

# Effects on the Immune System

Breast cancer treatments are designed to target and destroy cancer cells, but they can also have significant effects on the body's immune system.

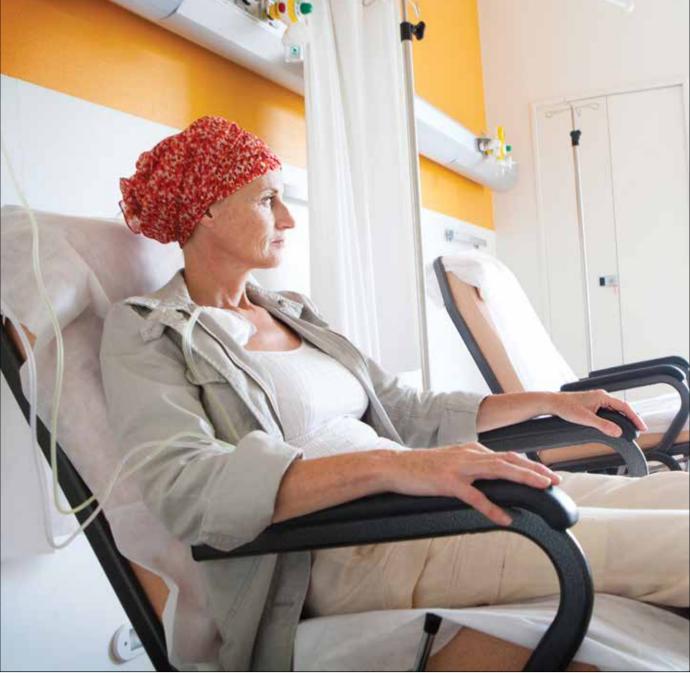
Understanding these effects is crucial for managing side effects and maintaining overall health during and after treatment. Here's a closer look at how common breast cancer treatments interact with the immune system.

#### **CHEMOTHERAPY**

Chemotherapy is one of the most widely used treatments for breast cancer. It targets rapidly dividing cells, a hall-mark of cancer cells. However, chemotherapy does not discriminate between cancer cells and other rapidly dividing cells, such as those in the bone marrow, which produce white blood cells crucial for immune function.

Chemotherapy can significantly reduce the number of white blood cells, particularly neutrophils, leading to a condition called neutropenia. This makes patients more susceptible to infections. The body's reduced ability to fight infections can result in prolonged fatigue and general weakness.

Patients should practice good hygiene, avoid large crowds and steer clear of sick individuals. In some cases,



© ADOBE STOCK

doctors may prescribe growth factors to stimulate white blood cell production or antibiotics to prevent infections.

#### **RADIATION THERAPY**

Radiation therapy uses high-energy rays to target and kill cancer cells. While it is localized to the breast area, it can still affect the immune system, particularly if lymph nodes are included in the treatment field.

Radiation can damage healthy cells in the treated area, leading to localized immunosuppression. Damage to the lymphatic system can lead to lymphedema, a condition characterized by swelling due to lymph fluid buildup, which can compromise local immune function.

Patients should take extra care of the skin in the treated area to prevent infections.
Regular exercise, compression garments and manual lymphatic drainage can help manage lymphedema.

#### **HORMONE THERAPY**

Hormone therapies, such as tamoxifen or aromatase inhibitors, are used to treat hormone receptor-positive breast cancer by blocking the effects of estrogen.

Hormone therapies generally have a less direct effect on the immune system compared to chemotherapy or radiation. However, they can still affect overall health and well-being, indirectly influencing immune function.

Some studies suggest that hormone therapy can slightly increase the risk of certain infections.

Regular check-ups can help monitor any side effects and manage them promptly. Maintaining a healthy diet, regular exercise and adequate sleep can support overall immune function.

### TARGETED THERAPY AND IMMUNOTHERAPY

Targeted therapies, such as HER2 inhibitors, and immunotherapies, like checkpoint inhibitors, represent advanced treatment options that work by specifically targeting cancer cells or boosting the immune system to fight cancer.

Immunotherapies can enhance the immune system's ability to recognize and destroy cancer cells. These therapies can sometimes lead to immune-related adverse effects, such as inflammation of healthy tissues.

Patients receiving these therapies require close monitoring for immune-related side effects. Early intervention for side effects, such as using corticosteroids for inflammation, can mitigate complications.

