Precision Medicine in Cancer

A Quick Guide for Community Health Workers

COMMUNITY HEALTH WORKER
CHW
Oncology-focused Training Program



Community Health Workers, or CHWs, play a vital role in helping people affected by cancer navigate their treatment options. What makes you effective is not just what you know, but the trust you have built and your ability to help people feel seen, heard, and supported. This Quick Guide will help you:

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1. Understand key terms related to precision medicine in cancer care.
2. Explain precision medicine in plain language to patients and their loved ones.
3. Empower patients to ask the right questions, understand their options, and actively participate in precision medicine decisions.

WHAT IS PRECISION MEDICINE?

Precision medicine, also called personalized medicine, is a way for doctors to plan care that is specific to the patient. In cancer, precision medicine includes studying a person's cancer and inherited genes to help choose treatments that are more likely to work.

CANCER SUPPORT COMMUNITY
COMMUNITY IS STRONGER THAN CANCER
GILDA'S CLUB

For a long time, cancer treatment was based on the type of cancer a person had, meaning everyone with the same cancer received the same treatment, regardless of individual differences. Precision medicine takes a different approach. It looks at what is unique to that person and uses that information to find the treatment most likely to work for them. This includes:

- The specific changes in their tumor's genes or proteins
- Their personal health history and other medical conditions
- Genes they may have inherited from their family
- Lifestyle and environment factors that can affect how cancer behaves and how the body responds to treatment

The right treatment. For the right person. At the right time.

Biomarker Testing & Precision Medicine: Precision medicine uses what is unique about each patient, including their tumor's genetics, personal health factors, and sometimes inherited genes or lifestyle factors, to guide the most effective treatment decisions. Biomarker testing is how key pieces of that picture are gathered. Simply put **biomarker testing is the test. Precision medicine is what you do with the results.**

New to Biomarker Testing? See our companion guide: Biomarkers and Biomarker Testing in Cancer: A Quick Guide for Community Health Workers

WHY IT MATTERS

Precision medicine may help:

- Match patients to the best treatment for their specific cancer and their personal characteristics; every cancer and every person is different. Precision medicine accounts for both.
- Avoid treatments that may not be the right fit, so patients aren't spending time on something unlikely to benefit their specific cancer.
- Reduce unnecessary side effects: targeted treatments focus on the cancer cells specifically, which can mean fewer side effects and a better quality of life during treatment.
- Identify clinical trial options: a patient's genetic or biomarker results may make them eligible for clinical trials they would not otherwise qualify for.
- Improve outcomes for some cancers: For certain cancers, precision medicine has extended survival and shrunk tumors, and in some cases, contributed to long-term remission.



HOW TO EXPLAIN IT TO A PATIENT

The analogies below offer two different ways to explain precision medicine in plain language. Use whichever feels most natural for your patient.



The Group Chat vs. The Direct Message: *Traditional cancer treatment is like sending the same message to a whole group chat; everyone gets the same thing. Precision medicine is the direct message. Your doctor has looked specifically at your cancer and is responding directly to it. The treatment is personal, targeted, and meant for you.*

The Personal Trainer: *Traditional cancer treatment is like taking a general fitness class where everyone gets the same workout. Think of precision medicine like a personal trainer. An expert studies your body, your history, and your goals, then builds a plan around you. Precision medicine does the same thing for cancer treatment.*

HOW PRECISION MEDICINE WORKS

STEP 1 — A SAMPLE IS COLLECTED

A small piece of the tumor is collected through a biopsy, or in some cases through a blood draw known as a liquid biopsy.

Liquid Biopsy: Liquid biopsy is a blood test that can detect cancer DNA without removing tumor tissue.

STEP 2 — THE SAMPLE IS ANALYZED

The sample is sent to a lab where it's tested for specific changes in the cancer, such as genes or proteins, that may affect how cancer behaves and which treatments are most likely to work.

