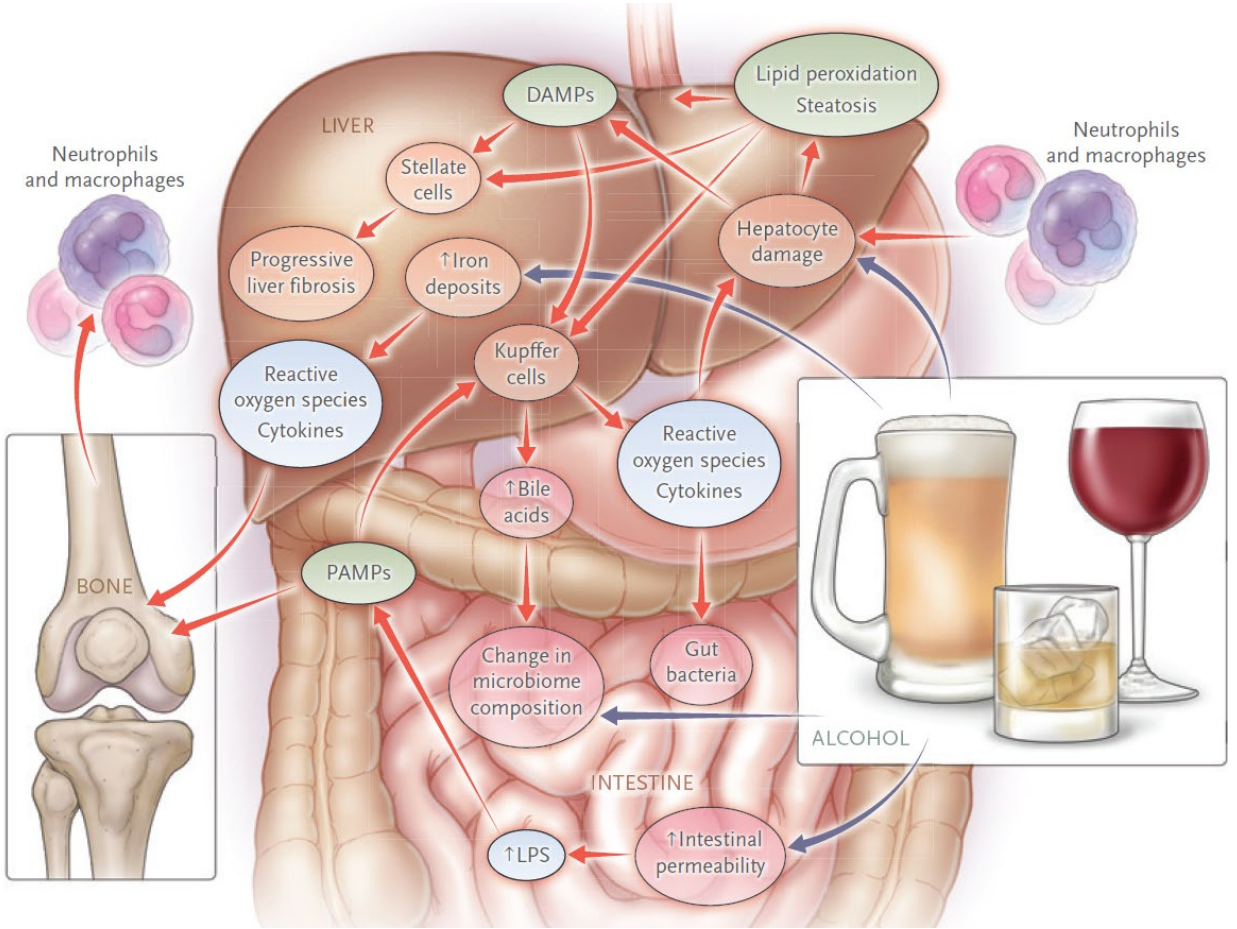
- Can be a devastating consequence of alcohol use
- Increasingly relevant with rise of alcohol use (NESARC)
  - Overall rise in high-risk drinking
  - 30% overall, 16% men, 58% for women
- Globally alcohol causes 50% of deaths attributable to chronic liver disease (Rehm)

Spectrum of Alcohol Related Liver Disease



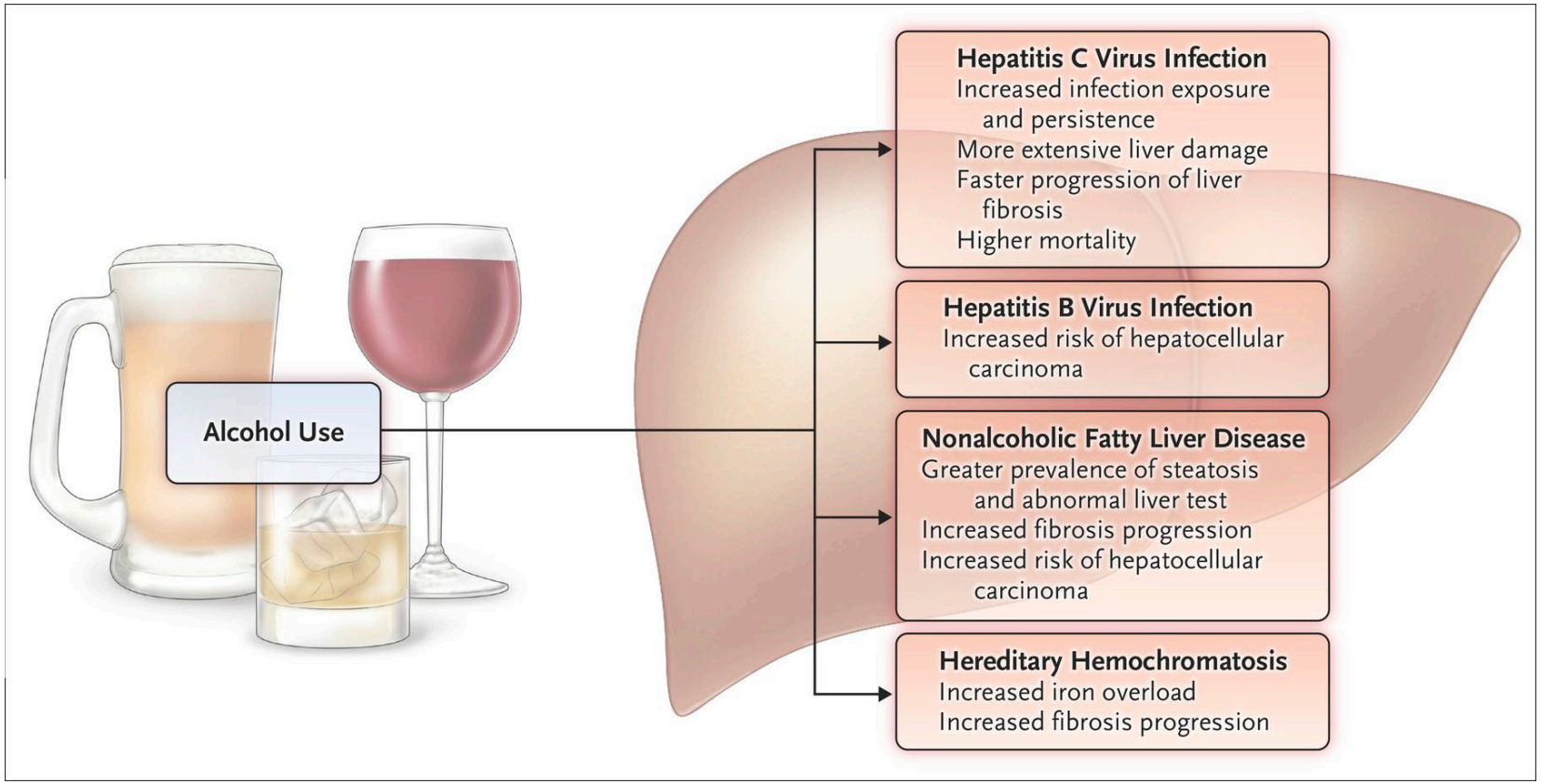
Crabb DW et al. Diagnosis and Treatment of Alcohol-Associated Liver Diseases: 2019 Practice Guidance From the American Association for the Study of Liver Diseases Hepatology, Volume: 71, Issue: 1, Pages: 306-333, First published: 17 July 2019, DOI: (10.1002/hep.30866)

