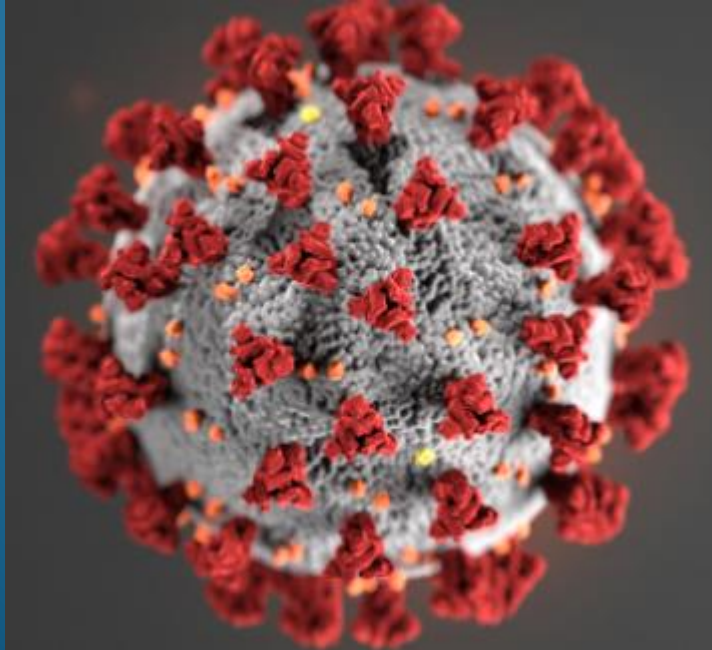


On the Frontlines of Cancer Care During the COVID-19 Pandemic: Lessons Learned



Lisa M. Keller, APRN,BC
Nurse Practitioner
Hematology/Oncology
Boston Medical Center

Disclosures

- None

My Background

- 14 years of NP experience in Oncology
- Boston Medical Center 2010-present
- Current focus on GI, Breast and Lung Cancer Patients
- Massachusetts General Hospital 2008-2010
- Maimonides Medical Center 2006-2008

Objective

To describe the major impacts of the COVID-19 pandemic on cancer care and cancer patients within the context of a rapidly changing situation.

