



Quality standards on management of alcohol-related liver disease from the UK – targets and tribulations

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Introduction

The global effect of alcohol-related liver disease (ALD) continues to climb. ALD is now the world's leading etiology of cirrhosis, responsible for nearly 60% of cases of cirrhosis in Europe, North America, and Latin America (1). The COVID-19 pandemic has also increased the impact of ALD with significant increases in the number of admissions for alcohol-associated hepatitis (AH) seen during this period (2). This effect is postulated to be secondary to the psychosocial impact of the pandemic and increased alcohol sales during this time, which were evident in other regions including the United Kingdom (UK) (3). The lasting effects of the pandemic on ALD will be seen in the years to come, and public health measures aimed at patient advocacy and prevention are needed (4).

To optimize the care of patients with ALD, the British Association for the Study of The Liver and the British Society of Gastroenterology (BASL/BSG) ALD special interest group recently published quality standards for the management of ALD (5). This document provides 24 quality standards aimed at improving care and reducing

practice variation in the management of this disease. Given the current changing global landscape of ALD, new guidance recommendations are welcomed. To help place these quality standards into context we compared the BASL/BSG quality standards to guidelines from various regions of the globe from liver focused organizations including those from the American Association for the Study of Liver Diseases (AASLD), the European Association for the Study of the Liver (EASL), and the Latin American Association for the Study of the Liver (ALEH) (6-8). Key similarities, differences and new insights were apparent on the topics of recommended alcohol consumption, alcohol use disorder (AUD), ALD, AH, and palliative care (*Table 1*). It should be noted that *Table 1* is not a complete summary of each society's guidelines/standards, but rather is to facilitate side-by-side comparison and highlight important aspects of caring for patients with ALD.

Comparisons

Some differences arise when comparing the current BASL/BSG quality standards to existing guidelines. Notably, the

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Table 1 Comparison and summary of quality standards and guideline statements on alcohol-related liver disease from various global regions

Recommendations	BASL/BSG [2023] (5)	EASL [2018] (7)	AASLD [2020] (6)	ALEH [2019] (8)
Alcohol consumption				
Standard drink (grams)	8	10	14 ^d	14
Daily consumption	NP	M: ≤30 g/day F: ≤20 g/day	M: ≤28 g/day F: ≤14 g/day	M: (BMI <30 kg/m ²): ≤42 g/day F: (BMI <30 kg/m ²): ≤28 g/day M: (BMI ≥30 kg/m ²): ≤28 g/day F: (BMI ≥30 kg/m ²): ≤14 g/day
Weekly consumption	M & F: <112 g/week	NP	NP	NP
“Binge” drinking	NP	M: ≥50 g within 2 hours F: ≥40 g within 2 hours	M: >70 g within 2 hours F: >56 g within 2 hours	M: >70 g within 2 hours F: >56 g within 2 hours
High-risk consumption ^a	M ^b : ≥400 g/week F ^b : ≥280 g/week	M & F: >30 g/day M: >112 g/week F: >56 g/week	M: >28 g/day F: >14 g/day	M: (BMI <30 kg/m ²): >42 g/day F: (BMI <30 kg/m ²): >28 g/day M: (BMI ≥30 kg/m ²): >28 g/day F: (BMI ≥30 kg/m ²): >14 g/day
AUD				
Screening	AUDIT-C or FAST	AUDIT/AUDIT-C	AUDIT/AUDIT-C	AUDIT/AUDIT-C or CAGE
Diagnosis	NP	Based on DSM-V criteria	Based on DSM-V criteria	M: >3 standard drinks/day; F: >2 standard drinks/day Or M & F: binge drinking Or AUDIT score >8
Management	Early, longitudinal, and multidisciplinary approach involving addiction specialists and brief interventions	Early, longitudinal, and multidisciplinary approach involving addiction specialist and brief interventions	Early, longitudinal, and multidisciplinary approach involving addiction specialist and brief interventions	Early, longitudinal, and multidisciplinary approach involving addiction specialist and brief interventions
Pharmacologic management in patients with concurrent ALD	Acamprosate and baclofen	Acamprosate and baclofen	Acamprosate and baclofen	Baclofen
Management of alcohol Withdrawal	CiWA protocol with prn benzodiazepines	CiWA protocol with prn benzodiazepines	NP	NP
ALD				
Screening	Assessment of liver fibrosis should be offered based on alcohol consumption: M ^b : ≥400 g/week; F ^b : ≥280 g/week; M & F ^c : ≥112 g/week	Should be performed in high-risk populations such as those in alcohol rehabilitation clinics, or as identified in primary care	NP	NP

Table 1 (continued)

