"Funding for this conference was made possible (in part) by the Centers for Disease Control and Prevention. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the US Government."

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PRESENTATION OUTLINE

• Introduction
• 2020 Incidence & Mortality Estimates
• AACR Cancer Progress Report 2019
• FDA Novel Drug Approvals in 2019
• ASCO 2020 Clinical Cancer Advances
• NCCN Annual Report 2019
• 2020 Annual Report to the Nation on the Status of Cancer
• NCI Match Trial - Mutations and Agents
• COVID-19 and the Cancer Care Continuum
• Questions

INTRODUCTION

• In 2018, the US Food and Drug Administration (FDA) approved a record 59 new drugs across all medical specialties; of these, 17 (29%) approvals were relevant to oncology/hematology specifically.
• This represents an increase from 2017, in which the FDA approved 12 new oncology/hematology agents.
• 8 of the 17 oncology/hematology approvals in 2018 are indicated for the treatment of various blood cancers.
• Breast - the risk of invasive recurrence of human epidermal growth factor receptor 2–positive, early-stage breast cancer was 50% lower in patients treated with ado-trastuzumab emtansine compared with those who received trastuzumab alone. This finding supports the use of ado-trastuzumab emtansine as a new standard of care in these patients.
• Two CLL [chronic lymphocytic leukemia] studies established ibrutinib as the standard of care for front-line treatment of CLL in the younger and older populations, respectively.
• Adenocarcinoma of Lung - Paz-Ares et al found that adding pembrolizumab to chemotherapy (pemetrexed and carboplatin) nearly doubled the objective response rate (ORR) in patients and is in tolerable safety profile.
• Lung – Target Therapy - New EGFR inhibitor delays lung cancer progression in drug resistant mutations of EGFR – osimertinib (Tagrisso)
• Prostate - two new agents for treatment of high-risk, non-metastatic, castration-resistant prostate cancer was particularly important. Apalutamide and enzalutamide approved by the FDA based on findings of SPARTAN and PROSPER trials.
• Immunotherapy - Nobel Prize in Physiology or Medicine awarded to James P. Allison of United States and Tasuku Honjo of Japan for work on cancer immunotherapy. Their findings on checkpoint inhibitors “brought immunotherapy out from decades of skepticism.”
• Combination Immunotherapy - Combination of two immunotherapy agents, nivolumab and ipilimumab in patients with intermediate or high-risk RCC improved 18-month overall survival compared with tyrosine kinase inhibitor sunitinib (Sutent), 75% for the combination v 60% for sunitinib. And, 5% of patients receiving nivolumab with ipilimumab had complete regression of the cancer.
• Radiation Therapy - SBRT [stereotactic body radiation therapy] for the treatment of oligometastatic disease (small number of mets)

http://www.cancernetwork.com/oncology-journal/key-advances-oncology-2018
2020 INCIDENCE & MORTALITY ESTIMATES

2018 Cancer Facts and Figures – American Cancer Society

2020 INCIDENCE & MORTALITY ESTIMATES

Figure 3. Leading Sites of New Cancer Cases and Deaths – 2020 Estimates

2018 Cancer Facts and Figures – American Cancer Society
Driving Clinical Trial Innovation, Education and Enrollment - Understanding the Value of Clinical Trials

Without sufficient enrollment in clinical trials, new treatments cannot be approved, scientific knowledge stalls and patients cannot access potentially lifesaving therapies. But the landscape is complex and evolving rapidly. Patients and caregivers are often left to search for trials on their own, leaving them with more questions than answers.

The process can be cumbersome for healthcare professionals, too. Clinical research in the era of precision medicine is homing in on smaller groups of patients with specific disease subtypes or characteristics. Too many trials fail to meet their goals because there are not enough patients enrolled. Clinical trials are not “last resort” options, but rather avenues to leading edge care. LLS is committed to connecting patients to clinical trials, funding groundbreaking clinical science and advocating for policies that put patients at the center of their care.

Improving Access and Participation

On average, it takes more than 30 interactions with a patient, their caregivers and healthcare professionals to help a patient enroll in a clinical trial. This year, LLS Clinical Trial Nurse Navigators had nearly 8,000 interactions with patients, caregivers and healthcare professionals, demonstrating the depth and breadth of our support.