Pandemic Timeline

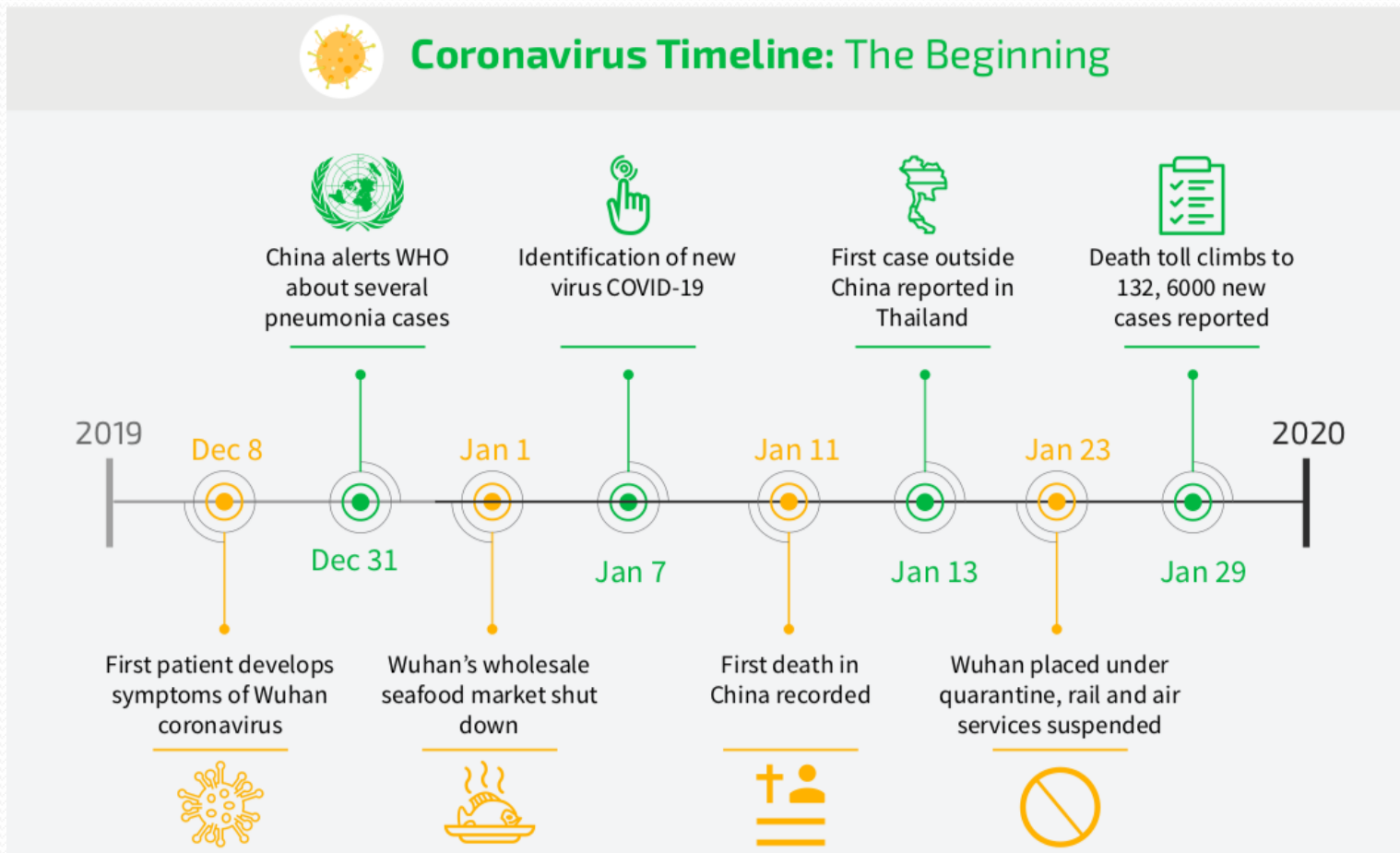


Image: Avetta

Pandemic Timeline

- January 20th, 2020 more cases were confirmed outside of mainland China including the US
- January 30th WHO declared a global health emergency

Pandemic Timeline

- February 11th WHO proposed an official name for the disease caused by this novel coronavirus called COVID-19 and later severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).
- February 23rd Italy started to see a major surge in cases
- February 29th US announced first known coronavirus death in Seattle.

Pandemic Timeline

- March 11th WHO declared a Coronavirus Pandemic
- March 13th President Trump declared a National Emergency
- March 26th US became the hardest hit country with the most confirmed cases (81,321 and > 1,000 deaths) of any other country in the world.

Pandemic Timeline: Massachusetts

- February 1st The first known case in MA was confirmed
- March 10th Governor Charlie Baker declared State of Emergency in Massachusetts
- March 11th Boston area schools begin to close
- March 13th Boston Marathon postponed until September 14th 2020 (now canceled May 28th)
- March 15-24th Restaurants take-out only, gatherings limited to 25 people, closure of libraries and fitness centers, closure of all non-essential services, gatherings limited to 10 people, stay at home advisory issued.

Pandemic Timeline: Massachusetts

- April 21st Schools and non-emergency childcare were closed until the end of the year.
- May 1st Governor ordered universal mask policy for all MA residents in public places if unable to socially distance starting May 6th.
- May 11th Governor Baker issued a 4-phase re-opening plan for the state.
- May 18th Reopening Began

BMC Response

- February 28th Worldwide demand of N95 Respirator Masks noted. Conservation of supplies already underway at BMC.
- March 5th Hospital Incident Command System Activated
- March 10th The first biohazard tent was set up outside the ER



BMC Response

- March 14th Limited elective surgical procedures and ambulatory visits. Televisits begin.
- March 16th BMC began limiting entrance to the hospital to one main area and screening all visitors for ILI symptoms.
- March 18th Hospital restricted all inpatient visitation unless pre-approved or OB, Pedi, L&D
- March 21st Informed Consents signed by staff not patients to decrease sharing of pens. Important for cancer patients.

BMC Response

- March 27th BMC implemented a universal mask policy for all staff.
- April 7th BMC extended its universal mask policy to all patients and visitors as well as staff.

BMC Response

- April 3rd BMC continued to adapt and plan for the anticipated surge in COVID-19 patients i.e. repurposed the pediatric inpatient unit to an adult unit
- April 9th As surge planning continued, ICU beds and Med/Surg beds were expanded into new areas. i.e. Oncology non-COVID inpatients were transferred to beds in the Endoscopy Suite.
- Oncology clinicians were repurposed in some cases or asked about comfort level rotating to other inpatient areas.