This step is biomarker testing! It's the process of looking for those specific changes in the cancer that may help match a patient to the most effective treatment. For a full breakdown of how testing works, see our companion guide: **Biomarkers and Biomarker Testing in Cancer: A Quick Guide for CHWs**

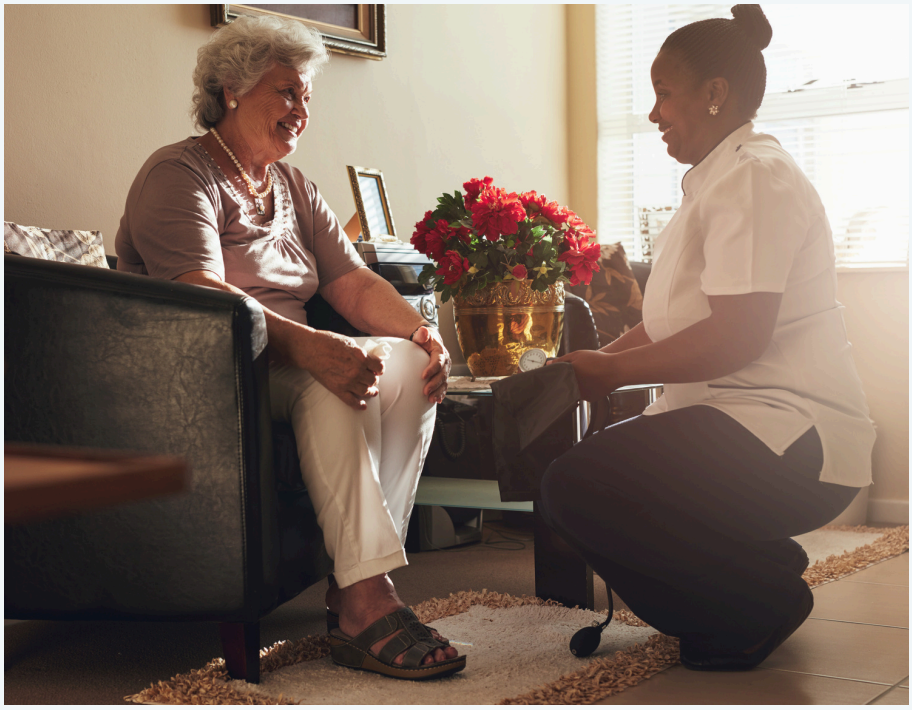
STEP 3 — RESULTS ARE REVIEWED

Results typically take one to three weeks, and sometimes longer depending on the type of test. The care team reviews the findings to see if there are any treatments or clinical trials that may be a good fit. Based on the results, your patient may be recommended:

- A targeted therapy matched to their cancer
- An immunotherapy option based on their tumor markers
- A clinical trial they may not have otherwise qualified for
- A more precise diagnosis that changes the treatment plan
- An update or change in their current treatment plan

STEP 4 — A TREATMENT PLAN IS DEVELOPED

If the results point to a treatment that fit , the doctor will talk through treatment options, including targeted therapy or other precision medicine approaches. The care team also looks at the whole person, including their health history, other medical conditions, and sometimes their inherited gene changes, to build the most complete picture possible. If no match is found, the care team will still use all of this information to recommend the best available treatment.



STEP 5 — MONITORING AND RETESTING

Precision medicine is not a one-time conversation. Cancer can change over time, and patients may be retested at different points in their cancer experience to see if new treatment options have become available.

What to tell your patient:
"Think of it as a process, not a single test. Each step gives your doctor more information to make the best decision for you, and you will be part of that conversation every step of the way."

KEY TERMS TO KNOW

Patients may hear a lot of new words when talking about precision medicine. Here are the most important ones to understand:

Biomarker Testing: Biomarker testing looks at cancer cells for specific gene or protein changes, called mutations, that affect how the cancer grows and how it responds to treatment. Even if two people have the same type of cancer, their tumor cells can have different mutations, which can significantly change their treatment options.

Also called: tumor profiling, molecular profiling, or genomic testing, these all refer to the same general process.