2020 INCIDENCE & MORTALITY ESTIMATES

2020 INCIDENCE ESTIMATES

*Data adjusted to the 2000 U.S. standard population and standardized for latency in reporting. Includes the colorectal title text.
Source: Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute, 2019

2020 Cancer Facts and Figures – American Cancer Society
2020 MORTALITY ESTIMATES

Trends in Cancer Death Rates* Among Males, US, 1930-2017

Trends in Cancer Death Rates* Among Females, US, 1930-2017

2020 Cancer Facts and Figures – American Cancer Society

AYA 2020 INCIDENCE & MORTALITY ESTIMATES

Table 5. Estimated Cancer Cases and Deaths in AYA, by Age, 2020

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Estimated Cases</th>
<th>Estimated Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>5,800</td>
<td>540</td>
</tr>
<tr>
<td>20-29</td>
<td>29,900</td>
<td>6,270</td>
</tr>
<tr>
<td>30-39</td>
<td>10,800</td>
<td>6,530</td>
</tr>
<tr>
<td>Total</td>
<td>46,500</td>
<td>18,340</td>
</tr>
</tbody>
</table>

*Source: American Cancer Society, Inc., Surveillance Research

Figure 5.3. Case Distribution (% of Leading Cancer Types in AYAs, US, 2012-2016

2020 Cancer Facts and Figures – American Cancer Society
PREVENTION & EARLY DETECTION

Highlights, CPED 2019-2020

Tobacco
- In 2019, 14% of adults were current cigarette smokers, decreasing to 14% in 2017. Prevalence varied widely by state, ranging from 9% in Utah to 26% in West Virginia.
- Current cigarette smoking among high school students declined from 29% in 1999 to 9% in 2018 and ranged from 4% in Utah and Puerto Rico to 34% in Kentucky, West Virginia, and Delaware in 2017.
- In 2019, the federal excise tax is $1.01 per pack. As of December 10, 2018, the average state cigarette excise tax was $1.79 per pack, ranging from 17 cents in Mississippi to $5.86 in the District of Columbia and $3.67 in Puerto Rico.
- Among high school students, current e-cigarette use increased from about 2% in 2015 to 21% in 2018.

Excess Body Weight, Alcohol, Diet, and Physical Activity
- Among adults, the prevalence of overweight has remained relatively stable since the early 1980s, but obesity has markedly increased. In 2015-2016, approximately 7 in 10 adults were overweight or obese, about 4 in 10 were obese.
- From 1971 to 2000, the prevalence of obesity among youth ages 2-19 years tripled from 7% to 19% in 2003-2010. Among adults, the prevalence of obesity was highest in older (ages 40-69 years), 51% than younger (ages 20-29 years), 38% children in 1976-1980.
- In 2015, approximately 45% of adults reported drinking heavily (5+ drinks per week for males or 4+ drinks per week for females).
- In 2017, an estimated 54% of adults and only 38% of high school students reported meeting recommended levels of physical activity.

Ultraviolet Radiation
- Prevalence declined in recent years: 8% of female high school students in 2017 reported use of indoor tanning in the past year.
- As of January 1, 2019, only 13 states and the District of Columbia had a law prohibiting indoor tanning for minors without exemptions.
- In 2015, approximately 8% of adults reported using an indoor tanning device in the past year; use was highest among women, younger adults (ages 18-29 years), and those living in the Midwest.

Infectious Agents
- Melanoma incidence among adolescents remains low. In 2017, 42% of girls and 31% of boys received two doses before their 13th birthday.
- In 2017, 53% of girls and 44% of boys ages 13-17 years were up-to-date.

Cancer Screening
- Among adults ages 40 years and older reported having a mammogram within the past year, and 64% reported having one within the past two years. Mammography use in the past two years was lowest among the uninsured (31%).
- Among women ages 21-65 years, 83% were up-to-date with cervical cancer screening in 2015, uptake was lowest among the uninsured (64%) and recent immigrants (70%).
- In 2015, 63% of adults ages 50 years and older were up-to-date for colorectal cancer screening. Prevalence was lower than or equal to 60% among Hispanics, Asians, people with less than a high school diploma, recent immigrants, and the uninsured.
- In 2015, only 4% of eligible former and current smokers reported having a low-dose computed tomography screening for lung cancer in the past year.
The increasing global burden of cancer is expected to be shouldered more by less developed regions of the world.

