Clinical Trials In A New Age: Part 2 How You Can Connect

National Webinar Transcript February 25, 2015

Presented by:



This program is made possible with generous support from AstraZeneca, BioMarin, and Provectus Biopharmaceuticals, Inc.

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Kevin:

Good evening everyone and welcome to today's program. At this time, all participants are in a listen-only mode. Later, you will have the opportunity to ask questions during the question and answer session. You may register to ask a question at any time by pressing the "star" and "1" on your touchstone phone. You may withdraw yourself from the queue by pressing the "pound" key. Please note this call may be recorded. I will be standing by if you should need any assistance. It is now my pleasure to turn the conference over to Ms. Shera Dubitsky. You may begin.

I. Introduction

Shera Dubitsky:

Thank you, Kevin. Good evening everyone and welcome to Sharsheret's National Teleconference "Clinical Trials in a New Age: How You Can Connect." My name is Shera Dubitsky and I am the Director of Navigation and Support Services for Sharsheret.

We would like to thank AstraZeneca, BioMarin, and Provectus for their ongoing support and for sponsoring tonight's program.

Sharsheret is a national not-for-profit organization supporting young Jewish women and their families facing breast cancer. Our mission is to offer a community of support to women of all Jewish backgrounds diagnosed with breast cancer or at an increased genetic risk, by fostering culturally-relevant individualized connections with networks of peers, health professionals, and related resources

I want to encourage all of you on the call tonight to either listen to or download the transcript from part one of this series on clinical trials where we discuss the history, myth, and truths about clinical trials.

As I mentioned in the first webinar, in the general population, one in 345 individuals carry the BRCA mutation. For those of Ashkenazi Jewish descent, meaning, those whose ancestry is traced back to Eastern Europe, that number is one in 40. This is astounding. Those of Ashkenazi Jewish descent are 10 times more likely to carry the BRCA mutation than those in the general population. Given this number, Jewish women and their families qualify and benefit from clinical trials where the focus is on the BRCA mutation.

For those of you with the BRCA mutation, finding clinical trials may feel challenging and Dr. Domchek will be discussing this in her presentation in a moment.

A study was published in the Journal of Medical Ethics in 2013 that looked at the attitudes of Jews towards clinical trials and whether they are influenced by Jewish teachings. The research showed that participants' attitudes were influenced in a variety of ways; for example, by Jewish teachings on the overriding importance of preserving life, the need to avoid risk affecting life and health while taking risks to preserve life, and the Jewish value to help others.

In Judaism, Pikuach Nefesh describes the principle in Jewish law that emphasizes the value of preserving life. This refers to our own life as well as the lives of others. By participating in clinical trials, you are fulfilling this commandment of Pikuach Nefesh both for yourself and for future generations.

For those of you who observe Jewish law, there may be some considerations that you would want to think about prior to committing to a clinical trial.

For example, to adhere to the schedule of the clinical trial, it may be necessary to undergo treatment on a Jewish holiday that falls during the week or on the Sabbath. If this is a concern for you, you may want to consider staying within walking distance to the hospital where you are receiving treatment or speak with your Rabbi about permissibility to travel for treatment.

In some cases, it may be necessary to eat prior to receiving treatment even though it may be a fast day where eating is prohibited. For those of you who have this concern, coordinate a game plan with your clergy and treatment team.

Sometimes, you may need to travel to participate in a clinical trial. For those of you who go away for the Jewish holidays, you may need to coordinate with your study team or make different arrangements.

It can feel emotionally challenging to be away from your family anytime, but particularly over a holiday, and particularly because it's another reminder of how the BRCA mutation and/or cancer can impact your life. Anticipate that your emotions may be heightened at this time and turn to your friends and family to coordinate logistics such as child care and meals to make this easier for you.

Most importantly, remember that Sharsheret is here if you need us. If you experience any of these concerns, feel free to email us, call us, and we can connect you with helpful resources and support.

We have two speakers this evening. Our first speaker will address how to research, gain access, and participate in clinical trials. Our second speaker will share her personal story about participating in BRCA clinical trials. Following our second presenter, we will have time for questions and answers, so without further ado, I would like to introduce our first speaker, Dr. Susan Domchek.

Since joining the Abramson Cancer Center in 2001, Dr. Domchek has committed herself to pursuing noble research in breast and ovarian cancers particularly related to genetic factors contributing to their development. Dr. Domchek is the Basser professor of oncology at the University of Pennsylvania, Executive Director of the Basser Research Center for BRCA, and the Director of the Mariann and Robert McDonald's Women's Cancer Risk Evaluation Center at the Abramson Cancer Center. She is also a senior fellow at the Leonard Davis Institute of Health Economics.

Dr. Domchek has authored and co-authored more than 150 articles appearing in scholarly journals and serves on a number of editorial review boards. Dr. Domchek, the floor is yours.

