

Partners in Your Health: Cancer Research at Kaiser Permanente

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CANCER SURVIVOR DAY

Overview of Today's Presentation

- Basic principles of all research conducted at KP
 - Ethics, privacy, confidentiality
- Three types of research we conduct:
 - Clinical trials research
 - Epidemiology research
 - Health services research
- Questions and (hopefully) answers...

Basic principles of all research at KP

- KP research is public domain. We conduct research in order to contribute to:
 - The health of KP members and their families
 - The health of communities where we provide care
 - Generalizable scientific knowledge
- KP research is governed by federal laws related to conduct of research and by internal policies and procedures:
 - Human subjects regulations for research participation (Institutional Review Board -- IRB)
 - Privacy and confidentiality for use of data in research (Health Insurance Protection and Accountability Act – HIPAA).

Institutional Review Board (IRB)

- IRB is an independent committee of KP staff and community representatives empowered to enforce ethical principles of research involving human subjects
- IRB responsibilities:
 - Review research to ensure that potential benefits outweigh risks
 - Review and approve research protocols related to:
 - Recruitment
 - Treatment
 - Analysis
 - Privacy and confidentiality
 - Issue written notice of approval/disapproval to the Investigator
 - Review and respond to proposed protocol changes submitted by the Investigator

Clinical Trials Research at KPMAS

- **Leslie Greenberg, MSN, MBA, RN, OCN®**
 - Clinical Trials Manager
 - Over 12 years clinical trials experience
 - Over 4 years managing a clinical trials program
 - Vice-President, DC Oncology Nursing Society Chapter
- **Leon Hwang, MD**
 - DCSM Chief of Service Medical Oncology, 2007-present
 - KPMAS Institutional Review Board member, 2008-present
 - KPMAS Principal Investigator on 25+ past and ongoing clinical trials

New Therapies or Devices

- New investigational therapies or devices may be any type of therapeutic (drug, surgical implant) or diagnostic (radiology) procedure whose safety (it does no harm) and efficacy (it works as intended) has not been previously established for a specific medical condition
- US Food and Drug Administration (FDA) regulates the process by which safety and efficacy
 - 4 phases of trials
 - KP participates in Phase 3 and Phase 4 trials
 - Phase 3: Randomized trials to establish safety and effectiveness in patients who meet specific inclusion and exclusion criteria
 - Phase 4: Post-marketing studies of safety and effectiveness in general practice populations

Phase III Trials

- Randomized trials comparing a new treatment to standard (existing) treatment(s).
 - Treatment can be:
 - New medication or other therapeutic procedure
 - New diagnostic procedure
- Drug or treatment given to a large group of eligible patients [1,000-3,000] at multiple sites to see if a new treatment is better (more effective or safe) than the standard treatment.
 - Effectiveness and safety are determined by how the treatment and control groups differ on “endpoints” such as:
 - Survival
 - Quality of life

Clinical Trials: Important Terms

- **Randomized:** A computer will randomly choose which treatment patient will receive. This decreases bias, and is important for assessing the true efficacy and safety of the new treatment.
 - Intervention group: patients who receive the new treatment
 - Control group: patients who do not receive the new treatment or who receive a placebo (a neutral, neither effective nor harmful intervention)
- **Protocol:** Study design – instructions to those who are conducting the trial
 - IRB approved and must be followed by patients and staff

Clinical Trials: Important Terms

- **Blinded:** Participants do not know if in experimental or control group
- **Double Blinded:** Participants AND those conducting the study, other than the evaluation team, do not know group assignment

Where You Can Find Information About Cancer Trials: National Cancer Institute (NCI)

The image shows a screenshot of the National Cancer Institute (NCI) website homepage. The browser address bar shows the URL <https://www.cancer.gov>. The NCI logo is prominently displayed at the top. Below the logo is a navigation menu with options: ABOUT CANCER, CANCER TYPES, RESEARCH, GRANTS & TRAINING, NEWS & EVENTS, and ABOUT NCI. A search bar is also present. The main banner features a photograph of three healthcare professionals in a clinical setting, with the text "NCI is the nation's leader in cancer research". To the right of the banner is a blue arrow pointing downwards. Below the banner are three featured content blocks: "Contact Us for Help" (with a photo of a woman), "Annual Report on the Status of Cancer" (with a map of the United States), and "NCI Dictionary of Cancer Terms" (with a purple background and text). A "Find a Clinical Trial" button is visible in the bottom right corner of the banner area.

