Use of Primary and Specialist Care Among Patients With Chronic Medical Conditions With or Without Comorbid Alcohol Use Disorder

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INTRODUCTION

- Among patients with chronic medical comorbidities, alcohol use disorder (AUD) is associated with higher costs and worse outcomes compared with those without AUD^{1,2}
- Although many patients with AUD do not seek treatment for AUD,³ many seek treatment for other conditions through primary care services⁴
- o Thus, primary care providers have an opportunity to screen for and identify AUD to allow for early intervention, which may contribute to successful management of AUD⁴
- In a previous analysis of this cohort, patients with ambulatory care sensitive conditions (ACSCs) and AUD had more frequent outpatient healthcare resource utilization (HCRU) at a lower average cost relative to patients with ACSCs without comorbid AUD²
- Here, we further characterize outpatient healthcare provider (HCP) visits in patients with chronic ACSCs with or without comorbid AUD

OBJECTIVE

• To investigate real-world utilization of outpatient care among patients with select chronic ACSCs by the presence or absence of comorbid AUD

METHODS

STUDY DESIGN

- Retrospective cohort study using the Merative™ MarketScan® Commercial and Medicare Supplemental (1/1/2016-12/31/2020) and Medicaid Multi-State (1/1/2016-12/31/2019) claims databases
- The overall study evaluated HCRU and costs between patients with chronic ACSCs with or without moderate to severe AUD during the baseline and follow-up periods; this analysis focused on characteristics of outpatient HCRU and costs. The data presented here are characteristics of the AUD study population before matching

STUDY POPULATION

- Eligible adults had ≥1 inpatient or ≥2 outpatient claims on separate days for the following chronic ACSCs: asthma, chronic kidney disease (CKD), congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), diabetes (either type 1 or type 2), hypertension (HTN), or inflammatory bowel disease (IBD)
- o Patients with multiple ACSCs were eligible for inclusion in >1 cohort
- The first claim of the ACSC during the identification period was the patient's index date
- Patients were required to have ≥12 months of continuous enrollment before the index date (baseline) and ≥3 months after (follow-up)
- Adults with comorbid moderate to severe AUD were identified by the presence of an associated claim (F10.2x, excluding F10.21)⁶ during the baseline period; patients with the same ACSCs as detailed above but without any AUD claims during the study period comprised the non-AUD cohort

STATISTICAL ANALYSIS

- Patient baseline demographics and clinical characteristics as well as study outcomes were summarized using descriptive statistics, overall and by AUD and non-AUD groups for each ACSC cohort
- Outpatient HCRU categories analyzed included visits to a primary care physician (PCP), nurse practitioner (NP), mental health-related specialist (psychiatrist, psychiatric nurse, and psychologist), any ACSC specialist, and an ACSC specialist specific for the patient's condition (eg, a cardiologist for a patient with CHF)
- Outcomes were reported as the percentage of patients with a visit type and the number of visits per patient per month (PPPM) during the follow-up period

- 1. Rehm J, et al. *Lancet*. 2009;373(9682):2223-2233
- 2. Grebla R, et al. Poster presented at APHA Annual Meeting and Expo 2023; November 12-15, 2023; Atlanta, GA, USA.
- 4. Kaswa R. et al. S Afr Fam Prac. 2021;63(1):e1-e4.
- **3.** Venegas A, et al. *Am J Drug Alcohol Abuse*. 2021;47(6):664-679.

6. World Health Organization. International Classification of Diseases, Tenth Edition, Clinical Modification.

5. AHRQ Quality Indicators—Guide to Prevention Quality Indicators: Hospital Admission for Ambulatory Care Sensitive Conditions. Rockville, MD: Agency for Healthcare Research and Quality, 2001. AHRQ Pub. No. 02-R0203.