# Wearing a Bathing Suit After Surgery

Breast cancer
surgery, whether it
involves a
lumpectomy,
mastectomy or
reconstruction,
brings about
significant changes
to a woman's body.

These changes can make the thought of wearing a bathing suit seem daunting.

However, with the right approach, finding and wearing a bathing suit after breast cancer surgery can be an empowering and positive experience. Keep in mind that even women who haven't had breast cancer surgery feel self-conscious wearing a bathing suit.

#### UNDERSTANDING YOUR NEEDS

Depending on the type of surgery you've had, you may have different needs. For example, a mastectomy might require a suit with pockets for prostheses, while reconstruction might necessitate a specific fit to accommodate new contours. Understanding your unique needs is the first step in finding the perfect bathing suit.

Look for suits that offer good support and are comfortable. Soft fabrics, adjustable straps and higher necklines can provide additional comfort and coverage, which can be especially important if you have



ADOBE STOCK

scars or sensitive skin postsurgery.

### SHOPPING FOR THE RIGHT BATHING SUIT

Numerous brands specialize in post-mastectomy swimwear, offering a range of stylish and functional options. Companies like Amoena, Anita, and Lands' End have collections designed specifically for breast cancer survivors. These suits often feature built-in bras, pockets for prostheses, and higher coverage for scars.

"We can sew a pocket into any suit we sell at no charge," said Rose Tabile, women's active wear manager at Nordstrom's department store in King of Prussia, Pennsylvania. Nordstrom stores also usually carry Amoena and It Figures suits. Consider custom-made bathing suits for the best fit. Some boutiques and online retailers offer tailored swimwear based on your measurements and specific

needs. This can be particularly beneficial if standard sizes do not provide the desired fit or support.

If possible, try on several styles of swim suits to find what feels best. Many stores have knowledgeable staff who can assist you in finding a suit that meets your needs. If shopping online, check return policies to ensure you can try different options without commitment.

If you use breast forms

instead of having a reconstruction surgery, consider purchasing swim forms.

Weighted forms are good for everyday use, but may be uncomfortable when swimming. Swim forms are options that are less dense and float better. They are made from clear silicone and can attach into the bathing suit with fabric tabs.

### WEARING YOUR BATHING SUIT CONFIDENTLY

If you use breast prostheses, look for suits with built-in pockets. Swim forms are designed specifically for water use and can provide a natural look and feel. Ensure your prosthesis is secure and comfortable for active use. If you have visible scars, consider suits with higher necklines or stylish coverage options like tankinis or swim dresses. Rash guards and swim shirts can also provide additional coverage and UV protection.

Remember, confidence comes from within. Focus on how you feel rather than how you look. Surround yourself with supportive friends and family, and choose swimwear that makes you feel comfortable and beautiful. Finding the right suit may take time, and your preferences might evolve as your body heals and changes. Be patient with yourself and the process.

Wearing a bathing suit after breast cancer surgery is a testament to your strength and resilience. Celebrate your journey and embrace this new chapter with pride.

# Managing Treatment Costs

Facing a breast cancer diagnosis is overwhelming both emotionally and financially.

Managing the costs of treatment is a crucial aspect of care.

Breastcancer.org warns the costs of breast cancer go beyond paying for medical procedures and medication. Other expenses include the transportation to and from a treatment center, child care while you are having a treatment and specialized diets. Some people may also be facing loss of income from taking time off work.

### MANAGING HEALTH INSURANCE

Familiarize yourself with your health insurance policy. Know what is covered, including hospital stays, treatments, medications and diagnostic tests. Pay attention to co-pays, deductibles and out-of-pocket maximums. Using health care providers within your insurance network can significantly reduce costs. Verify that your oncologist, hospital and any specialists are in-network.

Some treatments require pre-authorization from your insurance company. Ensure your health care provider obtains this approval before proceeding with treatments to avoid unexpected bills.

"We give patients the



diagnosis codes, the procedure codes, and encourage them strongly to call their insurance company to see if they need any pre-certifications and pre-authorizations and for information about co-pays and deductibles," said Annette Hargadon, CRNP, breast surgery specialist at the Lankenau Medical Center in Pennsylvania.

