


Trends in Oncology & the Future of Oncology at Allina Health

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October 12, 2023

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Trends in Oncology

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Trends in Oncology




- Better technology and precision medicine
- Whole person care
- Increasing exploration of diversity and oncologic outcomes

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Better Technology and Precision medicine



*Right treatment, right
patient, right time*

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Better technology

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• Genomic testing

- Allow for more precise diagnosis of tumor type
- Identify best treatment options
- Identify what drugs more likely to work or not work
- Find common genetic mutations linked to cancer: *EGFR*, *KRAS*, *BRAF*, and *PIK3CA*



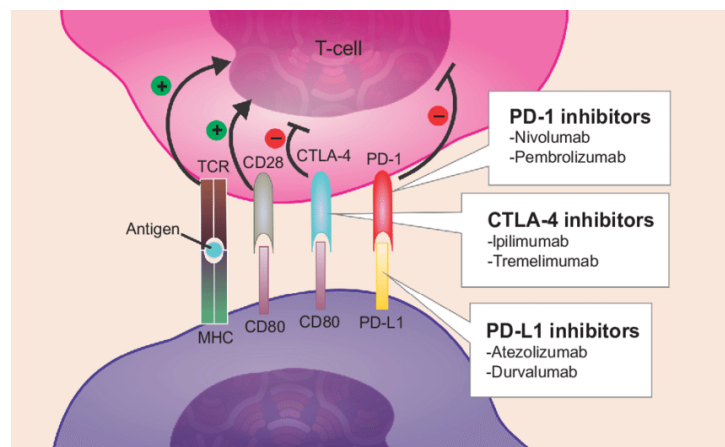
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Precision medicine

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Immune checkpoint inhibitor

- Block channels on T-cells so checkpoint proteins (from cancer) can't bind
- Prevents cancer cells from sending "off" signal
- Allows T-cells to kill cancer cells



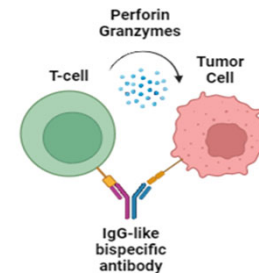
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Precision medicine

AllinaHealth

Bispecific Antibodies (BsAbs)

Mechanism of action: Bind to target antigen expressed on B-cells and CD3 expressed on T-cells, bringing them in close proximity and mediating the cytotoxic activity of T cells



Toxicity

- Cytokine release syndrome and neurotoxicity
- Financial Toxicity: \$25-50k per month (\$285-650k total)
- Infection: Pancytopenia & hypogammaglobulinemia

Currently Available Heme BsAbs

Blinatumomab (Blincyto®) – B-ALL
 Epcoritamab (Epikinly®) – DLBCL
 Glofitamab (Columvi®) – DLBCL
 Teclistamab (Tecvayli®) – multiple myeloma
 Talquetamab (Talvey®) – multiple myeloma
 Elranatamab (Elrexfio®) – multiple myeloma
 Mosunetuzumab (Lunsumio®) – FL

Slide courtesy of Justine Preedit

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FUN Bispecific Resources


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- **Oncology Nursing Society**
 - ❖ **ONS Nursing Society Meeting:** Sarah Hayes, PharmD, BCOP & Justine Preedit, PharmD, BCOP presenting at the October 10th for the Oncology Nursing Society Meeting (Boludo – Downtown Minneapolis)
 - ❖ Podcast Episode 275: Bispecific Monoclonal Antibodies in Hematologic and Solid Tumors
 - ❖ Podcast Episode 176: Oncologic Emergencies 101: Cytokine Release Syndrome
- **Research to Practice Podcast**
 - ❖ Disease experts, including RN/APPs, discuss their experience with administering chemoimmunotherapy in large academic medical centers & **how community hospitals can use lessons learned to successfully administer these complex agents to patients**
- **WolverHeme Podcast**
 - ❖ Two malignant heme pharmacists drink and nerd out about data
 - ❖ Podcast Episode 12: Tinder for T cells – Bispecifics in DLBCL

Slide courtesy of Justine Preedit


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Better technology

- **Genetic testing**
 - Virtual visits
 - Guide decision making, treatment, risk reduction
- **Screening and guidelines**
 - USPTF changed breast cancer screening guidelines to 40
 - 3-D mammograms
 - Colon cancer screening starting at younger age
- **Less invasive, equally curative surgical approaches**