What to tell your patient: "*Your doctor is testing your cancer cells to find out what's driving them to grow. That information helps them choose a treatment designed specifically for your cancer."*

Genetic Testing: This is different from biomarker testing. Genetic testing looks at the DNA a person was born with, not the cancer itself. It can show whether someone inherited a genetic mutation that increases their cancer risk and may also affect their family.

Genetic Counselor: A specially trained healthcare professional who helps patients understand genetic testing and what the results may mean for them and their families. If inherited gene changes are found or suspected, a referral to a genetic counselor is an important next step.

Targeted Therapy: Targeted therapy uses drugs that find and block the specific gene or protein changes that allow cancer cells to grow and survive. By zeroing in on these changes specifically, many patients may experience fewer side effects than traditional treatments. But side effects are still possible and vary by the drug and the person. Patients should always discuss what to expect with their care team.

What to tell your patient: "*Think of it like a fingerprint scanner. It's designed to recognize something very specific and respond to that. Targeted therapy works the same way ,it's built to find a specific change in your cancer cells and block it from helping the cancer grow.*"

Immunotherapy: Immunotherapy is a type of treatment that helps the patient's own immune system recognize and fight cancer. Immunotherapy comes in several forms, including checkpoint inhibitors and CAR-T cell therapy. Your patient may hear any of these terms; they are all types of immunotherapy. Cancer cells can hide from the immune system; immunotherapy helps the body find and attack them.

What to tell your patient: "*Sometimes cancer cells can avoid being recognized by the immune system. Immunotherapy helps the body identify and attack them.*"

WHAT YOU NEED TO KNOW

Biomarker testing and genetic testing are not the same thing, and patients often confuse the two. Biomarker testing looks at the cancer itself ,the specific changes in the tumor that may affect treatment. Genetic testing looks at genes inherited from family members that may increase a person's risk for cancer. Both can be part of precision medicine, but they answer very different questions. Patients often confuse these two. Here is how to explain the difference:

	Biomarker Testing	Genetic Testing
Looks at	The cancer (tumor) in the body right now and other personal health factors	Genes inherited from family members, present since birth
Answers	What treatment is most likely to work for this specific cancer and this specific patient?	Was this person born with a gene change that increases their risk for cancer?
Affects	The patient's treatment plan	The patient's treatment plan and potentially their children, siblings, and parents who may share the same inherited gene change
May include	Changes in tumor genes , protein levels, and other cancer markers along with personal health history, lifestyle, and environment factors	Inherited genes such as BRCA1/BRCA2, and Lynch Syndrome
Example	Matching a patient to a targeted therapy based on biomarker results	Testing for inherited gene changes like BRCA1/BRCA2 or Lynch Syndrome

What to tell your patient: "*Biomarker testing looks at your cancer to see what may be driving it and to help choose treatments that are more likely to work. . Genetic testing looks at genes you may have inherited that could raise your risk of cancer. Both can be part of precision medicine, but they answer different questions. Your doctor may bring up both , and if an inherited gene change is found, it could open up additional treatment options on top of what it means for your family members."*



2 Not every cancer has a precision medicine option yet, but the field is growing fast

Breast, colorectal, and lung cancers often have many treatment options because doctors can use biomarker testing and precision medicine to choose treatments that fit the cancer's specific features

Other cancer types, including melanoma, ovarian, and some blood cancers such as leukemia and lymphoma, also have established precision medicine options. The list continues to grow.

If your patient's cancer type doesn't have one yet, that may change. Encourage them to stay connected with their doctor and care team, who can let them know if new options become available. If cost or insurance is a concern, the Cancer Support Helpline (1-888-793-9355 or CSC (272) 867-5309) has navigators who can help.

3 Testing is different at different points in the cancer experience

Patients may wonder why they are being tested more than once. Here is a simple breakdown:

- **Diagnostic testing** — done to find out if cancer is present and what type it is.
- **Biomarker testing**— done to understand what is driving the cancer to grow and which treatments are most likely to work.
- **Follow-up testing** — done during and after treatment to monitor how well the cancer is responding and whether changes are needed.