Maintain detailed records of

all medical bills, insurance claims and correspondence.
This can help track expenses and resolve disputes with insurance companies. Many hospitals and cancer treatment centers offer financial assistance programs.

These programs can help cover costs not paid by insurance, including co-pays and deductibles.

### MANAGING COSTS WITHOUT INSURANCE

If you lack insurance, investigate available coverage options. Medicaid provides health coverage for low-income individuals, and the criteria vary by state. The Affordable Care Act (ACA) marketplace offers plans that may be subsidized based on your income.

Numerous organizations

provide financial aid to breast cancer patients. The American Cancer Society, Susan G.
Komen Foundation, and CancerCare offer grants and assistance programs to help cover treatment costs.

Many hospitals have financial aid programs for uninsured patients. These programs can reduce or even eliminate medical bills based on your financial situation. Participating in clinical trials can provide access to cutting-edge treatments at no cost. Clinical trials often cover the cost of medications and related health care expenses.

### TIPS FOR LOWERING MEDICATION COSTS

Whenever possible, opt for generic medications instead of brand-name drugs. Generics are significantly cheaper and equally effective.

Many pharmaceutical companies offer prescription assistance programs for patients who cannot afford their medications. Programs like the Partnership for Prescription Assistance can help you find these resources.

Medication prices can vary widely between pharmacies. Use online tools like GoodRx to compare prices and find discounts. Doctors often have samples of medications. Ask your oncologist if they can provide samples to help reduce your costs.

If you take a medication regularly, ask your doctor to prescribe a 90-day supply. Many pharmacies offer discounts for buying in bulk.

# Understanding Pathology Reports

Receiving a breast cancer diagnosis is a challenging and emotional experience, and interpreting the pathology report can be daunting.

This critical document contains detailed information about the cancer, which guides treatment decisions.

#### **KEY COMPONENTS**

Patient information: This section includes your name, date of birth and medical record number to ensure the report is correctly matched to you.

#### **Specimen information:**

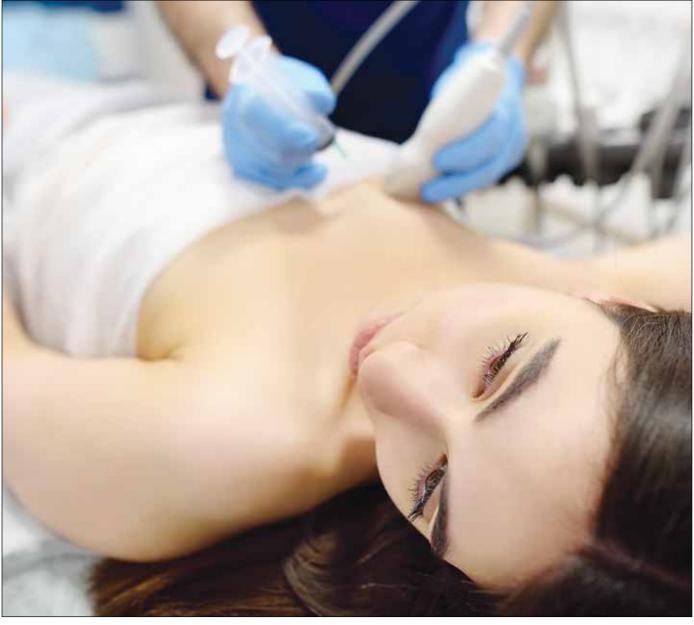
Details about the tissue sample, such as where it was taken from (e.g., biopsy, lumpectomy, mastectomy), the date it was collected, and the type of procedure performed.

**Diagnosis:** This is the most crucial part of the report, providing the specific type and characteristics of the breast cancer.

#### **DETAILED ANALYSIS**

The pathology report will specify the type of breast cancer. The most common types are:

- Invasive ductal carcinoma (IDC): Cancer that starts in the milk ducts and invades surrounding tissue.
- Invasive lobular carcinoma (ILC): Cancer that begins in the lobules (milk-producing glands)



© ADOBE STOCK

and spreads to nearby tissues.

Measured in centimeters, tumor size helps determine the stage of cancer. Generally, smaller tumors have a better prognosis. The tumor grade describes how much the cancer cells resemble normal cells under a microscope. The grade can be:

- **Grade 1 (low):** Cancer cells look somewhat like normal cells and tend to grow slowly.
- Grade 2 (intermediate): Cancer cells look more abnor-

mal and grow moderately.

