## CLINICAL CARE PATHWAY TIME INTERVALS AND TUMOR PROGRESSION AMONG HEAD AND NECK ONCOLOGIC PATIENTS BEFORE AND DURING THE COVID-19 PANDEMIC IN THE PHILIPPINES

Fery Mai J. Rafanan, MD, Eduard M. Alfanta, MD, FPSO-HNS, Romulus Roberto Peter A. Instrella, MD, FPSO-HNS Resident, East Avenue Medical Center Department of Otorhinolarygology – Head and Neck Surgery Philippines

ferymairafanan@gmail.com

## **ABSTRACT**

Head and neck cancer (HNC) is the seventh highest incidence and mortality rate of malignancies worldwide, accounting for approximately 600,000 cases and 250,000 deaths annually. In the Philippines, HNCs are ranked 4th. Due to the progressive nature of HNCs, a delay at any point between symptom-onset and treatment affects the prognosis of patients. This 5-year retrospective cohort sought the time intervals in the clinical care pathway and its association with tumor progression before and during the COVID-19 pandemic among HNCs in a tertiary government training hospital.

A total of 81 HNC patients who consulted the OPD and underwent elective surgery between January 2018 and December 2022 were included in the study – 40 patients in pre-pandemic and 41 in pandemic. Most were Clinical Stage IV at first consult (32.10%) and at surgery (58.02%). In pre-pandemic, median time-to-consult was 180 days, time-to-diagnosis was 14 days, and time-to-treatment was 57 days. During pandemic, median time-to-consult significantly increased to 365 days, time-to-diagnosis decreased to 10 days, and time-to-treatment decreased to 43 days. Overall, 14 (17.28%) showed tumor progression. Time-to-treatment of patients with larynx primary tumor site in pre-pandemic showed statistically significant association with tumor progression.

This study revealed that the pandemic brought an increase in the time-to-consult in head and neck oncologic patients. Despite the pandemic, there was no significant difference in time-to-diagnosis and time-to-treatment. No significant association was found between tumor progression and time intervals of the key clinical time points but patients who had increased clinical stage were noted with longer time-to-treatment.

**Keywords:** head and neck cancer, clinical care pathway, time to consult, time to diagnosis, time to treatment, COVID 19

Table 1. Mean/Median Time Intervals between Key Clinical Time Points

| Key clinical time intervals | Overall   | Pre-pandemic group | Pandemic group | p-value |
|-----------------------------|-----------|--------------------|----------------|---------|
| Time to consult             |           |                    |                | 0.028   |
| Median                      | 270d      | 180d               | 365d           |         |
| Mean                        | 623d      | 637d               | 609d           |         |
| Range                       | 21-5,840d | 21-5,840d          | 30-2,555d      |         |
| Time to diagnosis           |           |                    |                | 0.667   |
| Median                      | 13d       | 14d                | 10d            |         |
| Mean                        | 40d       | 58d                | 23d            |         |
| Range                       | 1-779d    | 1-779d             | 1-260d         |         |
| Time to treatment           | •         |                    |                | 0.917   |
| Median                      | 52d       | 57d                | 43d            |         |
| Mean                        | 85d       | 72d                | 98d            |         |
| Range                       | 0-1,422d  | 0-285d             | 0-1,422d       |         |