

Reporting the cases of alcohol-associated hepatitis using the National Inpatient Sample data

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Specialty type: Gastroenterology and hepatology

Provenance and peer review:

Unsolicited article; Externally peer reviewed.

Peer-review model: Single blind

Peer-review report's scientific quality classification

Grade A (Excellent): 0
Grade B (Very good): B
Grade C (Good): 0
Grade D (Fair): D
Grade E (Poor): 0

P-Reviewer: Jakovljevic MM, Serbia; Nishizawa T, Japan

Received: October 25, 2022

Peer-review started: October 25, 2022

First decision: November 18, 2022

Revised: November 29, 2022

Accepted: March 2, 2023

Article in press: March 2, 2023

Published online: March 14, 2023



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Abstract

The letter is to respond to the recent publication "Trends in hospitalization for alcoholic hepatitis from 2011 to 2017: A USA nationwide study" (*World J Gastroenterol* 2022; 28: 5036-5046). We noticed a significant difference in the total numbers of reported hospitalized alcohol-associated hepatitis (AH) patients between this publication and our publication on *Alcohol Clin Exp Res* (2022; 46: 1472-1481). We believe the number of "AH-related hospitalizations" inflated by the inclusion of patients with non-AH forms of alcohol-associated liver disease.

Key Words: Hospitalization; Alcoholic hepatitis; Alcohol-associated liver disease

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Core Tip: We analyzed the most recent National Inpatient Sample data from 2015-2019 using International Classification of Diseases-10 codes and found an increase in alcohol-associated hepatitis (AH) cases from 110135 to 136620 in 2015 and 2019, respectively. The total numbers of reported AH patients in the retrospective study entitled "Trends in hospitalization for alcoholic hepatitis from 2011 to 2017: A USA nationwide study", we believe, included patients with non-AH forms of alcohol-associated liver disease.

Citation: Marlowe N, Lin WQ, Liangpunsakul S. Reporting the cases of alcohol-associated hepatitis using the National Inpatient Sample data. *World J Gastroenterol* 2023; 29(10): 1648-1650

URL: <https://www.wjgnet.com/1007-9327/full/v29/i10/1648.htm>

DOI: <https://dx.doi.org/10.3748/wjg.v29.i10.1648>

TO THE EDITOR

We read with great interest the retrospective study entitled “Trends in hospitalization for alcoholic hepatitis from 2011 to 2017: A USA nationwide study” by Wakil *et al*[1]. In this study the authors examined inpatient admission trends for alcohol-associated hepatitis (AH), using the National Inpatient Sample (NIS) database data from 2011 to 2017. The study population were those with aged ≥ 21 years who were hospitalized with either a primary or secondary diagnosis of AH identified by the International Classification of Diseases (ICD)-9 and its corresponding ICD-10 codes.

The authors reported that AH-related hospitalization demonstrated a significant increase from 281506 in 2011 to 324050 hospitalizations in 2017 with an overall increase in the financial burden and cost. We agree with the authors’ opinion that AH-related hospitalizations are on the rise, and that they are associated with escalating healthcare costs and utilization. In fact, our recent paper published in *Alcohol Clin Exp Res*, 2022, came to the same conclusions when we analyzed the most recent NIS data for AH hospital discharges from 2015-2019 using a similar methodology[2]. However, we noticed a significant difference in the total numbers of reported AH patients between these studies. In our study, we reported an increase in total hospitalized AH cases from 110135 to 136620 in 2015 and 2019, respectively [2], which was consistent with another recent paper by Ali *et al*[3] in *Annals of Gastroenterology*, 2022. The numbers from both Ali *et al*[3] and our study were much smaller than the numbers quoted by Wakil *et al* [1]. The difference is explained by the ICD codes used in the studies. We included only patients hospitalized with or without cirrhosis under ICD-9 571.1 (AH) and ICD-10 K70.1 (AH with/without ascites). In contrast, Wakil *et al*[1] included patients admitted with AH, alcoholic fatty liver disease, and alcohol-associated cirrhosis [an advanced chronic form of associated liver disease (ALD)]. In our opinion, the number of “AH-related hospitalizations” reported by this study is inflated by the inclusion of patients with non-AH forms of ALD.

Alcohol use and ALD are global public health issues associated with high morbidity and mortality [4]. Retrospective studies investigating AH hospitalization trends and associated healthcare costs should be interpreted with caution because the results may be influenced significantly by the ICD codes used to identify AH patients. Reporting using the most appropriate codes is the best use of these large national databases.

FOOTNOTES

Author contributions: Marlowe N and Lin WQ drafted the manuscript; Liangpunsakul S criticized and edited the manuscript.

Conflict-of-interest statement: All the authors report no relevant conflicts of interest for this article.

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S-Editor: Wang JJ

L-Editor: A

P-Editor: Wang JJ

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