BMC Response

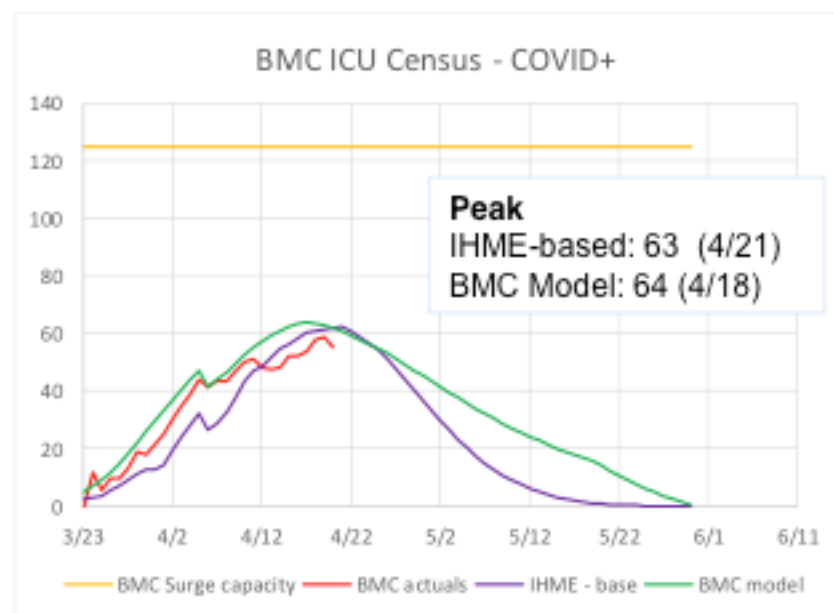
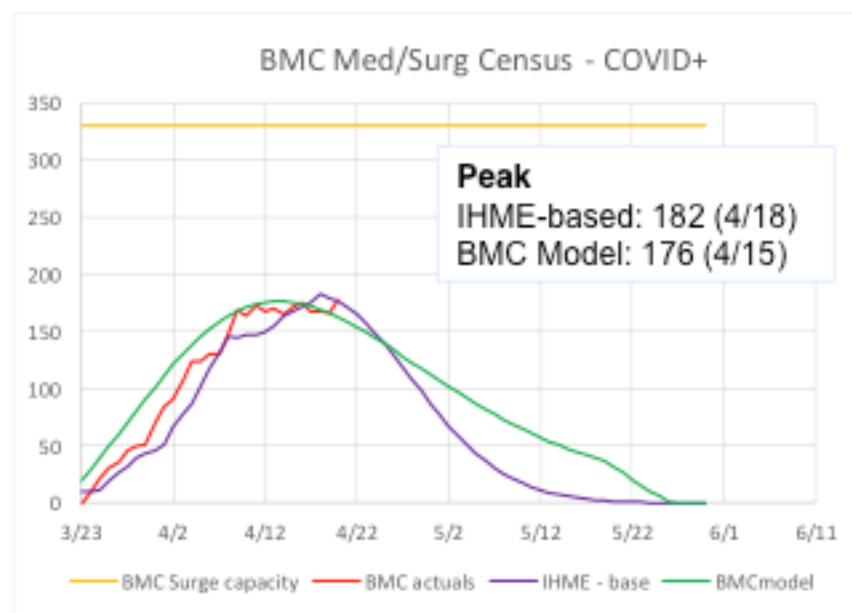
- April 7th Massachusetts DPH issued statewide crisis standards of care guidance and a multi-D team from BMC worked to adapt these measures to our specific patient population.
 - Impactful for cancer patients from an ethical standpoint as guidelines were being developed around how to prioritize ventilators in case of a shortage.

BMC Response

- April 10-13th Expanded PPE to non-COVID inpatient floors and ambulatory clinics to include the use of surgical masks, reusable face shields, gloves and gowns when needed.
- April 21st BMC reached peak number of hospitalized COVID-19 patients at 226 total inpatients and 54 ICU patients.
- May 8th Inpatient bed planning began to convert COVID units back to non-COVID units as we passed the peak and the COVID-19 daily census declined.
- May 11th Non-COVID volume begins to increase again
- May 27th Rebound planning continued as BMC plans to welcome back patients and return to a new normal.

We expect we are currently near peak in confirmed COVID19 inpatient cases

BMC COVID19 patient census forecast¹



- We are currently modeling BMC census using a) the latest IHME forecasts from 4/17 and applying a 21% market share of BMC of Boston (v. 14% normal share of Boston), and b) applying a statistical forecast of our COVID+ admissions (“BMC Model”), which projects a slower decline in cases
- IHME recently adapted their methodology which resulted in a significantly lower MA deaths and bed needs v. prior iterations of the model
- We anticipate we are currently near or at peak in COVID19 bed census if current trends continue. We will need to monitor closely to ensure this trend continues.

Where Are We Now?