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Better technology


Malignant Hematology:

- Therapeutics
 - Bispecific Antibodies- now approved for non-Hodgkin lymphoma, multiple myeloma, B-acute lymphoblastic leukemia
 - Targeted Therapies- BCL2 inhibition (venetoclax) as frontline therapy for elderly unfit AML, BTK inhibition in Mantle Cell Lymphoma
 - Combination therapies- Quadruplet therapy for Multiple Myeloma to improve depth of remission and duration of first complete remission
- Diagnostics
 - **Next-generation sequencing for targetable mutations done in-house within 2-3 days at AHCI for acute myeloid leukemia**
- Disease Monitoring
 - Sensitive non-invasive techniques to monitor for minimal residual disease in blood (therapy de-escalation vs. intervening early prior to frank relapse)

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Better technology




Urologic Oncology:

- Cutting edge and newly approved: infusion of Jelmyto a gel-based chemotherapy for renal pelvic cancer
- Treating patients with ureteric and renal cancer with infusional immuno and chemotherapy
- We are one of the few sites that have expertise and are able to offer this.
- First in the nation clinical study:
 - We are launching the first clinical trial with a new diagnostic technology using laser 3D microscopy and AI to identify circulating cancer cells. The trial will initially focus on early stage breast cancer patients and expand to other cancers subsequently.
 - We are the first site in the nation to deploy such a trial and it is being conducted in collaboration with a local company called Astrin Biosciences.
 - Our research team has done a tremendous job developing this protocol from the ground.


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Better technology



Thoracic oncology:




Dr. Eric Anderson




Dr. Matt Graczyk

- Innovative procedure allows for diagnosis and immediate treatment for early-stage lung cancer
- Reduces the number of times patient undergoes anesthesia
- Can reduce time from discovery of lung nodule to treatment to under 2 weeks
- First program in the twin cities to perform procedure

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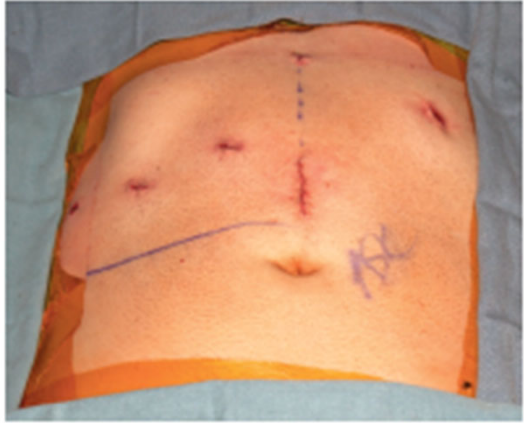


Better technology




GI cancers:


- Increased use of laparoscopic and robotic techniques for tumor removal with equivalent outcomes



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Better technology




Breast surgery:

- Superparamagnetic Iron Oxide (SPIO)
 - Delayed nodal staging
- Minimizing axillary surgery
 - Nodal status less predictive of outcomes or treatment plan
- Same day mastectomy programs
 - Improved patient satisfaction, less IV narcotic use, reduced medical costs

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Better technology




Radiation oncology:

- Stereotactic body radiation for oligometastatic disease
 - High doses of radiation focused on metastatic deposits in patients who have very limited areas of metastatic disease has been shown to improve survival
- Targeted radioligands
 - Metastatic neuroendocrine tumor
 - Metastatic prostate cancer.
 - Infusions of a radio-labelled protein that find and bind to the cancer cells, then deliver their radiation specifically to those cells.
- Surface guided radiation therapy
 - Several detectors monitor millions of points along the patients treated body area
 - If the patient moves out of position during treatment the linear accelerator stops the beam until the patient is back into position
 - Allows more accurate delivery of radiation therapy with decreased risk of side effects


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Whole person care



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Whole person care




- Safety and quality
- Improve patient and family experience
- Improve health of the broader community
- Improve access and coordination
- Make care more affordable / reduce financial toxicity

