Impact of Facility and Patient Demographics on Time to Treatment Initiation in Head and Neck Cancer

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INTRODUCTION
The prognosis for head and neck cancer remains poor despite many advances in diagnosis and treatment. Delays in treatment have been associated with worsened outcomes.1,2 Delays over 46 days from the time of diagnosis have been associated with worsened outcomes.3 A previous study established that the median time to treatment initiation at 62% of academic centers was 28 days.4 However, resource availability varies widely between treatment facilities. In addition, non-medical patient-related factors such as transportation, financial limitations, and overall adherence to recommended treatment plans are just some of the many considerations which may also contribute to access to care and overall patient outcome.

While treatment at academic centers has been identified as an individual risk factor for delayed treatment compared to community hospitals and comprehensive community hospitals, inherent differences between comprehensive cancer centers and academic safety-net hospitals likely also contribute to increased risk of delayed treatment.

OBJECTIVE
To determine what patient and facility factors are associated with delays in time to treatment initiation at a comprehensive cancer center and a safety-net hospital.

METHODS

- Retrospective Chart Review: 1/2012 – 12/2017

- Inclusion: Age > 18, New patients with squamous cell carcinoma of the head and neck presenting to Fox Chase Cancer Center (FCCC) and Temple University Hospital (TUH), Full patient chart available

- Exclusion: Previously established care, transferred care from Temple to FCCC and vice versa, palliative treatment, thyroid cancer, salivary gland cancer

- Calculation of Treatment Delay: Two Pathways
  - > 28 days from the date of histologic diagnosis
  - > 28 days from the date of first appointment with a head and neck oncologist if diagnosed at OH

- Chi-Square and Student’s t-test used for analysis

RESULTS

- Patient Demographics

- Treatment Delays

- Disease Characteristics

- Non-Medical Factors

- CONCLUSIONS

Clear demographic differences exist between comprehensive cancer centers and safety-net hospitals. Time to treatment initiation was significantly longer at TUH (safety-net) when compared to FCCC (cancer center), as was the time until all oncology providers were seen. The only identifiable reason for delay. There was no clearance, however, more commonly there was no transportation, financial limitations, and overall adherence to recommended treatment plans are just some of the many considerations which may also contribute to access to care and overall patient outcome.

While treatment at academic centers has been identified as an individual risk factor for delayed treatment compared to community hospitals and comprehensive community hospitals, inherent differences between comprehensive cancer centers and academic safety-net hospitals likely also contribute to increased risk of delayed treatment.

CONCLUSIONS
Clear demographic differences exist between comprehensive cancer centers and safety-net hospitals. Time to treatment initiation was significantly longer at TUH (safety-net) when compared to FCCC (cancer center), as was the time until all oncology providers were seen. For those presenting without an established diagnosis, there is a time span from the patient’s first appointment to the time of their diagnosis that was not accounted for in this study, it is therefore possible that a subset of patients without delays from tissue diagnosis, did in fact have a delay from their initial appointment. Further, other social factors such as transportation, medical compliance, and social supports were identified as reasons for delayed care but are not typically well documented in the medical record. Other limitations include the retrospective nature of the study, the uneven sample sizes between the two institutions, and the use of a single health system. Future studies comparing care at safety-net hospitals with other academic centers nationwide will be needed to further identify differing risk factors between the two institutions.