Embracing a New Normal: Implications of COVID-19 Variants on Precision Diagnosis and Presentation of New Prostate Cancer Diagnoses

Mitchell O. Finkelstein (high school senior research intern), Jason Efstathiou, MD, DPhil, FACRO, Tiffany Noble CCRC, Tracy Adams NP, Walter Behnert, RTT, Steven E. Finkelstein, MD, DABR, FACRO
Florida Cancer Affiliates / The US Oncology Network, Panama City, Florida, USA.

Background / Hypothesis:
From the COVID-19 public health emergency (PHE) declaration issued by the Secretary of Health and Human Services on January 31, 2020, to the end of the COVID-19 PHE declaration on May 11th, 2023, the COVID-19 pandemic led to unprecedented changes in public health and cancer management. Starting in March 2020, the U.S. health-care system stopped performing routine procedures secondary to the COVID-19 pandemic; the number of general cancer screenings plummeted according to data from Medicare, insurers, and electronic medical records. It was unclear if this delay effected all facets of community oncology in Florida, United States equally. We previously reported both a differential delay and celerity in presentation of new cancer diagnoses by disease subsite. By July 6, 2022, CDC data showed that Omicron subvariants BA.4 and BA.5 were now dominant in the U.S., making up over 70% of new COVID-19 infections. May 11th, 2023, marked the end of the COVID-19 PHE declaration. The CDC has worked to fold their COVID-19 emergency response activities into their existing structure and programs, as part of an ongoing transition to sustainable public health practice. Our updated hypothesis is that there is a continued shifting landscape of presentation by disease subsite in some Florida, United States community oncology organizations.

Methods:
This is a retrospective review of prospectively collected data; new patients referred to a large multispecialty community medical and radiation oncology organization in Florida, United States before COVID-19 (quarter 2 April-June 2019) were compared to a phase during COVID-19 (quarter 2 April-June 2020) and beyond. Cancer disease subsites data (n=24) were recorded and compared; new patient prostate cancer precision diagnosis was compared directly to 23 different cancers subsites.

Results:
In our initial results, there were differential changes for new patient cancer presentation to a large multispecialty community oncology organization. The initial impact (quarter 2 2019 compared to quarter 2 2020) noted out of 24 different cancers subsites, 14 (58%) were decreased. New patient prostate cancer diagnosis was compared directly to 23 different cancers subsites. Prostate cancer was not among the greatest decreased, or increased by quarter 2 of 2020. Brain, carcinoid, and breast DCIS were greatest decreased by 75%, 50%, and 40% respectively. Common cancers (skin, breast, and lung) were also decreased by 6.8%, 5.3%, and 11.7%. Interestingly, head and neck (unknown primary), GI (upper), and multiple myeloma were increased by 150%, 52.6%, and 45.4%. Subsequent impact over time (quarter 2 of 2019 compared to quarter 2 of 2021) noted out of 24 different cancers subsites, 11 (46%) were decreased. Colorectal, lung, and lymphoma were now greatest decreased by 26%, 18%, and 12% respectively. Interestingly, prostate cancer subsequently ***increased by 17%*** by quarter 2 2021. This directly compared with other common cancers, skin (3.4%) and breast (16%). However, in the years following the pandemic, we began to see continued shifting landscape to pre pandemic levels.

Conclusion:
In conclusion, the data shows continued shifting landscape with respect to implications of COVID-19

variants on precision diagnosis and presentation of new prostate cancer diagnoses. These last few years have affected all facets of medicine, but as time progresses, we appear to be embracing a new normal for prostate cancer.