RESULTS

BASELINE PATIENT DEMOGRAPHICS AND CLINICAL CHARACTERISTICS

- Among 5,494,756 eligible unique patients with the studied ACSCs, 64,777 (1.2%) patients had comorbid moderate to severe AUD
- Across all patients with an ACSC and AUD, the mean age ranged from 45 (asthma) to 57 (CHF) years and 48% (asthma) to 71% (CHF) were male (Table 1); 46% (IBD) to 71% (COPD) were insured by Medicaid
- o Patients with comorbid AUD were more likely to have a numerically higher overall comorbidity burden relative to patients without comorbid AUD, as indicated by greater mean Charlson Comorbidity Index scores

HEALTHCARE RESOURCE UTILIZATION

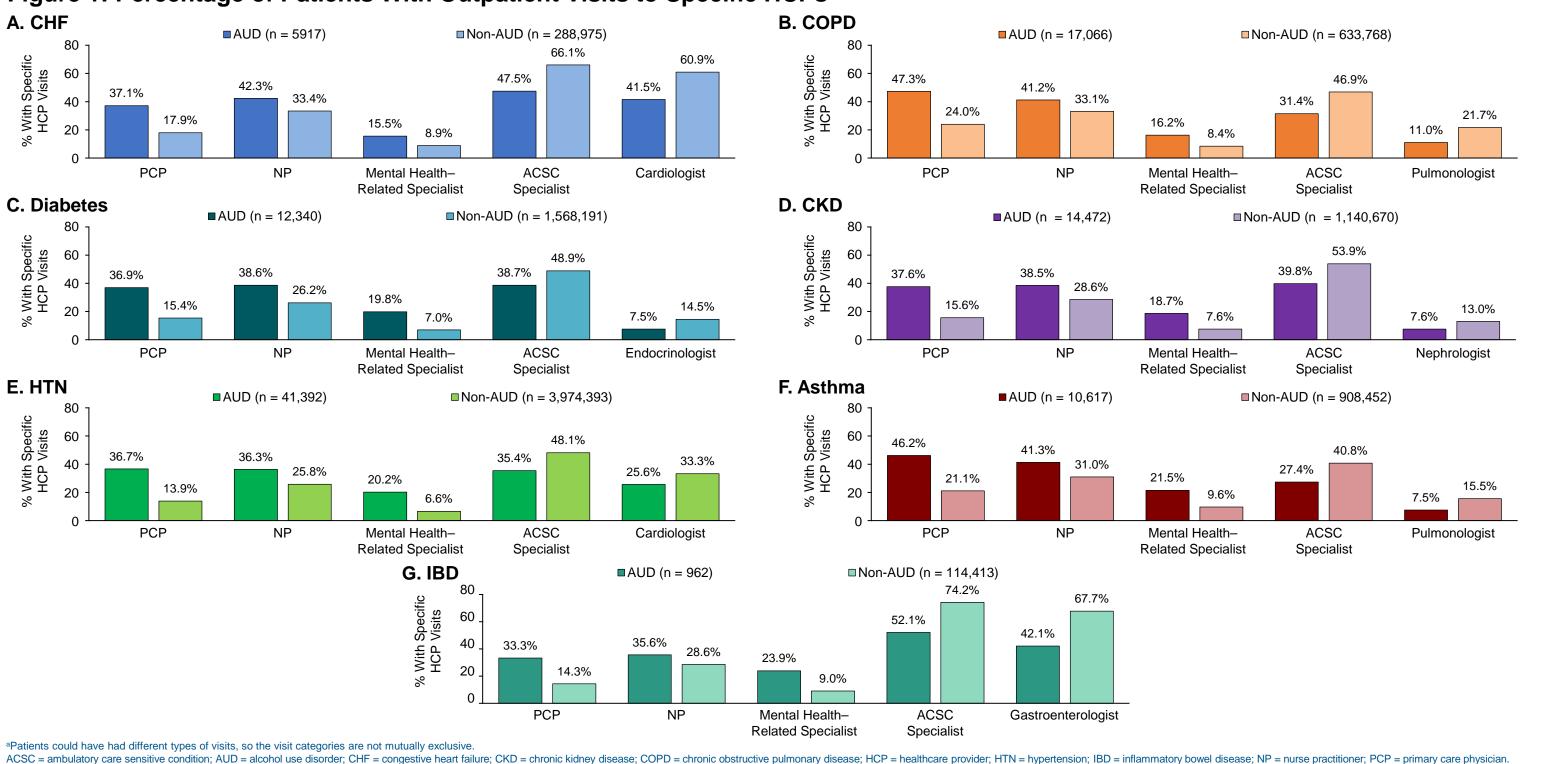
- The mean follow-up across cohorts was 1.6 to 2 years
- Within each ACSC cohort, a numerically higher proportion of patients with AUD had PCP, NP, and mental health-related specialist visits than patients without AUD (Figure 1)
- o In contrast, a numerically lower proportion of patients with AUD visited any ACSC specialist or an ACSC specialist specific to their condition than patients without AUD

