Demographics of Patients with Cancer and COVID-19 Disease

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Patients with Cancer and COVID-19: We identified patients with cancer and COVID-19 by searching for active patients with cancer who fit at least one of the following three criteria:

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. June 8, 2019 – June 8, 2020). All data is de-identified prior to analysis.

Of the 35 CancerLinQ practices providing regular data updates, 25 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 (as defined by at least one of the 3 criteria above) and cancer.

We then summarized the distribution of the patients with cancer and COVID-19 by race, gender, ethnicity, age and primary cancer diagnosis. For comparison purposes, we have included distributions of all active patients with cancer, denoted as ‘Underlying Cancer Population’ from the 25 practices above.

Population sizes for COVID-19 Cancer Cases and Underlying Cancer Population are 463 and 361,241 respectively.

Results:
Figure 1: Distribution of gender for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020.
Figure 2: Distribution of race for COVID-19 Cancer Cases and 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 for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020.
Figure 4: Distribution of age for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020.
Figure 5: Primary neoplastic diagnosis for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020. Diagnoses present in 0 or small numbers of COVID-19 patients have been aggregated into ‘Other’