<table>
<thead>
<tr>
<th>Country Type</th>
<th>2019</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer Cases in Less Developed Countries</td>
<td>12,000,000</td>
<td>15,000,000</td>
</tr>
<tr>
<td>Cancer Cases in More Developed Countries</td>
<td>5,000,000</td>
<td>8,000,000</td>
</tr>
<tr>
<td>Cancer Deaths in Less Developed Countries</td>
<td>5,000,000</td>
<td>8,000,000</td>
</tr>
<tr>
<td>Cancer Deaths in More Developed Countries</td>
<td>2,000,000</td>
<td>3,000,000</td>
</tr>
</tbody>
</table>

Given the growing global burden of cancer, it is imperative that the international biomedical research community work together to drive down cancer incidence and mortality. One area in which progress is urgently needed is the establishment of population-based cancer registries in all countries because the collection of high-quality cancer surveillance data is essential for developing effective national cancer control plans. Currently, only one in five low- and middle-income countries has the necessary data to drive policy and reduce the burden and suffering due to cancer, according to the International Agency for Research on Cancer (IARC).
### Supplemental Table 1: FDA-Approved Therapeutics for the Treatment of Cancer

<table>
<thead>
<tr>
<th>Condition</th>
<th>Generic Name</th>
<th>Trade Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acromegaly</td>
<td>Pegvisomant</td>
<td>Pegvisomant</td>
</tr>
<tr>
<td>Acromegaly</td>
<td>Octreotide</td>
<td>Sandostatin</td>
</tr>
<tr>
<td>Acromegaly</td>
<td>Lanreotide</td>
<td>Linzess</td>
</tr>
</tbody>
</table>

#### Supplemental Table 2: Surgical and Radiotherapy Treatments for Cancer

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Description</th>
<th>Applicable Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biopsy</td>
<td>Tissue sample for diagnosis</td>
<td>Multiple cancers</td>
</tr>
</tbody>
</table>

#### Supplemental Table 3: Other Emerging Therapies for Cancer

<table>
<thead>
<tr>
<th>Therapy Type</th>
<th>Description</th>
<th>Applicable Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunotherapy</td>
<td>Targeted therapy</td>
<td>Multiple cancers</td>
</tr>
</tbody>
</table>

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**AACR CANCER PROGRESS REPORT 2019**

**APPENDIX**

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**AACR CANCER PROGRESS REPORT 2019**

**APPENDIX**
The development of new systemic cancer therapies has not only improved patient survival and quality of life but is now transforming surgical approaches to cancer treatment. The emergence of novel systemic therapies—those that travel throughout the body and treat cancer cells wherever they are—combined in new and better ways, is significantly changing cancer surgery.

ASCO’s selection of Refinement of Surgical treatment of Cancer as the 2020 Advance of the Year recognizes recent strides seen in the effectiveness of these treatments in reducing the amount of surgery, and even the need for it, while increasing the number of patients who can undergo surgery when needed. In particular, considerable advances have been seen in neoadjuvant therapies—those given before surgery—as reflected in the highlighted studies below. Progress in systemic therapies for pancreatic and kidney cancers, as well as melanoma, have helped reshape surgical treatment, making them some of this year’s most impressive research successes.
IMAGING ADVANCES
ROBOTICS AND ARTIFICIAL INTELLIGENCE
COMBINATION IMAGING/CAD DX/BX/TX MACHINES

NCCN ANNUAL REPORT 2019
IN 2019, NCCN ADDED FOUR NEW NCCN GUIDELINES FOR A TOTAL OF 76 GUIDELINES.

NCCN ANNUAL REPORT 2019

About the Guidelines

NCCN Guidelines contain cancer care recommendations that are continuously updated and revised to reflect new data and clinical information.

NCCN Categories of Evidence and Consensus are based on the level of clinical evidence available and the degree of consensus within NCCN Guidelines Panels.

