

## Impact of time to treatment initiation for patients with oral cavity squamous cell carcinoma: A semi-national, retrospective study

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### **Introduction:**

The incidence of oral cavity squamous cell carcinoma (OSCC) is increasingly challenging the capacity to treat patients efficiently. The aim of this study was to evaluate the impact of time to treatment initiation (TTI) on overall survival (OS) and recurrence free survival (RFS) for patients with OSCC.

### **Methods:**

All patients with OSCC treated with curative intent at Rigshospitalet in the period 2000-2014 with known date of diagnosis and treatment initiation were included. Correlation analyses between TTI and Charlson Comorbidity Index (CCI), UICC stage, and year of diagnosis, were performed in addition to uni- and multivariate cox proportional hazard regression analyses for OS and RFS. Further, interaction analysis of TTI and UICC stage were conducted.

### **Results:**

Eight-hundred and sixty-two patients (64% men) with a median age at diagnosis of 62 years (range: 28-95 years) were included. The median TTI was 31 days (range: 2-137 days). Correlation analyses showed correlations between TTI and CCI, UICC stage and year of diagnosis. Univariate analysis of TTI showed a highly significant increase in hazard ratio for both OS and RFS, however when adjusting for age, sex, year of diagnosis, anatomical sublocation, CCI, and UICC stage in a multivariate analysis the increase in HR with TTI was non-significant. There was no significant interaction between TTI and UICC stage for either OS or RFS.

### **Conclusion:**

Survival of OSCC patients decreased with increasing TTI, yet not significantly in multivariate analysis. There was no difference in the effect of TTI between patients diagnosed in low or advanced stages.

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