Table 1: Demographics and Characteristics Among Patients With ACSCs and Comorbid AUD

	CHF		COPD		Diabetes		CKD		HTN		Asthma		IBD	
	AUD	Non-AUD	AUD	Non-AUD	AUD	Non-AUD	AUD	Non-AUD	AUD	Non-AUD	AUD	Non-AUD	AUD	Non-AUD
n	5917	288,975	17,066	633,768	12,340	1,568,191	14,472	1,140,670	41,392	3,974,393	10,617	908,452	962	114,413
Age, mean (SD), years	57 (11)	66 (16)	54 (11)	58 (16)	53 (11)	57 (14)	53 (12)	57 (16)	52 (12)	57 (14)	45 (13)	45 (16)	47 (13)	48 (16)
Male, n (%)	4196 (71)	144,872 (50)	10,457 (61)	252,566 (40)	8402 (68)	771,606 (49)	10,012 (69)	577,987 (51)	27,580 (67)	1,913,381 (48)	5137 (48)	282,972 (31)	563 (59)	50,870 (44)
White, n (%) ^a	1736 (58)	29,644 (55)	7422 (71)	128,672 (72)	3147 (53)	119,070 (56)	3970 (58)	93,584 (58)	11,469 (61)	250,627 (55)	3593 (59)	117,959 (55)	260 (71)	7698 (70)
CCI score, mean (SD)	10.2 (5.4)	7.7 (5.0)	8.7 (5.2)	5.9 (4.6)	8.6 (5.5)	4.9 (4.2)	9.0 (5.5)	5.6 (4.5)	7.1 (5.1)	3.9 (3.8)	7.9 (5.3)	4.3 (3.9)	8.6 (5.2)	4.9 (4.2)

ACSC = ambulatory care sensitive condition; AUD = alcohol use disorder; CCI = Charlson Comorbidity Index; CHF = congestive heart failure; CKD = chronic kidney disease; COPD = chronic obstructive pulmonary disease; HTN = hypertension; IBD = inflammatory bowel disease