NCCN Categories of Preference clarify panel and institutional preferences for interventions, provide guidance to users of the NCCN Guidelines on which recommendation(s) is considered optimal, and continue to provide a wide range of recommendations to meet varying clinical circumstances and patient preferences.

NCCN Guidelines with NCCN Evidence Blocks are a visual representation of five key measures that provide important transparent information about specific NCCN Guidelines recommendations that informs decisions about systemic therapies based upon treatment, supporting data, and cost. It is a starting point for shared decision-making considering the patient’s own value system.

Types of Guidelines

NCCN Guidelines for Treatment of Cancer by Site
(Apply to 97% of cancer cases in the United States)

NCCN Guidelines for Detection, Prevention, & Risk Reduction

NCCN Guidelines for Supportive Care

NCCN Guidelines for Specific Populations

NCCN Guidelines with NCCN Evidence Blocks™

Access to the Guidelines

Free download online from NCCN.org

NCCN App

Print Copies

Pocket Guidelines

E-mail alerts
(with subscription to NCCN Flash Updates™)

Health Information Technology (HIT) companies

NCCN ANNUAL REPORT 2019

NCCN Guidelines Derivatives

Clinical Resources

NCCN Drugs & Biologics Compendium (NCCN Compendium™)

Authoritative, scientifically derived information designed to support decision-making about the appropriate use of drugs and biologics in patients with cancer

- Contains more than 4,400 active records
- Updated in conjunction with the NCCN Guidelines on a continued basis
- Recognized by public and private insurers as an authoritative reference for oncology coverage policy

NCCN Biomarkers Compendium

Information to support decision-making around the use of biomarkers in cancer care

- Provides essential details for tests recommended by the NCCN Guidelines, such as tests that measure changes in genes or gene products for prediction, diagnosis, monitoring, surveillance, or prognostic information
- Contains 1,400 records
- Subscription-based searchable database online at NCCN.org

NCCN Imaging Appropriate Use Criteria (NCCN Imaging AUC™)

Details of imaging recommendations included in the NCCN Guidelines

- Available for more than 60 cancer types in addition to screening and supportive care
- NCCN is recognized by Centers for Medicare & Medicaid Services (CMS) as a qualified provider-led entity for creation of the NCCN Imaging AUC™
- Free searchable database online at NCCN.org

NCCN Radiation Therapy Compendium™

Information to support clinical decision-making around the use of radiation therapy in patients with cancer

- Includes a full complement of radiation therapy recommendations found in the NCCN Guidelines
- Contains all disease sites and all radiation therapy recommendations
- Recognized by public and private insurers as an authoritative reference for oncology coverage policy
- Subscription-based searchable databases online at NCCN.org

NCCN Chemotherapy Order Templates (NCCN Templates™)

Intended to improve the safe use of drugs and biologics in cancer care

- Includes chemotherapy, immunotherapy, supportive care agents, monitoring parameters, and safety instructions
- Special instructions for self-administered chemotherapy agents are provided
- Contains more than 1,650 order templates
- Downloaded more than 185,000 times in 2019
- Subscription-based searchable database online at NCCN.org
ANNUAL REPORT TO THE NATION ON STATUS OF CANCER

www.cdc.gov/cancer/annual-report
ANNUAL REPORT TO THE NATION ON STATUS OF CANCER

Part I: National Cancer Statistics


BACKGROUND: The American Cancer Society, the centers for Disease Control and Prevention, and the National Cancer Institute, with the American Board of Internal Medicine and the American Society of Clinical Oncology, have issued a report on the status of cancer in the United States. This report is intended to provide a comprehensive overview of cancer incidence, prevalence, and survival. It also includes information on the impact of cancer on the healthcare system and the economy, as well as the costs of cancer care.

RESULTS: Cancer incidence rates have decreased over the past 2 decades, particularly for lung cancer. However, the overall rate of decrease has slowed in recent years. The report also highlights the disparities in cancer incidence and mortality rates among different racial and ethnic groups, and the need for continued efforts to address these disparities.

UPDATE ON NATIONAL CANCER MOONSHOT

The National Cancer Moonshot Initiative seeks to accelerate cancer research to make more therapies available to patients, while also improving our ability to prevent cancer and detect it at an early stage. The 21st Century Cures Act, passed in 2016, authorized $3.8 billion over 10 years to fund the Cancer Moonshot. The same year, NCI convened the Blue Ribbon Panel (BRR) to identify some of the nation’s top cancer experts to provide recommendations to the National Cancer Advisory Board on what could be done to expedite progress against cancer.