Mechanisms of Alcohol-Related Liver Injury



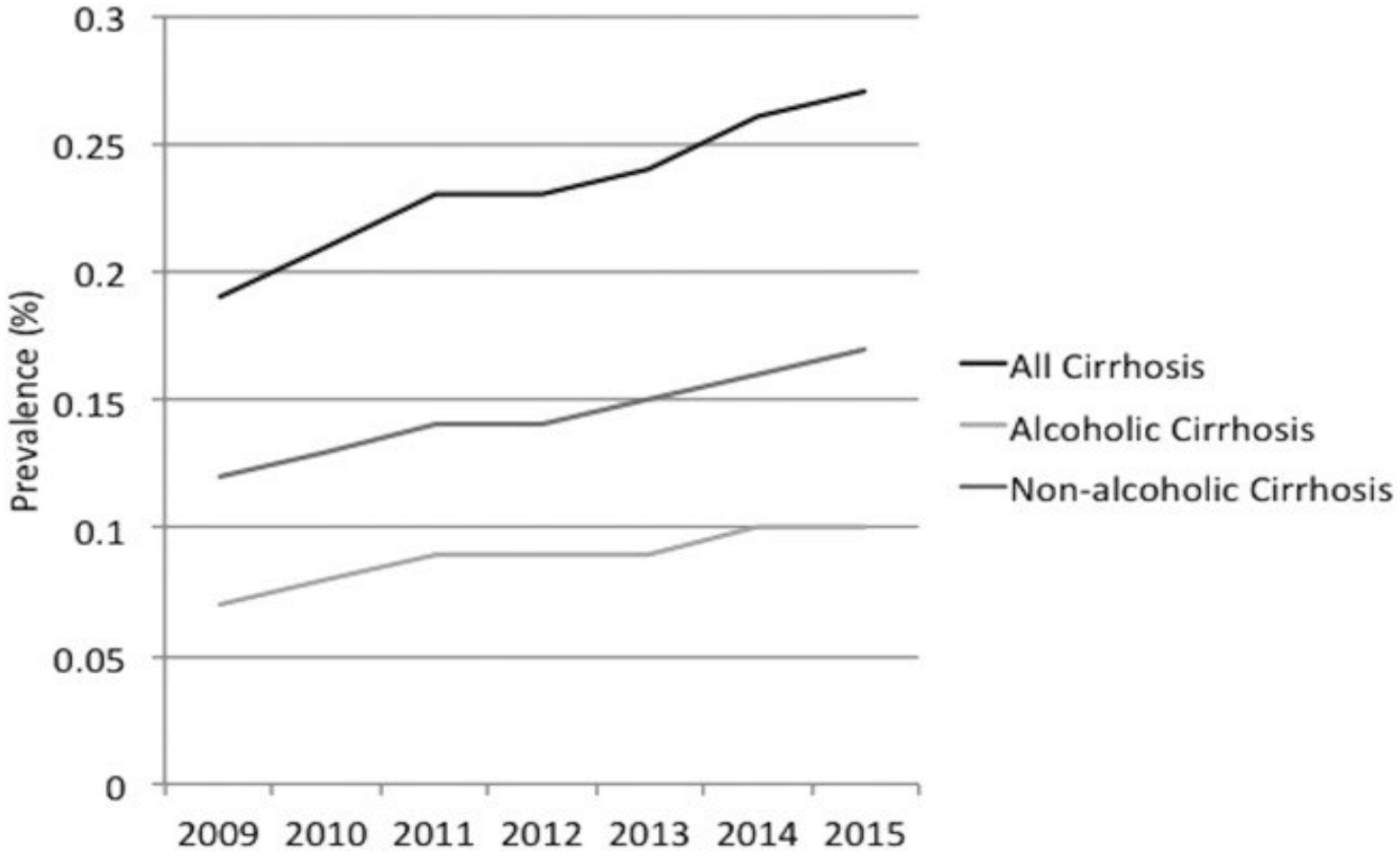
Fuster D and Samet JH. NEJM 2018;379:1251-61

ALD Progression



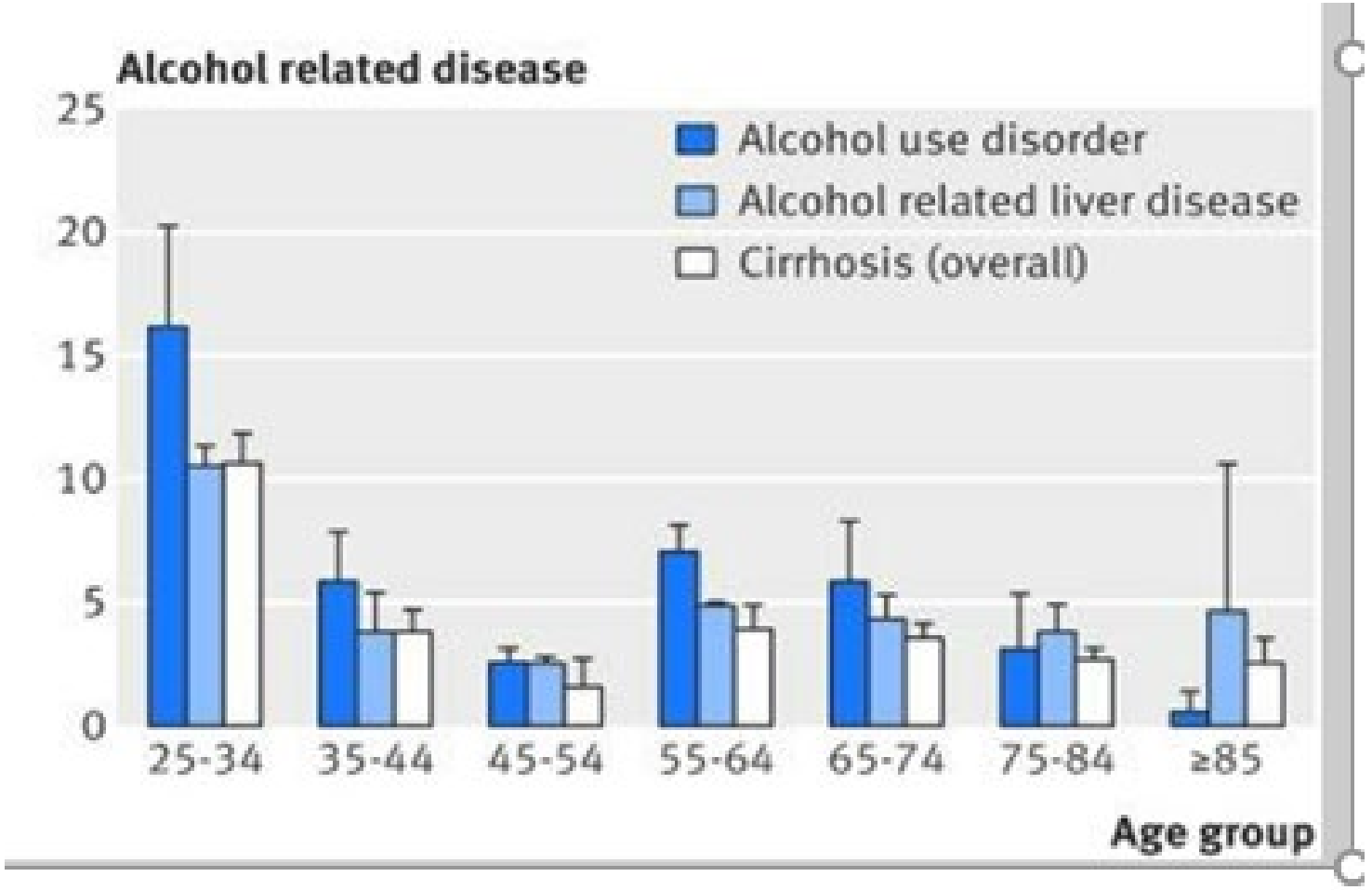
Fuster D, Samet JH. Alcohol Use in Patients with Chronic Liver Disease. N Engl J Med. 2018 Sep 27;379(13):1251-1261. doi: 10.1056/NEJMra1715733. PMID: 30257164.

