Cancer Clinical Trials: What the Primary Care and Public Health Provider Need to Know

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Featured Speakers

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Conflict of Interest Statement

The speakers and their viewpoints represent no conflicts of interest.

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- University at Albany School of Public Health
- New York State Department of Health, Bureau of Chronic Disease Control, Cancer Survivorship Initiatives

Learning Objectives

- Understand basic principles relating to cancer clinical trials, including purpose/limitations of Phase I, II and III clinical trials.
- Understand the benefits associated with cancer clinical trials, using lessons learned and best practices gleaned from pediatric cancer clinical trials as a model.
- Understand barriers to participation in clinical trials among adults at risk for or affected with cancer and identify disparities in clinical trial participation.
- Identify strategies to improve enrollment into cancer clinical trials, across all populations.

Cancer Clinical Trials

- Research involving people
- Aim to answer specific questions about medical interventions
- Improve current prevention, diagnosis, and treatment options

Why are Cancer Clinical Trials Important?

- The “War on Cancer” has not yet been won
- 1 million people are diagnosed with cancer each year, including 103,000 in New York
- 562,000 people in the US die from cancer each year, including 35,000 in New York
- 2nd leading cause of death after heart disease
- The NYS Cancer Registry estimates that more than 800,000 New Yorkers are living with cancer

Why is it Important to have Patients Participate in Clinical Trials?

- Today’s standard treatments are based on clinical trials
- Clinical trials lead to improved outcomes
- Broad participation generalizes results to “real world”
- More enrollees lead to faster, more accurate results

Pediatric Cancer and Clinical Trials

- Participation rates in clinical trials:
  - Adults: 3%  Children: 60-90%
- Survival rates for childhood cancers have improved from 10% in the 1950s to over 77% today
Reasons for Differences: Adults vs. Kids

- Insurance coverage
- Treatment in tertiary care hospitals
- Collaborative research through the Children’s Oncology Group
- Kids less likely to have co-morbidities
- Potential years of life is a motivator for parents

-Adapted from the Patient Advocate Foundation, Pediatric vs. Adult Participation

Types of Clinical Trials

- Treatment
- Prevention
- Early Detection/Screening
- Predictive
- Genetic
- Quality of Life/Supportive Care

Phases of Clinical Trials

- PHASE I: Determines the maximum tolerated dose and dosing schedule of a drug, how it works, and its toxicity.
- PHASE II: Determines how the drug affects the cancer and further evaluates toxicity.
- PHASE III: Determines how the drug/treatment works by assessing survival and time to progression of the disease, and gathers information about quality of life.
- PHASE IV: Expands "off-label" use of the drug/treatment and continues to assess toxicity.

- From Stony Brook University Cancer Center webpage: Cancer Clinical Trials

Phase I Clinical Trials

GOG 9923: A Phase I Study of Carboplatin/Paclitaxel/CTEP-Supplied Bevacizumab (NSC #704865, IND #7921) and CTEP-Supplied Agent ABT-888 (NSC #737664,IND# 77840) in Newly Diagnosed Patients with Previously Untreated Epithelial Ovarian, Fallopian Tube or Primary Peritoneal Cancer

Phase II Clinical Trials

GOG 170D: A Phase II Evaluation of Bevacizumab (rhuMAB VEG) (NSC # 704865, IND #7921) in the Treatment of Persistent or Recurrent Epithelial Ovarian or Primary Peritoneal Carcinoma

Phase III Clinical Trials

GOG 218: A Phase III Trial Of Carboplatin And Paclitaxel Plus Placebo vs Carboplatin And Paclitaxel Plus Concurrent Bevacizumab (NSC #704865, Ind #7921) Followed By Placebo, vs Carboplatin And Paclitaxel Plus Concurrent And Extended Bevacizumab, In Women Newly Diagnosed, Previously Untreated, Stage III Or IV, Epithelial Ovarian, Primary Peritoneal Or Fallopian Tube Cancer NCI-Supplied Agent(s): Bevacizumab/Placebo (NSC #704865, IND #7921)
Clinical Trial Components

• Protocol
• Eligibility/Ineligibility criteria
• Endpoint
• Regulatory approval

Safeguarding the Patient

• Informed Consent Process
• Office for Human Research Protections/FDA regulations
• Belmont Report
• Declaration of Helsinki
• Institutional Review Boards
• Data and Safety Monitoring Boards
• Scientific Review Boards

Potential Benefits Associated with Participating in a Clinical Trial

• Early access to new and promising treatment
• Improved outcomes
• “Paying it Forward” -- the knowledge gained from today’s participants helps others down the road

Potential Risks Associated with Participating in a Clinical Trial

• Unknown side effects
• Treatment may not be as good as the current standard
• Not all insurances cover participation
• Loss of decision-making/autonomy

IRB Review Process

• Federally mandated
• Must:
  – Facilitate safe and ethical research
  – Ensure that human subjects rights and welfare are protected
  – Ensure compliance with federal regulations governing the protection of human subjects
• Multidisciplinary committee
• ON-GOING process

