Demographics of Patients with Cancer and COVID-19 Disease

May 25, 2020

Patients with Cancer and COVID-19: We identified patients with cancer and COVID-19 by searching for active patients with cancer who have either:

1. Positive laboratory tests for SARS-CoV-2 or other β-coronaviruses (e.g., SARS, MERS)
2. ICD-10 diagnosis codes for COVID-19 disease
3. ICD-10 diagnosis codes for viral pneumonia attributable to ‘Other coronavirus’ or of ‘Unknown etiology’ after Feb 1, 2020

An active patient with cancer is one who has an ICD-9 or ICD-10 diagnosis code for a malignant neoplasm and at least two clinical encounter records (e.g., a clinical visit and/or drug administration) in the practice’s EHR in the 12 month period ending on the date of analysis (i.e. May 26, 2019 – May 26, 2020). All data is de-identified for analysis.

Of the 35 CancerLinQ practices providing regular data updates, 22 practices provided SARS-CoV-2 testing data indicating at least 1 patient underwent testing for or indicated a diagnosis of COVID-19 disease, and of these, 18 practices had at least 1 patient with apparent COVID-19 disease and cancer as defined by the method above.

We then summarized the distribution of the patients with cancer and COVID-19 by race, gender, ethnicity, and age. For comparison purposes, we have included similar distributions of all active patients with cancer, denoted as ‘Underlying Cancer Population’ from the 22 practices above. Population sizes for COVID-19 Cancer Cases and Underlying Cancer Population are 394 and 343,983 respectively.

Results:
Figure 1: Distribution of gender of active patients with cancer (see above) diagnosed with COVID-19 disease at CancerLinQ practices ('COVID-19 Cancer Cases') and the total population of active cancer patients ('Underlying Cancer Population') at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020.
Figure 2: Distribution of race of active patients with cancer (see above) diagnosed with COVID-19 disease at CancerLinQ practices ('COVID-19 Cancer Cases') and the total population of active cancer patients ('Underlying Cancer Population') at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020. We have combined ‘Native Hawaiian or Pacific Islander’ and ‘Native American or American Indian’ into ‘Other race.’
Figure 3: Distribution of ethnicity of active patients with cancer (see above) diagnosed with COVID-19 disease at CancerLinQ practices (‘COVID-19 Cancer Cases’) and the total population of active cancer patients (‘Underlying Cancer Population’) at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020.
Figure 4: Distribution of age of active patients with cancer (see above) diagnosed with COVID-19 disease at CancerLinQ practices (‘COVID-19 Cancer Cases’) and the total population of active cancer patients (‘Underlying Cancer Population’) at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020.
Figure 5: Primary neoplastic diagnosis of active patients with diagnoses of COVID-19 disease and cancer ('COVID-19 Cancer Cases') and the total population of active patients with cancer ('Underlying Cancer Population') at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020.