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Whole person care




- Safety and quality
 - Reduce mortality
 - Reduce hospital stay
- Improve patient and family experience
- Improve health of the broader community
- Improve access and coordination
- Make care more affordable / reduce financial toxicity

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Whole person care



- Safety and quality
 - Reduce mortality
 - Reduce hospital stay
- **Improve patient and family experience**
 - Nurse navigation
 - Cancer nutrition, integrative health
 - Cancer rehabilitation, palliative care partnerships
- Improve health of the broader community
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- Make care more affordable / reduce financial toxicity

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Whole person care



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 - Cancer nutrition, integrative health
 - Cancer rehabilitation, palliative care partnerships
- **Improve health of the broader community**
 - Increase cancer screening
 - Targeting underserved communities
- Improve access and coordination
- Make care more affordable / reduce financial toxicity

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Whole person care




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 - Diversity / Equality / Inclusion
- **Improve access and coordination**
 - Advances in digital footprint
- Make care more affordable / reduce financial toxicity

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Whole person care




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- **Make care more affordable / reduce financial toxicity**

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Whole person care




- Treatment costs
 - Newly approved cancer drugs cost a average of \$10,000 a month and cost as high as \$50,000 a month with costs rising
- Loss of wages, productivity and financial security
 - 80% of patients exhaust all life savings
 - 45% of survivors experienced job-related income loss
 - Leading cause of bankruptcy, 2X national average
- Continued cost of care following treatment
 - Radiation and surgical course of treatment costs
 - Imaging, medications, visits and overall well being

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Whole person care




Benefits of financial navigation program

- Educate patients about financial responsibility
 - Review benefits
 - Out of pocket estimates
- Optimize Coverage
 - Screen for eligibility
 - Enhance partnerships with Medicaid and assistance agencies
 - Make eligibility screening automatic
 - Build payment plans

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Whole person care




“Whole person care is an approach that recognizes all factors impacting health are connected—mind, body, spirit, and community”


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Diversity and cancer



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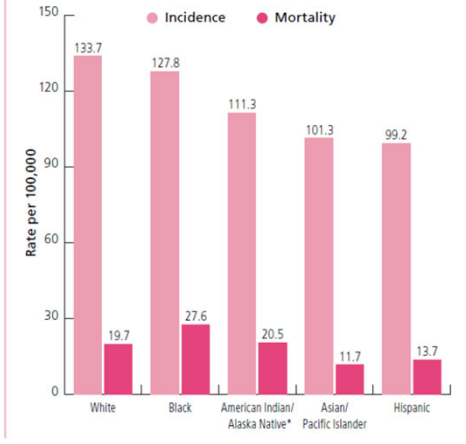
Diversity and cancer



Scary statistics

- Black Americans have lower rates of breast cancer, higher death rates and shorter survival
- Black people are more likely to be diagnosed at later stage, experience treatment delays, and less likely to receive comprehensive treatment


Figure 3. Female Breast Cancer Incidence (2015-2019) and Death (2016-2020) Rates by Race/Ethnicity, US




Race/Ethnicity	Incidence (Rate per 100,000)	Mortality (Rate per 100,000)
White	133.7	19.7
Black	127.8	27.6
American Indian/Alaska Native*	111.3	20.5
Asian/Pacific Islander	101.3	11.7
Hispanic	99.2	13.7

American Cancer Society: www.cancer.org
 Cancer Disparities and Health Equity: A Policy Statement From the American Society of Clinical Oncology **JCO** 2020 Oct

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Diversity and cancer




But Why?


- Lower socioeconomic status
- Less access to health care
- Lower levels of comprehensive insurance
- Differences in cultural or religious beliefs
- Lack of ethnically diverse workforce
 - In oncology 2% workforce is black or Hispanic, vs 13% of population

Cancer Disparities and Health Equity: A Policy Statement From the American Society of Clinical Oncology **JCO** 2020 Oct

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Diversity and cancer




Solutions


- National awareness: ASCO Strategic Plan for Increasing Racial and Ethnic Diversity in the Oncology Workforce
- Improvements in language translation
- Community outreach and local care
- Improvements in medical financing

Cancer Disparities and Health Equity: A Policy Statement From the American Society of Clinical Oncology *JCO* 2020 Oct