Some of the recommendations included increased funding for cancer research, expanded access to clinical trials, and improved data sharing. The initiative has also encouraged collaborations between researchers and patients, as well as with other stakeholders, to accelerate progress against cancer.

To date, Congress has appropriated $3 billion, with which the NCI has launched a series of new scientific programs that directly address each of the recommendations of the BRR. These programs provide the research community with new resources to pursue cutting-edge research questions and to build collaborations to ensure their success. Examples of new and ongoing Cancer Moonshot programs include:

- Facilitating the discovery and development of new immunotherapies for patients with cancer.
- Developing new diagnostic tools that can help detect cancer at an earlier stage.
- Improving the effectiveness of treatments by personalizing them for each patient.
- Supporting new translational research collaborations that bring together cutting-edge technologies and novel diagnostic and therapeutic approaches.
- Leveraging big data and precision medicine to improve the outcomes for cancer patients.
- Developing new experimental models for studying drug resistance in tumors and designing innovative approaches to enhance the sensitivity of cancer cells to specific treatments.
- Advancing immunotherapies for higher-risk pediatric cancers and developing new treatments for pediatric cancers driven by fusion oncogenes that are critical drivers of many childhood cancers.

NCI’s cancer research planning new research projects for FY 2020 and beyond.

*NCI; †American Society of Clinical Oncology; ‡American Cancer Society; §National Cancer Institute.
NCI MATCH TRIAL

Screening (Step 0) Overall Design

- ≥ 18 y.o.
- ECOG PS 0-1
- Solid tumor, Lymphoma or Myeloma
- ≥ 1 prior standard therapy
- Measurable disease
- Tumor amenable to biopsy OR FFPE obtained within 6mo

Tumor genomic testing with Thermo Fisher Oncoline™ Assay & IHC (PTEN, MLH1, MSH2, Rb)

Actionable Mutation of Interest (aMOI)?

Yes = Treatment assignment

No = Off study

Arm A Arm B Arm C Arm D Etc...

Each drug-target couple was credentialed

NCI MATCH TRIAL

NCI-MATCH Central Screening by Cancer Type

<table>
<thead>
<tr>
<th>Less Common Disease Type</th>
<th>% of Total Screened (N=550)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ovarian</td>
<td>9.5</td>
</tr>
<tr>
<td>Uterine</td>
<td>6.2</td>
</tr>
<tr>
<td>Pancreas</td>
<td>6.1</td>
</tr>
<tr>
<td>Sarcoma</td>
<td>4.6</td>
</tr>
<tr>
<td>Head and Neck</td>
<td>3.9</td>
</tr>
<tr>
<td>Neuroendocrine</td>
<td>3.3</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>3.2</td>
</tr>
<tr>
<td>Cholangiocarcinoma</td>
<td>2.8</td>
</tr>
<tr>
<td>Liver and Hepatobiliary other than Cholangio, Central Nervous System</td>
<td>1.9</td>
</tr>
<tr>
<td>Bladder/Urinary Tract</td>
<td>1.7</td>
</tr>
<tr>
<td>Cervix</td>
<td>1.6</td>
</tr>
<tr>
<td>Small Cell Lung</td>
<td>1.4</td>
</tr>
<tr>
<td>Melanoma</td>
<td>1.4</td>
</tr>
<tr>
<td>Kidney</td>
<td>1.3</td>
</tr>
<tr>
<td>Anal</td>
<td>0.8</td>
</tr>
<tr>
<td>Mesothelioma</td>
<td>0.8</td>
</tr>
<tr>
<td>Lymphoma</td>
<td>0.7</td>
</tr>
<tr>
<td>Myeloma</td>
<td>0.0</td>
</tr>
<tr>
<td>Other</td>
<td>9.7</td>
</tr>
</tbody>
</table>

Less Common Cancers 62.5%

Common Disease Type % of Total Screened (N=550)