Cirrhosis in Privately Insured Persons in the United States



Mellinger JL, Shedden K, Winder GS, Tapper E, Adams M, Fontana RJ, Volk ML, Blow FC, Lok ASF. The high burden of alcoholic cirrhosis in privately insured persons in the United States. Hepatology. 2018 Sep;68(3):872-882. doi: 10.1002/hep.29887. Epub 2018 May 20. PMID: 29579356.
Hepatology, Volume: 68, Issue: 3, Pages: 872-882, First published: 26 March 2018, DOI: (10.1002/hep.29887)

Mortality Due to Cirrhosis and Liver Cancer in the US 1999-2016

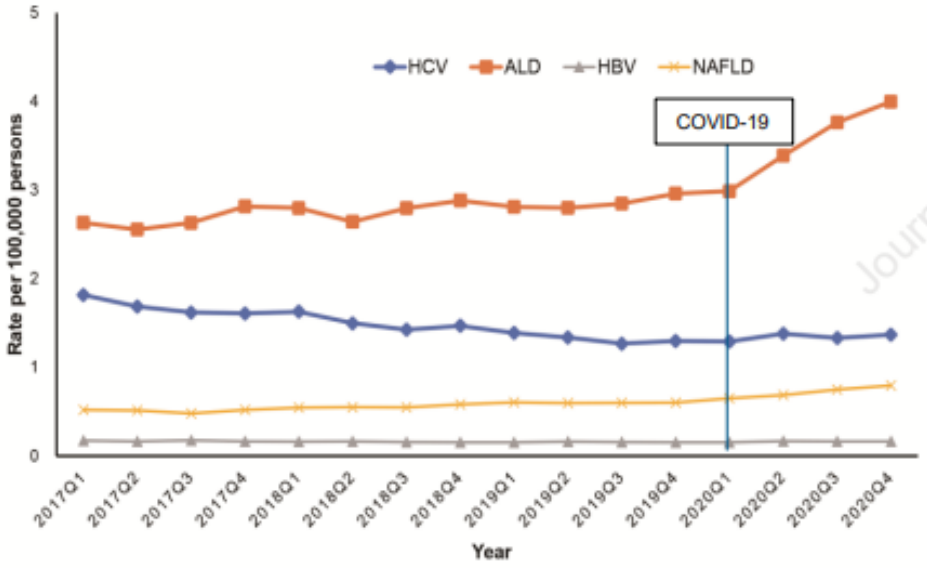


Tapper EB, Parikh ND. Mortality due to cirrhosis and liver cancer in the United States, 1999-2016: observational study. BMJ. 2018 Jul 18;362:k2817. doi: 10.1136/bmj.k2817. PMID: 30021785; PMCID: PMC6050518.

Mortality and Chronic Liver Disease

Trends in Etiology-based Mortality from Chronic Liver Disease before and during COVID-19 Pandemic in the United States

Quarterly Age-Standardized Mortality for Chronic Liver Disease



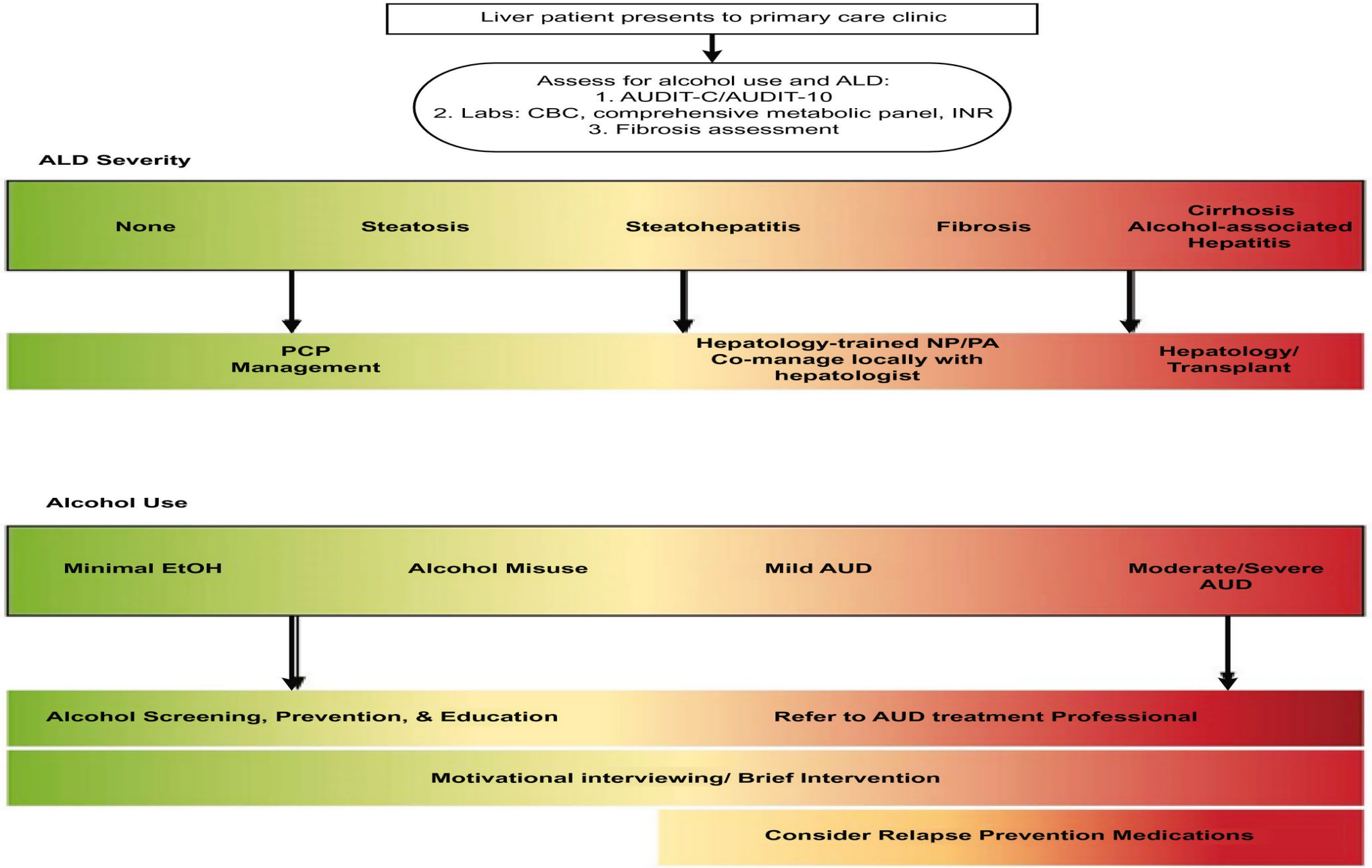
Quarterly Percentage Change (QPC) for Chronic Liver Disease-related All-cause Mortality