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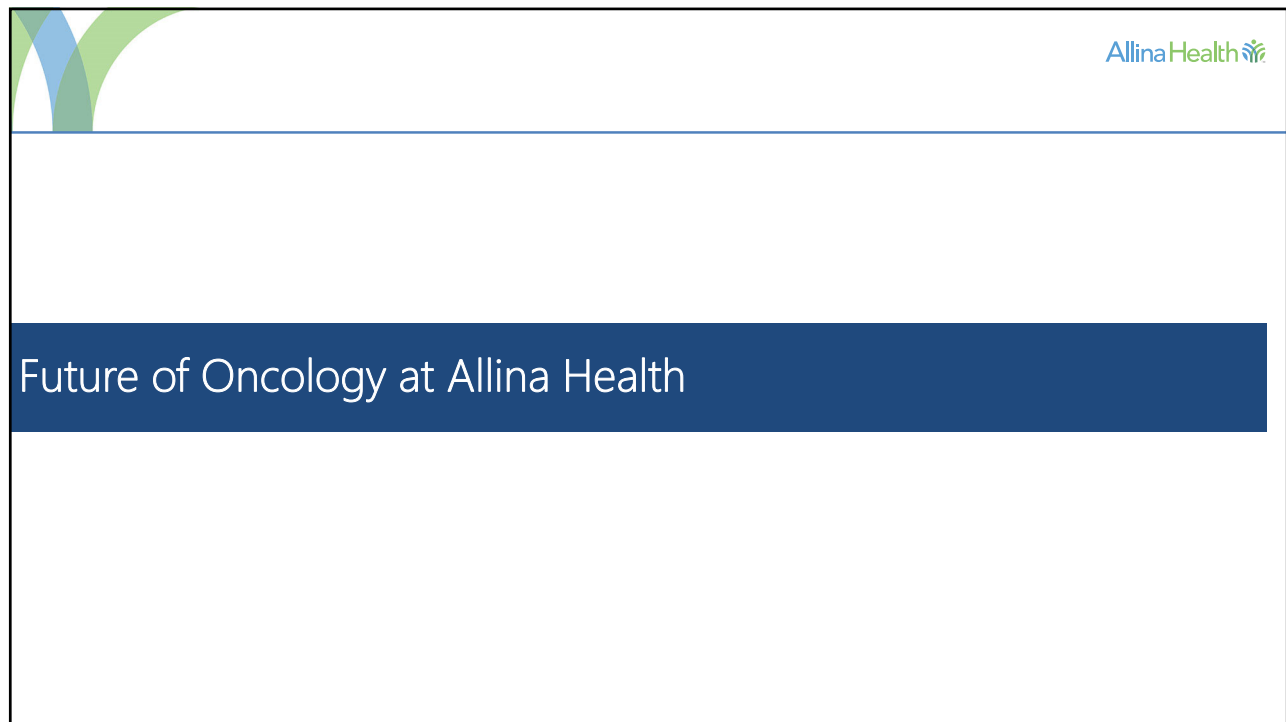