As of June 16th:

- Number of infections in the US = 2,104,346
- Number of deaths in the US = 116,140
- Number of infections in MA= 105,885
- Number of deaths in MA= 7,665

Racial Disparities of COVID-19

- Racial disparities have become a central talking point in the national conversation about COVID-19
- COVID-19 has exposed the health inequities that disproportionately impact communities of color
- Health inequities due to years of structural racism
- Race alone does not make someone more susceptible to the virus
- Pre-existing conditions such as diabetes, asthma, and heart disease all of which disproportionately impact people of color.

“Coronavirus Threatens to Worsen Disparities, Distrust of Healthcare System Among Black Community.” Health City. 23 April 2020. <BMC.org>.

“Culturally Competent Healthcare: Lessons from a Safety-Net Hospital in the COVID Era.” Health City. 12 May 2020. <BMC.org>.

Racial Disparities

- Additional factors that leave people more vulnerable to the effects of pandemics:
 - Malnutrition
 - Poor Housing
 - Inability to socially distance or quarantine
 - People working in jobs which do not provide sick leave

Racial Disparities

Percent of Black Population and Black COVID-19 Deaths by State

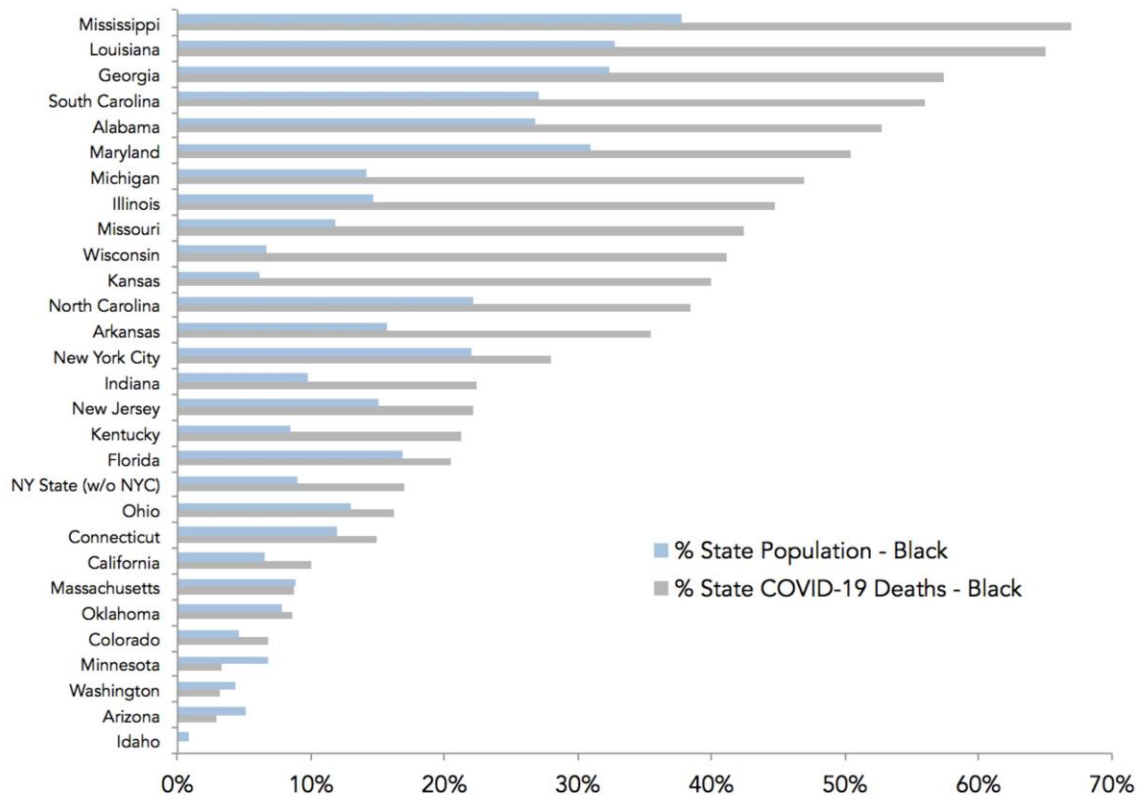


Boston Combined Residency Program

Sources: United States Census, State Departments of Public Health

Compiled by: Colleen Kelly, MD and Sagar Mehta, MD,
Boston Combined Residency Program

Notes: Data as of 4/14/20. Percentages calculated based on deaths with race reported. Number of deaths with unknown race varies by state. New York state and city data only available separately.