Figure 1: Percentage of Patients With Outpatient Visits to Specific HCPs^a



Acknowledgments

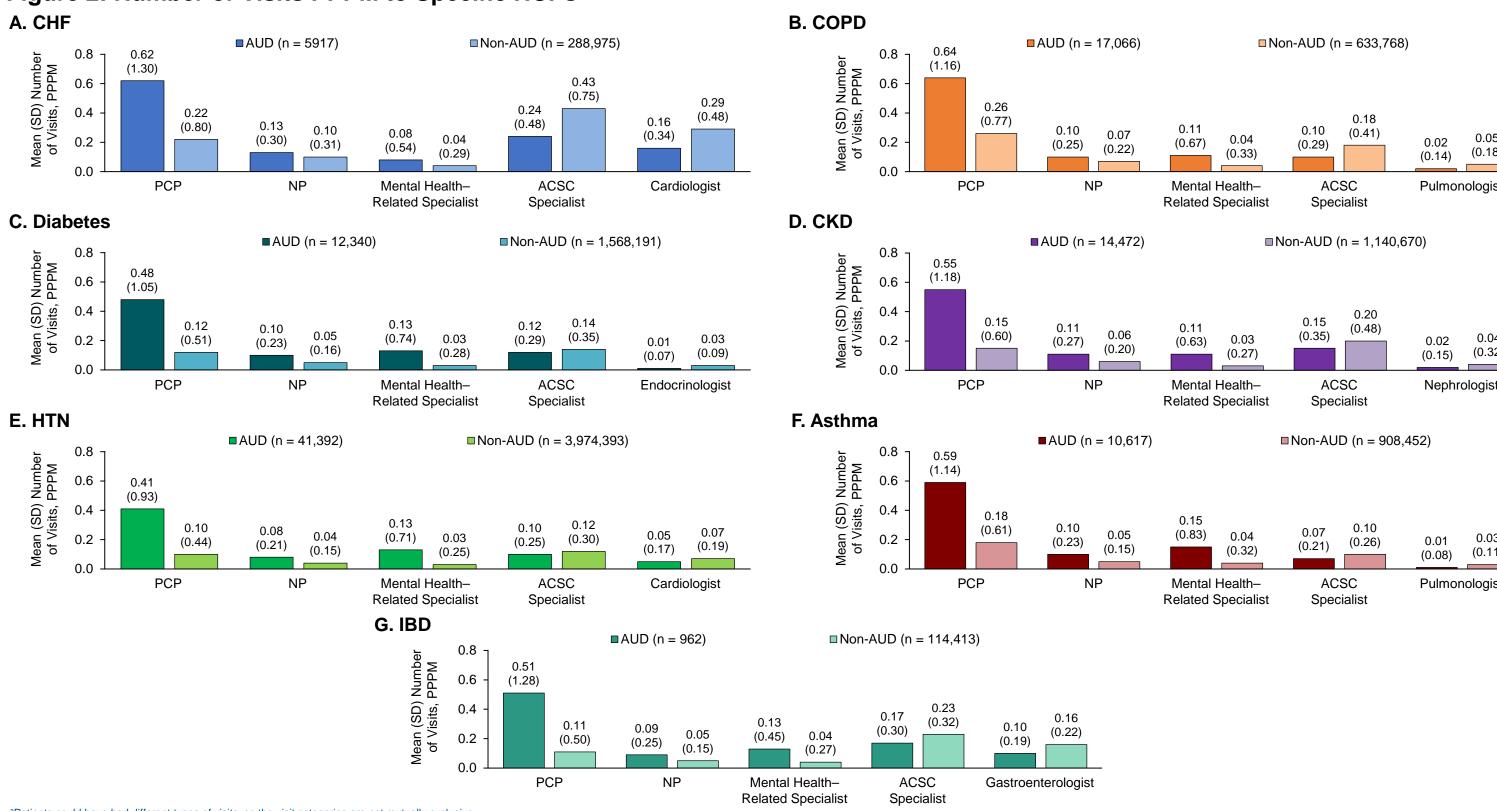
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- Within each ACSC cohort, the mean number of visits PPPM to PCPs, NPs, and mental health-related specialists was numerically higher for patients with AUD than those without AUD (**Figure 2**)
- o Conversely, patients with AUD had a numerically lower rate of visits to any ACSC specialist or an ACSC specialist specific to their condition than those without AUD

LIMITATIONS

- Patients could be included in analyses for >1 ACSC, limiting the potential for statistical comparisons across cohorts
- Adjustments were not made for differences in baseline characteristics between the comparison groups

Figure 2: Number of Visits PPPM to Specific HCPs^a



^aPatients could have had different types of visits, so the visit categories are not mutually exclusive. ACSC = ambulatory care sensitive condition; AUD = alcohol use disorder; CHF = congestive heart failure; CKD = chronic obstructive pulmonary disease; HCP = healthcare provider; HTN = hypertension; IBD = inflammatory bowel disease; NP = nurse practitioner;

CONCLUSIONS

- This real-world study found that, across chronic ACSCs, patients with AUD displayed different HCP utilization patterns versus those without AUD, including increased use of primary care and decreased use of outpatient specialist care
- Primary care is often the main point of contact between healthcare systems and patients with AUD, providing an opportunity for screening for AUD and referral to AUD treatment

*ACSCs are conditions for which hospitalization is generally avoidable if patients are adequately managed and treated in ambulatory/primary care settings, or conditions for which early intervention can prevent complications or more severe disease

Disclosures

RG and LW are employees and may be shareholders of Alkermes. XZ and AK are employees of Genesis Research Group and paid consultants to Alkermes.

Author Contributions

RG and LW contributed to conceptualization, methodology, writing – reviewing and editing, visualization, and supervision. XZ and AK contributed to project administration, methodology, data curation, formal analysis, validation, investigation, writing - reviewing and editing, and visualization