II: Researching, Accessing, and Participating in Clinical Trials

Dr. Domchek:

Thank you very much. I really appreciate the opportunity to discuss this important topic today.

First, I want to just recap some of the basic principles that were discussed on the first webinar regarding clinical trials. The basic purpose of cancer clinical trials is that these are research studies that are designed to learn how to better screen, treat, and prevent cancer. Some studies can also be registries or what we call biobanking studies where samples are preserved for future use to investigate things like early detection markers or prognostic markers.

Today, we're really going to be focusing on drug treatment trials for cancer where the goal is to find new medications which work better than what we currently have. As many of you on the call know, although we do have drugs for breast and ovarian cancer, they are not good enough, and once people have advanced cancer, we still

do not cure the majority of patients, so we always need to be looking at improving what we're doing.

Clinical trial patient participation is not very common. Fewer than 3% of people participate in clinical trials although about 20% of patients at any given time might be eligible for one. There are certain groups that are less likely to participate or be asked to participate in trials, and these can include some minority and medically underserved groups. This may be for a number of reasons, and your doctor will not always mention clinical trials to you. That may be because there's no good trial for your particular situation, that may be that there is not a trial at the medical facility where you're being seen, but it's really always appropriate to ask, "Is there a clinical trial that's available to me and is there a trial here or is there a trial somewhere else?"

Today, we're going to be covering the basics of the following topics: finding a clinical trial, understanding what these trials are about, some of the challenges associated with it, and a list of questions that you can consider asking when a clinical trial is presented to you. I'll be discussing some special considerations for BRCA 1 and 2 carriers particularly, and describe how this can be an effective strategy.

In order to find a clinical trial, the first thing is always to ask your local medical oncologist, and again, don't hesitate to ask. As you know, your oncologists are nice people, but they're busy and sometimes, it doesn't occur to them to think about trials other than ones immediately in front of them.

In addition, although you might live outside of a major academic medical center and it maybe a little bit of a drive, it's always not a bad idea to connect with that local academic medical center. That doesn't mean you won't be cared for by your local oncologist, but the larger academic centers sometimes have a bigger portfolio of trials.

In addition, there are some websites that you can go to, to look for trials. They include clnicaltrials.gov, which I am going to show you in a moment, and then, there are some other resources including a resource that we have on our website at basser.org, and also at Facing Our Risk of Cancer Empowered or FORCE.

Clinicaltrials.gov has a relatively easy search tool. You can go on to this website, clinicaltrials.gov. You type into the little search box

something like "BRCA 1 and ovarian cancer," and hit the search button. What you'll get after that is a list of different studies that are specific to that topic. You can filter these in a number of ways including just filtering on "recruiting" studies.

It's actually very easy to do this, but we've given an example here of what some of these search functions might look like for a 40-year-old woman with a BRCA 1 mutation who's looking for trials related to ovarian cancer.

You can see that sometimes it will say it's not yet recruiting, the study is not open. Active but not recruiting usually means that the study has completed enrolling patients, but hasn't published results. And the one below, active not recruiting, has results that are completed studies where there's actually been a publication. You are looking for the recruiting studies.

You can also use this website to look on a map and search by location. And as you can see, this is a really nice feature because depending on where you live, you can get a sense of where in different states there may be clinical trials for you.

When you identify a trial and you want to look more closely at it, you can click on the link and it will show you some basic aspects of the trial. There will be eligibility criteria and clinical trials are highly structured so that there are specific criteria that you must meet in order to be eligible for a trial. This gets in the weeds quite a bit, and so, we don't expect people to be looking at clinicaltrials.gov in deciding whether they're eligible or not.

These are things that your local oncologist can look at with you or all the websites have contact information for the specific trials. You can always call and get a better sense of this. Sometimes, you're able to look at it and tell, but a lot of the times, it can get a little tricky.

In addition, the basic design of the study is always listed and gives you some basic information about what will be expected of you. Again, a lot of this is just about identifying clinical trials, and there's always going to be contact information for each open study, so you can call and talk to a research nurse or research coordinator.

There are some other places to go to and I've given you these other two websites to look at. Clinicaltrials.gov, by far, is the most comprehensive, but it can sometimes be a little bit overwhelming to look at. Again, your local oncologist can also help you with this and I frequently will have patients where I would just sit down and go through clinicaltrials.gov with them if our local site doesn't have a research study for them.

What about the types of clinical trials that are available? The basics of clinical trials is that there's always eligibility requirements. For this, for example, some studies will specifically require that individuals have mutations in BRCA 1 or 2, that's one of the eligibility criteria.

