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Diagnosis and Treatment of Alcohol Use Disorder and Alcohol-Associated Liver Disease in Ghana: The St Joseph Hospital, Koforidua in Focus

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Abstract

There is not enough literature on diagnosis and management of alcohol use disorder and alcohol-associated liver diseases in Ghana. This study aimed at reviewing the diagnosis and management of Alcohol Use Disorder and Alcohol-associated Liver Diseases in accordance with the 2019 Practice Guidance from the American Association for the Study of Liver Diseases and the National Institute for Clinical Excellence (NICE) guidelines short version draft (2017). The study was conducted at the St Joseph Hospital, Koforidua. Over a two-year period (January 2020 - December 2021), twenty-one patients diagnosed and managed for alcohol use and alcohol-associated liver diseases were retrieved for review. Five out of the twenty-one folders were finally reviewed after meeting the inclusion criteria. All patients were males and aged between 39 and 68 years. Results indicated that the diagnosis of Alcohol Use Disorder and Alcohol-associated Liver Diseases remains a challenge in the Ghanaian setting. There is a poor treatment/management protocol for alcohol-associated liver diseases due to clinician factors like the non-involvement of a multidisciplinary team of experts and the unavailability of diagnostic investigations. Larger clinical studies should be encouraged to develop locally based diagnostic and treatment/management protocols for Ghana. Clinicians must also develop the habit of involving a multidisciplinary team of experts in the management of alcohol-associated liver diseases.

Subject Areas

Clinical Medicine, Gastroenterology & Hepatology

Keywords

Alcohol Use Disorder, Liver Disease, Guidelines, Diagnosis,

Treatment/Management

1. Introduction

One of the major risk factors for population health worldwide is harmful alcohol use (Håkansson & Ek, 2018 [1]; Aslam & Kwo, 2023 [2]; Ayare *et al.*, 2022 [3]), which directly affects a number of Sustainable Development Goals health targets, including maternal and child health, infectious diseases (such as HIV, viral hepatitis, and tuberculosis), non-communicable diseases, mental health, injuries, and poisoning (Jophlin & Singal, 2022 [4]; Mitchell *et al.*, 2017 [5]; Saberi *et al.*, 2016 [6]; Im & Lucey, 2016 [7]; Dugum & McCullough, 2015 [8]). Globally, over two billion people currently consume alcohol, and in 2016 an estimated three million people died as a result of alcohol's detrimental effects (Im & Lucey, 2016 [7]; World Health Organization, 2018 [9]; Saberi *et al.*, 2016 [6]; GBD 2017 Cirrhosis Collaborators, 2020 [10]). Tragically, Africa has the worst burden of alcohol related diseases and injury of which Ghana is no exception (World Health Organization, 2018) [9].

Research by Osna *et al.* (2017) [11], Saberi *et al.*, (2016) [6], Arab *et al.*, (2021) [12], Mitchell *et al.*, (2017) [5] and Ayares *et al.*, (2022) [3] revealed that, several years of alcohol consumption harm almost all of the body's organs. On the other hand, since it is the main site of ethanol metabolism, the liver experiences the quickest and most severe tissue damage from excessive alcohol consumption (Osna *et al.*, 2017) [11]. Alcoholic liver disease (ALD) might be the most ancient type of liver damage that has ever existed and defined by O'Shea *et al.* (2010) [13] as "encompasses a spectrum of injury, ranging from simple steatosis to frank cirrhosis". People with ALD may have similar risk factors for concurrent damage from several other liver injuries (e.g., co-existing non-alcoholic fatty liver disease, or chronic viral hepatitis) (O'Shea *et al.*, 2010) [13]. Its diagnosis and management, therefore, become very crucial (Sohail & Satapathy, 2012 [14]; Dugum & McCullough, 2015 [8]; Im & Lucey, 2016 [7]; Aslam & Kwo, 2023 [2]).

Studies on the prevalence of alcohol-related liver diseases in the African continent especially in Ghana are scarce and this is a challenge for the accurate management and prevention of such diseases among the populace. Although many cases of alcohol-related diseases have been diagnosed and managed at various medical departments/wards in the country, no form of research has been conducted to evaluate these management principles in accordance with the guidance provided by the new "Diagnosis and Treatment of Alcohol-Associated Liver Diseases: 2019 Practice Guidance from the American Association for the Study of Liver Diseases".

