Demographics of Patients with Cancer and COVID-19 Disease

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Patients with cancer and COVID-19 constitute those with a cancer diagnosis who fit at least one of the following three criteria:

1. Positive laboratory tests for SARS-CoV-2
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’

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. All data are de-identified prior to analysis.

Of the 76 CancerLinQ practices providing regular data updates, 54 practices provided either testing information for SARS-CoV-2/COVID-19 disease (criterion 1 above) and/or diagnostic reports of COVID-19 disease (criteria 2&3). Of these, 49 practices had at least 1 patient with apparent COVID-19 disease 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 54 practices described above.

Population sizes for COVID-19 Cancer Cases and Underlying Cancer Population are 37,174 and 1,047,567 respectively.
Results:

Figure 1: Distribution of gender for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results during the previous 12 months.

Figure 2: Distribution of race for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results during the previous 12 months. 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 during the previous 12 months.

Figure 4: Distribution of age for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results during the previous 12 months.
Figure 5: Primary neoplastic diagnosis for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results during the previous 12 months. Diagnoses present in 0 or small numbers of COVID-19 patients have been aggregated into ‘Other’.