Another common eligibility criteria is to have what we call measurable disease. That just means that when the scans are done, like CT scans of the chest or abdomen, that you can put a measuring tape on a lesion an actually measure the size. It may sound like a funny comment, but bone disease, cancer that's in the bone, is not considered ,measurable by the various criteria and an elevated CA125 in ovarian cancer without something you can put a measuring tape on is not considered measurable either. Depending on the study, that might be a requirement or it might not.

Again, we don't expect patients to screen the eligibility criteria themselves. It's just so that you understand that different trials are looking at different things, and that there is a purpose to the eligibility criteria. It's not capricious, although sometimes, it might feel like that.

There are several clinical trial phases and I'm going through those. And then, there's the process of informed consent and the Data and Safety Monitoring Board, which I'll discuss.

Again, this is an example of eligibility criteria. They'll say the age, gender, disease stage, prior treatment, and other medical factors or the common ones. The top example is a treatment trial and the bottom one is a study for looking at different types of genetic testing on a research basis. Again, just as examples.

For the clinical trials, there are three phases of clinical trials. Phase one trials examine toxicity. That's the primary objective of the study looking at side effects related to medications, and in addition, also finding the dose of the medication that is the correct dose and what we call the maximum tolerated dose.

The phase one clinical trials are often done in various tumor types. They're not restricted to a single type most commonly. In addition,

phase one clinical trials can be what we call "first in human," the first time that this drug is given to human beings. However, that's not to say that there hasn't been extensive research done on these drugs beforehand, and there's a lot of pre-clinical work that's done before these drugs are given to people. Sometimes, phase one trials involve drugs that we know about, but are given in combination for the first time.

Phase two trials are larger studies and the drug or treatment is given to a group of people to see if it's effective and it's usually given in a specific tumor type. Usually, a phase one trial can be lots of different tumors, but a phase two trial maybe done just in breast cancer. It's looking to see toxicity, but it's also looking to see if there's a signal that the medication works in the particular group.

Sometimes, phase two trials are randomized, but often, they're not, and I'll talk more about randomization on the next slide.

Phase three trials are the gold standard clinical trial and what is usually required for a drug to be approved by the Food and Drug Administration. In a phase three trial, the drug or treatment is given to large groups of people to confirm that it's effective and to compare it to commonly used treatment.

This is an important point that in the phase one trial, you've established that it's safe, and in the phase two trial, you're excited because it looks like you may be getting the effect you want, but in order to know that it's better than what we already have, you have to do a phase three trial and compare it to that standard therapy. This is considered the gold standard of knowing whether a drug is effective or not, a study that is randomized and compared to the standard of care.

Randomization means that there is an experimental arm and a standard of care arm, and neither you nor your doctors get to pick. Large phase three trials usually have a central process of randomization. As physicians, we submit the information, the patient's, to a central registry and a computer assigns which arm of the study the person is on.

Sometimes, phase three trials are blinded. In this case, during the study, an individual on a study doesn't know what treatment they're getting. This is not always true. Sometimes, it's very clear that individuals are randomly assigned to drug A versus drug B, but you know which drug you're getting. But sometimes, you randomize to

a drug A and drug B, and you're not sure which one you're getting. That can be effective in certain types of studies. They will always tell you what the design of the trial is and whether or not it's blinded.

One question that's frequently asked is if people are given sugar pills. I will tell you that sugar pills can be given sometimes, but only in combination with the standard of care drug. To say that in a different way, that drug, the regimen A, might be chemotherapy plus a new drug, and the regimen B might be chemotherapy plus a sugar pill, but sugar pills alone are really not given in this day in age in chemotherapy trials.

I'm often asked how do I feel about phase three trials when I'm randomly assigning women, my patients, many of whom I've known for many years, to a drug that people hope is better compared to an old drug, and how do we feel about that. The commonly used term that we talk about is Equipoise which is that we don't know that one is better than another. If we knew for sure that one was better than the other, then we wouldn't need to do the trial, but we are not always right even when we think that one drug might be better than another. It's important to do that randomized trial, compare them head to head to know whether we're making progress or not.

There have been plenty of clinical trials done over many years in which the "new" better drug was no more effective and yet more toxic, so we didn't help people, we hurt people with the new drug. That wasn't because we weren't trying. It's just that that's the way it worked when we did the randomized trial. It's really important to realize that when we do these studies, we really are looking to see and make sure it is something better and less toxic, which is really the ideal situation.

In the process of informed consent, the information is provided to eligible patients and the objective of the study is reviewed as well as the potential risks and benefits. The anticipated side effects of the medication are reviewed. The process of withdrawing from the study is also stated.

It's extremely important to know that when you sign up for a clinical trial, you are not signing your name in blood and that you can always withdraw from the study at any time and for any reason. There does not need to be an explanation. It's always most important that your doctor is taking care of you and that is always the priority. In general, informed consent forms are provided with written consent.