This study therefore seeks to review the diagnosis and management of Alcohol Use Disorder and Alcohol-associated Liver Diseases in accordance to 2019 Prac-

tice Guidance from the American Association for the Study of Liver Diseases and the National Institute for Clinical Excellence (NICE) guidelines short version draft (2017) at the St Joseph Hospital, Koforidua.

2. Methods

Over a two year period (January 2020 - December 2021), folders of patients who were managed for Acute and Chronic liver diseases at the St joseph Hospital, Koforidua (located in Eastern Region, Ghana) were requested after seeking consent from the hospital's authorities for medical review/research. However, only a total of 6 patient folders were retrieved/found. Since the special focus of this research/review is on alcohol related liver diseases, only 5 out of the earlier 6 folders met the criteria (having a history of alcoholism and diagnosed of either acute or chronic liver disease). The five folders were then reviewed thoroughly from patients' history, physical examination, diagnostic investigations, and treatment/management from admission to discharge. Every piece of information in the folder was considered relevant for the study.

The first aspect of the review focused on diagnosing Alcohol Use Disorder in accordance with the "2019 Practice Guidance from the American Association for the Study of Liver Diseases". That aspect encompasses Diagnostic Criteria for Alcohol Use Disorder; Treatment of Alcohol Use Disorders; Psychosocial and Behavioral Approaches to Alcohol Use Disorder Treatment in Patients with ALD; and Relapse Prevention Medications.

The second aspect focuses on the diagnosis of Alcohol-Associated Liver Disease also according to the principles enlisted by the "2019 Practice Guidance from the American Association for the Study of Liver Diseases". It comprises Risk Factors for Alcohol-Associated Liver Disease, Signs and Symptoms; Alcohol-Associated Cirrhosis; Diagnosing Alcoholic Hepatitis; Biomarkers of alcohol use; Prognosis, and The treatment of Alcoholic Hepatitis. At the time of this study, the National Institute for Clinical Excellence (NICE) guidelines short version draft (2017) (also used as a guideline comparison for this study) was still in consultation and researchers will not be responsible for any future changes/guideline recommendations that might be effected with respect to this study. Patients have been anonymized using P1, P2, P3, P4, and P5.

3. Results

3.1. Demographic Characteristics and Laboratory Investigation Checklist of Patients

There were a total of 5 patients (all males) aged between 39 and 68 years and were farmers (2/5), a pensioner (1/5), security men (1/5) or laborer (1/5) (**Table 1**).

3.2. Part One: Diagnosis and Management of Alcohol Use Disorder

Of all the five patients, three were within the "severe category" one was in

the "moderate category" and another one was also in the "mild symptoms category". This, therefore, indicate that all patients had "Alcohol Use Disorder" (Table 2).

Table 1. Demographic characteristics and laboratory investigation checklist of patients.

Patient Demography				Laboratory Investigation Checklist					
ID	Age/years	Sex	Occupation	LFT	RFT	USG	FBC	HEP B/C	URINE R/E
P1	46	Male	Farmer	Yes	Yes	Yes	Yes	Yes	Yes
P2	39	Male	Security man	Yes	yes	Yes	Yes	Yes	Yes
P3	68	Male	Pensioner	Yes	Yes	Yes	Yes	Yes	Yes
P4	66	Male	Farmer	Yes	No	No	Yes	No	Yes
P5	40	Male	Laborer	No	No	Yes	Yes	Yes	Yes

*LFT: liver function test; RFT: Renal Function Test; USG: abdominal ultrasound; FBC: full blood count; Hep B/C: Hepatitis B and C screening. Yes/No indicate either they had that particular laboratory investigation done or not in their folders. No: either means it was not done or nor found.

Table 2. Diagnostic criteria for alcohol use disorder.

Diagnostic Criteria for Alcohol Use Disorder					
Symptoms	Patients				
	P1	P2	P3	P4	P5
1. Alcohol is often taken in larger amounts or over a longer period than intended.	Yes	Yes	Yes	Yes	Yes
2. There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.	Yes	Yes	Yes	No	Yes
3. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.	NA	Yes	Yes	NA	N/A
4. Craving, or a strong desire or urge to use alcohol.	Yes	Yes	Yes	Yes	Yes
5. Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home.	NA	Yes	NA	NA	Yes
6. Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.	Yes	Yes	Yes	No	NA
7. Important social, occupational, or recreational activities are given up or reduced because of alcohol use.	NA	Yes	NA	NA	NA
8. Recurrent alcohol use in situations in which it is physically hazardous.	NA	NA	Yes	NA	Yes
9. Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.	Yes	Yes	Yes	No	Yes
Tolerance, defined as either of the following:					
A Need for markedly increased amounts of alcohol to achieve intoxication or desired effect; or	NA	NA	NA	NA	NA

