

Academic programs achieve better survival outcomes in thyroid cancer, despite longer wait times: a 2004-2019 analysis



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Introduction

The association between surgical volume and outcome is well demonstrated in several fields of surgical oncology, resulting in a trend for centralization of cancer care. The objective of the study was to evaluate the impact of treatment facility type in thyroid cancer (TC) care.

Materials and Methods

Retrospective cohort analysis of patients with a diagnosis of papillary, follicular, medullary, or anaplastic thyroid cancer from the National Cancer Data Base from 2004-2019. Age, sex, race, income, facility type, TNM stage, histology, and days from diagnosis to definitive surgery data were recorded.

Conclusions

Between 2004 and 2019, time from diagnosis to definitive surgery increased at academic programs (AP) and non-academic programs (NAP) with APs exhibiting longer wait times. Treatment at APs is associated with improved survival, which may be explained by presence of multidisciplinary teams and subspecialists that may be less available at NAPs.

Results

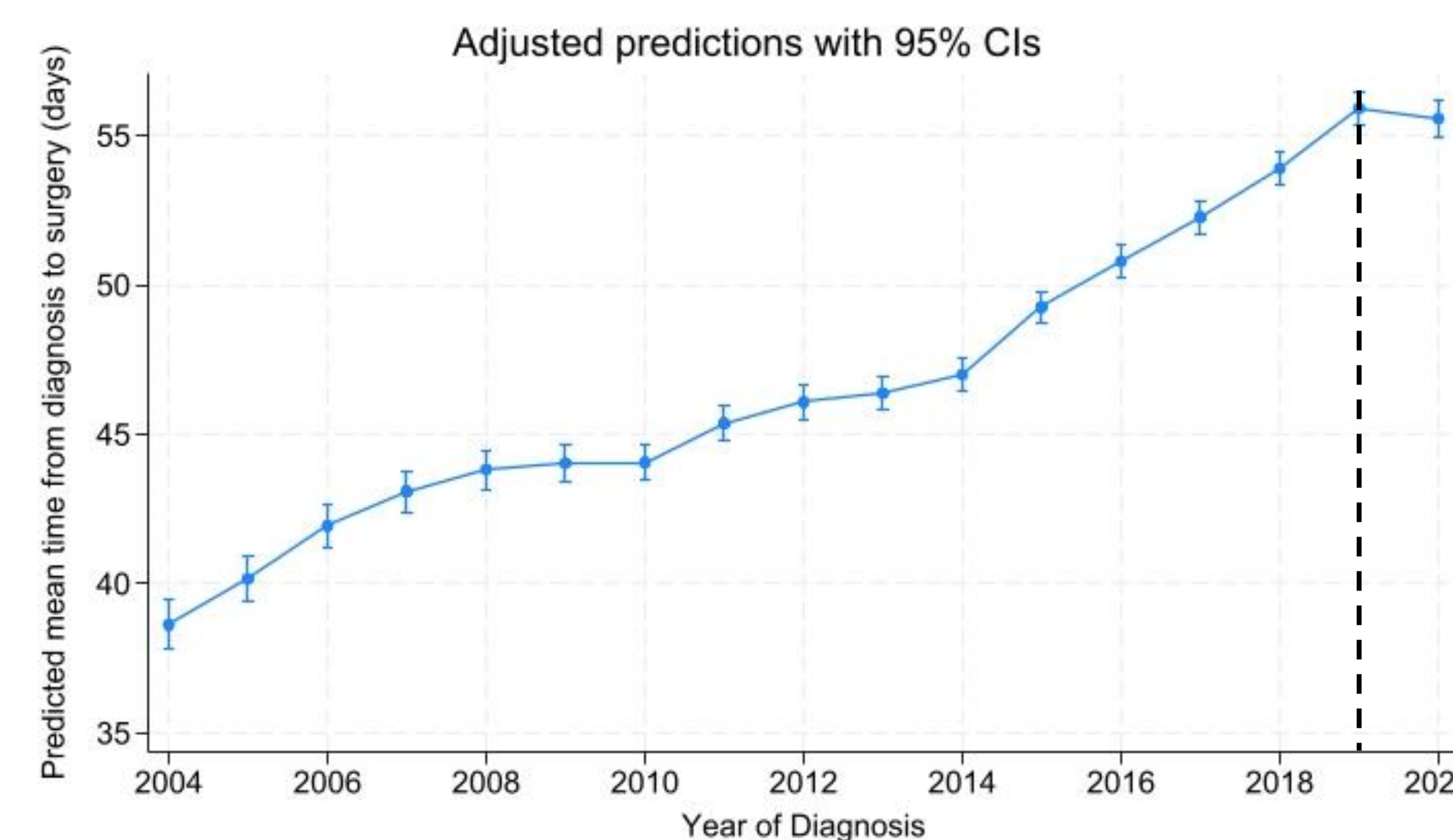


Figure 1. Adjusted prediction of the average days between diagnosis and surgery with 95% confidence intervals..