• **Grade 3 (high):** Cancer cells look very different from normal cells and tend to grow quickly.

Margins indicate whether cancer cells are present at the edges of the removed tissue.

- Negative (clear) margins: No cancer cells at the edges.
- **Positive margins:** Cancer cells are present at the edges, which might mean more surgery is needed.

Lymph node involvement indicates whether cancer has

spread to the lymph nodes. Node-negative means no cancer in the lymph nodes. Node-positive indicates that cancer is present in the lymph nodes, indicating a higher likelihood that it has spread.

Tests to determine the presence of specific receptors on the cancer cells help discover the presence of estrogen receptors (ER), progesterone receptors (PR) and HER2 status. Positive ER and PR status means the cancer cells may

receive signals from these hormones to grow, and hormone therapy may be effective. HER2-positive cancers have higher levels of a protein that promotes cell growth and may respond to targeted therapies like trastuzumab (Herceptin).

The Ki-67 marker indicates the proportion of cancer cells that are actively dividing. Higher Ki-67 levels suggest more aggressive cancer.

### ADDITIONAL INFORMATION

Pathologist's comments are detailed observations and any additional findings the pathologist considers important. The summary and recommendations section may include suggestions for further testing or treatment options based on the findings.

#### **WHAT TO DO NEXT**

Your oncologist will explain the findings and how they affect your treatment plan. Don't hesitate to ask questions or request clarifications. If you're unsure about the report or recommended treatment, a second opinion can provide additional perspectives and reassurance.

Understanding your pathology report empowers you to make informed decisions about your treatment and care. By familiarizing yourself with its components and discussing the details with your healthcare team, you can navigate your diagnosis with greater confidence and clarity. Knowledge is power, and staying informed is a vital part of your journey.

# A Promising Frontier

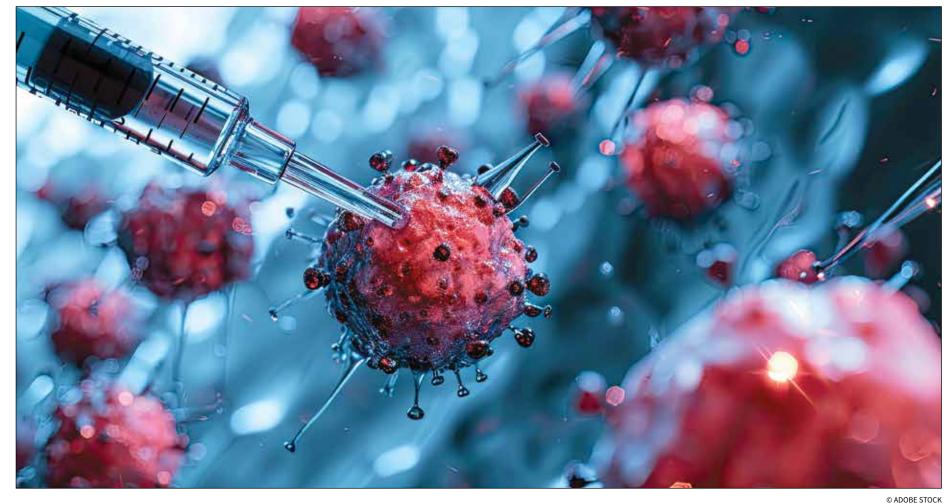
Immunotherapy
has emerged as a
groundbreaking
treatment for
various types of
cancer, including
breast cancer.

Unlike traditional therapies such as chemotherapy and radiation, which directly target cancer cells, immunotherapy harnesses the body's immune system to recognize and fight cancer. This innovative approach offers new hope for patients, especially those with advanced or treatment-resistant forms of the disease.

The immune system is the body's natural defense mechanism, constantly patrolling for and eliminating foreign invaders like bacteria and viruses. Cancer cells, however, often develop ways to evade immune detection, allowing them to grow and spread unchecked. Immunotherapy enhances the immune system's ability to detect and destroy cancer cells. This can be achieved through various mechanisms, including immune checkpoint inhibitors, which block proteins that prevent immune cells from attacking cancer.

## FDA-APPROVED IMMUNOTHERAPY DRUGS

The FDA has approved two notable immunotherapy drugs for the treatment of breast



© ADOBE STOCK

cancer: Jemperli (dostarlimab) and Keytruda (pembrolizumab).