Continued

B Markedly diminished effect with continued use of the same amount of alcohol.	NA	NA	NA	NA	NA
Withdrawal, as manifested by either of the following:					
A The characteristic alcohol withdrawal syndrome; or	NA	NA	NA	NA	NA
B Alcohol (or a closely related substance, such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms.	NA	NA	NA	NA	NA
Total Symptoms	5	8	7	2	6
Symptoms Classification	moderate	Severe	Severe	Mild	Severe

*The presence of at least 2 of these symptoms indicates an AUD: • Mild: 2 - 3 symptoms; •Moderate: 4 - 5 symptoms; • Severe: 6 or more symptoms; NA: Not applicable/not found in folder.

The only intervention used by most clinicians in the management of Alcohol Use Disorder was counselling patients on the need for abstinence from alcohol. Only one extra patient's management consisted of a multidisciplinary approach thus involving the psychology/psychiatric specialties (Table 3). None of them were referred for management at an established unit for the management of symptoms. Apart from the individual therapy approach that was given to patients, no other Psychosocial and Behavioral Approaches to Alcohol Use Disorder Treatment in Patients with ALD were given to patients (Table 4). No patient was also given any Relapse Prevention Medications like Naltrexone, Acamprosate, Gabapentin, Baclofen, and Topiramate (Table 5) in the management of Alcohol Use Disorder.

3.3. Part Two: Diagnoses and Management of Alcohol-Associated Liver Disease

All respondents had specific risk factors for alcohol-associated liver disease such as Alcohol dose above the threshold of 2 units/day (Table 6). Others included comorbid infections like hepatitis B/C infection and smoking habits.

All five patients had specific symptoms for alcohol as evidenced by breath of alcohol. The non-specific symptoms were tiredness and abdominal pain (mostly epigastric). Only two patients had weight gain as result of ascites/hepatomegaly and confusion as part of hepatic encephalopathy (Table 7). However on assessing their signs, all of them were jaundiced and others had leukonychia, systemic hypotension with tachycardia, psychomotor agitation and fine tremors which are specific symptoms of alcohol use (Table 8).

Diagnosing Alcohol-Associated Liver Cirrhosis

Three out of the five patients were diagnosed with alcoholic liver cirrhosis. They had elevated AST levels of more than 50 (Table 9), imaging confirmation of liver cirrhosis, the onset of jaundice within the prior eight weeks (Table 8), ongoing alcohol consumption (not-estimated) daily for more than 60 days or abstinence from alcohol in less than 60 days (Table 6). Three patients also had AST/ALT ratios more 1.5 (Table 9).

Table 3. Treatment of alcohol use disorders.

Treatment of Alcohol Use Disorders					
Treatment options	**P1**	**P2**	**P3**	**P4**	**P5**
Abstinence	Yes	Yes	Yes	Yes	Yes
multidisciplinary management with addiction specialists	No	Yes	No	No	No
Referral to treatment	No	No	No	No	No

Table 4. Psychosocial and behavioral approaches to alcohol use disorder treatment in patients with ALD.

Psychosocial and Behavioral Approaches to Alcohol Use Disorder Treatment in Patients with ALD					
Approach	**P1**	**P2**	**P3**	**P4**	**P5**
Inpatient Alcohol Rehabilitation	No	No	No	No	No
Group Therapies	No	No	No	No	No
Individual Therapy	Yes	Yes	Yes	Yes	Yes
Family/Couples Counseling	No	No	No	No	No
Mutual Aid Societies	No	No	No	No	No

Table 5. Use of relapse prevention medications.

Relapse Prevention Medications					
	P1	**P2**	**P3**	**P4**	**P5**
Naltrexone*	No	No	No	No	No
Acamprosate*	No	No	No	No	No
Gabapentin	No	No	No	No	No
Baclofen	No	No	No	No	No
Topiramate	No	No	No	No	No
Total medications used by patients	0	0	0	0	0

Table 6. Risk factors for alcohol-associated liver disease.