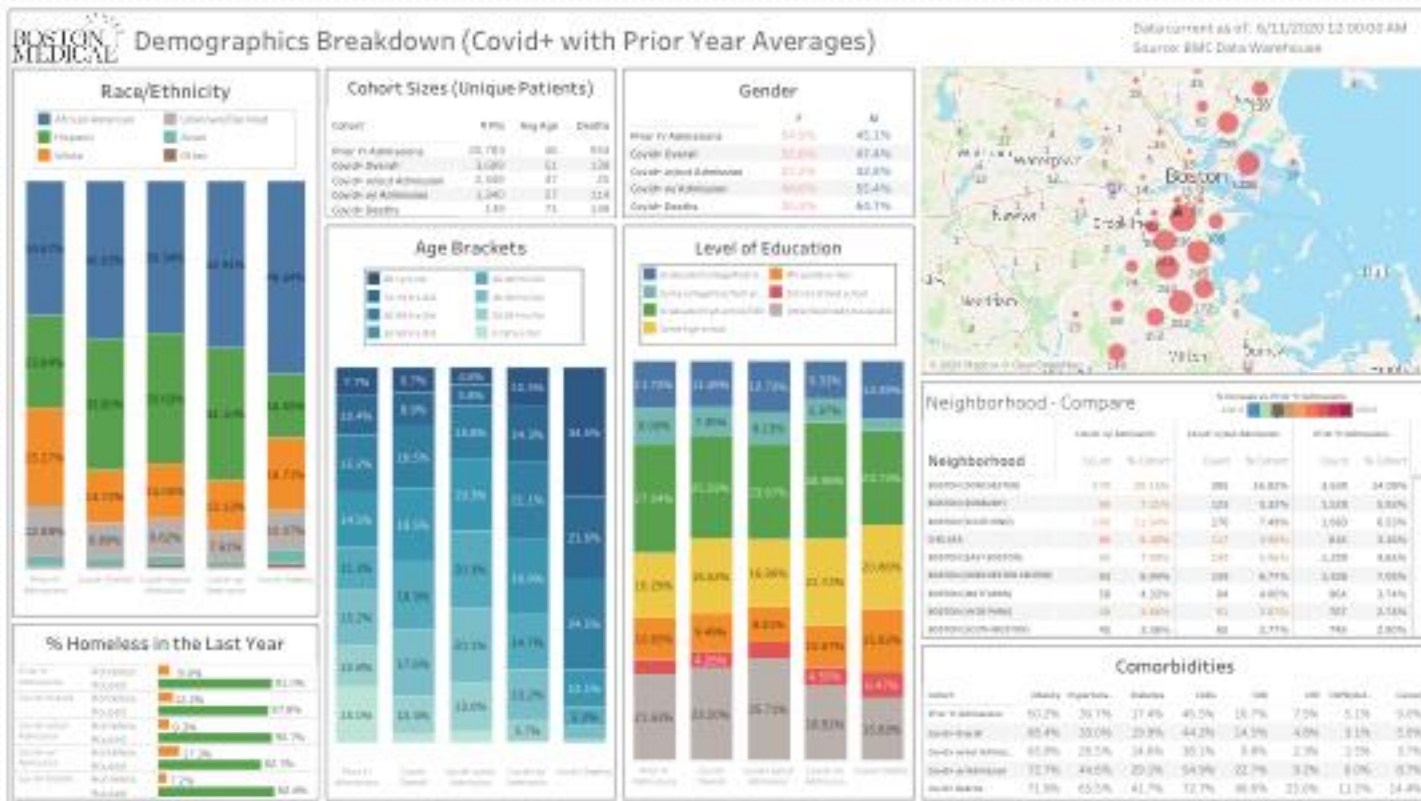
Racial Disparities

- According to city data, 40% of those who are diagnosed with COVID-19 in the Boston are African American or Black, yet that population only makes up 20% of the city's population.
- At BMC 82% of coronavirus inpatients were Black or Hispanic.
- In comparison, during the previous year, 60% of patients admitted for any illness, were Black or Hispanic.

“Coronavirus Threatens to Worsen Disparities, Distrust of Healthcare System Among Black Community.” Health City. 23 April 2020. <BMC.org>.

“Inside Boston Medical Center: The heart of the coronavirus storm.” Boston Globe, 19 April 2020.

Racial Disparities





ONS Condemns Racism Cites Need for Immediate Response to Care in Diverse Communities

(Pittsburgh, PA) June 1, 2020. The global pandemic of the coronavirus has fundamentally changed society. The overwhelming lack of access to care and treatment for people of color across the United States became immediately apparent. The increased public health restrictions meant to curtail the spread of COVID-19 have substantially intensified anxiety levels for all Americans. As recent events have again shown, racism is an insidious disease that affects all aspects of American life. ONS calls for all of us to commit to an end to hatred, discrimination, and racism in every form.