The Institutional Review Board is there for every clinical trial and the mission of this is to protect the rights and welfare of human resource subjects. They facilitate the human resource by looking and reviewing other research that's being done, and provide guidance and support to the research community. IRB basically is there to keep patients safe during clinical trials.

Data and Safety Monitoring Boards are independent committees set up specifically to monitor data throughout the duration of the study and to determine if the study should continue or not. Data and Safety Monitoring Boards have specific times in which they review data and they can stop studies when one regimen looks either more toxic than the other regimens by pre-defined criteria, or they can stop a study if one of the regimens looks definitively worse than the other regimen, so it's important to realize their studies will not continue indefinitely if they are not fulfilling their aims. This is all pre-determined, it's written into the protocols, and there are stopping rules that are put into place.

What are some of the challenges of clinical trials? You've heard a little bit about this already.

Costs are always important to review. The medications, especially the experimental medications, are really always covered by the study. However, standard medications may not be and nor are supportive care medications. For instance, nausea medications that you might need during the study may not be covered by the study and often aren't. Physician visits, labs, and CT scans are usually billed to your insurance and usually covered by them, and the consent form should definitely detail anticipated cost to you.

As has already been mentioned, sometimes you can't find a study that's close to you. If you can't find a study in your location, you need to decide: Are you going to travel? Where are you going to stay? How many visits are required and how could that work? There are some studies where the travel can be paid for and studies at the National Cancer Institute, for instance, they can cover the cost of travel.

In addition, if you're going to another hospital and you're out of network, you could incur cost due to out of network cost and copays. You need to also ask your study team whether scans can be performed at the local institution which is in network and then reviewed at the center in which you are having the study done. Again, the research nurses and study team should be able to answer all these questions for you.

The additional challenge of clinical trials that I alluded to earlier is that you sometimes can't find trials at the right moment in time, and that can be very frustrating, meaning that there is a window of clinical trial where you are eligible for a trial or you're awaiting eligibility and then a study will close, and another will re-open, but you're trying to time this with your other therapies.

The next couple of slides show some questions to ask. I'm not going to read all of these in detail because there are quite a number of them. Some of the questions to ask about clinical trials, again: What's being studied? Why did they think this might work? Why do they think that this should be better than standard of care? Has it been given to people before? What are the interventions that will be done? How will we know it's working? And very importantly, the side effects and potential benefits compared to current treatment. It's important to realize, though, that the direct comparison to current treatment is the reason that the study is being done.

This is a longer list, but basically gets into that same issue of what am I required to do? How often do I need to come into the study? How long it will last? What about the cost of the trial? In addition, most studies have at least some long-term follow up usually by phone even after the study is completed and whether the study will provide the results to you, and who is going to be your study team, who is going to be taking care of you.

There are some special considerations for individuals with BRCA 1 and 2 mutations. You've already seen a version of this slide before in the Ashkenazi Jewish community. The chance of having a BRCA 1 or 2 mutation are much higher and 1 in 40 individuals of Ashkenazi descent has a gene mutation, and screening for BRCA 1 and 2 mutations in women with breast or ovarian cancer of Ashkenazi descent is recommended.

These mutations carry significant increased risks of various cancers, and as you know, both men and women can carry these mutations and the mutations can be passed on to children as well.

When you are looking for studies specific to BRCA 1 and 2 mutations carriers, it's important to realize that one way to do this is to look in that clinicaltrials.gov search engine that I showed you and

type in "BRCA 1 and 2," but another way to look at this is to look at a specific drug type rather than typing in "BRCA 1 or 2."

For instance, there can be trials of a certain type of medication, and we'll be talking about PARP inhibitors in a minute, where the initial studies weren't restricted to BRCA 1 and 2 carriers. If you wrote it in that way, you might not have found the study. This is where, again, your local oncologist should be helping you out. What types of trials might be good for my specific situation?

Because BRCA 1 and 2 mutations carriers with cancer are a smaller population, in the past it could be hard to find these studies. Right now, there are many more trials available than there were before, but again, that doesn't mean that you can always find the right trial at the right time.

Just to give you an example of how this can work, there were these drugs that are called PARP inhibitors, and one of these medications is called the Olaparib. There are many other PARP inhibitors, but this is just to give you an illustration of how these studies work.

Olaparib was initially tested in phase one trials. It moved on to phase two trials. Then, more recently, a study that we published with around 300 patients with BRCA 1 and 2 related advanced cancers that were still growing despite standard treatments. This involved 13 centers around the world in six different countries, just to give you an idea of the reach of some of these clinical trials.

In this study, individuals had had heavily pre-treated cancers and they were mostly ovarian cancer patients although also breast, prostate, and pancreatic cancer patients. Overall, in individuals receiving the drug, there was a significant decrease in the tumor size in about 30% of patients overall, and in another 40% who had what we call stable disease or the tumor didn't grow.