Risk Factors for Alcohol-Associated Liver Disease					
Risk factors	**P1**	**P2**	**P3**	**P4**	**P5**
Implicated in increasing the risk of alcohol-associated liver injury					
• Alcohol dose above threshold of 1 drink/day (women), 2 drinks/day (men)	Yes	Yes	Yes	Yes	Yes
• Pattern of consumption: daily drinking; drinking while fasting, binge drinking	Yes	Yes	Yes	Yes	Yes
• Smoking cigarettes	NA	No	No	Yes	No
• Women compared with men					
• Genetics*: PNPLA3, TM6SF2, MBOAT7, HSD17B13	NA	NA	NA	NA	NA
• Increased BMI					NA
• Presence of comorbid conditions: chronic viral hepatitis, hemochromatosis, NAFLD, NASH	Yes	No	No	NA	No

Continued

Implicated in ameliorating the risk of alcohol-associated liver injury	NA	NA	NA	NA	NA
• Coffee consumption	NA	NA	NA	NA	NA
Equivocal data regarding effect on the risk of alcohol-associated liver injury					
• Type of alcohol consumed	NA	NA	NA	NA	NA
• Moderate alcohol use in patients with high BMI	NA	NA	NA	NA	NA

Table 7. Symptoms of alcohol-associated liver disease.

Symptoms of alcohol-associated liver disease	P1	P2	P3	P4	P5
• Odor of alcohol on breath*	Yes	Yes	Yes	Yes	Yes
Nonspecific					
• Tiredness	Yes	Yes	Yes	Yes	No
• Abdominal pain	Yes	Yes	No	Yes	Yes
• Day/night reversal (sleepy by day, wakeful at night)	NA	NA	NA	NA	NA
• Peripheral neuropathy	NA	NA	NA	NA	NA
• Weight gain (due to ascites)	Yes	No	No	Yes	No
• Weight loss (due to loss of proximal muscle mass)	No	Yes	NA	No	NA
• Confusion (as part of hepatic encephalopathy)	Yes	No	No	Yes	No
• Loss of sexual drive	NA	NA	NA	NA	NA
• Amenorrhea	NA	NA	NA	NA	NA

*Specific for alcohol; otherwise nonspecific. NA: Not Applicable/not found in folder.

Table 8. Signs of alcohol-associated liver disease.

Signs of alcohol-associated liver disease	P1	P2	P3	P4	P5
• Skin: Spider angiomata, palmar erythema, leukonychia, ecchymoses	Yes	NA	No	Yes	NA
• Eyes: Icteric conjunctivae	Yes	Yes	Yes	Yes	Yes
• Musculoskeletal: Loss of proximal muscle mass, especially temporal wasting	NA	NA	NA	NA	NA
• Cardiovascular: Systemic hypotension; tachycardia suggests alcohol withdrawal syndrome*	Yes	Yes	No	No	No
• Abdominal: Ascites, hepatomegaly, splenomegaly, bruits, caput medusa	Yes	No	No	Yes	No
• Reproductive: Gynecomastia, gonadal atrophy in men	NA	NA	NA	NA	NA
• Neurological:					
◦ Alcohol withdrawal syndrome*: Fine tremor, psychomotor agitation, transient hallucinations or illusions	Yes	No	No	Yes	No
◦ Hepatic encephalopathy: Coarse flapping tremor (asterixis), altered consciousness	Yes	No	No	Yes	No
◦ Wernicke-Korsakoff syndrome	Yes	No	No	No	NA
• Hands: Dupuytren's contracture	NA	NA	No	No	NA

*Specific for alcohol; otherwise nonspecific.

Table 9. Laboratory Results informing some Biomarkers of alcohol use.

Liver function Test						
Variables	**Normal Range**	**Results (Low/High/Normal/Not Applicable)**				
		P1	**P2**	**P3**	**P4**	**P5**
T. PRO	60 - 88 g/L	70-N	73-N	64-N	93-H	NA
ALB	35 - 55 g/L	19-L	28-L	27-L	24.9-L	NA
AST	5 - 40 U/L	243-H	241-H	38-L	93.6-H	NA
ALT	5 - 40 U/L	104-H	23-N	57-H	30.6-N	NA
GGT	5 - 55 U/L	160H	50-N	143-H	75.6-H	NA
ALP	5 - 270 U/L	173-N	11-N	416-H	302-H	NA
T.BIL	5.1 - 22.2 umol/L	96.1-H	38.2-H	18.9-N	299.5-H	NA
D.BIL	0.0 - 9.4 umol/L	64.7-H	23.7-H	13.0-H	116.0-H	NA
AST/ALT		2.34	10.47	0.65	3.06	NA
Renal Function Test						
Variables	**Normal Range**					
UREA	1.7 - 8.1 umol/L	16.4-H	2.0-N	3.4-N	NA	NA
CR	53 - 125 umol/L	511-H	65-N	61-N	NA	NA
NA+	135 - 150 umol/L	140-N	137-N	150-N	NA	NA
K+	3.5 - 5.0 umol/L	5.6-H	3.5-N	3.8-N	NA	NA
CL-	97 - 107 umol/L	96-L	98-N	97-L	NA	NA
Full Blood count						
Variables	**Normal Range**					
WBC	4.5 - 8.50	NA	6.12	24	10.50	11.7
HB	12 - 16	4.6	7.8	9.8	11.2ida	15.3
PLT	150 - 400	109	61	28.9	283	313
Urine Routine Examination						
Variables						
BIL	NA	NA	NEG	NEG.	+++	NA
UROBILIBOGEN						
Hepatitis B and C						
HEP B	NA	POS.	NEG.	Neg.	NA	NEG.
HEP C	NA	POS.	NA	Neg.	NA	NEG.
HIV	NA	NEG.	NA	NA	NEG.	NA