	Average QPC (95% CI)	Trend segment 1		Trend segment 2	
		Year	QPC (95% CI)	Year	QPC (95% CI)
ALD	3.1% (2.2, 3.9)	2017 Q1-2020 Q1	1.1% (0.6, 1.6)	2020 Q1-2020 Q4	11.2% (6.7, 15.9)
HCV	-1.7% (-2.4, -1.1)	2017 Q1-2019 Q3	-3.2% (-3.7, -2.6)	2019 Q3-2020 Q4	1.2% (-0.6, 3.0)
NAFLD	3.1% (2.3, 4.0)	2017 Q1-2019 Q4	1.9% (1.2, 2.6)	2019 Q4-2020 Q4	6.6% (3.4, 10.0)
HBV	-0.4% (-1.1, 0.3)	2017 Q1-2019 Q1	-1.5% (-2.5, -0.4)	2019 Q1-2020 Q4	0.8% (-0.5, 2.1)

Clinical Gastroenterology and Hepatology

Kim D, Alshuwaykh O, Dennis BB, Cholankeril G, Ahmed A, Trends in Etiology-based Mortality from Chronic Liver Disease before and during COVID-19 Pandemic in the United States, Clinical Gastroenterology and Hepatology (2022), doi: https://doi.org/10.1016/j.cgh.2022.05.045.

ALD Management



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Alcohol Treatment and Liver Disease Progression

Table 2. Odds Ratios for the Development of Alcohol-Associated Liver Disease After Medical Addiction Therapy

Medical addiction therapy	Adjusted odds ratio (95% CI)	*P* value
Any pharmacotherapy	0.37 (0.31-0.43)	<.001
Gabapentin	0.36 (0.30-0.43)	<.001
Topiramate	0.47 (0.32-0.66)	<.001
Baclofen	0.57 (0.36-0.88)	.01
Naltrexone	0.67 (0.46-0.95)	.03
Disulfiram	0.86 (0.43-1.61)	.66
Acamprosate	2.59 (1.84-3.61)	<.001

- Mass General-Brigham Biobank
- 9634 with AUD, 11.8% ALD; 40.5% Alcohol pharmacotherapy
- Medical treatment also associated with lower development of hepatic decompensation among patient with cirrhosis

Vannier AGL, Shay JES, Fomin V, Patel SJ, Schaefer E, Goodman RP, Luther J. Incidence and Progression of Alcohol-Associated Liver Disease After Medical Therapy for Alcohol Use Disorder. JAMA Netw Open. 2022 May 2;5(5):e2213014. doi: 10.1001/jamanetworkopen.2022.13014. PMID: 35594048; PMCID: PMC9123494.

Alcohol Treatment and Liver Disease Progression

Substance abuse treatment utilization effects on occurrence of hepatic decompensation within 1 yea following index cirrhosis diagnosis.

Variable	HR (95% Confidence Interval)	P value
Composite MHSA Visit and/or FDA medication	0.85 (0.82–0-.87)	<0.001
HCV	1.22 (1.20–1.24)	<0.001
Hepatorenal Syndrome	2.63 (2.51–2.76)	<0.001
Acute Kidney Injury	1.37 (1.34–1.40)	<0.001
Infection	1.16 (1.14–1.18)	<0.001
Depression	0.77(0.76–0.79)	<0.001
Anti-depressant medication prescription	0.99 (0.97–1.01)	<0.001
PCP Visit	0.83 (0.82–0.84)	<0.001
GI Visit	1.36 (1.35–1.38)	<0.001
South*	1.00	*
Northeast	0.95 (0.93–0.97)	<0.001
Midwest	1.03 (1.01–1.05)	0.002
West	1.06 (1.04–1.08)	<0.001

Composite MHSA Visit and/or FDA medication 0.85 (0.82–0-.87) <0.001

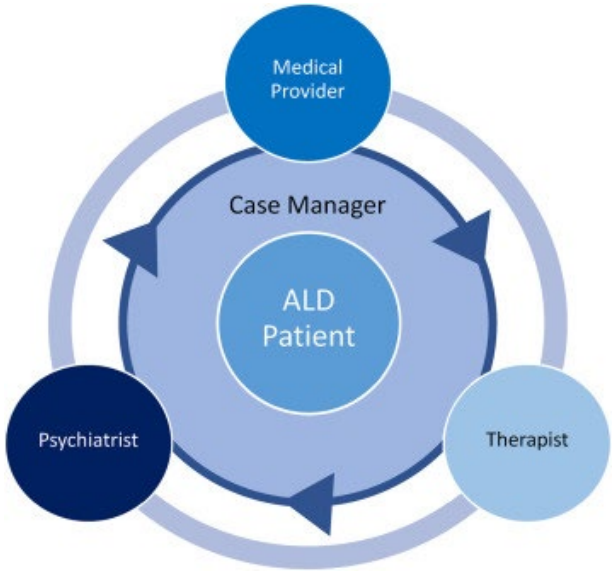
#Interaction between gender and Elixhauser score

*Indicates reference category for geographic comparisons

- Truven market scan database 2009-2016 (privately insured individuals)
- ICD-9/10 codes for cirrhosis
- Examined effects of alcohol pharmacotherapy and behavioral health visits on occurrence of hepatic decompensation
- 66,053 persons identified
- Use of both with decreased hazard of hepatic decompensation
- Women less likely to receive treatment

Mellinger JL, Fernandez A, Shedden K, Winder GS, Fontana RJ, Volk ML, Blow FC, Lok ASF. Gender Disparities in Alcohol Use Disorder Treatment Among Privately Insured Patients with Alcohol-Associated Cirrhosis. Alcohol Clin Exp Res. 2019 Feb;43(2):334-341. doi: 10.1111/acer.13944. Epub 2019 Jan 22. PMID: 30667521; PMCID: PMC6379081.