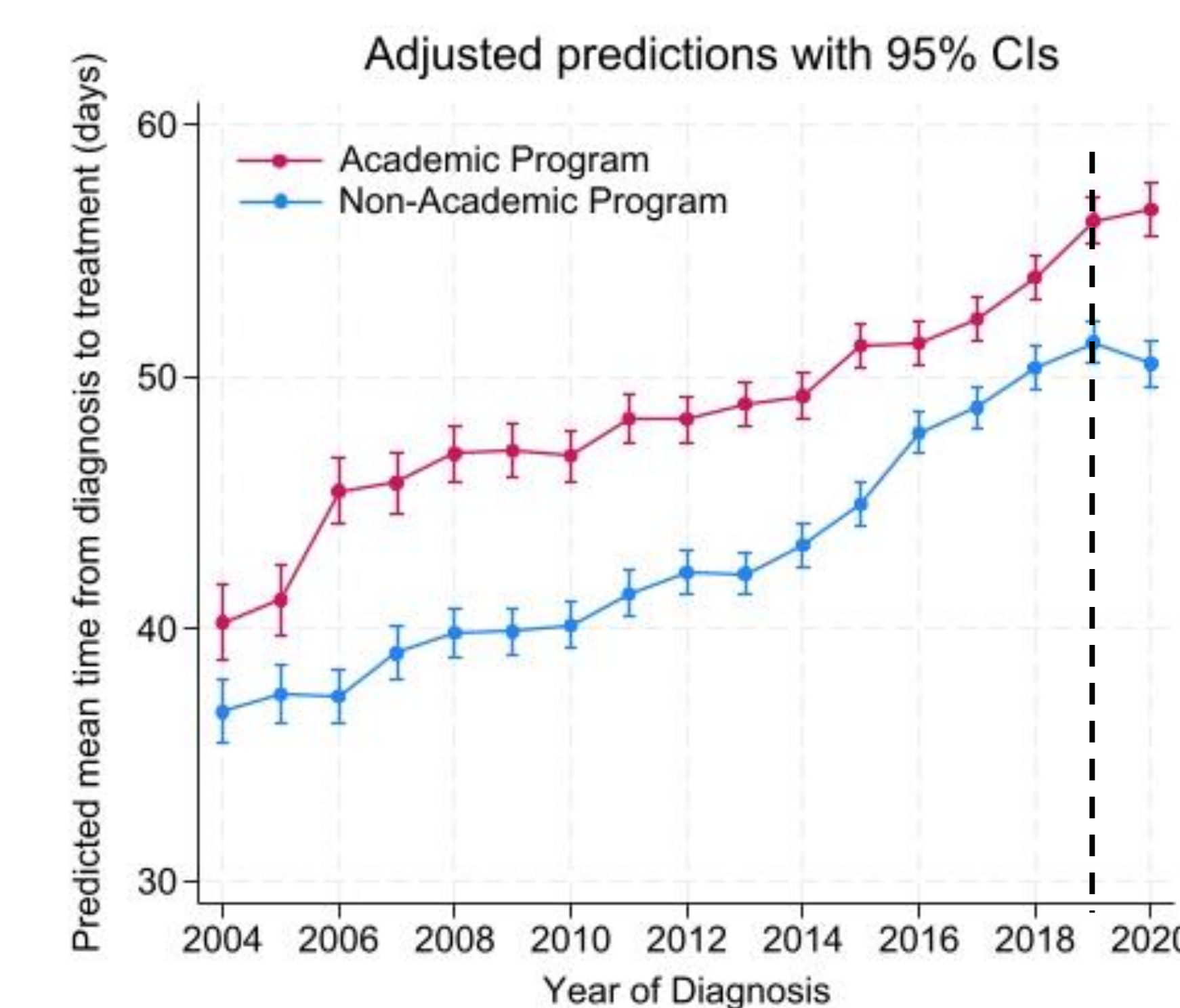


Figure 2. Adjusted prediction of the average days between diagnosis and surgery with 95% confidence intervals, by facility type.