<table>
<thead>
<tr>
<th>Common Disease Type</th>
<th>% of Total Screened (N=550)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorectal</td>
<td>15.3</td>
</tr>
<tr>
<td>Breast</td>
<td>12.4</td>
</tr>
<tr>
<td>Non-Small Cell Lung</td>
<td>7.3</td>
</tr>
<tr>
<td>Prostate</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Common Cancers 37.5%

Goal: 25%
Far exceeded
ADVANCES IN IMMUNOTHERAPY

- Immunotherapy has become an established pillar of cancer treatment improving the prognosis of many patients with a broad variety of hematological and solid malignancies. The two main drivers behind this success are checkpoint inhibitors (CPIs) and chimeric antigen receptor (CAR) T cells.
- This review summarizes seminal findings from clinical and translational studies recently presented or published at important meetings or in top-tier journals, respectively.
- For checkpoint blockade, current studies focus on combinational approaches, perioperative use, new tumor entities, response prediction, toxicity management and use in special patient populations.
- Regarding cellular immunotherapy, recent studies confirmed safety and efficacy of CAR T cells in larger cohorts of patients with acute lymphoblastic leukemia or diffuse large B cell lymphoma. Different strategies to translate the striking success of CAR T cells in B cell malignancies to other hematological and solid cancer types are currently under clinical investigation.
- Regarding the regional distribution of registered clinical immunotherapy trials a shift from PD-1 / PD-L1 trials (mainly performed in the US and Europe) to CAR T cell trials (majority of trials performed in the US and China) can be noted.

Advances in cancer immunotherapy 2019 –

OTHER WORTHWHILE AND PRESTIGIOUS 2019-2020 REPORTS
THE FUTURE FOR RECOVERED COVID-19 PATIENTS
WILL IT CAUSE CANCERS?
WILL IT INCREASE RISK OF DEVELOPING CANCERS?

- Skin Tumors
- Brain Tumors
- Liver Tumors
- Kidney Tumors
- Blood Vessel Tumors
- Upper Respiratory Tumors
- Non-Hodgkin Lymphoma NHL
- Sarcomatous Neoplasms
- Nasopharyngeal Neoplasms
- Various Types of Pediatric Neoplasms
- Other Cancers or New Types of Cancers
- Lymphoid Leukemia (ALL/CLL) chronic/acute
- Myeloid Neoplasms (MPN/MDS/AML) – chronic/acute
- Primary Infection versus Co-Infection May Increase Risk

HOW TO COLLECT COVID-19 DATA?
WHAT QUESTIONS DO WE NEED TO ASK?

- Will we have to collect on every cancer case?
- No Access to Care
- Live Virus Test – which one and how many times
- Antibodies Test – which one and how many times
- FEAR of COVID Kept Patient Away or Away from Family
- FEAR of COVID Kept Patient Away from Screening
- FEAR of COVID Kept Patient Away from Dr Appt with Symptoms
- Patient Refused All Appointments
- Active Surveillance – no change
- How many Tests – any positive
- Dates of Test – good luck
- Treatment Delays – Start of Treatment
- Treatment Interruption
- Treatment Delays – Continuation of Treatment Course (chemo, xrt, etc.)
- Treatment Delays - Cancellation
- Treatment Delays – Termination
- Diagnosis Delays – imaging versus biopsy
- Workup Delays – facility not open
- Excision/Resection Delays – not considered urgent care
- Other treatment delay for whatever reason
- Delay in Seeking Treatment for Suspected Recurrence or Progression
- More Hypotheses and Questions and Clinical Concerns (Acute, Chronic, Long Term) Will Come Up – What will these questions inclue?
COVID-19 DATA COLLECTION