Integrated Care



Original Article

JOURNAL OF **CLINICAL** AND **EXPERIMENTAL HEPATOLOGY**

Integrated Care of Alcohol-Related Liver Disease

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Winder GS, Fernandez AC, Mellinger JL. Integrated Care of Alcohol-Related Liver Disease. J Clin Exp Hepatol. 2022 Jul-Aug;12(4):1069-1082. doi: 10.1016/j.jceh.2022.01.010. Epub 2022 Jan 31. PMID: 35814517; PMCID: PMC9257883.

Integrated Care

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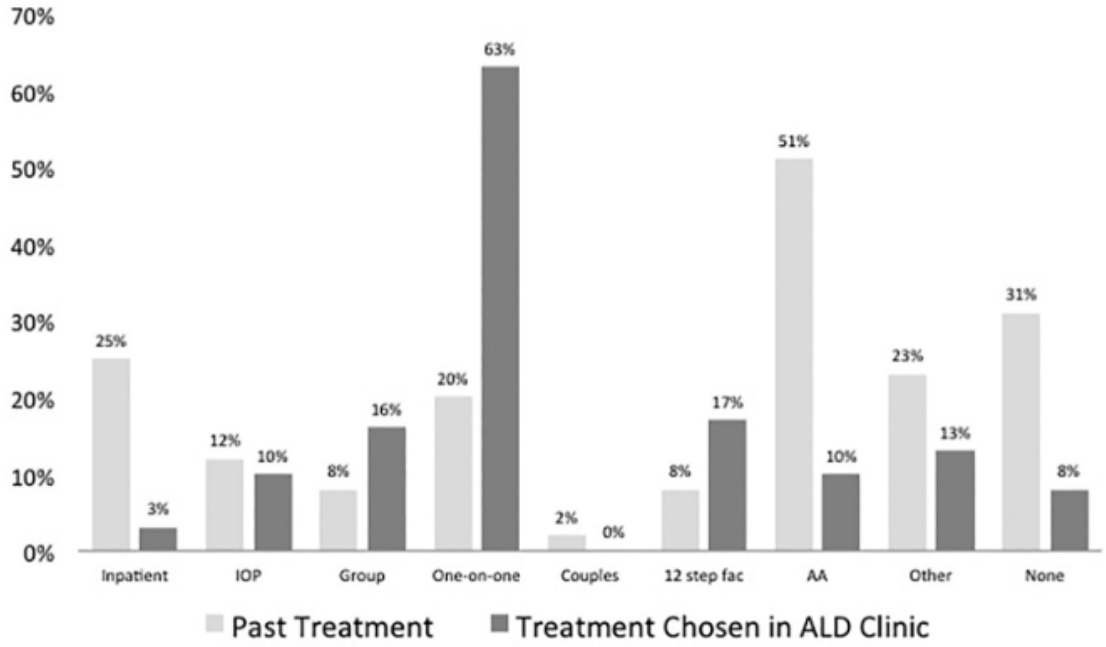

Fig. 2. Treatment modalities used before initial evaluation in clinic compared with treatments chosen at initial evaluation in ALD clinic. IOP: intensive outpatient program; 12 step fac: 12 step facilitation; AA: Alcoholics Anonymous.

Feasibility and early experience of a novel multidisciplinary alcohol-associated liver disease clinic

Jessica L. Mellinger [a,*], Gerald Scott Winder [b,g], Anne C. Fernandez [b,c], Kristin Klevering [c,d], Amanda Johnson [a], Haila Asefah [a], Mary Figueroa [e], Jack Buchanan [f], Fred Blow [b,c], Anna S. F. Lok [a]

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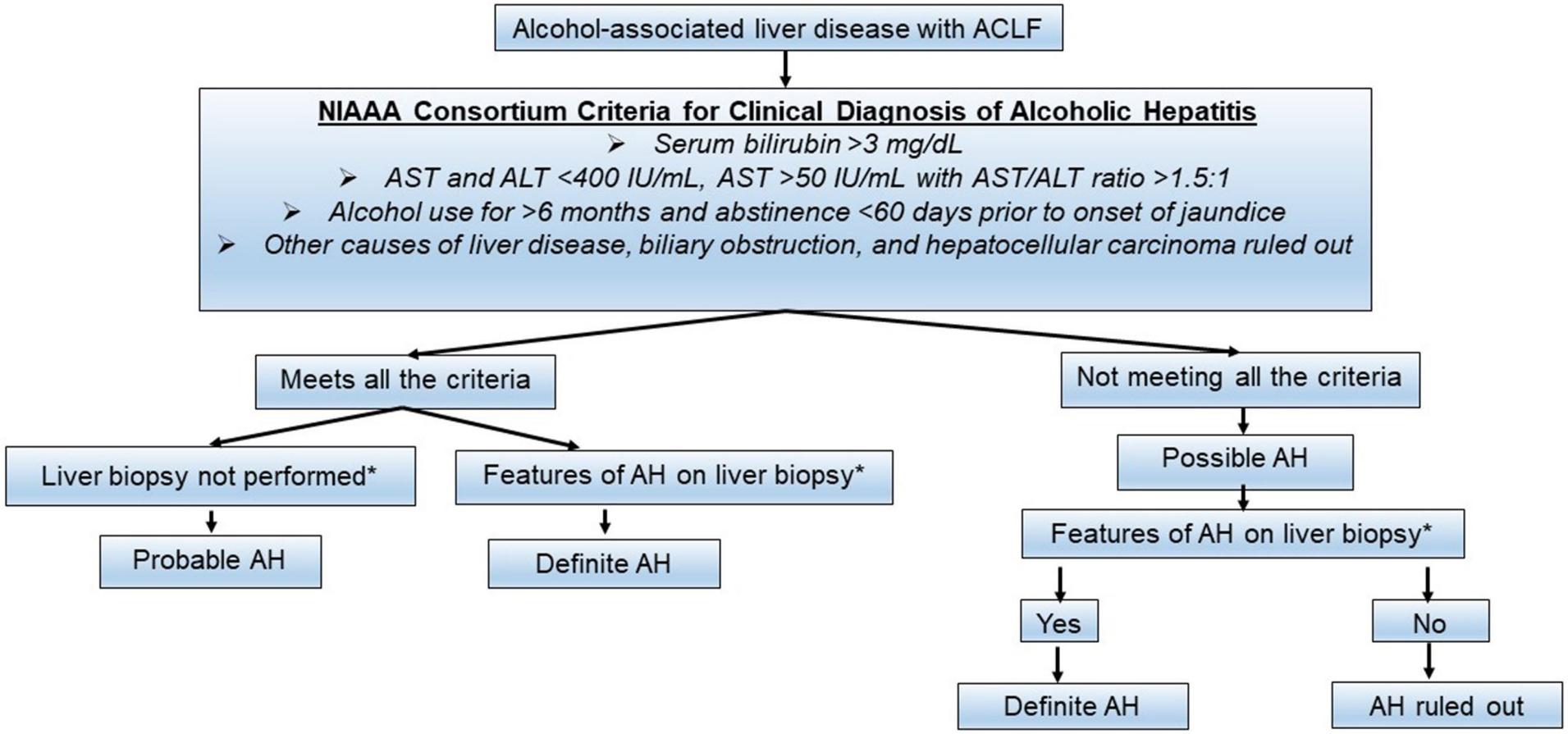
Mellinger JL, Winder GS, Fernandez AC, Klevering K, Johnson A, Asefah H, Figueroa M, Buchanan J, Blow F, Lok ASF. Feasibility and early experience of a novel multidisciplinary alcohol-associated liver disease clinic. J Subst Abuse Treat. 2021 Nov;130:108396. doi: 10.1016/j.jsat.2021.108396. Epub 2021 Apr 9. PMID: 34118717; PMCID: PMC8478703.