Table 1 (continued)

Recommendations	BASL/BSG [2023] (5)	EASL [2018] (7)	AASLD [2020] (6)	ALEH [2019] (8)
Diagnosis	NP	Suspected in females consuming >20 g/day and males >30 g/day of alcohol with clinical and/or biological abnormalities suggestive of liver injury. ALD should also be considered in patients with extrahepatic manifestations of AUD including peripheral neuropathy, pancreatitis, cardiomyopathy, and others	There is no unique presentation of ALD that can be distinguished with confidence from other forms of liver disease. Careful evaluation of drinking history and exclusion of other causes of liver disease is required	Relies on a history of significant alcohol intake clinical features, laboratory abnormalities and exclusion of other causes of liver disease
Fibrosis assessment	Validated, non-invasive liver fibrosis markers including FIB-4, APRI, ELF, TE	TE +/- liver biopsy in cases of diagnostic uncertainty. No specific recommendations on FIB-4, APRI or ELF	NP	TE +/- liver biopsy in cases of diagnostic uncertainty. No specific recommendations on FIB-4, APRI or ELF
Management	Patients admitted to hospital with ALD should be reviewed by a clinician trained in hepatology within 24 hours of admission and followed up within 6 weeks of discharge. Community-based management of AUD with access to addictions specialists including pharmacologic treatment of AUD recommended. Nutritional support for those with advanced ALD. Complete alcohol abstinence recommended	Treatment of comorbid conditions such as obesity, insulin resistance, malnutrition, cigarette smoking, iron overload, and viral hepatitis. Community-based management of AUD with access to addictions specialist including pharmacologic treatment of AUD. Complete alcohol abstinence recommended	Treatment of comorbid conditions such as obesity are often needed. Community-based management of AUD with access to addictions specialists including pharmacologic treatment of AUD recommended. Complete alcohol abstinence recommended	Performed by multidisciplinary teams with access to addictions specialist including pharmacologic treatment of AUD. Adequate food intake with proper protein and caloric content should be considered. Complete alcohol abstinence recommended
LT	Should be considered for patients with ALD and ongoing hepatic failure with a UKELD score >49 and alcohol abstinence. A definite 6-month abstinence period is not required	Should be considered for patients with ALD with a MELD ≥ 15 and/or Child-Pugh C classification. Selection of LT should not be based on a 6-month criterion of abstinence alone	Should be considered for patients with decompensated cirrhosis, MELD ≥ 21 , Child-Pugh C classification, an episode of SBP or HCC. Selection should not be based on a fixed abstinence interval	Should be considered for patients with end-stage ALD. Selection of LT should not be based on a 6-month criterion of abstinence alone
AH				
Diagnosis	NIAAA criteria +/- liver biopsy if confounding factors	NIAAA criteria +/- liver biopsy if confounding factors	NIAAA criteria +/- liver biopsy if confounding factors	NIAAA criteria +/- liver biopsy if confounding factors
Treatment indications	MELD ≥ 21 , GAHS ≥ 9 , NLR ≥ 5	mDF ≥ 32 , GAHS ≥ 9	mDF ≥ 32 , GAHS ≥ 9 , MELD ≥ 21	mDF ≥ 31 , MELD ≥ 21
Management				
Alcohol abstinence	Yes	Yes	Yes	Yes
Corticosteroids*	Yes	Yes	Yes	Yes
NAC†	NP	Consider	Consider	Consider

Table 1 (continued)

Table 1 (continued)

Recommendations	BASL/BSG [2023] (5)	EASL [2018] (7)	AASLD [2020] (6)	ALEH [2019] (8)
Pentoxifylline	NP	No	No	No
G-CSF	NP	No	No	No
B-complex vitamins	NP	Yes	NP	Yes
Preventing AKI ^g	NP	Yes	Yes	NP
Nutritional	Assessment by dietician with hepatology experience and malnutrition optimized	35–40 kcal/kg/day of body weight with a daily protein intake of 1.2–1.5 g/kg	Mainnutrition should be addressed and treated, preferably with enteral nutrition. Consider therapeutic doses of zinc	Oral intake should be started as soon as possible and a daily intake of 1.5 g/kg of ideal body weight of protein is recommended
Treatment response	Day 4/7 Lille score <0.45	Day 7 Lille score <0.45	Day 7 Lille score <0.45	Day 4/7 Lille score <0.45
Early LT	NP	Early LT in highly select patients should be considered in patients without a treatment response to corticosteroids	LT may be considered in carefully selected patients with favorable psychosocial profiles in severe AH not responding to medical therapy	Should be considered in patients with severe AH
Corticosteroid use in AH				
Contraindications	Uncontrolled infection	Uncontrolled infection	Uncontrolled infection, AKI with serum creatinine >2.5 mg/dL, uncontrolled gastrointestinal bleeding, concomitant disease including HBV, HCV, DILI, HCC, acute pancreatitis, HIV, TB, and multiorgan failure or shock	Sepsis, active gastrointestinal bleeding, acute pancreatitis, active tuberculosis, uncontrolled diabetes, and psychosis
Infectious screening recommendations	Patients presenting with decompensated ALD or AH should be screened for infection	Systematic screening for infection should be performed before initiating therapy, during corticosteroids treatment and during the follow up period	Chest X-ray, blood, urine, and ascites cultures should be performed in all patients with AH	Diagnostic paracentesis, blood, urine, and sputum cultures should be obtained
Palliative care assessment	Recommended for those with ALD an expected survival of <12 months	NP	NP	NP