Barriers to Participation – Patients

• Lack of awareness
• Misconceptions
• Distrust of the medical system
• Randomization unappealing or difficult to understand
• Complexity can be overwhelming
• Transportation/regional access
Barriers to Participation: Physicians

- Lack of awareness of available clinical trials
- Language barriers
- Cultural assumptions/stereotypes
- Resources: staff time
- Regional access

Barriers to Participation – Institutions

- Organizational climate
  - Lack of clinic resources
  - Clinic prioritizes clinical care and teaching
- Lack of research resources
  - Institution supports late phase studies
  - Institution does not support skilled medical interpreters

- Sadler et al., 2010

The Leaky Pipe of Clinical Trial Participation

276 patients are seen by a physician

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<th>Awareness</th>
<th>Design</th>
<th>Consent process</th>
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<tr>
<td>38% not referred to clinical trial by physician</td>
<td>56% not eligible for clinical trial</td>
<td>49% not willing to sign consent</td>
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<tr>
<td>75 remain</td>
<td>29 remain</td>
<td>14% accrual rate</td>
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<td>171 remain</td>
<td>29 enrolled</td>
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Groups Under-represented in Clinical Trials

- Minorities
- Elderly
- Women
- Children and adolescents
- Low income and uninsured
- Rural residents
- People with comorbidities
- Patients with more advanced cancer with poorer prognosis

- Modified from The EDICT Project: Policy Recommendations to Eliminate Disparities in Clinical Trials

Tuskegee Experiment: Still impacting accrual of minorities into clinical trials?

- Study ran until 1972
- US Public Health Service study of the natural history of untreated syphilis
- 399 poor Black sharecroppers from Macon, Alabama
- Not told they had syphilis
- Not treated with standard medications
- Provided free meals, medical exams and burial insurance

- Modified from "Final Report of the Tuskegee Syphilis Study Committee"

Why is it Important to Have Minorities Participate in Clinical Trials?

- Fairness and equity/reduce disparities
- Minorities tend to have a higher cancer burden
- Enables generalization to the population at large
- Drug A may be more effective in racial/ethnic group X while drug B may be more effective in racial/ethnic group Y
Addressing Barriers to Minority Recruitment

- Addressing Physician Level Barriers
- Addressing Patient Level Barriers
- Addressing Institutional Level Barriers

Recruitment of Minorities into Clinical Trials

- In 1990 The NCI established the Minority Based Community Clinical Oncology Program
- In 1993, the US passed the NIH Revitalization Act of 1993
- “A review of FDA approved drugs from 1995 – 1999 revealed that communities of color represented less than 10% of participants in trials that were testing cancer drugs.”

Minority Recruitment to Trials: NYC Urban Setting

Accruals into Therapeutic Clinical Trials at BHC: 2007-2011

Bellevue Patient Primary Language
Bellevue: Other Languages

Selected Projects in NYS

- NCI grant to Roswell Park Cancer Institute to launch the Western NY Cancer Coalition to Reduce Disparities
- NCI grant to Brooklyn Minority-Based Community Clinical Oncology Program to bring state-of-the-art clinical trials in cancer prevention, diagnosis and treatment to the diverse community of Brooklyn
- Memorial Sloan-Kettering Office of Diversity Programs in Clinical Care, Research and Training partnership with Ralph Lauren Center for Cancer Care & Prevention and others to ensure that medically underserved and minority populations participate in clinical trials
- Avon and Susan G. Komen grants awarded to NYU Cancer Institute to develop patient navigation services to reduce patient barriers to care for minority populations at Bellevue Hospital Center

NYS Comprehensive Cancer Control Plan (Draft) 2012 - 2017

Measurable objectives and strategies include:
- By 2016, establish assessments of the number of cancer survivors enrolled in cancer treatment clinical trials
- Increase treatment related clinical trial enrollment across all ethnic groups through education and awareness
- Advocate for health insurance benefit packages that include coverage for all non-experimental portions

States that Require Health Plans to Cover Patient Care Costs in Clinical Trials (NCI)

Blue Shading = Yes  
Gray Shading = No

How Do Recent Drug Shortages Impact Clinical Trials?

- ~1/2 (200) of all active Cancer Cooperative Group clinical trials are being impacted by drug shortages
- Many standard-of-care therapeutic agents given to controls in clinical trials are in short supply
- Drug shortages are slowing patient accrual into large cancer clinical trials, so fewer new drugs are becoming available

- Coalition of Cancer Cooperative Groups Fact Sheet: Drug Shortages Impacting Cancer Clinical Trials

Resources for Referring to Clinical Trials

- National Cancer Institute  
  [www.cancer.gov/clinicaltrials]
- Coalition of Cancer Cooperative Groups/American Cancer Society  
  [www.CancerTrialsHelp.org]
- Education Network to Advance Cancer Clinical Trials (ENACCT)  
  [www.enacct.org]
- Specific advocacy groups (examples: Ovarian Cancer National Alliance, Lung Cancer Alliance, etc.)
- Comprehensive Cancer Center web pages
- Call 1-800-4CANCER
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