Alcohol-Related Hepatitis

Alcohol-Related Hepatitis



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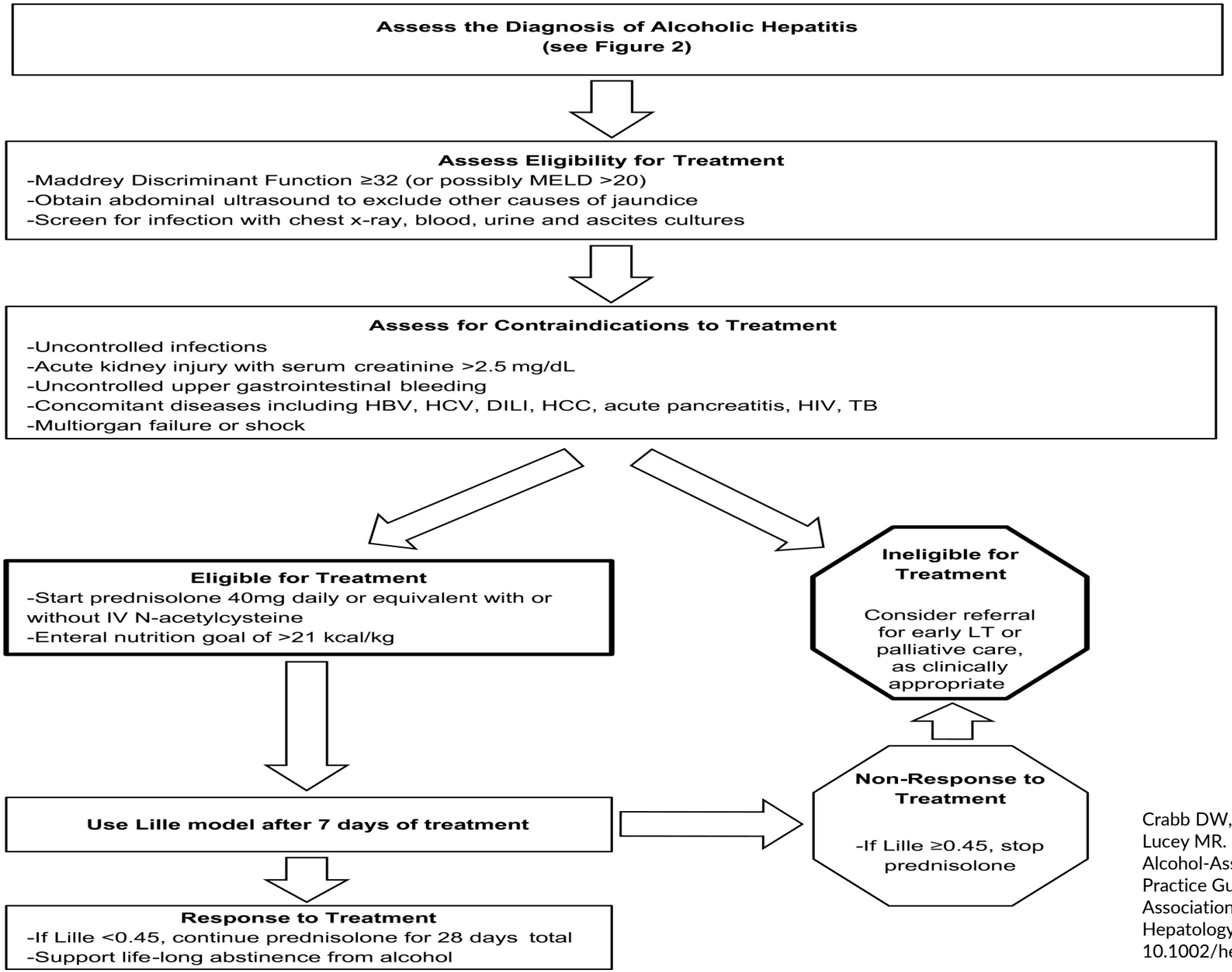

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Integrated Care

ORIGINAL ARTICLE

Early Liver Transplantation for Severe Alcoholic Hepatitis

Philippe Mathurin, M.D., Ph.D., Christophe Moreno, M.D., Ph.D., Didier Samuel, M.D., Ph.D., Jérôme Dumortier, M.D., Ph.D., Julia Salleron, M.S., François Durand, M.D., Ph.D., Hélène Castel, M.D., Alain Duhamel, M.D., Ph.D., Georges-Philippe Pageaux, M.D., Ph.D., Vincent Leroy, M.D., Ph.D., Sébastien Dharancy, M.D., Ph.D., Alexandre Louvet, M.D., Ph.D., et al.