Specifically in ovarian cancer patients, the FDA actually looked at the ovarian cancer patients in this study that had had at least three or more prior treatments. Because of a response rate of around 34%, again, response rate just means that the tumor is shrinking, the FDA approved Olaparib for the treatment in this population. For women who have BRCA 1 or 2 mutations and have had at least three types of chemotherapy for advanced ovarian cancer, this medication is now commercially available.

This is just an example. With the PARP inhibitors, we still have a long way to go. The approval is only in a very narrow group of patients right now. These are not medications that are curing everybody, but it's a first step, and what we want to do is continue to develop ways to combine drugs so that we are getting very long term benefits and we're curing more patients because that, at the end of the day, is the goal. But the availability of Olaparib for at least a subset of women is very exciting and there are many clinical trials that we are waiting for right now involving PARP inhibitors and hoping that we will get additional indications.

There are PARP inhibitors studies in various stages of ovarian cancer and there are PARP inhibitor studies for metastatic breast cancer, and also in the adjuvant setting, so for BRCA 1 and 2 mutation carriers who have been diagnosed with early stage breast cancer, there's a randomized trial in that setting as well. And there's also PARP inhibitors studies for BRCA 1 and 2-associated pancreatic cancer. I'm talking about PARP inhibitors, but they are not going to be the only drugs. It's just an example for today.

The only way we make progress is via clinical trials, and so, very much, feel free to ask about clinical trials, try to find clinical trials, and it really is important for patient's, advocates, and academics to all work together to get this right and to advance treatment.

I think that's my last slide, so I'd be happy to take questions at the end. Thank you.

Shera Dubitsky:

Great. Thank you, Dr. Domchek. Many women have voiced concerns that researching and gaining access, and participating in clinical trials feels daunting and overwhelming, and I think that you offered very concrete steps that demystify the process. A lot of times, energy is needed to investigate and participate in studies, and I think that you offered tips to make this process more manageable. And I think, also a big take away is you don't have to do it alone. You can rely heavily on your treatment team to help guide you through the process.

Our next presenter, Rachel, is a Sharsheret caller. Rachel participates in Sharsheret's Embrace program for women living with advanced cancer and will share her thoughts and attitudes towards clinical trials. In part one of this series on clinical trials, Rachel shared her decision making process as she considered participating in the study. Tonight, she will share her personal

experience once she had already decided to participate in the clinical trials. Rachel, the floor is yours.

III: Participating in a BRCA Clinical Trial

Rachel:

Good evening, everyone. My name is Rachel and I am 48 years old. I am living with metastatic breast cancer. If you participated in the webinar on clinical trials in December, you may remember my story. If not, here are a few of the takeaways from my presentation.

Clinical trials, number one, should be considered a first choice and not a last choice approach to treatment. Number two, participating in clinical trials for the past three years has provided me with a customized approach to treatments based on my specific BRCA and triple negative status and has allowed me to contribute to the cancer research community. Number three, having many options for treatment or a bag of tricks is optimal in the fight against cancer.

Early in my cancer diagnosis, Rochelle Shoretz explained to me that a person needs a bag of tricks. The more tricks or the more drug options you have, the better your chances are to fight the disease and potentially live longer. With her guidance, I began my metastatic journey looking for a bag of tricks. It just so happened that my bag of tricks became a series of clinical trials.

During my journey for available treatments, I did not set out to explore clinical trials nor did I Google the triple negative breast cancer websites, government, or hospital websites to do my research. I was fortunate that when I pressed my local oncologist for treatment options, he explored the trials available at his hospital, and then, he helped me set up an appointment in Boston with a colleague who is beginning a very promising clinical trial in BRCA triple negative breast cancer research.

The clinical trials seemed like the best option for me at the time because it was tailored to my specific type of cancer. It was proven to be safe and effective with patients enrolled, and I found comfort in knowing that I would be among the first to potentially benefit.

Now, standard chemotherapy was always an option, but I took a very measured, again I say measured, risk to try a new treatment with the understanding that I could always try standard chemo down the road. As I learned, choosing the treatment path or whether or not to participate in a clinical trial can be a very difficult situation. This is a question only you and those close to you, and

your team of doctors familiar with your situation, can consider an answer together.

First, you need to begin the decision-making process by taking into consideration, I think, two pieces of information. One, your complete medical diagnosis including the type of cancer you have and how advanced it is, and an honest assessment of your prognosis. In other words, if you're treated with the current standard therapy, how effective is it likely to be? Then, you need to take into account potential benefits and risks, and these should be done with any new treatment.

Some of these potential benefits of clinical trials might include, obviously, access to a new treatment that is not available to people outside the trial and a research team that will watch you closely. I find that my travels to Boston, they're timely. It requires a lot, but I have a team watching me very closely and I usually become a discussion on Monday morning meetings.

