

INTRODUCTION

- Cancer patients are increasingly prescribed medications associated with QTc interval prolongation
- Prolonged QTc measured by EKG has been identified as a negative prognostic factor in the diabetes and cardiothoracic surgery literature
- The frequency and implicated medications in a head and neck cancer (HNC) patient population has not previously been studied
- The relationship of drug-induced QTc interval prolongation alerts with mortality is unknown

OBJECTIVES

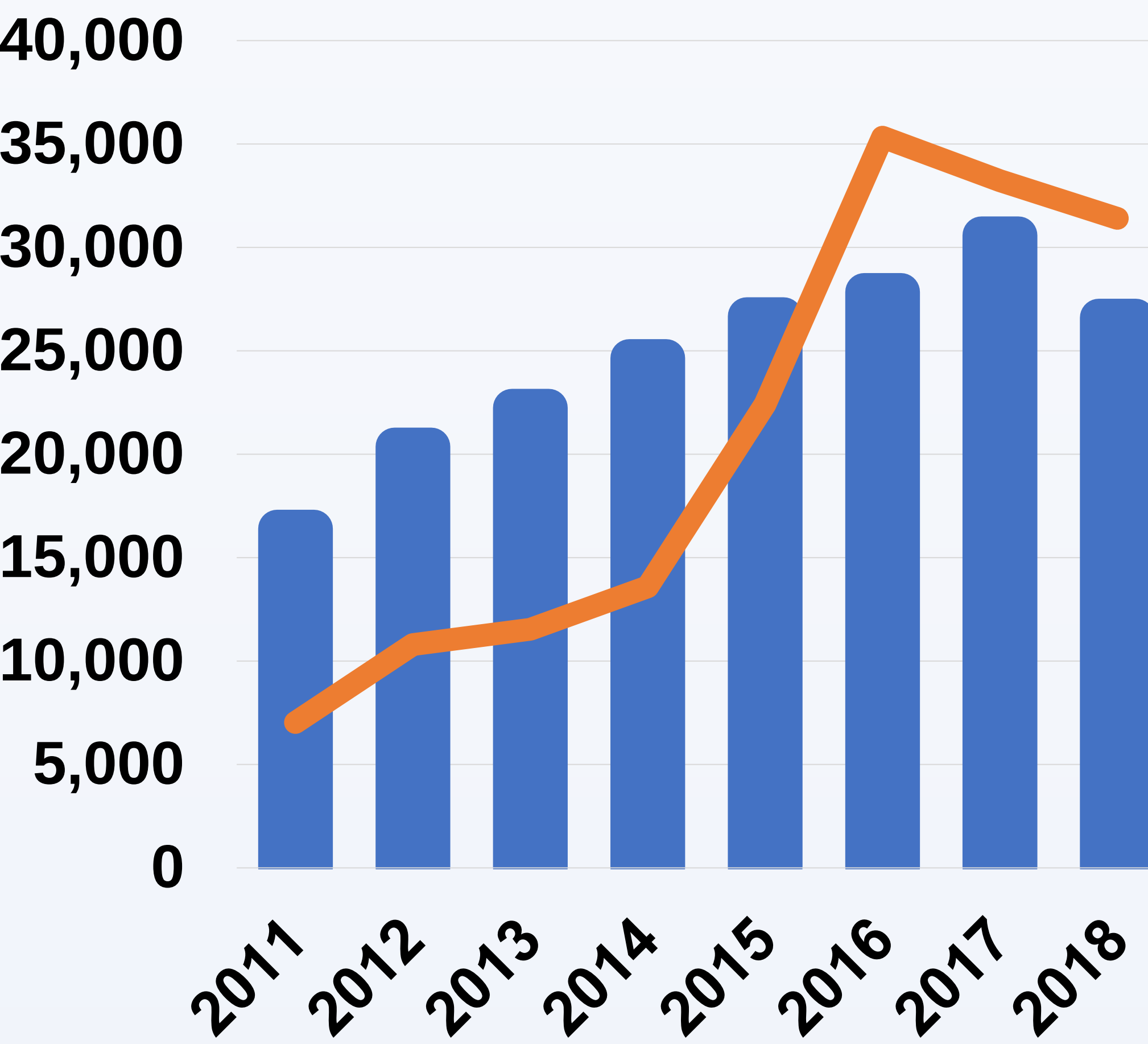
1. Assess the clinical significance of QTc interval prolongation alerts
2. Compare survival analyses after alerts across primary cancer sites
3. Identify the frequency of alerts and most implicated medications