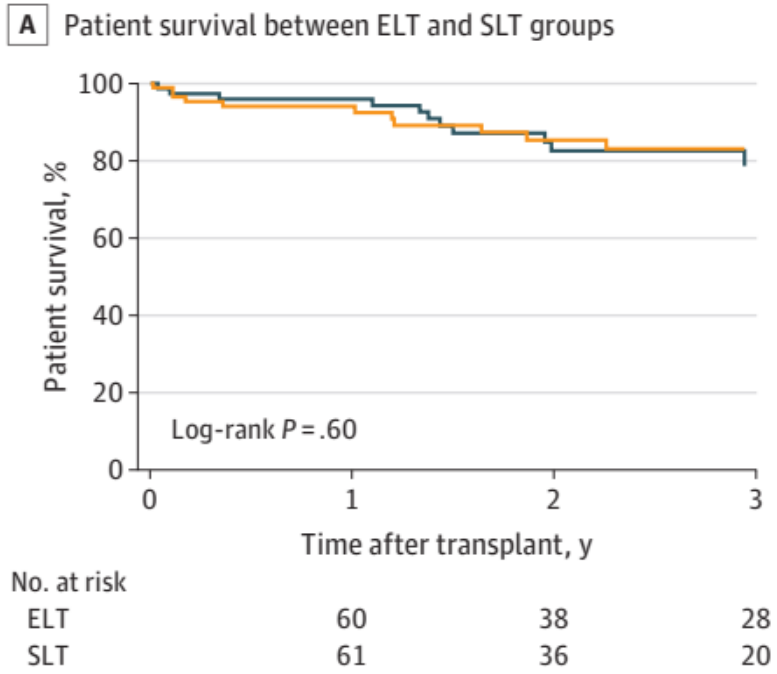
JAMA Surgery | Original Investigation

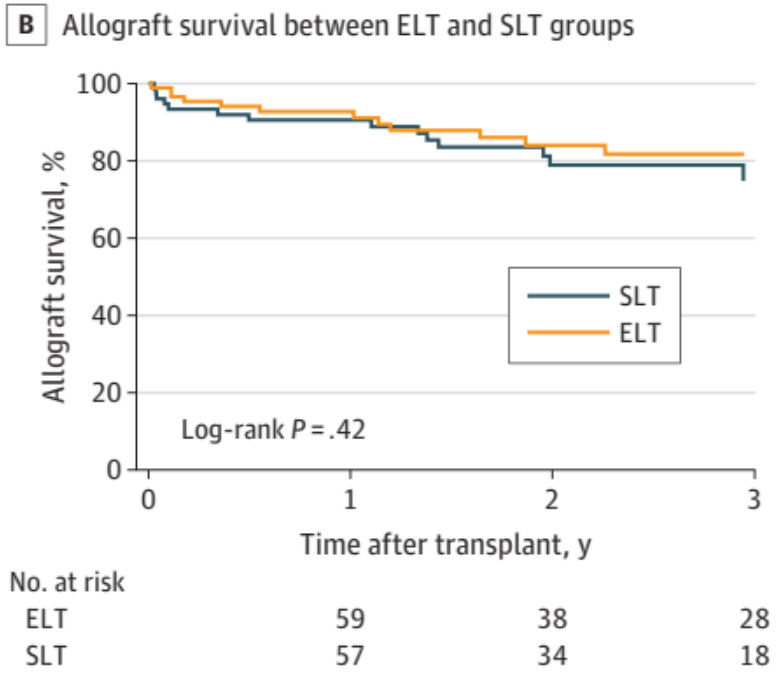
Evaluation of Early vs Standard Liver Transplant for Alcohol-Associated Liver Disease

Kayleigh M. Herrick-Reynolds, MD; Gopika Punchhi, BS; Ross S. Greenberg, BS; Alexandra T. Strauss, MD; Brian J. Boyarsky, MD; Sharon R. Weeks-Groh, MD; Michelle R. Krach, MS; Robert A. Anders, MD, PhD; Ahmet Gurakar, MD; Po-Hung Chen, MD; Dorry L. Segev, MD, PhD; Elizabeth A. King, MD, PhD; Benjamin Philosophe, MD, PhD; Shane E. Ottman, MD; Russell N. Wesson, MD; Jacqueline M. Garonzik-Wang, MD, PhD; Andrew M. Cameron, MD, PhD

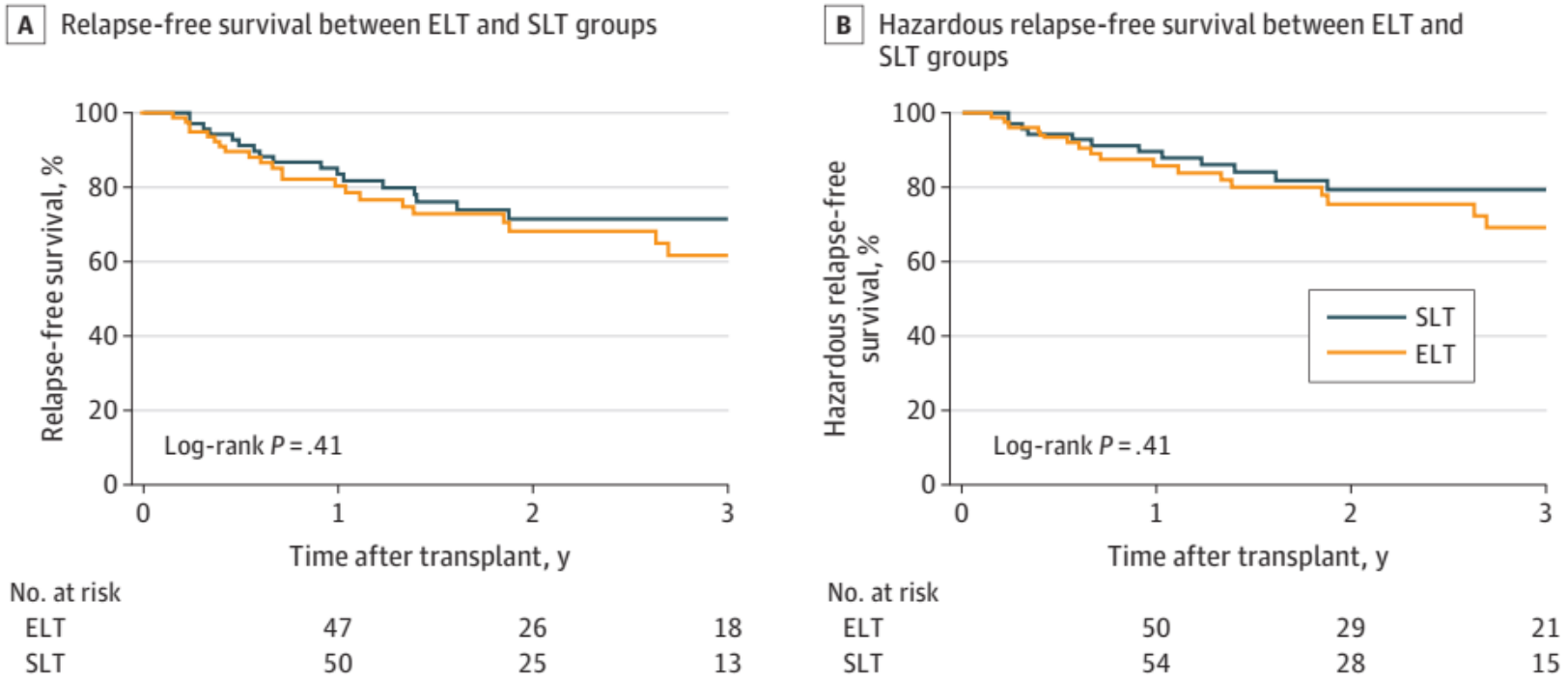
JAMA Surgery, 2021
Cohort from October 1, 2012 – November 13, 2020:
ELT 88, SLT 75

