

## **Racial Disparities in Head and Neck Squamous Cell Carcinoma Staging at Diagnosis**

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**Objective:** Head and neck squamous cell carcinoma (HNSCC) is one of the most common globally reported cancers. The main aim of this study was to determine the prevalence of distinct Tumor, Node, and Metastasis (TNM) stages of HNSCC in adult patients at Tufts Medical Center (TMC) and whether racial disparities exist in the stage of initial diagnosis.

**Methods:** Soarian system medical records were queried for patients diagnosed with HNSCC in the TMC Ear, Nose, Throat Head & Neck Surgery department from 01/01/2010 to 12/31/2020. 690 patient records were pooled and reviewed for this study. Independent variables of interest included patients' age, sex, race, marital status, and primary language. The primary outcome variable was TNM stage at the time of diagnosis. Associations between independent variables with two categories and TNM stage were assessed via the Mann-Whitney U test. Associations between independent variables with more than two categories and the primary outcome variable were assessed via the Kruskal-Wallis test. Multivariable ordinal logistic regression analysis was also completed to adjust for confounding.

**Results:** The analysis of our interim data showed no statistically significant differences in the TNM stages, at the time of diagnosis, among different ages ( $p=0.09$ ), sexes ( $p=0.56$ ), races ( $p=0.36$ ), marital statuses ( $p=0.43$ ), or primary languages ( $p=0.53$ ).

**Conclusion:** Our interim data suggest no significant differences in HNSCC TNM stages exist between patients with different races and primary languages after adjusting for age, sex, and marital status. Our findings differ from previous literature which compiled patient data nationwide from the SEER-18 cancer registry. Further analysis will adjust for additional parameters, including insurance used, and incorporate TMC data from the NAACCR cancer registry.