Where You Can Find Information About Cancer Trials: Kaiser Permanente

**[Kaiser Permanente Resources:
http://kpstudysearch.kaiser.org](http://kpstudysearch.kaiser.org)**

The screenshot shows the KPStudySearch website. At the top, it says "KPSTUDYSEARCH Clinical Trials and Research Studies" and "Kaiser Permanente Research". Below the header is a navigation menu with "Home", "About", "FAQ", and "Contact Us". The main content area features a large image of two women in a laboratory setting. To the right of the image is a "Find a Study" search bar with a search button and a "Read more" link. Below the search bar are three columns of featured content: "Recently Added Studies" with three entries (Oncology (Adult), Oncology (Adult), and Oncology (Adult), Presentative Medicine), "Frequently Asked Questions", "Sign Up for E-mail Alert", and "Related Links".

KP, Hopkins, Georgetown, or National Institute of Health (NIH)?

- NIH does more basic research
- NIH is close (Bethesda)
- NIH is strong in Phase 1 trials
 - Highly experimental treatments, but potentially valuable in advanced disease and/or if other treatments have failed
- NIH is free, needs no referrals. You can self-refer.
- NIH Toll Free #: 800-422-6237

Your Oncologist's Role in Clinical Trials

- Your oncologist would be happy to look for trials for you
- Your oncologist can get you into trials quickly
- Bring records and film discs to and from the research trial
- Exchange phone numbers, emails, fax numbers for oncologist & trial doctors. Have them send records of important notes.
- Contact your oncologist when ready to return

What You Need to Know Before Enrolling in a Clinical Trial

- Likely side effects and likely benefits of the trial treatment (whether or not you are assigned to the treatment group)
- Time commitment
- Participation is voluntary:
 - You have complete independence and autonomy in deciding to enroll
 - You may withdraw at any time
- Treatment options – other than the trial intervention – that may be available to you

Why Enroll in a Clinical Trial?

- You will receive cutting edge therapy
- You will get extra exams, nursing care, and closer monitoring
- You will be helping others who will learn from your experience. This is even more important for minorities who are under-represented in studies
- Your care will be “proof-read” by an outside agency
- Different studies are available for every phase of your treatment and change monthly
- Speak to your oncologist if you are interested

Why Enroll in a Clinical Trial?

Why Some Patients Participate:

- **Give back to society**
- **Exhausted all other treatments**
- **Health care services**
- **Payment & incentives**
- **Hope**

Why Some Patients Do Not:

- **Mistrust of studies**
- **Do not want to be “guinea pig”**
- **Do not meet criteria**
- **Cannot give up time for study visits**
- **Not getting Standard of Care treatment**

Pros and Cons of Enrolling in Trials

Pros

- You may benefit from the new drug.
- You will get extra visits and tests
- More health professionals involved in your care.
- Another opinion on your care
- Patients in trials live longer

Cons

- You may have no benefit and unneeded side effects
- You will get extra visits and tests
- Delays to treatment b/c of need for drug free period, new doctors, extra tests for eligibility
- Learning to navigate new health care system
- Your treatments will be on a rigid schedule, not tailored for you

Kaiser Permanente Clinical Trials

Breast Cancer Trials

A11104: Evaluating effect of pre-op MRI on outcomes and quality of life in triple negative breast cancer

BR003: Evaluating adjuvant chemotherapy with/without Carboplatin for triple negative breast cancer

A011401 BWEL: Evaluating role of weight loss in adjuvant treatment for high risk breast cancer

S1207: Evaluating adjuvant endocrine therapy with/without 1 year everolimus for high risk HRpos breast cancer

A011502 ABC: Evaluating adjuvant daily aspirin in high risk HER2 negative breast cancer

Kaiser Permanente Clinical Trials

Colon and Rectal cancers

S0820 PACES: polyp prevention with eflornithine and sulindac for colon or rectal cancer

GI004 COMMIT: Evaluating FOLFOX6/Bevicizumab combo chemotherapy with/without Atezolizumab in deficient DNA Mismatch Repair (dMMR) metastatic colorectal cancer

LUNG Cancer-Precision Medicine

ALCHEMIST A151216 basket trial: Marker identification and Sequencing treatment in Non small cell lung cancer.