^a, high-risk consumption is defined by the amount of alcohol consumed at which the risk of alcohol-related liver disease, including liver fibrosis is felt to increase; ^b, increased risk of “advanced” fibrosis; ^c, in patients with cofactors for liver disease including obesity and diabetes; ^d, the AASLD acknowledges that a simplification in the quantification of a standard drink would be to adopt the European standard that one started drink is defined by 10 g of pure alcohol; ^e, prednisolone 40 mg p.o. daily (or equivalent) administered for up to 28 days depending on treatment response; ^f, N-acetylcysteine for 5 days intravenously may be combined with corticosteroids; ^g, avoidance of diuretics/nephrotoxic drugs with volume expansion if needed. BASL/BSG, British Association for the Study of the Liver/British Society of Gastroenterology; EASL, European Association for the Study of the Liver; AASLD, American Association for the Study of Liver Diseases; ALEH, Latin American Association for the Study of the Liver; NP, not provided; M, male; F, female; BMI, body mass index; AUD, alcohol use disorder; AUDIT, alcohol use disorders identification test; AUDIT-C, alcohol use disorders identification test-consumption; FAST, fast alcohol screening test; CAGE, Cut down, Annoyed, Guilty, Eye-opener; DSM-V, Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition; CIWA, Clinical Institute Withdrawal Assessment for Alcohol; ALD, alcohol-associated liver disease; FIB-4, fibrosis-4; APRI, AST to platelet ratio index; ELF, enhanced liver fibrosis test; TE, transient elastography; LT, liver transplant; UKELD, UK Model for End-Stage Liver Disease; MELD, model for end-stage liver disease score; SBP, spontaneous bacterial peritonitis; HCC, hepatocellular carcinoma; NIAAA, National Institute on Alcohol Abuse and Alcoholism; GAHS, Glasgow Alcoholism Score; NLR, neutrophil-to-lymphocyte ratio; mDF, Maddrey’s Discriminant Function; NAC, N-acetylcysteine; G-CSF, granulocyte colony stimulating factor; AKI, acute kidney injury; AH, alcohol-associated hepatitis; HBV, hepatitis B virus; HCV, hepatitis C virus; DILI, drug-induced liver injury; HIV, human immunodeficiency virus; TB, tuberculosis.

recommendations on alcohol consumption, including the definition of a standard drink, are variable among published guidance documents (*Table 1*). The UK quantifies a standard drink in terms of “alcohol units” which translates to 8 g of pure alcohol per alcohol unit. When converting the recommendations provided by the BASL/BSG document into grams of alcohol the results demonstrate a stricter alcohol consumption recommendation compared to those provided by EASL, AASLD and ALEH. Interestingly, the BASL/BSG authors recommend an identical weekly alcohol consumption limit for individuals of male and female sex, which stems from guidance provided by the UK Chief Medical Officer’s guidelines on drinking (9). This is a contrasting recommendation as important sex differences in ALD exist, namely evidence demonstrating that biological females are more susceptible to severe forms of ALD at lower alcohol consumption levels compared to males (10). As our understanding of the influence biological sex has on ALD continues, it will be interesting to see how recommendations provided by future guidelines on alcohol consumption develop.

ALD requires a multidisciplinary approach to disease management. Identifying and treating patients with AUD is a cornerstone in managing ALD and should be addressed by those practicing hepatology alongside addiction specialists. The BASL/BSG authors rightfully stress the importance of a multidisciplinary approach to ALD and provide recommendations for the use of validated screening measures such as the alcohol use disorders identification test [AUDIT/AUDIT-consumption (AUDIT-C)] in screening for AUD. Evaluation by clinicians trained in hepatology, addictions medicine (with intervention and referral as indicated) as well as dietitians with experience in liver disease for patients admitted with ALD/AH are key performance metrics in the BASL/BSG statement with a targets of 95%. Although optimal, likely these targets are more aspirational and the likelihood of approaching these targets depends on the size and resources of the facility a patient with ALD is admitted to.