Diversity and cancer

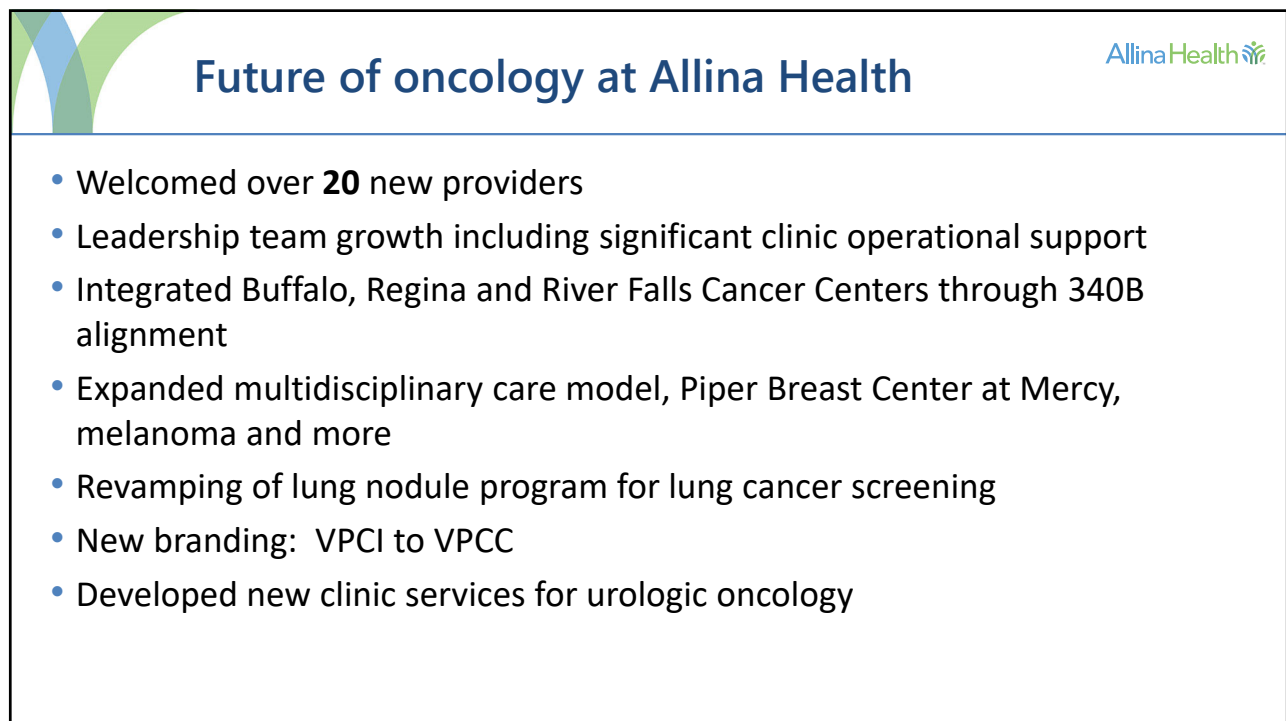


*Race impacts cancer care to a significant level
for a multitude of reasons. We as healthcare systems and providers
need to be better at addressing it.*

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ABBOTT NORTHWESTERN

- AHCI Infusion
- Piper Lobby
- Radiation Oncology Suite
- Radiation Oncology Patient "Link"
- AHCI Cancer Center expansion



MERCY

- Piper Breast Center
- AHCI Infusion
- AHCI Multidisciplinary Clinic
- AHCI Cancer Center



UNITED

- AHCI Infusion Interim Space
- Radiation Oncology
- AHCI Cancer Center & Piper Breast Center expansion – January 2021

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Future of oncology at Allina Health


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- Implementation of Clinical pathways through Elsevier/Epic
- Serious Illness Conversation training/implementation- this training is now part of new provider onboarding
- Expansion of RN triage to cover all non- clinic hours
- Implementation of PSMA PET scans for prostate patients at ANW
- Improvements in education materials, including "Understanding Bladder Cancer"
- Expansion of reflex testing for biomarkers in pathology- specifically for lung
- Creation of system wide guideline for contrast media utilization for renal patients.
- NAPBC 3-year accreditation review at ANW
- NAPBC accreditation at United underway

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Future of oncology at Allina Health




- Expanding cancer care for diverse populations
 - Breast cancer screening
 - Continued partnership with ACS and local communities for breast cancer screening
- Support and expand oncologic expertise for staff
 - OCN Certification Review course in March 2023 (almost 90 attendees across the country).
 - OCN Study Group launched in September 2023 in collaboration with Allina's Nursing Professional Development team.
 - ANCC approval for the Dimensions in Oncology conference (allows ANCC credits to be provided).
 - Incorporation of the Oncology Nursing Podcast into the quarterly oncology education bundles.
 - Launch of ONS All Access courses to support oncology RN onboarding (hopefully going-live later this fall).
 - Development of a Pretreatment Education project to support an aligned process for patients starting treatment.

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Future of oncology at Allina Health




Advancing the clinical research portfolio

- Successful application to Academic and Community Cancer Research United (ACCRU) (network of 135 centers)
- Opened 7 new clinical trials this summer and several others in process
- Currently have 45 trials open

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Future of oncology at Allina Health




- Continued systemic integration with regional sites
- Clinical expansion and growth to additional strategic venues
- Expansion of whole person care programs
- Increasingly robust access to clinical trials
- Expansion of multidisciplinary programs

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THANK YOU



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