• WHO IS IN CHARGE OF AND HOW DO CANCER REGISTRIES PROPOSE WE COLLECT COVID-19 DATA?
  • SEER – text field instructions for recode - https://seer.cancer.gov/tools/covid-19/
  • CoC – 4 new Data Items rammed thru Mid-Level Task Force WITHOUT a UDSC Vote which was 100% vote of ‘NO’ – but, CDC/AJCC got their way and is in v21 and may be included to go back to review ALL 2020 cases to find these data – not sure yet. Nor does it tell you what to do if you have no information if patient had test before in hospital or what if they had multiple tests and some positive and some negative – then what to do?
    • NAACCR Item # 3943 - NCDB_SARSCoV2_Test
    • NAACCR Item # 3944 - NCDB_SARSCoV2_Pos
    • NAACCR Item # 3945 - NCDB_SARSCoV2_Pos Date
    • NAACCR Item # 3946 - NCDB_COVID19_Tx_Impact
  • NAACCR – supports SEER and NCD8
  • ASCO and NCCN – see available follow-up forms – nothing for new cancer patients
  • Clinical Trials Groups - varies
  • Vendors - varies
  • State Department of Health COVID-19 Testing, Tracing, and Related Registries – varies state-to-state
  • NIH New Registry (N3C) where all COVID-19 Data is supposed to be accumulated replacing the CDC Registry or enhancing it.

HOW COVID HAS CHANGED CANCER CARE IN 4 SLIDES

Percentage change in cancer screenings during COVID-19

The lines show how the volume of cancer screenings this year compares to the weekly average in the three years prior to the pandemic.

Cervical cancer  Colon cancer  Breast cancer

Data are pooled from 60 health care organizations representing 306 hospitals that span 28 states and cover 9.8 million patients.

Chart: Emily Barone for TIME • Source: The Health Research Network • Get the data • Created with Datawrapper
**HOW COVID HAS CHANGED CANCER CARE IN 4 SLIDES**

### Newly identified cancer patients

Cancer testing data from Quest Diagnostics shows drops in new diagnoses during the early COVID-19 lockdown period. Use the pulldown to see the trends for the six cancers analyzed.

**Chart:** Emily Barone for TIME • Source: JAMA, Quest Diagnostics • Get the data • Created with Datawrapper

### Breast cancer patients with pandemic-related delays in care

The below data shows reported delays from a survey of 607 U.S. breast cancer patients and survivors, 63% of which were currently receiving cancer treatment.

**Survey:** conducted from April 2 to April 27. In addition to the above categories, 73% chose "Other."

**Chart:** Emily Barone for TIME • Source: Surveymonkey • Get the data • Created with Datawrapper
HOW COVID HAS CHANGED CANCER CARE IN 4 SLIDES

Cumulative excess deaths due to COVID-19

A moderate disruption in care for six months due to the pandemic may add nearly 10,000 deaths from two cancer types this decade.

Breast and colorectal cancers account for about one in six cancer deaths in the U.S.

Chart: Emily Barone for TIME • Source: Science; National Cancer Institute • Get the data • Created with Datawrapper

REFERENCES AND RESOURCES

- Leukemia & Lymphoma Society: Generations of Impact, 2019
- Memorial Sloan Kettering Cancer Center 2019 Annual Report: It Starts with One; 2019
- Fred Hutchinson Cancer Research Center Annual Report, 2019
- American Association for Cancer Research (AACR) Cancer Progress Report, 2019
- National Comprehensive Cancer network (NCCN) 2019 Annual Report: Qualify Effective Efficient, Accessible, 2019
- Association of Community Cancer Centers (ACCC) Annual Report 2019/2020
- Cancer Facts and Figures 2020, American Cancer Society, 2020
- Cancer Prevention & Early Detection Facts & Figures 2019-2020, American Cancer Society, 2020
- American Cancer Society Slide Deck for Cancer Risk Factors and Screening, American Cancer Society, 2020
- American Cancer Society Slide Deck for Cancer Statistics 2020, American Cancer Society, 2020
- Cancer Treatment & Survivorship Facts & Figures 2019-2021, American Cancer Society, 2020
- Molecular Diagnostics in Oncology, A Sokolenko; Frontiers in Molecular Biosciences: August 2018, Vol 5, Article 76
- Global Cancer Facts & Figures 4th Edition, American Cancer Society, 2018
- Clinical Cancer Advances 2020: Annual Report on Progress Against Cancer From the American Society of Clinical Oncology
- NCI-Match/EAY131 – Molecular Analysis for Therapy Choice – ECOG-ACRIN/NCI – version date /16/2020
QUESTIONS

COVID-19 What cancer patients need to know

- Wash your hands
- Avoid touching face
- Wear a face mask
- Avoid contact
- Avoid travelling
- Cook food thoroughly