Jemperli is an immune checkpoint inhibitor that targets the PD-1 receptor on immune cells. By blocking this receptor, Jemperli enhances the ability of the immune system to recognize and attack cancer cells. It is specifically approved for patients with mismatch repair-deficient (dMMR) or microsatellite instability-high (MSI-H) tumors, which are more likely to respond to immunotherapy. Specialized testing of the tumor tissue identifies these genetic markers.

Keytruda is another

immune checkpoint inhibitor that targets the PD-1/PD-L1 pathway, preventing cancer cells from evading immune detection. Keytruda has shown effectiveness in treating triple-negative breast cancer (TNBC), a particularly aggressive form of the disease. It is approved for use in combination with chemotherapy for patients whose tumors express the PD-L1 protein, as determined by an FDA-approved test. Keytruda is also approved for high-risk early-stage TNBC in combination with chemotherapy as neoadjuvant treatment and then continued as a single agent as adjuvant treatment after surgery.

## DETERMINING WHETHER IMMUNOTHERAPY IS RIGHT FOR YOU

Determining whether immunotherapy is suitable for a breast cancer patient involves several factors:

Biomarker testing: The presence of specific biomarkers such as PD-L1 expression, dMMR, or MSI-H status can indicate a higher likelihood of response to immunotherapy. These biomarkers can be identified through tissue testing.

Type of breast cancer: Immunotherapy has shown particular promise in treating certain subtypes of breast cancer, such as triple-negative breast cancer. The type and stage of cancer play a crucial role in treatment decisions.

The patient's treatment history, including previous responses to other therapies, can influence the decision to use immunotherapy. It is often considered for patients who have not responded to traditional treatments.

A patient's overall health and ability to tolerate potential side effects are important considerations. Immunotherapy can cause immune-related side effects that need to be managed carefully. Consulting with a health care provider is essential to make an informed decision about whether immunotherapy is the right course of treatment.

# Walking Can Reduce Fatigue

Fatigue is a common and debilitating side effect of chemotherapy for breast cancer patients.

Recent findings presented at the American Society of Clinical Oncology (ASCO), however, reveal a promising strategy for mitigating this issue: Walking.

According to the study, women undergoing chemotherapy for early stage breast cancer who engaged in low to moderate-intensity walking experienced significantly less fatigue.

The study focused on women who walked at a low intensity (less than 2.5 mph) for 2.5 to 4 hours per week or at a moderate intensity (2.6–4.5 mph) for about 1 to 2.5 hours per week. Remarkably, these women were 43% more likely to report reduced fatigue compared to those who did not engage in regular walking.

## THE CHALLENGE OF EXERCISE DURING CHEMOTHERAPY

Exercise is widely recommended to help alleviate fatigue among cancer patients. The standard guidelines suggest 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity exercise per week. However, meeting these recommendations can be particularly challenging for individuals undergoing chemotherapy due



© ADOBE STOCK

to the physical and emotional toll of the treatment.

The study's findings demonstrate that even low-intensity exercise can make a substantial difference in managing fatigue. The women in the study did not need to engage in strenuous activities to experience benefits. Simply walking at a leisurely pace for a few hours a week was enough to improve their energy levels and overall well-being.

For women receiving chemotherapy, these results

provide a more attainable exercise goal. The prospect of engaging in vigorous physical activity can be daunting, but knowing that lower-intensity walking can also be effective might encourage more patients to incorporate this manageable form of exercise into their routines.

## TIPS FOR INCORPORATING WALKING INTO YOUR ROUTINE

Begin with short walks and gradually increase the duration

as you feel more comfortable. Even 10 minutes a day can make a difference. Aim for a cumulative total of 2.5 to 4 hours of walking each week at a pace that feels comfortable to you. You don't need to reach this goal immediately; work up to it over time.

Having a friend or family member join you can make walking more enjoyable and provide additional motivation. Pay attention to how you feel during and after walking. If you experience any pain or excessive fatigue, reduce the intensity or duration of your walks. Consistency is key. Incorporate walking into your daily routine, whether it's a stroll around your neighborhood, a walk in the park or even laps around your house.