If the treatment being studied is more effective than the standard treatment, you may be among the first to benefit. That's another potential benefit. Another one is the trial may help scientists learn more about cancer and help people in the future.

Potential risks might include side effects that are not expected, that could be worse than those of a known standard treatment. You may be required to make more visits to the doctor than if you were receiving standard treatment, and therefore, you may have extra expenses related to these visits such as travel and child care costs. You may need extra tests and some of these tests could be uncomfortable or time consuming. Even if a treatment has benefits to some patients, it may not work for you.

Those are potentially some risks that are involved. But once you've weighed your options and you've agreed to participate in a trial, you will be given a protocol or a study plan, and a consent form. The protocol form will state why the trial is being done, the lengths of the study, the risks, the benefits, the cost, the side effects, and required pre-screening. Pre-screening can include biopsies and blood work. That can require extra visits as well.

In general, your doctor will clearly go over all this information with your before you get started so that you will be very clear about what is expected and you can have a good idea of what time to carve out for yourself.

Clinical trials can be very time-consuming just like any cancer treatment. As many of you know, on a particular visit, things could run very smoothly with your treatment, your doctors are running on time. Other times, you could run into potential bumps along the road. There could be side effects that you weren't expecting or you could have white blood count issues which might require extra visits.

I guess the point is that over the past three years which I have been on the trial, more than once, you have to learn to be patient and flexible, and you need to carve out time for your treatment schedule. If you have that time, and you don't have a full time job or issues with child care, a clinical trial can work for you.

My kids are in high school, so I've made fighting cancer my number one priority. At present, my trial requires me to leave at 7:00 in the morning on an Amtrak train to Boston, and I return at 8pm in the evening. I do this once a month, and in coordination with my treatment, every six weeks, I'm required to have a scan and stay overnight. Fortunately, I have family in town so I could stay with them which helps with the cost and makes it more comfortable.

In my mind, the time that I spend being treated, the time that I spend with very wonderful doctors and potentially making a difference maybe in the cancer community by the information that doctors are learning from me, is a small price to pay for potentially life-saving treatments.

As you think about taking part in a clinical trial, you will need to consider the two types of costs associated with the trial, one is the patient costs and the other are the research costs. Patient costs are those related to treating your cancer whether you are on a trial or receiving standard therapy. These costs are often covered by your health insurance and obviously they include doctor visits, lab work, CT and other imaging tests.

Research costs are those related to taking part in the trial. Often, these costs are not covered by health insurance, but are covered by the trial sponsors. That would be, as Dr. Domchek said, the study drug, lab tests performed purely for research purposes, additional CT biopsy, and imaging tests solely for the trial.

Over the past three years, my research costs have been covered by my trial sponsor as I mentioned and my patient costs have been covered by my insurance obviously. I do have a deductible, if you want to call it that, and once that is met, then, the rest of the costs have been covered.

Lastly, it's often thought that clinical trials are a last resort, but they may, in fact, be a good way to begin your treatment and receive excellent care from the very, very start. If you find that a trial is right for you, you will have access to cutting edge medicine and health experts and constant monitoring on your progress.

Additionally, participation in clinical trials can contribute to the search for ways to prevent, detect, or treat the disease. I'd like to think that my participation in clinical trials will not only benefit my outcome, but will help those with the BRCA gene and triple negative breast cancer patients today and in the future. That is why I participate in clinical trials. Thank you.

Shera Dubitsky:

Rachel, again, thank you so much for your insights and for so generously sharing your experience. I suspect that your story will be helpful in shaping a woman's expectation once she joins a study.

We will now begin our question and answer period. Kevin, if you can please instruct the callers on how they can ask questions?

IV. Question & Answer

Kevin:

At this time, if you'd like you ask your question, please press the "star" and "1" on your touchstone phone. You may withdraw your question at any time by pressing the "pound" key. Once again, to ask your question, please press the "star" and "1" on your touchstone phone. We will pause a moment to allow questions to queue.

Shera Dubitsky:

Actually, Kevin, we did receive a couple of questions before tonight's teleconference, so I'll go ahead and ask them. Dr. Domchek, one question that came in, is there wiggle room within clinical trials? For example, for a woman who's having a hard time with side effects, it there a room for some changes in dosing? If a woman, has a conflict in schedule, let's say is travelling, has maybe a Jewish holiday, has some prior commitments, is there room to play around with the timing?

Dr. Domchek:

These are great questions. I'm glad these were brought up. In terms of the dosage, clinical trials have specific criteria for dose adjustments. For certain toxicities, dose adjustment is allowed and it's almost always true that there is dose adjustment allowance. That part of a clinical trial process is for the research nurse, the physicians, or study team to be asking how you are feeling and then, to make the necessary dose adjustments, so always ask about that.