These are different tests with different goals — and a patient may have all three at different points in their cancer experience.





WHAT IF NO BIOMARKER IS FOUND?

If no biomarker is found, it simply means there isn't a targeted treatment match for this cancer right now. That information is still helpful and can guide what to do next.

Even without a match, precision medicine is still important. The care team can still look at the full picture, including the patient's health history and other factors, to recommend the best treatment plan.

Other treatments, such as chemotherapy, radiation, or immunotherapy, may still be right for them.

- Many clinical trials are designed specifically for patients without a matched biomarker.
- Precision medicine is a rapidly evolving field; what's not available today may be in the future.
- They can always ask for a second opinion or request retesting down the road.
- Some biomarker tests may be available through clinical trials at no cost, encourage your patient to ask their care team about trial eligibility.

What to say: "*Not finding a match doesn't mean we've hit a wall. It means your doctor now has the information they need to point you in the right direction."*

A common concern patients have is whether not finding a biomarker will delay their treatment. It's natural for patients to feel uncertain about this. Let them know that a result without a match is still useful information.

What to say: "*This doesn't mean your treatment is on hold. Your care team will use everything they've learned to figure out the best next step for you."*

ADVOCATING IN THE APPOINTMENT ROOM

Patients sometimes leave appointments feeling like they didn't get to say everything they wanted to. As a CHW, you can help them feel prepared and confident before they walk in the door.

What to tell your patient: "*You have the right to ask questions, slow down the conversation, and make sure you understand your options before any decisions are made. Your voice matters in that room — and I can help you prepare to use it."*

1. Help patients ask questions

Encourage your patient to ask their healthcare team:

- Was biomarker testing ordered for my cancer? If not, should it be?
- What type of test is being done and how will the sample be collected?
- How will the results affect my treatment plan?
- How long will results take to come back?
- Based on my results, what targeted treatments might be available to me?
- What are the potential side effects of the recommended treatment?
- Should I meet with a genetic counselor?
- Are there clinical trials available based on my results?

If your patient feels unheard or rushed, encourage them to say:

- *"I want to make sure I understand my options before we decide. Can we take a moment to go over this?"*
- *"I have a few questions I prepared — would it be okay if I went through them?"*

TIP: CSC's Open to Options® program can help your patient prepare a personalized list of questions before their appointment. Call 1-888-793-9355 or contact your local CSC or Gilda's Club.

2. Support second opinions

- Let your patient know that seeking a second opinion is always their right and often covered by insurance.
- Suggest requesting a referral to a comprehensive cancer center, where biomarker testing is more common.
- Encourage them to bring a trusted person to the appointment to listen, take notes, and help them remember what was said.

3. Help navigate insurance barriers

Patients who are uninsured, underinsured, on Medicaid, or from underserved communities may face additional barriers to accessing testing. Here is how you can help:

- Connect your patient to the Cancer Support Helpline (1-888-793-9355) — navigators can assist with coverage questions, insurance appeals, and identifying financial assistance programs, including pharmaceutical patient assistance programs.
- Encourage them to ask their care team for an oncology social worker, who can help with insurance appeals and financial navigation.
- Let them know some biomarker tests may be available through clinical trials at no cost.

CHW CONVERSATION GUIDE

Follow the natural progression of your relationship — from first contact to trust-building to education and advocacy.

If you are already in an established relationship with your patient, start at Stage 3. Stages 1 and 2 are included for CHWs who may be introducing this topic during early outreach.