As oncology nurses, we know the disparities in cancer diagnosis and treatment. Cancer is a global disease, and the fight against it is being waged every minute of every day in health systems around the world. Oncology nurses are at the forefront of this battle, delivering care, carrying out clinical trials, and advancing evidence-based research. We act without regard to race, religion, gender, sexual orientation or nationality and advocate for those underserved by the healthcare system.

One of the pillars of the nursing profession is "advocating on health care issues that affect nurses and the public." ONS joins those in the healthcare arena who are demanding the immediate cessation to violence and bias inherent in too many civic institutions. In this the International Year of the Nurse and Midwife, and as we celebrate the 200th anniversary of the birth of Florence Nightingale, remember her words, "rather, ten times, die in the surf, heralding the way to a new world, than stand idly on the shore." ONS is inspired by this sentiment and will continue to advocate for freedom from bias and access to healthcare for all.

Managing Cancer during COVID-19



From [Massey.vcu.edu](https://www.massey.vcu.edu)

Cancer Facts

- According to the American Cancer Society, in 2020, there will be an estimated **1.8 million new cancer cases** diagnosed in the United States
- Estimated **606,505 cancer deaths** in 2020
- More than **16.9 million Americans with a history of cancer** were alive on January 1, 2019, most of whom were diagnosed many years ago and have no current evidence of cancer.

How do we keep patients and healthcare staff safe during the pandemic?

- Many cancer patients still need life-saving treatments and still need to be seen.
- How do we reconcile this challenge?
- No “one size fits all” approach to delivering cancer care during the COVID-19 pandemic.
- Treatment decisions must be made on a case-by-case basis.

ASCO Special Report: A Guide to Cancer Care Delivery During the COVID-19 Pandemic. ASCO. 19, May 2020.

Coronavirus disease 2019 (COVID-19): Cancer care during the pandemic. UpToDate. 5, June 2020.

General Considerations

- How to balance the risk from treatment delay vs. the harm from COVID-19?
- Conservation of PPE
- Limited hospital capacity
- Lack of testing in the beginning
- Guidance changing on a daily basis with regard to hospital policy and DPH guidance.

Immediate steps taken to protect patients and staff

- Screening patients the day before (use of patient navigators)
- Screening upon arrival
- Use of PPE (Surgical masks, face shields, gloves and gowns)
- Use of Telemedicine
- Reduce number of staff in clinic by allowing some to work-from-home
- Physical distancing in the waiting room and clinical workspaces

Guidelines

- ONS interim PPE guidelines during the COVID-19 pandemic
- ASCO Special Report: A Guide to Cancer Care Delivery During the COVID-19 Pandemic
- American College of Surgeons COVID 19: Elective Case Triage Guidelines for Surgical Care
- NCCN Best practices
- NCI Guidance
- Research studies underway to learn the effects of COVID-19 on cancer patients.

Changes in Management of Breast Cancer

- Early stage, ER+ breast cancers, Low OncotypeDx scores (<25) can be safely treated with primary endocrine therapy before surgery enabling the deferral of surgery.
- Neoadjuvant chemo may be offered while waiting for surgery
- For those patients, the choice of drug may be based on risk for efficacy vs risk for myelosuppression which may place them at increased risk for COVID-19.
- For HER2 positive breast cancer adjuvant antibody treatment may be curtailed after 7 months instead of 12 months based on ongoing randomized trials.
- Port flushes can go to 12 weeks or longer
- Mammograms for patients in surveillance often delayed.
- Routine bone-modifying agents delayed (i.e. Zometa)

Changes in Management of Colorectal Cancer

- American College of Surgeons recommends triaging surgical procedures based on consideration of resources and cancer care coordination at individual treatment centers
- Prioritize patients that need to be seen
 - Obstructing colon/rectal cancers
 - Cancers that are bleeding/transfusion dependent
- Consider where you are in the curve
- Routine colonoscopy/endoscopy held for surveillance
 - How long can they be delayed?
 - What are the long-term ramifications for holding routine procedures?
- Movement toward short-course radiation to minimize exposure to both staff and patients
- Consider neoadjuvant chemotherapy for locally advanced resectable colon cancer in order to delay surgery.