S1400 Lung-MAP basket trial: Biomarker driven for second line therapy of Squamous cell lung cancer.

Kaiser Permanente Clinical Trials

Glioblastoma, Gliosarcoma

A221101: Armodafinil (Nuvigil®) to reduce fatigue in patients with high grade glioma

STRATA STR-001-001

Observational study profiling biospecimens for molecular alterations in solid tumors, lymphoma, glioblastoma, pancreatic cancer, rare tumors and tumor types with recurrence, relapse, or metastases.

WHERE KPMAS CONDUCTS CLINICAL TRIALS:



- WOODLAWN Medical Center
- GAITHERSBURG HUB
- SHADYGROVE Medical Center
- KENSINGTON Medical Center
- LARGO HUB
- CAPITOL HILL HUB
- TYSON HUB
- SPRINGFIELD Medical Center
- BURKE Medical Center

What is EPIDEMIOLOGY research?

- Epidemiology is research that investigates the biological and social factors that contribute to:
 - Origins of disease
 - Progression of disease
 - Consequences of disease
- Epidemiology focuses on 3 sets of causal factors:
 - Genes
 - Environmental exposure
 - Personal and social circumstances

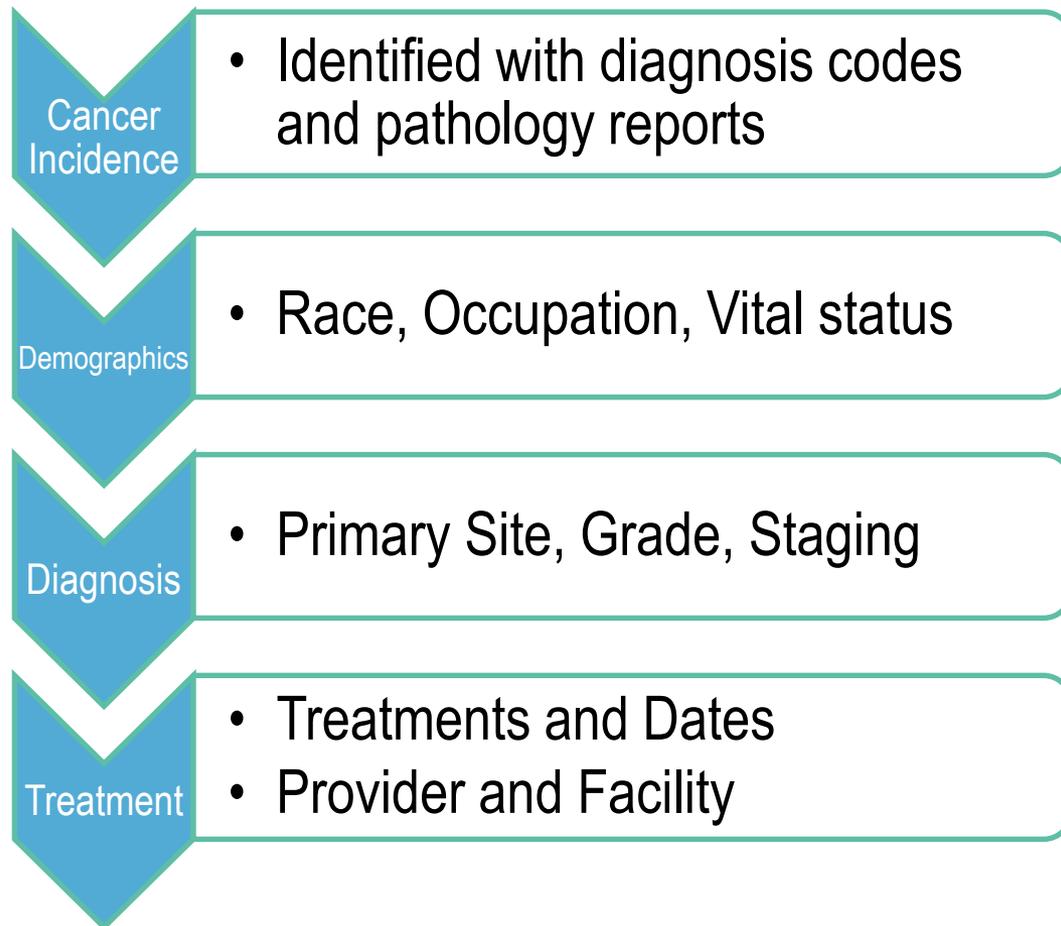
Cancer Epidemiology Research at KPMAS

- Monica Ter-Minassian, ScD