Patients treated at academic programs had better OS (RR=0.92, 95%CI: 0.90-0.95). The survival benefit persisted across all histologic types: papillary (RR=0.92, 95%CI: 0.89-0.95), follicular (RR=0.90, 95%CI: 0.82-1.00), medullary (RR=0.86, 95%CI: 0.76-0.97) and anaplastic (RR=0.94, 95%CI: 0.90-0.99).

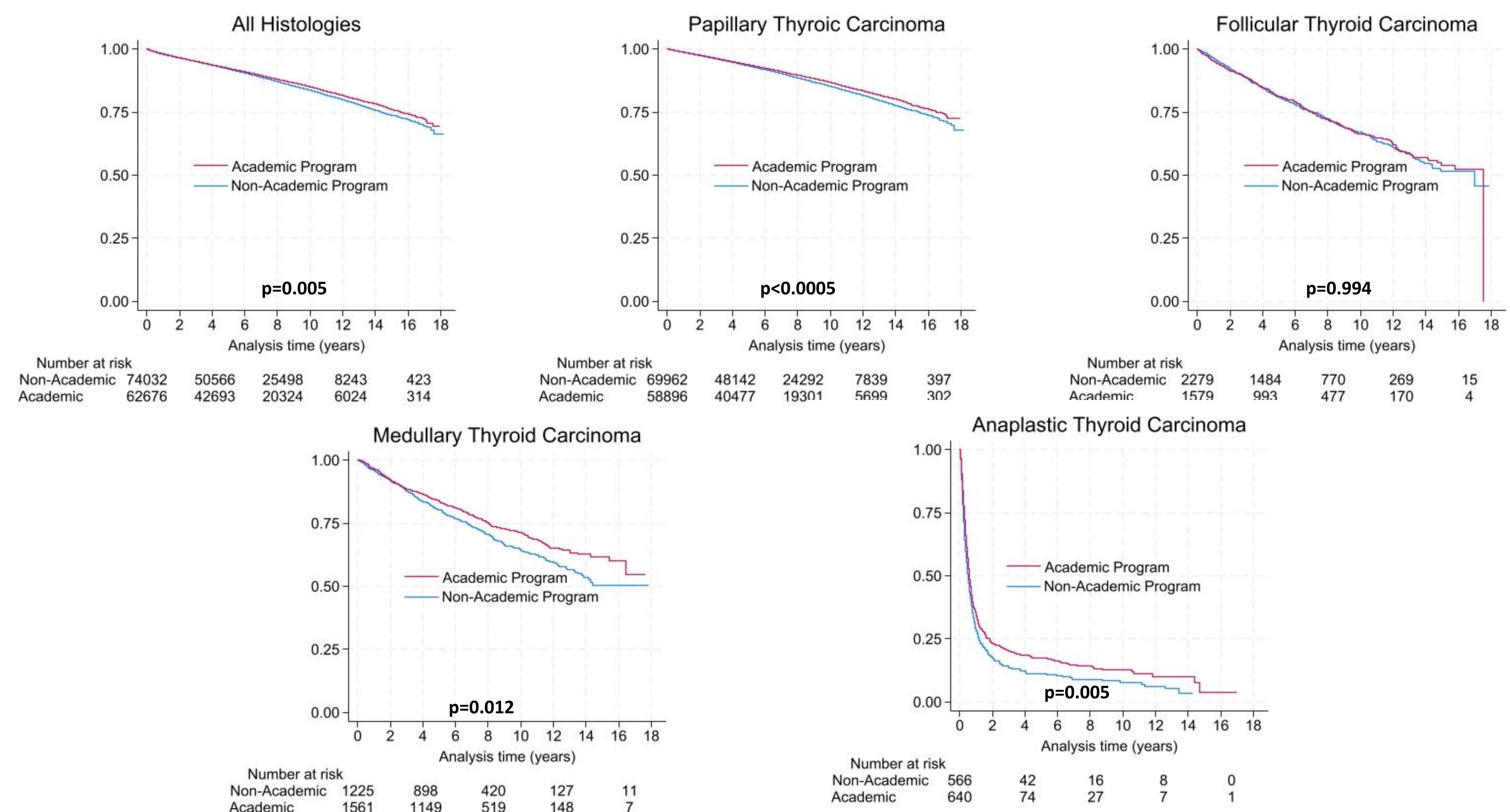


Figure 3. Kaplan Meier Survival curves for all thyroid malignancies (Upper left), Papillary Thyroid Carcinoma (Upper Middle), Follicular Thyroid Carcinoma (Upper Right), Medullary Thyroid Carcinoma (Lower Left) and Anaplastic thyroid Carcinoma (Lower Right)