Changes in Administration of Immunotherapy for many cancers

- Pembrolizumab received FDA approval (April 2020) to be given every 6 weeks
 - Previously given every 3 weeks
- Nivolumab already approved to be given monthly
 - Patients who were previously receiving treatment bi-weekly were then changed to the monthly dose.

Psychosocial Considerations

- Stress associated with a cancer diagnosis
- Now added stress of COVID-19
- Cancer is associated with more serious adverse effects from COVID-19 infection
- Certain cancers and cancer treatments already place people at increased risk for infections
- Some patients want to delay care, others don't
- Added financial consequences

Provider Self Care

- Balance our desire to help our patients with our concerns about bringing COVID-19 home to our families
- How do we stay safe?
 - CDC/Hospital guidelines for PPE
 - Recommendations for at work shoes/scrubs
 - Showering right away
- How do we balance our own anxiety?
 - Sleep, Healthy Diet, Exercise, Maintain Social Engagement, Mindfulness, Engage in Nature

Crisis Standards of Care with Regard to Cancer Patients

- Potential need for rationing healthcare in the context of scarce resources and crisis capacity.
- Malignancy is a major comorbid condition
- Patients with <5-10 year survival or limited life expectancy may be considered lower priority
- Major emphasis on the importance of addressing advance care planning and decisions about Do-Not-Resuscitate (DNR) orders.

Telemedicine

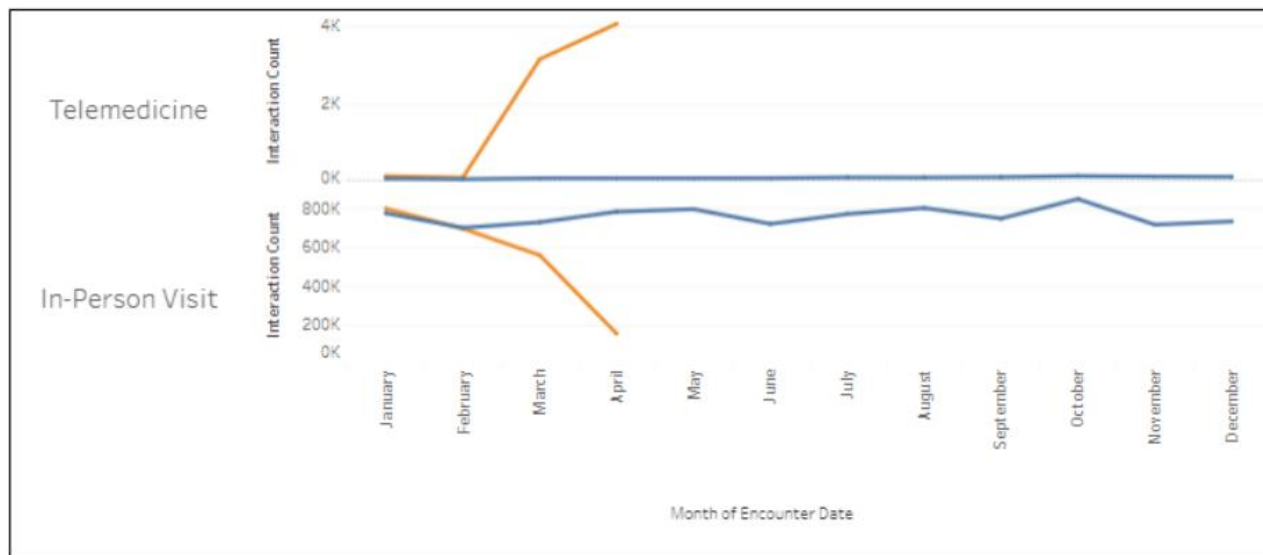
- Nationally, the Centers for Medicare and Medicaid Services expanded telehealth benefits for beneficiaries during the outbreak.
- Allowed individuals to receive health care services without traveling to a healthcare facility.

Which patients are appropriate for telemedicine?

- COVID-positive infection
- Non-urgent high-risk patient population
- Follow-ups
- Patients on oral oncolytic treatment
- Survivorship/long-term follow-up

Use of Telemedicine

Encounter Trends: Telemedicine and In-Person Visits



Telemedicine

- Advantages

- More convenient for the patient who has to otherwise travel from a distance
- Safer for patients on oral therapies or in long-term follow-up

- Disadvantages

- More difficult when there is a language barrier
- Technology is a challenge for some patients
- Other patients lack resources or the ability to do video conferencing
- More difficult to have palliative care or end-of-life care discussions

Telemedicine

- How long will the telehealth trend continue?
- What will be the long term effects of these changes in care?
- Not yet known