Some dose adjustments, I know, are very determined, meaning, if you have a certain laboratory result, white blood cell counts level or a liver function test level, the dose adjustment must be made. Some things are very important for patient reporting. There is a dose adjustment allowed for fatigue. Fatigue isn't something that your study can measure. Fatigue is something that you need to report and tell people how you are feeling, so the necessary adjustments can be made.

Regarding schedule, it depends on how the protocols are written, but almost always there is wiggle room of a couple of days on either side. If I know ahead of time that somebody needs a specific time off, I can actually adjust the schedule even a couple of months in advance to make sure that that will hit properly because each month I will have a wiggle room of a few days.

We spend a lot of time in our clinic offices. We have the full calendar for the year actually taped to the desk because it is so important to be able to plot this out and determine that. Yes, look ahead, figure out when you will really need to be off that time. You will know the schedule now and you will often be able to work around it, and we try our very hardest to work around scheduling both for pleasure, for holidays, for all sorts of things. We want people to take their vacations. It's very important.

Shera Dubitsky:

Great. Thank you. Another question that came in, I think, was on the heels of one of the things that you have brought up, Dr. Domchek, and that was about people continuing to take medications that are working once the study concludes. Generally speaking, is that an option for people?

Dr. Domchek:

Yes. There was a clinical trial that ended years ago and I still have a woman on a PARP inhibitor for the last six years even though the trial is, if you will, over and the study results have been reported. It's really not in a company's best interest to withdraw drugs from patients who are doing well for all sorts of reasons you might

imagine. It is extremely rare that if patients are on a drug that is working, that when the study ends, that is stopped.

Now, it depends on the study. There are certain studies where, if it is in an adjuvant setting, adjuvant just means that all the cancer has been removed and now you are getting a therapy after it, those will often be a prescribed period of time. You will get a drug for a year and then it will stop. In patients with advanced cancer, generally speaking, we just continue those medications.

Shera Dubitsky:

Okay. We had a question that came in that said the person has a family history, has the BRCA analysis sequencing, and it all came back negative. Can results change over time?

Dr. Domchek:

Great question. There are two different issues here. One, do test change over time? The answer is yes, but results don't change over time. Everyone has BRCA 1 and 2 genes, and if those genes are tested and you are not found to have a mutation in those genes, retesting the same test won't give you a different answer. However, BRCA 1 and 2 testing has changed over time, and so, the devils in the details of what the test was that was done.

Some people, for instance, might have just had the common Ashkenazi Jewish founder mutations, we say. The way we look at that is that if genetic testing is looking for spelling error in a large book and BRCA 1 and 2 are these large books, that in the Jewish population, we start by looking at three pages because those are where the common spelling errors are.

If there's a strong family history, even if individuals are Jewish, we look at all the pages. We look at the whole book, but in 2006, a new test was brought forward which not only looked at the spellcheck of the whole book, but looked to see whether big chapters had been pulled out of the book or multiple chapters put in, and just like spellcheck won't notice that you repeated a paragraph 100 times, the old testing didn't notice that. That's one of the things, which is what type of test BRCA 1 and 2 testing did you have and you can go back to your provider and ask that.

The second issue is that we know BRCA 1 and 2 aren't the only genes. They are the most important, if you will, of the genes, and they are the most common ones that we detect, but there are some other genes, so it's important to review with a genetic counselor or your provider of what are the things you might be considering testing for.

Shera Dubitsky:

That's great. Thank you. Rachel, this is actually a great question. Can you give some strategies to manage the emotional ups and downs of participating in clinical trials? You had mentioned that you were in more than one clinical trial. What are some strategies in handling the emotional ups and downs?

Rachel:

That's a very good question and something, obviously, that I continue to work on. Obviously, when you see the results of some of these trials and they are working for you, you're very optimistic. Then, there can be times where a trial may not be working for you particularly and you might be kicked off a trial. That can obviously bring you to another point where you are very disappointed.

I guess, the bottom line is you have to be optimistic. I don't know any particular strategies in general, but you just have to be optimistic. You have to know that there are options out there for you, that every day is an important day, and you continue on, you continue living, you continue searching for something that can work for you.

I started this journey thinking that tomorrow was my last day and here I am, three years later and I have to find some wood, but I've had some tremendous shrinking. I feel excellent. I feel good. You have to trust your doctors, you have to ask questions, and you just have to go on living. That's really just my advice.

It's not an easy thing, but I think, living with cancer doesn't matter whether you're on a clinical trial or you're receiving standard treatment. I think that you have the same worries and I think you just have to find something that works for you and go with it, and ask questions, and continue living.

V: Conclusion

Shera Dubitsky:

I think that's a very hopeful message, Rachel, and I want to jump in to also address that question, and that is that's what Sharsheret is here for. We have resources. We have support. We are here side-by-side with all of you on your journeys to give you information, to give you resources, and to, most importantly, offer you support.