Patient & Allograft Survival

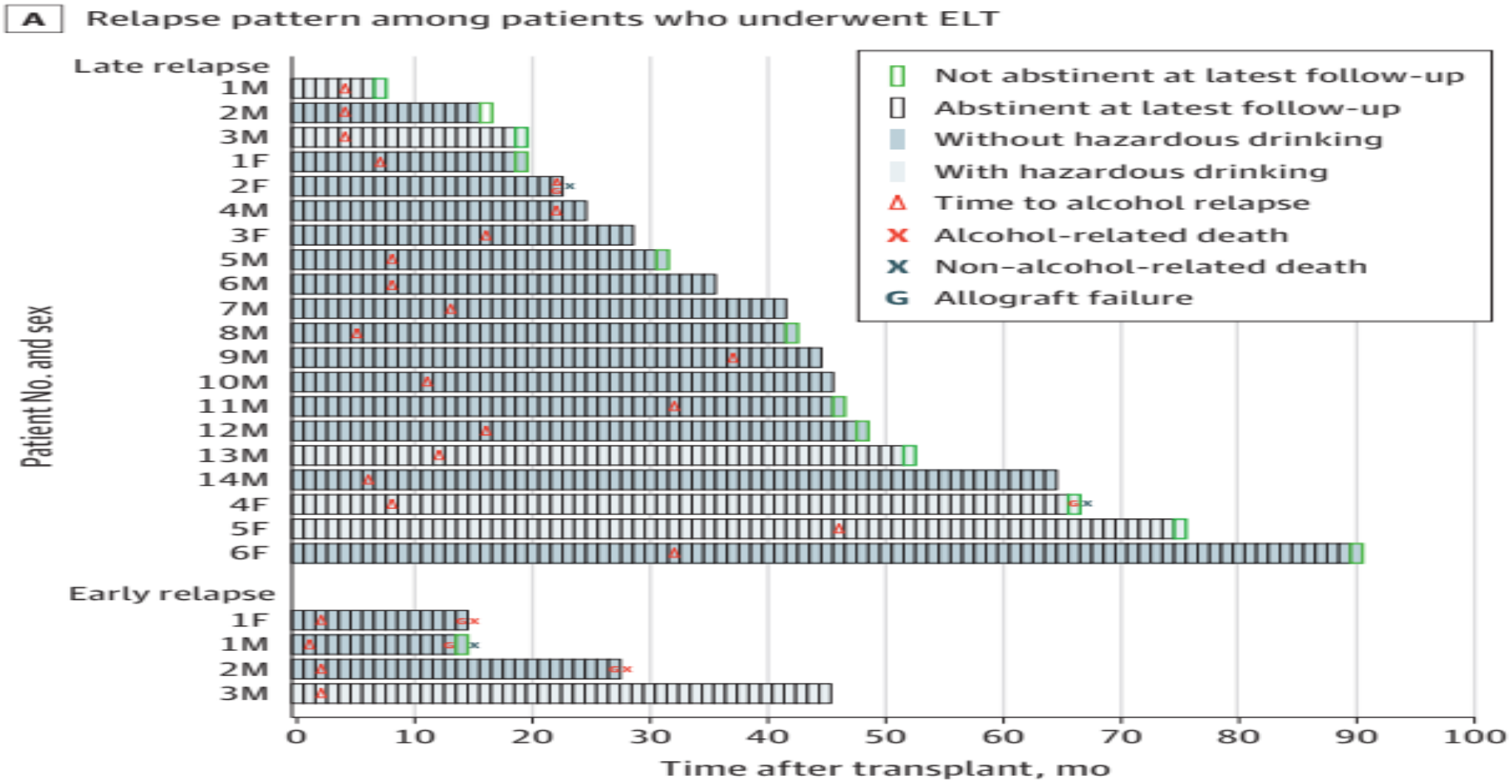




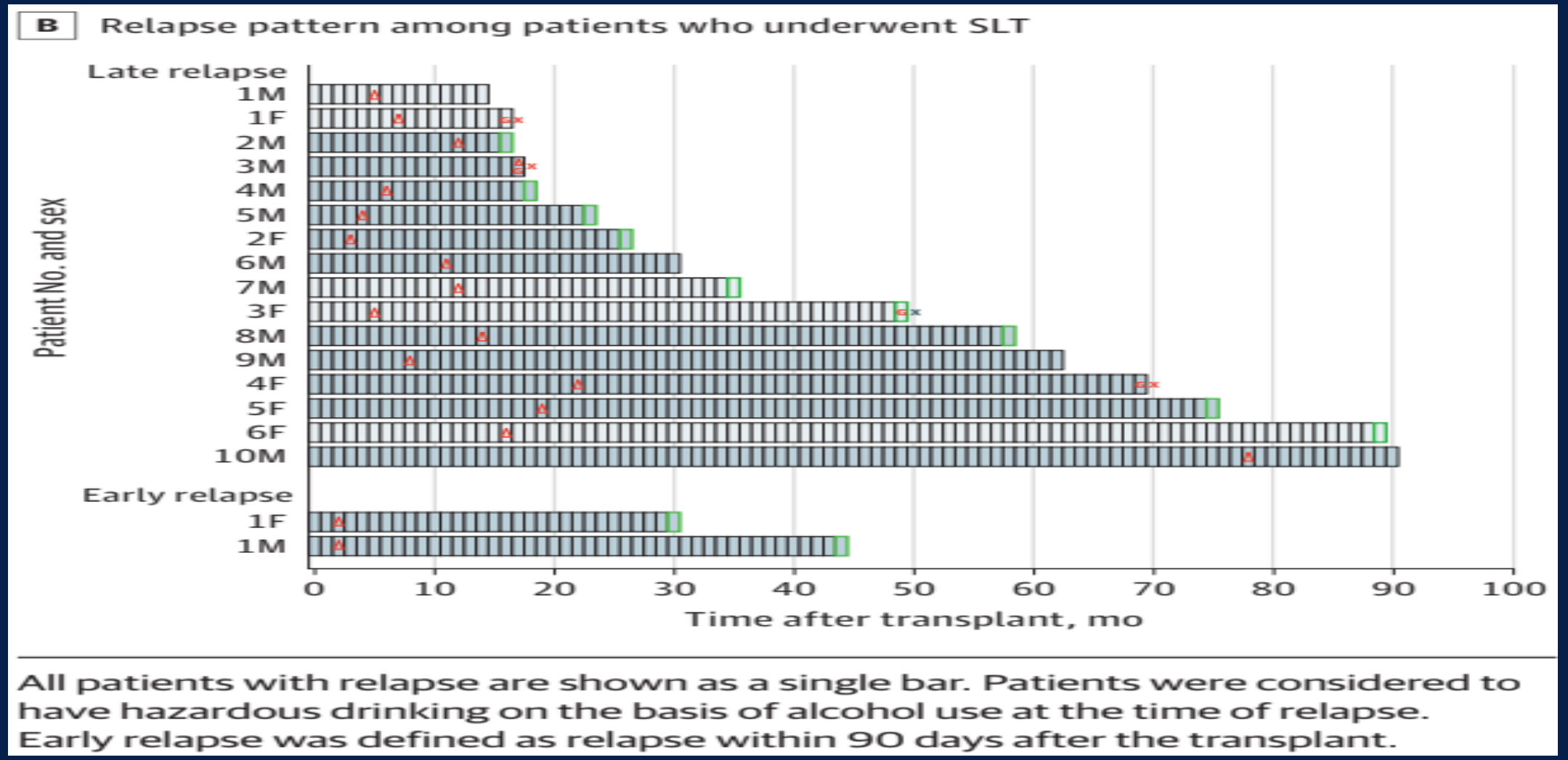
Relapse-Free & Hazardous Relapse-Free Survival



Post-LT Alcohol Relapse Patterns



Post-LT Alcohol Relapse Patterns



All patients with relapse are shown as a single bar. Patients were considered to have hazardous drinking on the basis of alcohol use at the time of relapse. Early relapse was defined as relapse within 90 days after the transplant.

Louvet A, Labreuche J, Moreno C, Vanlemmens C, Moirand R, Féray C, Dumortier J, Pageaux GP, Bureau C, Chermak F, Duvoux C, Thabut D, Leroy V, Carbonell N, Rolland B, Salamé E, Anty R, Gournay J, Delwaide J, Silvain C, Lucidi V, Lassailly G, Dharancy S, Nguyen-Khac E, Samuel D, Duhamel A, Mathurin P; QuickTrans trial study group. Early liver transplantation for severe alcohol-related hepatitis not responding to medical treatment: a prospective controlled study. Lancet Gastroenterol Hepatol. 2022 May;7(5):416-425. doi: 10.1016/S2468-1253(21)00430-1. Epub 2022 Feb 23. PMID: 35202597.

Alcohol Related Liver Disease

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