Management of COVID+ Cancer Patients

- Immediate treatment break while a determination is made about next steps
- How long to hold treatment?
- Consider re-starting on a case-by-case basis in the context of medical necessity.
- Some COVID-19 positive patients may be appropriate for treatment if asymptomatic.
- Other patients may need to be on a break for a minimum of 14 days and/or until symptom free for 72 hours and re-tested negative on 2 consecutive tests, 24 hours apart.
- Establish an isolation area for COVID-19-positive patient treatment

Case Example

- Mid-60s, non-English speaking patient, undergoing curative treatment for breast cancer presented to the ED with a 3-day history of cough and tested positive for SARS-COV-2
 - Patient resides in a home with multiple family members and at least one other family member in the home had tested positive.
 - Shared bathrooms, shared spaces, unable to socially distance from each other
 - Treatment delayed 4 weeks until 2 negative swabs obtained (>24 hours apart)

Case Example

- Early 70s, non-white, non-English speaking patient with metastatic breast cancer on palliative treatment with oral chemo who reported in mid-April during telehealth visits that her husband was in the hospital with pneumonia and that she had cold-like symptoms.
- Challenge to arrange outpatient testing for her
- Possible lack of health literacy, cultural differences, lack of urgency
- She tested positive for COVID-19 one week later.
- Overall mild case
- Oral chemo on hold during this time.

Case Example

- 70 yo Caucasian man with metastatic gastrointestinal cancer on palliative chemotherapy.
- Patient seen regularly throughout the pandemic since the risk of delaying treatment outweighed his risk for contracting the virus.
- COVID-19 and Crisis Standards of Care informed the important discussion around his goals of care, advance directive and DNR order given the potential for a lack of resources during the impending surge.

Case Example

- Late 30s, non-white, non-English speaking woman with metastatic gastrointestinal cancer on palliative chemotherapy.
- Also seen regularly in clinic during the pandemic since her need for cancer treatment outweighed her risk of exposure
- Contracted COVID-19 likely through community spread.
- Unable to socially distance from immediate family.
- Difficult decisions around how long to withhold her treatment due to COVID-19 and at what point to bring her back to the cancer center for evaluation?

What can the HIV community and the oncology community learn from each other during a pandemic?

- Both groups of patients are at increased risk for infections overall
- Some HIV patients are also cancer patients
- Both groups require specialized care

Lessons Learned

- Guidance continues to change
- Adaptation is key
- Collaboration across organizations is key
- Collaboration amongst colleagues is key
- We are resilient
- We are all in this together



Hope is being able to see that
there is light despite all of the
darkness.

Desmond Tutu

quote
tab
.com

Additional References

- Sheldon, L.K. (ONS's chief clinical officer). (2020, March 27). *Episode 96: The COVID-19 Coronavirus and Cancer Care*. [The Oncology Nursing Podcast].
<https://www.ons.org/podcasts/episode-96-covid-19-coronavirus-and-cancer-care>
- Houlihan, N. (ONS President-Elect). (2020, April 3). *Episode 97: COVID-19 Cancer Care Lessons From Seattle and New York*. [The Oncology Nursing Podcast].
<https://www.ons.org/podcasts/episode-97-covid-19-cancer-care-lessons-seattle-and-new-york>
- Kulke, M (Chief of Hematology and Medical Oncology). (2020, April 22). *Hematology and Oncology Care Solutions During COVID*. [Updates from our Healthcare Professionals].
<https://www.bmc.org/here-for-you/updates-our-healthcare-professionals?videoId=6151472016001>

Additional References

- ASCO-ONS Webinar Series: Caring for People with Cancer During COVID-19 Pandemic. Retrieved from https://asco3.webex.com/mw3300/mywebex/default.do?nomenu=true&siteurl=asco3&service=6&rnd=0.5645245792237111&main_url=https%3A%2F%2Fasco3.webex.com%2Fec3300%2Feventcenter%2Fprogram%2FprogramDetail.do%3FtheAction%3Ddetail%26internalProgramTicket%3D4832534b000000047faf05d12fc8d2e3cbfd51cb2d22f7b748efee1605c17c23546d319ea667a7b%26siteurl%3Dasco3%26internalProgramTicketUnList%3D4832534b000000047faf05d12fc8d2e3cbfd51cb2d22f7b748efee1605c17c23546d319ea667a7b%26cProgViewID%3D2377222%26PRID%3D354a21be64555fbb700167431364e55d
- Multidisciplinary Management of Colorectal Cancer During COVID-19. (Recorded 2020, March 26). Retrieved from <https://register.gotowebinar.com/recording/2837196702805428742>