NA: Not Applicable, NEG: Negative, POS: Positive, L: Low, H: High, N: Normal.

Diagnosing Alcoholic Hepatitis

The diagnosis of alcoholic hepatitis was made based on clinical findings and laboratory findings and other potential confounding factors such as upper ga-

strointestinal bleeding and hypotension (Tables 6-9). This confirms the clinical syndrome of diagnosing alcoholic hepatitis by Crabb *et al.*, (2020) [15] and falls within the "possible alcoholic hepatitis" criteria. Because there were no histology investigations done, a definite diagnosis of alcoholic hepatitis could not be made.

Management of Alcoholic Hepatitis

Results from the folder review show that, the frequent approach used in the management/treatment of alcoholic hepatitis involved; the use of NSAIDs, proton pump inhibitors, vitamin B complex, hematinic (usually of iron origin, -also occasionally hemotransfused when necessary), diuretics, antibiotics like ciprofloxacin (most often) and metronidazole (occasionally), lactulose and liver protective supplements as well as anxiolytics e.g chlordiazipoxide (Table 10).

4. Discussion

4.1. Diagnosis and Management of Alcohol Use Disorder

Although there was enough information for the diagnosis of "Alcohol Use Disorder" (AUD), there was no such diagnosis found in all patients' folders and as such, almost no treatment approach was used apart from the inconsistent, once-multidisciplinary approach on individual therapy to refrain from alcohol. Reasons might be that the mere history of alcoholism confirmed by patients or from the odor of patients did not trigger clinicians into probing further and making a definite diagnosis to consider management other than other related signs and symptoms which are usually targeted for management. This, sadly put patients at more risk of complicating their presenting complaints in the long run. The diagnosis of AUD is said to be crucial in the diagnosis and management of all alcohol related liver diseases (Premkumar & Anand, 2022 [16]; Shah & Amarapurkar, 2018 [17]; Sohail & Satapathy, 2012 [14]; Dugum & McCullough, 2015 [8]).

4.2. Diagnosis and Management of Alcoholic Hepatitis

Diagnosing Alcoholic Hepatitis was made based on clinical and laboratory findings

Table 10. Drugs used in the management of Alcoholic Hepatitis.

Drugs	Examples	P1	P2	P3	P4	P5
Diuretics	furosemide	Yes	Yes	Yes	Yes	Yes
Antibiotics	Ciprofloxacin, metronidazole	Yes	Yes	Yes	Yes	Yes
Analgesics	diclofenac; tramadol	Yes	Yes	Yes	Yes	Yes
Ammonium detoxicant Laxative	Lactulose	Yes	Yes	Yes	Yes	Yes
Liver protective Supplements and vitamins	Livolin, livopat; vitamin B complex	Yes	Yes	Yes	Yes	Yes
Anxiolytics	Chlordiazipoxide, diazepam	Yes	No	No	Yes	Yes
hematinic	Folic acid,					
proton pomp inhibitors	Omeprazole	No	Yes	No	Yes	Yes

and other potential confounding factors such as upper gastrointestinal bleeding and hypotension. This confirms the clinical syndrome of diagnosing alcoholic hepatitis by Crabb *et al.* (2020) [15] and falls within the "possible alcoholic hepatitis" criteria. Because there were no histology investigations done, a definite diagnosis of alcoholic hepatitis could not be made. This is in agreement with Dugum & McCullough (2015) [8] and Jophlin & Singal (2022) [4] who found that liver biopsy remains the "gold standard" for diagnosing alcoholic liver disease. This however was not the usual practice as alcoholic hepatitis was never classified as per the guidelines but rather clinical findings and ultrasonography findings were relatively used to diagnose alcoholic hepatitis. This account is largely due to the unavailability of a more readily accessible histopathology investigation and personnel as well as affordability. Alternatively, Dugum & McCullough (2015) [8] mentioned that, the use of biochemical tests and other physical examination findings are increasingly being used in the evaluation of suspected patients with alcohol related liver diseases.