METHODS

- Identified adult cancer patients at UTSW affiliated clinical sites between 2006-2018 with EMR generated QTc prolongation alerts
- Collected demographic data and data on drugs implicated in alert generation
- Stratified patients by cancer primary site using ICD-10 coding
- 19,223 unique patients, (914 HNC patients)
- Analyzed time from first QTc alert to patient death and completed multivariable Kaplan-Meier analysis and Cox regression with two-outcomes deceased/alive using a  $\leq 10$ -day cutoff and a  $\leq 365$ -day

RESULTS

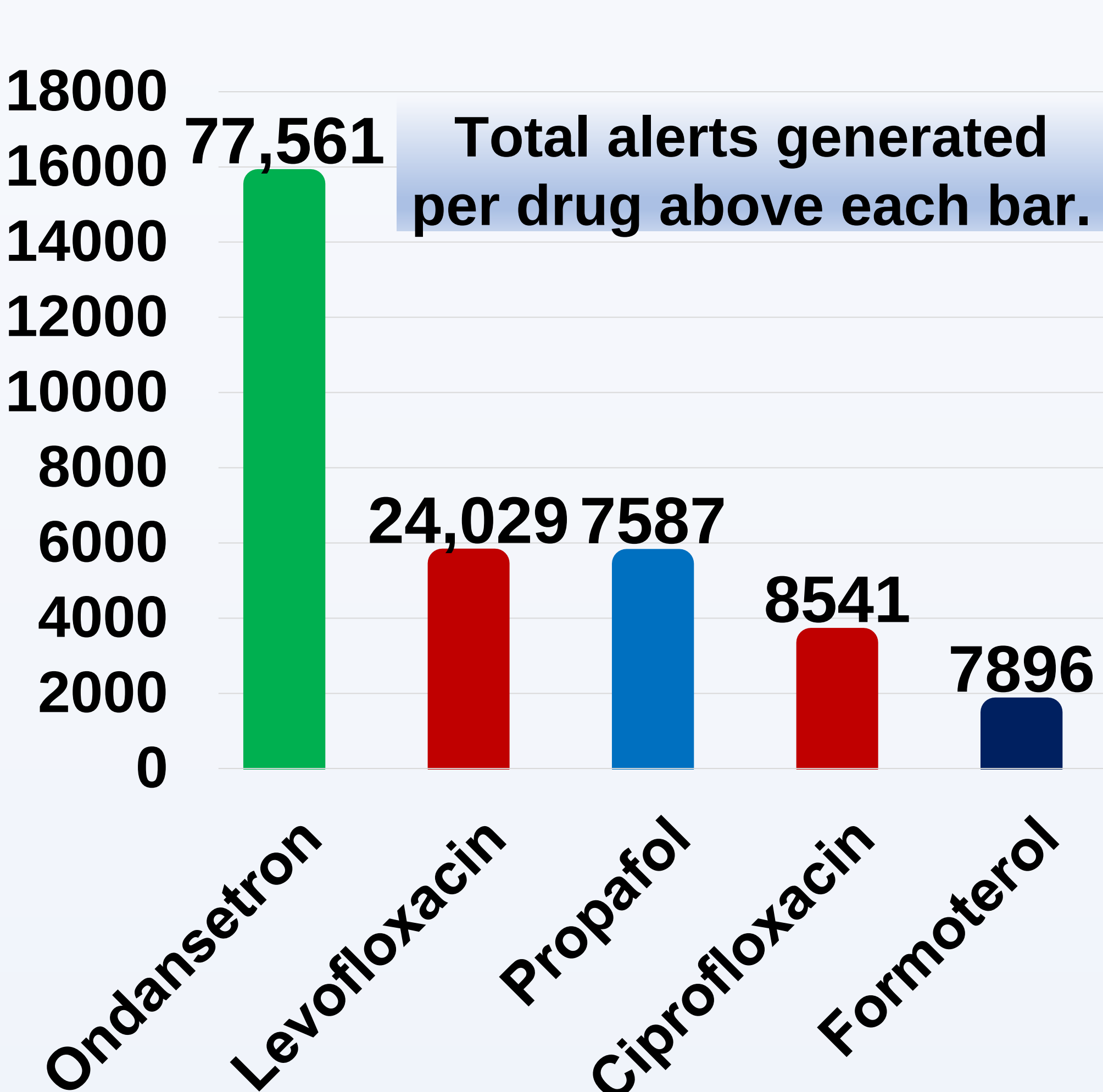
QTc Alerts by year vs Pt Encounters



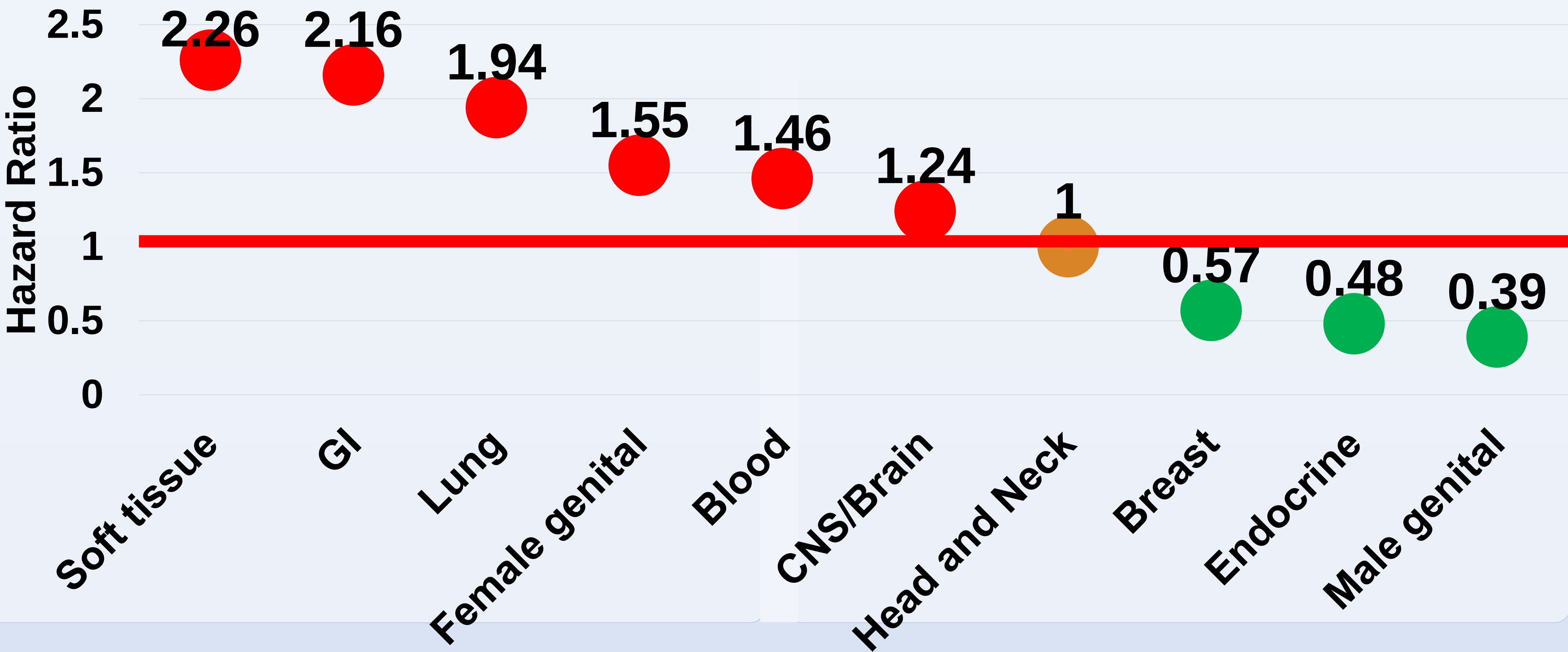