Strong, evidence-based recommendations including pharmacologic management of AUD, management of alcohol withdrawal, alcohol abstinence for patients with ALD, and consideration of liver transplant without a predetermined period of alcohol abstinence reflected in the BASL/BSG quality standards are like those provided in other guidelines. Importantly the BASL/BSG also commits to using destigmatizing language when discussing ALD.

New insights

Included in the BASL/BSG quality standards are recommendations for palliative care involvement in patients with ALD expected to survive less than 12 months. This is a critical recommendation that had been missing from prior guidelines on ALD and is an important aspect of delivering high-quality care to those with advanced liver disease. As recommended by the BASL/BSG authors, discussion on disease trajectory and advanced care planning are meant to occur alongside active disease management and should include a multidisciplinary approach with input from dietitians, addiction specialists, hepatologists and the core palliative team. This also involves a recommendation for clear documentation of plans to escalate care for patients with acute-on-chronic liver failure based on patient preferences and considering overall patient function, frailty, comorbidity, and transplant eligibility. This approach not only provides patient-centered care but considers healthcare resource utilization which becomes paramount when planning for and anticipating the rise in patients with ALD requiring hospitalization.

Another interesting recommendation not previously seen in recent guidelines is the assessment of liver fibrosis based on alcohol consumption levels without other clinical features of liver injury. The authors recommend that patients who drink alcohol hazardously [≥ 280 g/week (35 units/week) for biological women, and ≥ 400 g/week (50 units/week) for biological men] be screened for evidence of liver fibrosis, with means such as biochemical markers of liver fibrosis or transient elastography. This recommendation stems from a retrospective analysis where the risk of advanced fibrosis (defined as F3 or greater) associated with alcohol consumption was different based on biological sex (11). Compared to patients consuming <35 units/week of alcohol, the risk of advanced fibrosis was significantly higher in biological men consuming >50 units/week of alcohol [odds ratio (OR) =2.74, 95% confidence interval (CI): 1.51–5.00, $P=0.001$], and in biological women consuming >35 units/week of alcohol (OR =5.12, 95% CI: 1.31–20.03, $P=0.019$). Importantly, this section of the BASL/BSG quality standards also recognizes that the alcohol consumption threshold for which the risk of ALD and fibrosis occurs is lower in those who have pre-existing risk factors for liver disease including risk factors for metabolic dysfunction-associated steatotic liver disease (MASLD). As such, the BASL/BSG authors recommend

a similar assessment of liver fibrosis for patients with cofactors for liver disease should they consume >112 g/week (14 units/week) of alcohol. Although the EASL guidelines suggest screening for fibrosis secondary to ALD in high-risk patients with alcohol consumption >20 g/day for biological females and >30 g/day for biological males, these recommendations are provided in the context of concurrent objective clinical/laboratory evidence of liver injury. Overt evidence of liver injury may not always be present in patients with ALD, making the suggested liver fibrosis assessment recommendations from BASL/BSG an interesting approach to screening.

Where to go from here?

Recent changes have been introduced in the approach to steatotic liver disease, including the nomenclature with the introduction of metabolic and alcohol-related/associated liver disease (MetALD) (12). These changes recognize the significant overlap between MASLD and ALD in the development of steatosis and hepatic injury, and it will be interesting to see how future guidelines on ALD adapt to reflect these changes. Given that MetALD is defined as patients with MASLD who consume 140–350 and 210–420 g/week of alcohol for biological females and males respectively, we anticipate that changes to current recommended “safe alcohol consumption” limits will ensue and be based on individualized metabolic risk profiles. Further, guidelines on ALD will likely include more in-depth management recommendations targeting metabolic risk factors in patients with ALD. We also expect new recommendations to arise on the management of AUD in patients with ALD as studies assessing current pharmacologic therapies approved for the treatment of AUD are explored for safety in the ALD population. The management of ALD will be an exciting area of research to watch develop in the future.

Due to some significant differences in published ALD guidelines, recent calls for an international, unifying consensus guideline on the management of ALD have been made (13). Although such global guidelines would be beneficial, this is not likely possible due to complex genetic and environmental factors that are believed to influence the natural history of ALD, and therefore we anticipate seeing continued updates on ALD guidelines from specific regions across the globe (7). Overall, the BASL/BSG quality standards enforce known, strong, recommendations in the management of ALD and provide targets that can be

monitored and audited to improve care of patients living with ALD.

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