Mix up your walking routes to keep things interesting. Exploring new paths or parks can make your walks more enjoyable. Consult your health care providers before starting any new exercise regimen to ensure it is safe and appropriate for your individual circumstances.

# Talking to Your Oncologist

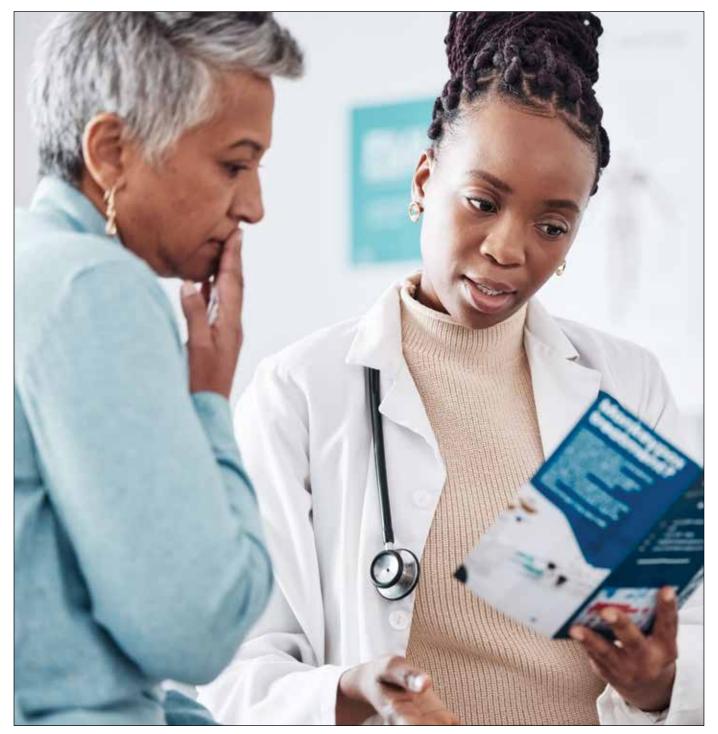
Researchers
have recently
found effective
communication
makes a difference
in whether a breast
cancer patient
survives.

A recent survey conducted among nearly 1,000 members of the Breastcancer.org community highlights the significant effect of communication quality on whether a patient adheres to the cancer treatments. According to the survey results, patients who perceived their providers as poor communicators were less likely to follow through with their prescribed treatment plans.

These findings were presented by Dr. Fumiko Chino, a radiation oncologist at Memorial Sloan Kettering Cancer Center, during the 2024 American Society of Clinical Oncology (ASCO) meeting.

#### **SURVEY INSIGHTS**

The survey revealed clear, empathetic communication is a cornerstone of effective patient-provider relationships. Dr. Chino emphasized that when patients feel misunderstood or inadequately informed, their trust in the medical team diminishes, leading to reduced compliance with treatment protocols. This non-adherence can have severe consequences,



D ADOBE STOCK

potentially affecting the prognosis and overall survival rates of breast cancer patients.

Effective communication involves the transfer of information and the emotional support and understanding that patients need during their cancer journey.

Patients reported feeling

more confident and committed to their treatment plans when their oncologists took the time to explain their diagnosis, treatment options, potential side effects and expected outcomes comprehensively.

Conversely, those who experienced rushed consultations

or felt their concerns were dismissed were more likely to skip appointments, delay treatments or discontinue therapy altogether.

## TIPS FOR IMPROVING COMMUNICATION WITH YOUR ONCOLOGIST

Make a list of questions and

concerns before your appointments. This ensures all pertinent topics are addressed, and it helps keep the conversation focused and efficient.

Sharing fears, symptoms and side effects honestly allows oncologists to provide the best possible care. It's essential to communicate openly about any difficulties in adhering to treatment plans.

Medical jargon can be confusing. Patients should feel empowered to ask their oncologists to explain complex terms or procedures in simpler language. Writing down important information or recording the conversation (with the oncologist's permission) can help patients remember details and review them later.

Having a trusted friend or family member present can provide emotional support and help in understanding and recalling information discussed during the appointment. Patients should ensure they understand the next steps in their treatment plan before leaving the appointment. If instructions are unclear, they should ask for clarification.

Many health care providers offer online portals where patients can send messages, request prescription refills and access test results. These can be valuable tools for ongoing communication. Taking an active role in one's conversations with oncologists can significantly improve one's health care experience and outcomes.