Sex-Specific and Ethnicity-Specific Disparities in Receipt of Hepatocellular Carcinoma (HCC) Treatment Among a Cohort of Patients Who Developed HCC Recurrence

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Background:
Despite receiving cancer-directed therapies, there is a high rate of cancer recurrence among patients with hepatocellular carcinoma (HCC). Our study aims to focus on the subset of patients with HCC recurrence to evaluate sex- and ethnicity-specific disparities in receipt of treatment.

Methods:
Adults with HCC who developed HCC recurrence were identified using 1973-2015 U.S. National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) cancer registry. HCC tumor stage was assessed with the SEER historic staging system (localized, regional, distant) and HCC treatment received was assessed with SEER's site-specific surgery variable (no treatment, locoregional therapy, surgical resection, and liver transplantation (LT)). Comparisons of tumor stage at diagnosis and receipt of HCC treatment between groups were assessed using chi-square testing and multivariate logistic regression models.

Results:
Among 275 patients with recurrence of HCC (76.7% male, 48.7% non-Hispanic Whites, 14.9% Hispanic, 27.6% Asian/Pacific Islanders), 24.6% did not receive any HCC-directed surgical treatment, 21.9% received locoregional therapies, 42.3% surgical resection, and 11.2% LT. Compared to women, men were significantly less likely to receive any HCC treatment after initial diagnosis of HCC (OR 0.33, 95% CI 0.14-0.76, p=0.01), including surgical resection or LT (OR 0.53, 95% CI 0.29-0.96, p=0.037). Compared to non-Hispanic Whites, significantly lower rates of any HCC treatment were observed in Hispanics (OR 0.40, 95% CI 0.19-0.84, p=0.015) and higher rates of treatment were seen in Asian/Pacific Islanders (OR 2.28, 95% CI 1.02-5.12, p=0.045). On multivariate analysis, there were significantly lower odds of receiving any therapy for the initial HCC diagnosis in men vs. women (OR 0.27, 95% CI 0.11-0.68, p<0.01) and in Hispanics vs. non-Hispanic Whites (OR 0.32, 95% CI 0.15-0.72, p<0.01). Asian/Pacific Islanders were more likely to receive treatment compared to non-Hispanic Whites (OR 2.72, 95% CI 1.15-6.44, p=0.023). There were no significant differences in receipt of treatment for the HCC recurrence based on sex or ethnicity.

Conclusions:
Among U.S. adults with HCC who developed HCC recurrence, nearly one quarter did not receive any HCC-directed surgical therapies at initial diagnosis. Men and Hispanics were significantly less likely to receive any HCC-directed therapies for the initial HCC diagnosis.

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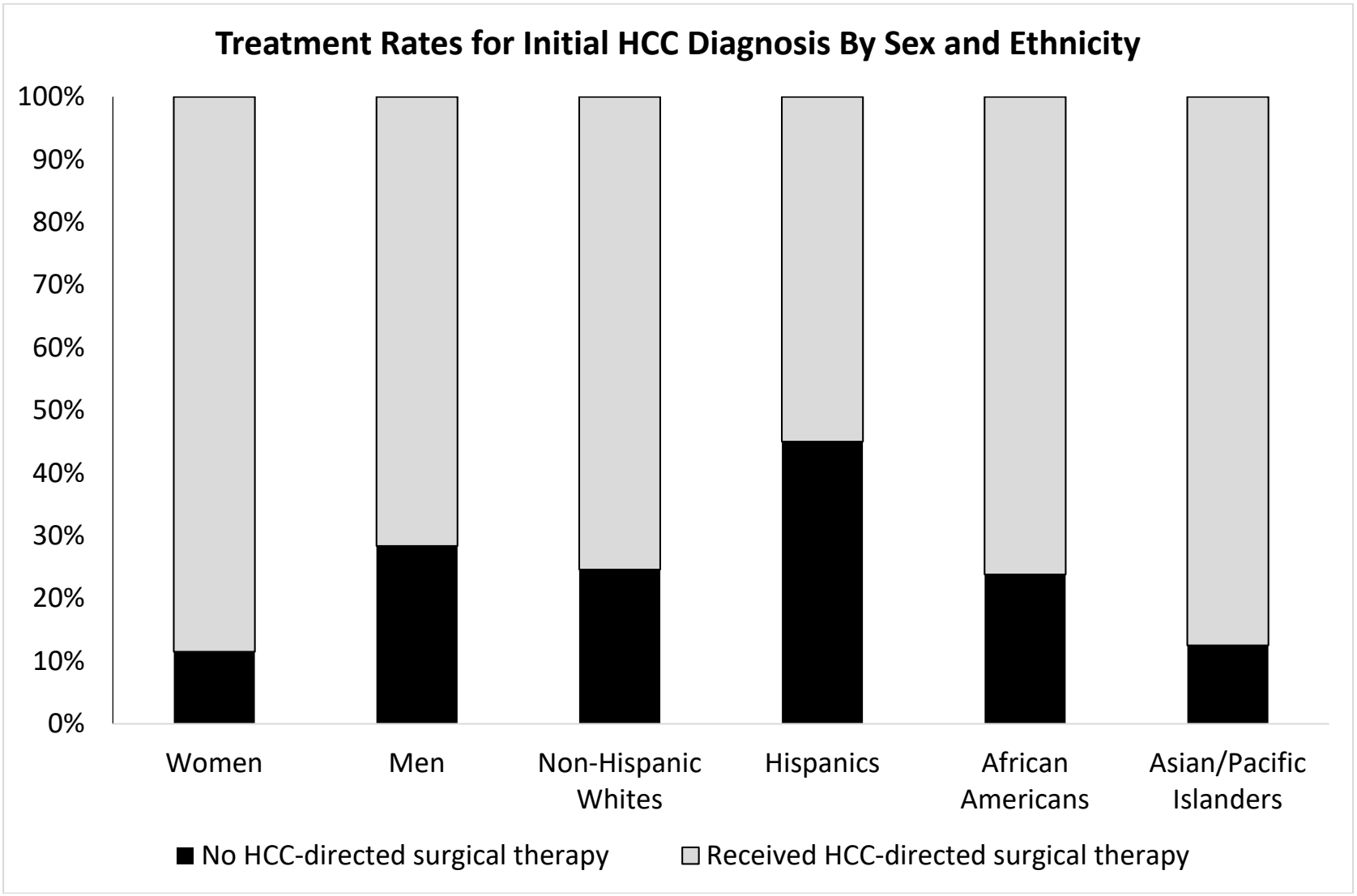
Treatment Rates for Initial HCC Diagnosis By Sex and Ethnicity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Women
Men
Non-Hispanic Whites
Hispanics
African Americans
Asian/Pacific Islanders
No HCC-directed surgical therapy
Received HCC-directed surgical therapy