I think that this is a good place to stop. I want to thank both Dr. Domchek and Rachel for your time and your expertise, and your insights. I believe that tonight's discussion, again, demystified the

idea of clinical trials, and I hope that this is a springboard for further discussions with your doctors and treatment team.

You will be receiving an evaluation in your email box. Please take a few minutes to complete the survey. Your feedback is valuable to us, as we are committed to staying relevant by enhancing our programs to reflect the growing and changing needs of the women and families of our Sharsheret community.

Sharsheret's expertise is in young women and Jewish families through our 12 national programs, but we are open to offer support to all women and men regardless of background. I would also suggest going to Sharsheret's website. You can access the transcript and audio of both part one and part two of the webinar series, and also again I encourage you to look at some of the other transcripts of events and teleconferences that we have presented at an earlier time.

I would like to, again, thank AstraZeneca, BioMarin, and Provectus for generously sponsoring tonight's teleconference, and for recognizing and supporting the needs of families who are at high risks of carrying the BRCA mutation.

I would like to remind you to visit Sharsheret's website at www.sharsheret.org, or call us at 866-474-2774 to discuss tonight's topic or any other concerns that you are facing. Finally, Purim is coming up next week and we want to wish all of you a very happy Purim. Goodnight.

VI. Speakers' Biographies

Shera Dubitsky, M.Ed., M.A., is the Director of Navigation and Support Services at Sharsheret. She is a graduate of Columbia University and a doctoral candidate of Adelphi University Institute of Advanced Psychological Studies. Shera supports and connects newly diagnosed young women and those at high risk of developing breast cancer or ovarian cancer with suitable peer supporters, advances and develops programs addressing the unique needs of the young women and families of Sharsheret, and counsels individual members of the Embrace program for women living with metastatic breast cancer and recurrent ovarian cancer.

Susan Domchek, M.D., is the Basser Professor of Oncology at the University of Pennsylvania, Executive Director of the Basser Research Center for BRCA, and the Director of the Mariann and Robert McDonald's Women's Cancer Risk Evaluation Center at the Abramson Cancer Center. She is also a senior fellow at the Leonard Davis Institute of Health Economics. Since joining the Abramson Cancer Center in 2001, Dr. Domchek has committed herself to pursuing noble research in breast and ovarian cancers particularly related to genetic factors contributing to their development.

ABOUT SHARSHERET

Sharsheret, Hebrew for "chain", is a national not-for-profit organization supporting young women and their families, of all Jewish backgrounds, facing breast cancer. Our mission is to offer a community of support to women diagnosed with breast cancer or at increased genetic risk, by fostering culturally-relevant individualized connections with networks of peers, health professionals, and related resources.

Since Sharsheret's founding in 2001, we have responded to more than 47,000 breast cancer inquiries, involved more than 4,200 peer supporters, and presented over 250 educational programs nationwide. Sharsheret supports young Jewish women and families facing breast cancer at every stage--before, during, and after diagnosis. We help women and families connect to our community in the way that feels most comfortable, taking into consideration their stage of life, diagnosis, or treatment, as well as their connection to Judaism. We also provide educational resources, offer specialized support to those facing ovarian cancer or at high risk of developing cancer, and create programs for women and families to improve their quality of life. All Sharsheret's programs are open to all women and men.

Sharsheret offers the following national programs:

The Link Program

- Peer Support Network, connecting women newly diagnosed or at high risk of developing breast cancer one-on-one with others who share similar diagnoses and experiences
- Embrace[™], supporting women living with advanced breast cancer
- Genetics for Life[®], addressing hereditary breast and ovarian cancer
- Thriving Again[®], providing individualized support, education, and survivorship plans for young breast cancer survivors
- Busy Box[®], for young parents facing breast cancer
- Best Face Forward[®],, addressing the cosmetic side effects of treatment
- Family Focus[®], providing resources and support for caregivers and family members
- Ovarian Cancer Program, tailored resources and support for young Jewish women and families facing ovarian cancer
- Sharsheret Supports[™], developing local support groups and programs

Education and Outreach Programs

- Health Care Symposia, on issues unique to younger women facing breast cancer
- Sharsheret on Campus, outreach and education to students on campus
- Sharsheret Educational Resource Booklet Series, culturally-relevant publications for Jewish women and their families and healthcare professionals

VIII: Disclaimer

The information contained in this document is presented in summary form only and is intended to provide broad understanding and knowledge of the topics. The information should not be considered complete and should not be used in place of a visit, call, consultation, or advice of your physician or other health care professional. The document does not recommend the self-management of health problems. Should you have any health care related questions, please call or see your physician or other health care provider promptly. You should never disregard medical advice or delay in seeking it because of something you have read here.

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