 - Research Scientist (3rd year at KPMAS)
 - Focused on heritable cancer
 - **Breast cancer** due to *BRCA* gene mutations or a strong family history
 - **KP Research Bank** – a large KP wide DNA and tissue biobank
 - **Neuroendocrine tumor** – a cancer affecting hormone producing cells of the of the thoracic and/or gastrointestinal tracts
 - Like breast cancer, a small percentage of NET are due to inherited genes in the mTOR pathway (involved in cell metabolism).

KPMAS Tumor Registry

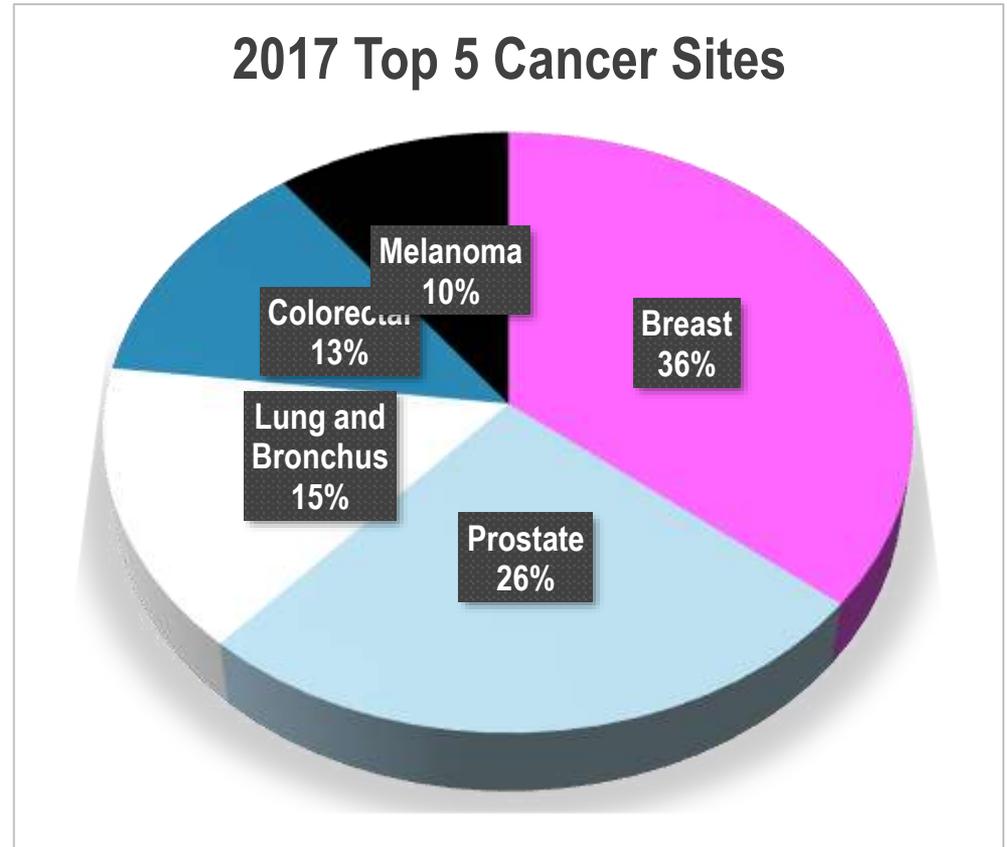
- Tumor registry at KPMAS daily identifies members diagnosed or treated with malignant or neoplastic disease.
- Reports mandated information to the state public health departments of Maryland, Virginia and the District of Colombia.
- For continual quality improvement of cancer care in KPMAS
- Requirement for center of excellence
- Further promote oncology research

Data Collection



KPMAS Tumor Registry

- Annual Caseload for Diagnosis Year 2017 = 3,270
- Top 5 Cancer Sites for 2017
 1. Breast ~ 700
 2. Prostate ~ 500
 3. Lung and Bronchus ~ 300
 4. Colorectal ~ 250
 5. Melanoma ~ 200