There are three treatment methods namely treatment of proven benefit, treatment of likely benefit, and treatment of potential benefit (Crabb *et al.*, 2020) [15]. The ultimate treatments of Proven Benefit of Alcoholic Hepatitis is Abstinence (Crabb *et al.*, 2020 [15]; Saberi *et al.*, 2016 [6]; Mitchell *et al.*, 2017 [5]; Ayares *et al.*, 2022 [3]; Aslam & Kwo, 2023 [2]; Premkumar & Anand, 2022 [16]; Dugum & McCullough, 2015 [8]). Thus because the continuous use of alcohol worsens the prognosis of the disease such as variceal bleeding, ascites, hepatic encephalopathy, and risk of developing HCC and death. Treatments of likely benefit include nutritional therapy and the use of corticosteroids in the absence of contraindications and monitoring prognosis. Finally, the treatments of Potential Benefits also include the use of N-Acetyl cysteine (Crabb *et al.*, 2020) [15]. The management guidelines from NICE, however in addition to similar management protocols reported by the American Association for the Study of Liver Diseases, propose the use of benzodiazepines and thiamine in the management of alcohol-associated liver diseases and as prophylaxis against management of Wernicke's encephalopathy. Others include referral for a liver transplant.

Results indicate that none of the treatment protocols by the American Association for the Study of Liver Diseases were followed or adhered to by clinicians in managing patients admitted on account of alcoholic hepatitis. However, contrary to this finding, some aspects of the NICE guidelines on the use of benzodiazepines and thiamine in the management of alcohol-associated liver diseases and as prophylaxis and management of Wernicke's encephalopathy are strictly adhered to by clinicians. This probably signifies the core attention of clinicians' management of alcohol-associated liver diseases. Reasons might be due to the immediate unlikely complications that are associated with this alcohol-associated liver disease and possible related benefits noticed in the personal management experience (such as patients faring well on these managements and eventually preventing further neurologic manifestations of encephalopathy).

Additionally, clinicians often overlook the importance of abstinence from al-

cohol use among patients diagnosed or managed for alcoholic hepatitis. Reasons are quite inexplicable, although maybe a result of forgetting to document as an important management protocol or not seeing the need to due to the possible non-evidence-based prognosis. Also, once patients point out to have abstained from alcohol for a while prior to admission, they most likely assume they are going to continue that abstinence and do not offer further need for adherence counselling. In order to prevent further complications associated with treatment already started, clinicians must work on adherence counselling for all patients being managed for alcoholic hepatitis.

Furthermore, no use of the Treatments of likely benefit including nutritional therapy and the use of corticosteroids was practiced from the review of all patients' records. This might be due to the fact that clinicians do not offer these nutritional involvements because patients most likely do not seem clinically malnourished. However, an argument based on the fact that many of these patients had iron deficiency anaemia and ascites refutes this claim. The use of corticosteroids was not seen in any of the treatment modalities for these patients. Reasons might be due to the fact that clinicians were able to clearly assess contraindications for its use, the use of laboratory-based means to assess prognosis on the need for or neither having much knowledge on the benefits of using corticosteroids in the management of alcoholic hepatitis cases although they are readily available.

Finally, although the treatments of Potential Benefits also include the use of N-Acetylcysteine, it was not surprising to not have been used because it is not readily available at the various health facilities and/or pharmacies. Another reason might be due to cost of purchasing it.

5. Conclusion

After a thorough clinical-based examination of how Alcohol Use Disorder and Alcohol-associated Liver Disease are diagnosed and managed, we conclude that the diagnosis of Alcohol Use Disorder and Alcohol-associated Liver Diseases remains a challenge in the Ghanaian setting with an associated poor multidisciplinary approach in their treatment/management. This could be due to clinician factors and the unavailability of personnel and diagnostic investigations. Larger clinical studies should be encouraged to develop a locally based diagnostic and treatment/management protocols for Ghana. Clinicians must also develop the habit of involving a multidisciplinary team of experts in the management of alcohol-associated liver diseases.

Ethical Approval

Approval was sought from hospital authorities.

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Conflicts of Interest

The authors declare no conflicts of interest.

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