

# P-11

## Sex Differences during Hospital Stay among Patients with Neuroendocrine Neoplasms

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### BACKGROUND

On the basis of prior large epidemiologic and retrospective studies on treatment-related side effects, it appears that there are sex-based differences in the epidemiology of NENs and treatment-related side effects. The purpose of this study was to examine sex differences in incidence, diagnoses present during hospital stay, and mortality among patients with NENs.

### METHODS

The NIS database was used to define an unweighted sample of patients with NENs who were discharged from US community hospitals during 2019. The International Classification of Disease, Tenth Revision (ICD-10), Clinical Modification codes were used to identify patients with NENs, and diagnoses present during hospital stay from the discharge records. Participant's demographics, diagnoses present during hospital stay and mortality by sex were evaluated by descriptive analysis.

### RESULTS

A total of 7334 patients with NENs were identified in the 2019 NIS database. 4284 patients had primary NEN, and 3050 patients had metastatic NEN. 48.7% were males and 51.3% were females. The mean age in years was 64.8 in males and 63.6 in females ( $p < 0.001$ ). Statistical differences were seen when comparing race by sex ( $p < 0.001$ ) and primary payer types by sex ( $p = 0.027$ ). There were more females than males in Black, White, and Native American races and Hispanic ethnicity. A female predominance was seen with Medicare, Medicaid, private insurance, and self-pay groups; there was a male predominance in the no charge group (although self-pay and no charge groups had lower numbers). There was no statistical difference by sex when combining all categories of diagnoses present during hospital stay. Gastrointestinal diagnoses were most common in both sexes. Specifically, nausea and vomiting were more common in females ( $p < 0.01$ ). Males experienced more ascites ( $p = 0.02$ ), dysphagia ( $p = 0.02$ ) and biliary ductal obstruction ( $p = 0.014$ ) in all NENs. However, when separated into primary vs metastatic NENs, ascites was associated with primary NEN ( $p < 0.01$ ), whereas dysphagia ( $p = 0.003$ ) and jaundice ( $p = 0.032$ ) were associated with metastatic NEN. Females experienced more headache ( $p < 0.01$ ) and oral-related diagnoses ( $p = 0.036$ ) and driven by primary NEN ( $p = 0.05$ ). Males with primary NEN experienced more cachexia ( $p = 0.03$ ). There was no statistical difference in length of hospital stays and mortality.

## **CONCLUSIONS**

There were statistically significant sex differences in the demographics (race and primary payer) and diagnoses present during hospital stay (gastrointestinal, headache, stomatitis and mucositis) among the 2019 NIS discharge sample of patients with NEN.

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