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31st MAY - 2nd JUNE 2023

Registres des Cancers général de la Manche, général du Calvados, digestif du Calvados et des hémopathies malignes de Basse-Normandie

COMPLETENESS OF THE HEAD AND NECK SQUAMOUS CELL CARCINOMA STAGING INFORMATION AT DIAGNOSIS IN BRAZIL

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BACKGROUND: Information from Hospital-Based Cancer Registries (HBCR) is essential for assessing the quality of care in institutions.

OBJECTIVE: The aim of this study is to analyze staging completeness Head and Neck Squamous Cell Carcinoma (HNSCC) in Brazilian HBCR and to identify individual and contextual factors associated.

METHODS: A Cross-sectional study, including cases registered from 2000 to 2017. Cases under 18 and over 100 years old, with previous diagnosis and treatment were excluded. The outcome was the absence or incomplete clinical stage. Data sources were HBCR Integrator, the Human Development Atlas in Brazil, the National Register of Health Establishments were the data sources. Spatial analysis using geoprocessing was performed to assess the outcome distribution. Multilevel Poisson Regression with random intercept was performed to identify factors associated with lack of staging, 5% significance level. Analyses were carried out using STATA 16.

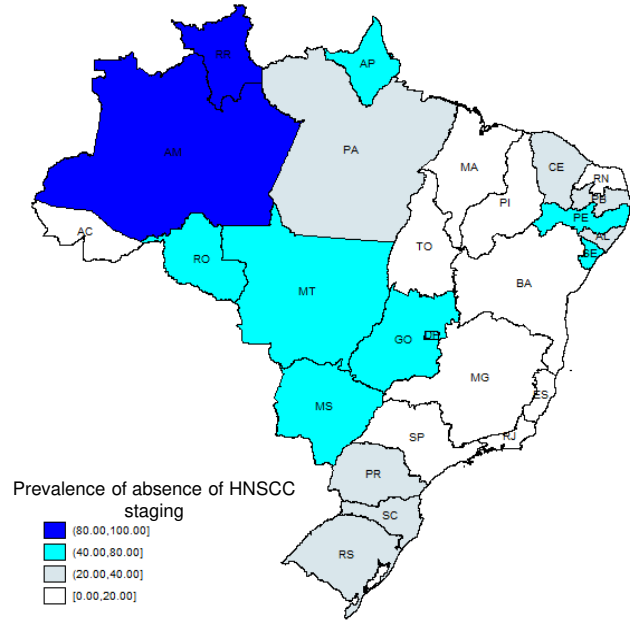Figure 1. Absence of HNSCC staging at diagnosis in Brazil

Prevalence of absence of HNSCC staging
- (80.00,100.00]
- (40.00,80.00]
- (20.00,40.00]
- [0.00,20.00]

Tabel 1. Multilevel analysis between individual variables, contextual socioeconomic and service provision and absence of HNSCC staging at diagnosis, 2000-2017, in Brazil, by state, except SP. Fixed effects: Intercept (CI 95%) = 0.099 (0.072-0.138)
Random effects: Variance (CI 95%) = 0.613 (0.352-1.066); Test LR (x²·p-value) 5911.20 (<0.01)

	p-value	PR [IC 95%]
Gender		
Male	<0.001	1.00 [1.00, 1.00]
Female		1.07 [1.04, 1.10]
Age (years)		
18-49	0.005	1.00 [1.00, 1.00]
50-59		1.00 [0.96, 1.03]
60-69		1.02 [0.98, 1.06]
70-79		1.04 [1.00, 1.09]
80+		1.09 [1.03, 1.15]
Education		
None/Not finished elementary	<0.001	1.00 [1.00, 1.00]
Finished elementary		1.09 [1.05, 1.13]
High school		1.04 [0.99, 1.09]
Some college		1.15 [1.06, 1.25]
Missing data		1.30 [1.27, 1.34]
Primary tumor site		
Oral cavity		1.15 [1.10, 1.21]
Oropharynx		1.05 [1.00, 1.11]
Hypopharynx	<0,001	1.00 [1.00, 1.00]
Larynx		1.26 [1.20, 1.32]
Diagnosis period		
2000-2008	<0.001	1.00 [1.00, 1.00]
2006-2011		1.28 [1.23, 1.33]
2012-2017		1.61 [1.49, 1.73]
GINI index		
0.42-0.49	<0.001	1.00 [1.00, 1.00]
0.50-0.58		1.20 [1.14, 1.27]
0.59-0.68		1.57 [1.43, 1.73]
Densisity of otorhinolaryngologists (per 1 million inhabitants)		
3.98-14.91		1.58 [1.42, 1.74]
14.92-20.69		1.27 [1.19, 1.35]
20.70-48.54	<0.001	1.00 [1.00, 1.00]

RESULTS: 99,773 cases were included, stage was lacking in 20%. States from North, Northeast and Midwest regions had a prevalence of missing stage above 40%. Being a women (PR 1.07; CI95% 1.04-1.10); older (PR 1.09; CI95% 1.03-1.15) increased the risk of not having stage compared to men and to younger people, respectively. Laryngeal cancer cases (PR 1.26; IC95% 1.20-1.32) and oral cavity cancer (PR 1.15; IC95% 1.10-1.21) had higher risk compared to hypopharynx cancer cases. Cases diagnosed in the last period of the study (2012-2017) were more likely not to be staged (PR=1.61; 95%CI 1.49-1.73) than those diagnosed from 2000 to 2011. Stage completeness was also associated with higher Gini Index (PR 1.57; 95%CI 1.43-1.73) than the baseline, and low density of otorhinolaryngologists (PR 1.58; 95% CI 1.42-1.74) in relation to higher densities.

CONCLUSION: The lack of staging information affects some population groups, mainly in more vulnerable places, with a lower density of specialized professionals, demonstrating limitations in access to adequate healthcare. The lower density of specialists suggests that incomplete information in medical records may play a role in stage completenness.

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