KP Research Bank (KPRB)

- **KPRB** is a national initiative to recruit a representative example of KP adult patients and to collect biospecimens (blood) and survey data on those adults.
 - Understand how genes, environment and lifestyle interact to cause disease
 - Published findings related to Pregnancy, Multiple Sclerosis, Bipolar disorder, Autism spectrum disorder, Ovarian cancer, Prostate cancer
 - Understand how genetic mutations affect drug metabolism
- **KPRB Cancer Cohort**
 - Each KP region, including KPMAS, recruits patients newly diagnosed with cancer identified with the regional tumor registry
 - As of October 8, KPMAS has sent 3986 invitations to patients recently diagnosed with cancer and 262 (6.6%) have consented to participate **(We Need You!)**

High Risk Breast Cancer Surveillance

- **Primary objective:** Are patients at high risk for breast cancer (due to an inherited genetic mutation or strong family history of breast and/or ovarian cancers) regularly screened with both MRI and mammograms?
- **Why this is important:** Early and regular screening can detect cancer in an **early stage**, leading to a better chance for survival
- **What we have learned:**
 - While inherited breast cancer is very rare in comparison to breast cancer due to other factors, patients often learn about an inherited mutation **after** being diagnosed with breast cancer.
 - After a Genetics consultation, patients at high risk adhere to the recommended intensive screening for no more than 3 follow-up screens.
 - Very important to maintain screening **long term**
 - Ongoing collaboration with Johns Hopkins University
 - NCI application submitted to request funding for continued work

Cancer Health Services Research at KPMAS

- Douglas Roblin, PhD
 - Senior Research Scientist
 - Over 25 years employment with KP (Oakland, Atlanta, DC areas)
 - Cancer research:
 - Patient literacy and treatment adherence
 - Patient-provider communication and treatment adherence
 - Insurance benefit design and treatment adherence

What is HEALTH SERVICES research?

- Health services research investigates organizational factors that contribute to the safety and effectiveness of providing health care services
- Health services research examines the influence of factors such as:
 - Access to care
 - Insurance benefit design
 - Provider workforce
 - Organizational culture

Symptoms and Depression in Breast Cancer (BrCa) Patients

- Primary objective: To understand if patterns of patient reported fatigue, insomnia, and pain are predictive of depression onset or its worsening in newly diagnosed BrCa patients.
- Why this is important: If we can identify patterns or changes in patterns of patient reported symptoms, then an intervention can be developed to direct nurses to contact BrCa patients who are at increased risk of developing depression or of worsening depression
- What we have learned:
 - NCI application submitted to request funding for study
 - Collaboration with Georgetown, Harvard

KPMAS Complex Care Program (CCP)

- Primary objective: To understand if care of high cost, high needs (HCHN) patients when managed by a physician with a smaller panel of patients and longer visits improves outcomes (less acute events, better quality of life) than the traditional primary care physician model of care.
 - One of the qualifying conditions is advanced cancer and a hospital admission in the most recent 30 day period.
 - Recruitment into the CCP is through outreach to eligible patients and physician referral
- Why this is important: The “one size fits all” model of primary care may not be optimal for HCHN patients where social and financial challenges are as important as medical challenges.
- What we have learned:
 - NIA application submitted to request funding for study
 - Collaboration with Penn State

Other Examples of Health Services Research Related to Cancer Care (KP Georgia)

- “Encouraging Patients to Speak up About Problems in Cancer Care”
 - Patients often believe that something has gone wrong in their care but are reluctant to speak up.
 - Randomized trial
 - Intervention: Mailed brochure to engage patients in speaking up + nurse follow-up call to elicit patient concerns (if any)
 - Control: Mailed form to elicit patient concerns (if any)
 - Intervention elicited approximately 2-times the number of patient perceived problems or concerns.
- “Medication errors in the home: a multisite study of children with cancer”
 - Medications previously managed by nurses are now managed by parents and guardians
 - Intervention: Trained nurse visited the home, reviewed medication bottles, and observed administration
 - 92 families visited: 70.2 errors per 100 patients
 - Significant opportunities exist to improve medication management at the home.

Thank you!

- Questions?
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