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Clinical Trial Engagement in Hepatocellular Carcinoma: Understanding Demographic and Clinical Characteristics

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BACKGROUND

- Hepatocellular carcinoma (HCC) is the most common type of primary liver cancer in adults, representing between 75% and 90% of all liver cancer cases.
- Despite the role of clinical trials in advancing HCC treatments, there is limited understanding of clinical trial participation among this patient population.

OBJECTIVE

This study assessed the demographic and clinical factors associated with HCC patients participating in clinical trials.

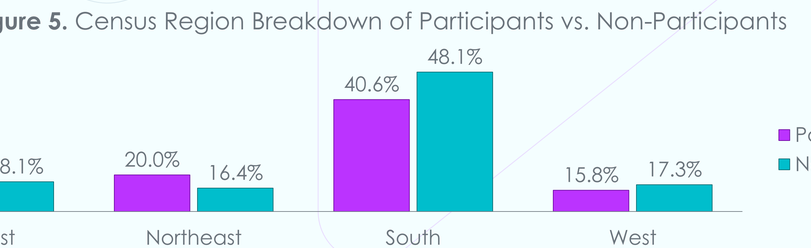
METHODS

- A retrospective database analysis was conducted using the Premier PINC AI™ Healthcare Database.
- Patients were included if they had an encounter for HCC between January 1, 2016 and December 31, 2022, identified by the International Classification of Diseases, Tenth Revision (ICD-10) diagnosis code for liver cell carcinoma (C22.0).
- Patients were stratified based on their participation in clinical trials, identified by the presence of ICD-10 diagnosis code Z00.6 (encounter for examination for normal comparison and control in clinical research program).

RESULTS

- Overall, 105,348 patients with HCC were identified, the majority of whom were male, White, and non-Hispanic **(Figure 1)**.
- The mean age among included patients was 65.5, the mean Charlson comorbidity index (CCI) score was 6.56, and 48.0% of patients were located in the Southern region of the United States.
- Among this cohort, 904 patients (0.9%) participated in clinical trials.

Figure 1. (A) Sex, (B) Race, and (C) Ethnicity Breakdown of All Identified HCC Patients



- Compared to non-participants, clinical trial participants were significantly older **(Figure 2)**, had a higher mean CCI score **(Figure 3)**, and were more likely to be located in an urban area **(Figure 4)**.
- Census region was significantly associated with clinical trial participation, with a higher proportion of clinical trial participants located in either the Midwest or the Northeast compared to non-participants **(Figure 5)**.
- However, there were no significant differences in race, ethnicity, or sex between trial participants and non-participants.

Figure 2. Mean Age of Participants vs. Non-Participants

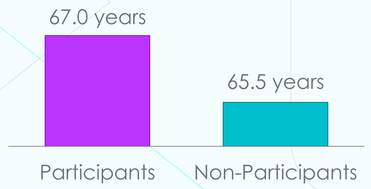


Figure 3. Mean CCI of Participants vs. Non-Participants

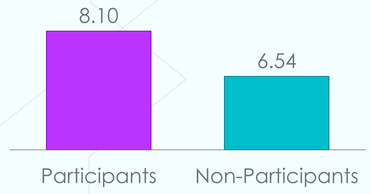


Figure 4. Percent Urban Among Participants vs. Non-Participants

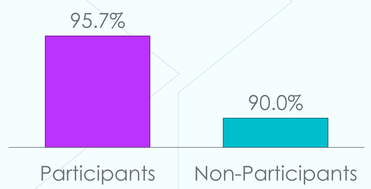


Figure 5. Census Region Breakdown of Participants vs. Non-Participants

CONCLUSIONS

- This study highlights a low clinical trial participation rate and geographical underrepresentation of the HCC population in clinical trials.
- Efforts to improve access and participation in clinical trials for HCC patients may need to address these disparities, particularly focusing on increasing representation from diverse demographic groups and geographic regions.
- Further investigations into the specific factors influencing trial participation are warranted to develop targeted interventions aimed at enhancing clinical trial engagement.

LIMITATIONS

- Claims data is subject to inherent limitations, such as coding errors and inaccuracies.
- While the Premier PINC AI Healthcare Database is broadly representative of US hospitals, the results of this study do not reflect healthcare encounters that occurred at hospitals outside of the database.

DISCLOSURES

This study was funded by Boston Scientific. Alysha M. McGovern, Abimbola O. Williams, and Liesl M. Hargens are full-time employees of, and shareholders in, Boston Scientific. Dr. Mikin V. Patel is a Physician and Assistant Professor of Radiology, University of Chicago, Chicago, IL. Dr. Osman Ahmed is a Physician and Assistant Professor of Radiology, University of Chicago, Chicago, IL. Drs. Patel and Ahmed were not compensated for their participation in this study.