Unique QTc Alerts vs Pt Encounters

RESULTS

Unique Patients with QTc Alerts by Drug

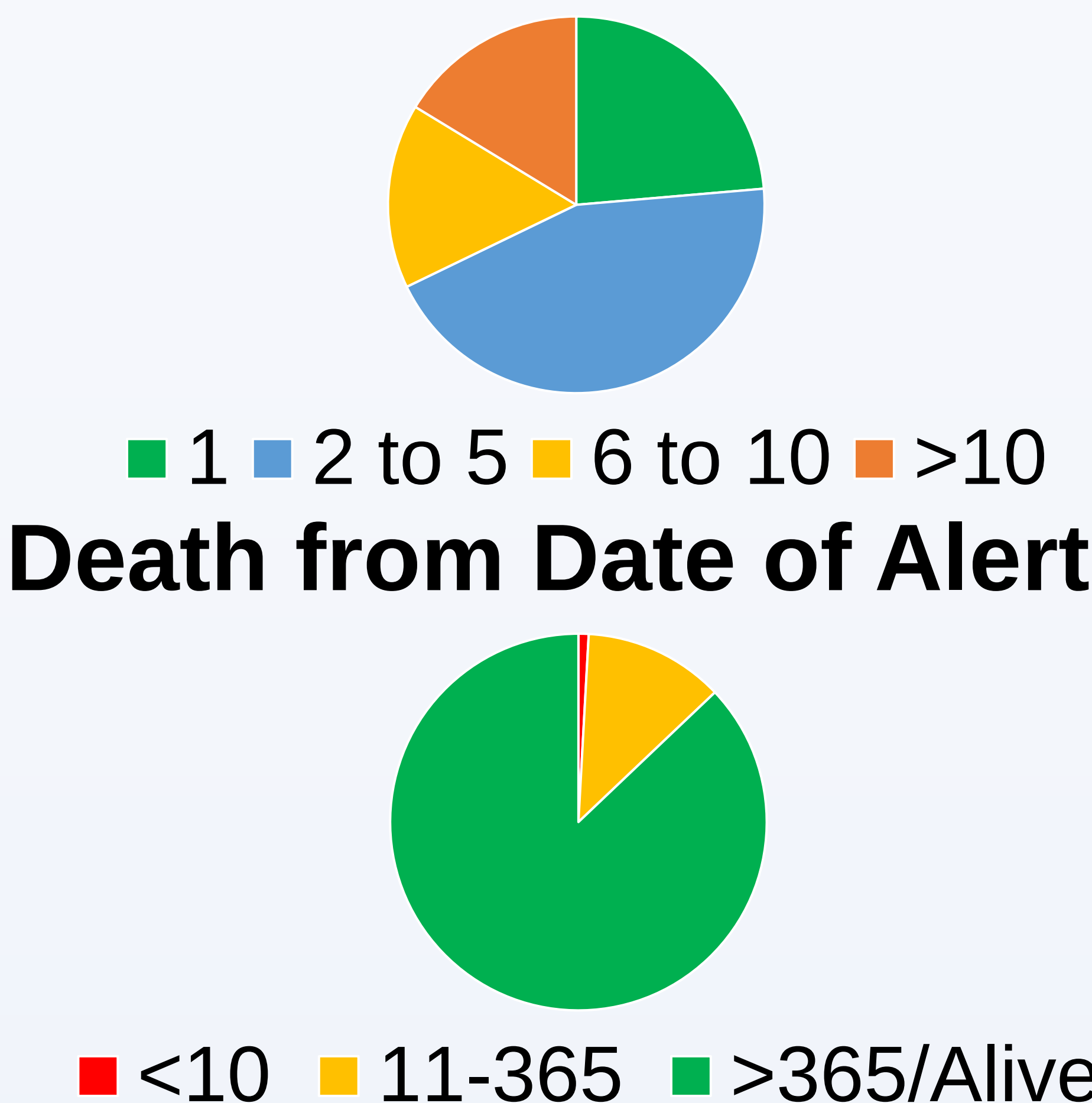


HR  $\leq 10$  Day Mortality from 1<sup>st</sup> Alert



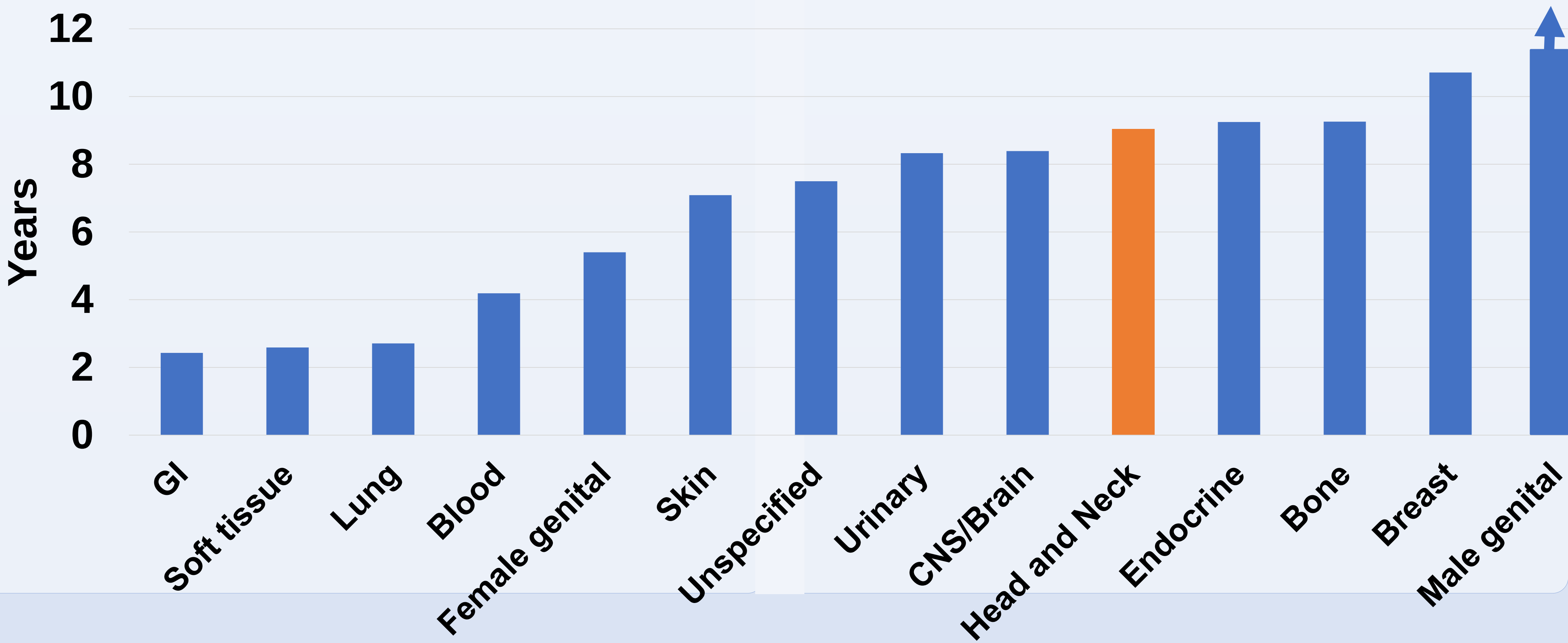
RESULTS

# of QTc Alerts/Patient



Death from Date of Alert

Mean Survival from 1<sup>st</sup> QTc Alert



CONCLUSIONS

- QTc alerts were widely identified, but not associated with significant acute mortality in HNC patients
- HNC patient median survival after QTc alert was longer than that of GI, lung, blood, and female genital cancer patients
- QTc alerts likely do not portend risk for acute mortality