

Update for Week of July 27, 2020 to the Joint Statement on COVID-19
From Lung Cancer Advocacy Groups

These updates began on March 3, 2020--a week before the World Health Organization declared COVID-19 a pandemic--when concerns arose in the lung cancer community regarding news out of China about a novel respiratory virus especially deadly to patients with lung cancer. Dr. Upal Basu Roy (who holds a Masters in Public Health), Dr. Amy Moore (whose PhD research was in virology), and Janet Freeman-Daily (a lung cancer research advocate) led lung cancer patient advocacy groups' efforts to provide vetted, scientific information with a unified voice. Our goal is to provide a trusted source of information that each member of the community can use to assess their risk and make healthy choices for themselves and their families.

As of July 26, 2020, there have been over 16 million cases of COVID-19 worldwide. This week, the US surpassed 4 million cases-- while our nation accounts for just over 4% of the world's population, we make up 25% of virus cases. Another alarming statistic is the rapid pace with which we keep hitting stark new milestones – it took a mere 15 days for our cases to jump from 3 million to 4 million. These numbers reflect the exponential growth of viruses when appropriate public health measures are not heeded by enough members of the population.

SUMMARY OF AACR COVID-19 AND CANCER CONFERENCE

The American Association of Cancer Research held a special virtual conference titled “COVID-19 and Cancer” on July 20-22, 2020. It is increasingly apparent that cancer and COVID-19 present a unique and unfortunate convergence, with lung cancer patients being among the most at risk for severe symptoms from the disease. This conference grew out of the research community's need to understand the intersection of these two diseases and reflects the rapid mobilization of cancer scientists to apply their talents to finding solutions to this unprecedented global crisis. As one scientist stated, it is our “moral obligation” to help.

The lung cancer advocacy groups had two “poster” presentations at this conference. The first one summarized the origins of our joint COVID-19 statements and their impact on the lung cancer community. The second one discussed patient concerns that have emerged through these updates and how the advocacy groups can develop programs to address them.

1. What is the latest data on risk of COVID-19 for lung cancer patients?

Several real-world studies were presented at the conference that addressed overall risk for cancer patients as well as lung cancer in particular. Real-world studies rely on data collected from patients receiving treatment at their regular cancer centers or hospitals (i.e. patients not receiving treatment through a clinical trial). Currently, real-world data seems to be the richest source of data for learning about how SARS-CoV-2 (as a virus) and COVID-19 (as a disease) impacts cancer patients.

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Registry data is entered by the patient's treating physician after the patient has a confirmed diagnosis of COVID-19. Data from two big registries were presented at this conference.

- The **CCC19 registry** is a multi-institutional, North American effort for all types of cancer. It reported that lung cancer patients were at higher risk of developing a more severe form of COVID-19. Other factors that predicted worse outcomes included older age, poor performance status, presence of co-morbidities, prior or current history of smoking, and a cancer that was progressing. The CCC-19 study showed an overall mortality of 26% for lung cancer patients with COVID-19, the highest of all the cancer types analyzed.
- The **TERAVOLT registry** is a multi-institutional, international effort dedicated to thoracic (lung-related) cancers. TERAVOLT data on 400 COVID-19 patients showed overall mortality of 35.5% for patients who had lung cancer and a higher mortality of 41% for patients who have SCLC. This increases the challenges presented by the pandemic to rural communities in the Southeast, where SCLC burden is high. Poor performance status was associated with more severe COVID-19 symptoms for SCLC patients. The patients in this study are primarily European, where the standard of cancer care may be different than in the US. It is important to keep in mind that SCLC is highly aggressive and has a higher symptom burden than NSCLC.

Single-institution data provide convenient samples to understand the natural history of a specific disease. At the conference, data from Memorial Sloan Kettering Cancer Center in New York City showed that prior immunotherapy for lung cancer did not impact outcomes of SARS-CoV-2 positive lung cancer patients. This data seems to contradict other registry-based efforts which have suggested that immunotherapy may predict worse outcomes. At the height of the pandemic in NYC, 20% of MSKCC's lung cancer patients with COVID-19 died but many, including those with late-stage cancer, recovered. This study suggests patient-specific factors (such as type of treatment and patient characteristics) may determine overall risk and susceptibility to worse outcomes. It is important to keep in mind that standard of care and patient characteristics may be unique in a specific institution and therefore the results may not be generalizable.

One study presented at the conference that looked at **electronic health records** of patients in the US showed that an active cancer diagnosis coupled with co-morbidities such as diabetes and hypertension predicted worse outcomes for COVID-19.

Some common themes emerged for lung cancer patients:

- **Patient-specific factors** such as older age, presence of lung comorbidities such as COPD, and a poor performance status (higher than 1) are associated with a risk of developing a more severe form of COVID-19.
- **Certain treatments** such as chemotherapy (either alone or in combination) may increase the risk of developing a severe form of COVID-19 due to the immunosuppressive effects of chemotherapy.

We are still learning about how patient-specific factors and treatment-specific factors related to lung cancer can influence the severity of COVID-19. It is best to discuss how an individual patient's situation will be impacted with the treating physician.

What is *abundantly clear* at this point is that multiple studies point to increased risk and worse outcomes in lung cancer patients with COVID-19. As the pandemic continues to spread throughout the US, it is **imperative** that lung cancer patients continue to take the threat seriously and take appropriate steps to protect themselves and those around them:

- limit unnecessary travel (particularly to areas where COVID-19 is prevalent),
- practice social distancing,
- wash hands frequently (or use hand sanitizers when handwashing is unavailable), and
- WEAR A MASK when out in public.

2. How has the COVID-19 pandemic impacted oncologists and the cancer healthcare community?

The impact of the COVID-19 pandemic on the mental health of oncologists cannot be underestimated. Several studies suggest that oncologists will likely suffer from “burn-out” syndrome and post-traumatic stress disorder (PTSD). Two studies documenting the effect of the pandemic on mental health of oncology professionals were presented at the conference.

- One study looked at 300 oncologists in Western Europe and the United States during the first phase of the pandemic. Two biggest fears reported by the oncologists (almost 75% of participants) were “fear that their patients would get sick” and “fear that their family members would get sick.” Several oncologists opted to live away from their families during their oncology service to protect their families (Symposium 7, Dr. Gabriella Pravettoni).
- In the second study reported at the Keynote Symposium, which included 1570 oncologists from 102 countries, more than 75% of the oncologists reported that they feared contracting COVID-19 (July 21 Keynote, Dr. Solange Peters).

Both these studies highlight the importance of developing adequate mental health support services for healthcare professionals as the effects of the pandemic emerge.

As patients and advocates who work regularly and intimately with oncology healthcare professionals, we must not forget to express our gratitude to all members of the patient care team.

Resources and websites:

1. [IASLC's Guide to COVID-19 and Lung Cancer](#)
2. The National Cancer Institute has a special website for COVID-19 and emergency preparedness. [COVID-19: What People with Cancer Should Know](#)
3. We are following updates provided by the [World Health Organization \(WHO\)](#) and the US [Centers for Disease Control and Prevention \(CDC\)](#)

4. Johns Hopkins [COVID-19 Resource Center](#)
5. Interactive map of [US COVID-19 cases by state](#)
6. [The One-Two Punch: Cancer And COVID-19](#) (an important perspective for cancer patients)
7. You can find information specific to your state or city or town on your health department's website.
 - Directory of state department of health [websites](#)
 - Directory of local health department [websites](#)
8. American Medical Association [resources](#) for healthcare providers.



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