Stage 1 · Outreach **First Contact**	**Stage 2 · Stabilization** **Trust is Forming**	**Stage 3 · Education & Advocacy** **Trust is Established**
Be present. Listen. "Hi, my name is [name] and I'm a Community Health Worker. My job is to be a resource for you — no pressure, no agenda. How are you feeling about everything so far?" "A lot of people I work with are hearing so much new information at once. Is there anything that's been confusing or hard to follow?" "You don't have to have any questions ready — I'm just here to listen."	**Check in. Identify barriers.** **"**Since we last connected, has anything come up that's been weighing on you?" "Is there anything getting in the way of you being able to focus on your health right now?" "Have you had a chance to connect with anyone who can help you navigate all of this?"	**Now you can go deeper. Only when your patient is comfortable.** "Have you and your doctor talked about biomarker or genomic testing for your cancer yet?" "Have you heard terms like precision medicine, biomarker testing, or targeted therapy? I can provide you with information to help explain what those mean." "When you go to your next appointment, would you like me to help you write down a few questions about testing to ask your doctor?" "How are you feeling about everything your doctor has shared so far? It is completely normal if it feels like a lot, I am here to help you work through it."

ABOUT THE CHW ONCOLOGY-FOCUSED TRAINING PROGRAM

CSC's CHW Oncology-focused Training Program is for community health workers who are interested in gaining skills and knowledge to better assist members of their community impacted by cancer. The program provides free cancer-specific educational resources and intentional opportunities for CHWs to share best practices and build peer connections.

Visit our website: **www.cancersupportcommunity.org/community-health-worker-program**

RESOURCES

CANCER SUPPORT COMMUNITY RESOURCES

Cancer Support Helpline
1-888-793-9355 — Call, chat, or video in 200 languages, always free.
www.CancerSupportCommunity.org

Open to Options® Helping your patient prepare for their next appointment? Call 1-888-793-9355 or contact your local CSC or Gilda's Club.

MyLifeLine® CSC's online community for anyone impacted by cancer.
www.MyLifeLine.org

Frankly Speaking About Cancer® Plain-language education materials.
orders.cancersupportcommunity.org

Local CSCs and Gilda's Clubs — Free support groups and programs.
CancerSupportCommunity.org/FindLocation-Near-You

ADDITIONAL RESOURCES:

National Comprehensive Cancer Network (NCCN)
www.nccn.org

Academy of Oncology Nurse and Patient Navigators (AONN+)
aonnonline.org

American Cancer Society
800-227-2345 | www.Cancer.org

National Cancer Institute
www.cancer.gov

Cancer.Net (American Society of Clinical Oncology patient site — precision medicine explainers in plain language)
www.cancer.net

National Cancer Institute — Precision Medicine
www.cancer.gov/research/areas/treatment/precision-medicine

Cancer Support Community Resources

Cancer Support Helpline® — Have questions, concerns, or looking for resources? Call CSC's toll-free Cancer Support Helpline (CSC-867-5309 or 1-888-793-9355 outside of the U.S.), available in 200 languages.

Open to Options® — Preparing for your next appointment? Our trained specialists can help you create a list of questions to share with your doctor. Make an appointment by calling CSC-867-5309 or by contacting your local CSC or Gilda's Club.

Frankly Speaking About Cancer® — Trusted information for cancer patients and their loved ones is available through publications, online, and in-person programs.

Services at Local CSCs and Gilda's Clubs — With the help of over 200 locations, in 50 markets, CSC and Gilda's Club centers provide services free of charge to people impacted by cancer. Attend support groups, educational sessions, wellness programs, and more **www.CancerSupportCommunity.org/FindLocation**.

Cancer Experience Registry® — Help others by sharing your cancer patient or cancer caregiver experience via survey at **www.CancerExperienceRegistry.org**.

MyLifeLine® — CSC's secure, online community welcomes anyone impacted by cancer to easily connect with community to reduce stress, anxiety, and isolation. Create a personal network site and invite friends & family to follow your journey. And participate in our discussion forums any time of day to meet others like you who understand what you are experiencing. Join now at **www.MyLifeLine.org**.

Grassroots Network — Make sure your voice is heard by federal and state policy makers on issues affecting cancer patients and survivors by joining our Network at **www.CancerSupportCommunity.org/Become-Advocate**.

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The Cancer Support Community and its partners provide this information as a service. This publication is not intended to take the place of medical care or the advice of your doctor. We strongly suggest consulting your doctor or other healthcare professionals to answer questions and learn more.

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