Support for Yale Cancer Answers comes from AstraZeneca. The Beyond Pink Campaign aims to empower metastatic breast cancer patients and their loved ones to learn more about their diagnosis and make informed decisions. Learn more at lifebeyondpink.com. Welcome to Yale Cancer Answers with doctors Anees Chagpar and Steven Gore. I am Bruce Barber. Yale Cancer Answers features the latest information on cancer care by welcoming oncologists and specialists who are on the forefront of the battle to fight cancer. This week, it is a conversation about breast cancer in honor of breast cancer awareness month with Dr. Andrea Silber. Dr. Silber is an Associate Clinical Professor of Medicine and Medical Oncology at Yale School of Medicine, and Dr. Chagpar is an Associate Professor of Surgery and the Assistant Director for Global Oncology at Yale Comprehensive Cancer Center.

Chagpar Every October the whole city, the whole world in fact, turns pink for breast cancer awareness. Why should we be aware of breast cancer anyways and what does that really mean?

Silber Breast cancer is a common disease and when you get to be a certain age, it seems like everyone you know has breast cancer. It does affect 1 in 8 in this country by age 85 and so it is common. Awareness is important, that you can do certain things to reduce your odds of dying from breast cancer, but there are certain things that are really out of one's control as well.

Chagpar Let's talk about some of the things that you can do to reduce your odds. Oftentimes we think about prevention and what we can do in terms of lowering the risk of developing breast cancer in the first place. Are there things that women can do or is it just one of those things that as you get older, it is something that may or may not happen?

Silber I think the most important thing you can do is really prevention; in other words, that is a term that means if you detect breast cancer early, if you have that opportunity, your odds of beating it are quite good and so that means following screening guidelines, but that is not primary prevention and that is just a way of early detection, and as far as primary prevention, there are different things for different kinds of breast cancer. For example, hormone-sensitive breast cancer, which is the most common kind of breast cancer, avoiding weight gain particularly after menopause, exercise, healthy diet, those are important interventions to prevent breast cancer. Not saying that it would entirely prevent all breast cancers, but it certainly may prevent some breast cancers and provide better outcomes if someone is diagnosed. There is a more controversial area when you think about hormone replacement therapy after menopause, it does increase the risk of breast cancer and you have to weigh the risks and benefits. Now, for triple negative breast cancer, the prevention guidelines are really very different

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because it is not related to weight gain, it is not related to delayed pregnancy or

prolonged hormonal exposures. The one thing that we know that can prevent triple negative breast cancer is breastfeeding. And so that is an area, when you talk about breastfeeding or you talk about weight reduction for hormone receptor positive breast cancer, these are things that help so many diseases. These are not things that are radical or dangerous, they are all good. I think it is really important that women know their family history because there are going to be some women who are at higher risk due to family history and may need genetic testing, and some families do not share that information, so it is important to ask.

Chagpar It sounds like there are a few things that we can do, but basic good healthy living is a good way to lower your risk of developing breast cancer. Now, the other thing you mentioned is lowering your risk of dying of breast cancer by picking up cancer early. We have talked on this show previously about screening guidelines and I will tell you, it seems to be rather confusing for some women because every couple of years, there seems to be a new guideline coming out that says a different thing about when to start screening mammograms, when to stop screening mammograms, how frequently to get them and so on. So, what do you advise for people who are at average risk?

Silber First of all, screening means for asymptomatic women. So, if someone has a breast mass or a lump in their breast or breast complaint, that is not screening. Someone can pay attention to that at any age and that is not something that you can wait on, but for the women who is asymptomatic, who does fall within screening guidelines, I think the American Cancer Society Guidelines are reasonable and they have recommended now that you start at age 45. I am not sure why 45 as opposed to 40 or as opposed to 50, I think it is kind of a compromise number and to do screening annually until you get to be elderly and then you start screening biannually if you have at least a 10-year life span. Now, that may sound very complicated, but I see people who have other terrible medical problems such as a stage IV cancer of another type, well they do not need a screening mammogram. So, I think common sense too, we are not just trying to detect cancer or breast cancer, we are trying to make sure a woman is healthy. So, you have to think about everything else that is going on with that woman before you do screening. Otherwise, there are going to be some foolish choices.

Chagpar And thinking about what are you going to do with the results of that screening. So, if you are 106 years old and you have many other comorbidities, finding a little precancer may be the least of your worries. But if you are otherwise healthy and that little precancer is going to adversely affect your life, it might really be something that you want to know about.

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Silber Absolutely. And I think it is a myth that breast cancer in the elderly is always a low grade, less aggressive type of breast cancer. I have certainly seen breast cancers in women who are 90 and above that are aggressive and really do need treatment to improve quality of life.

Chagpar Let's talk about how to screen, these days, there are so many different things out there, all of which are touted as being good for screening. Certainly mammography, but then people talk about ultrasound and MRI and molecular breast imaging, there are blood tests that some people talk about that they have heard about that people are talking about for screening, what do you advise people?

Silber I still advise the average risk person to follow the American Cancer Society Guidelines. And that is to perform mammography and if someone is identified as having dense breasts, at least in the State of Connecticut, the provider should consider, and I say consider, an ultrasound or an MRI for screening purposes because otherwise the mammogram may not be really effective screening.

Chagpar So, get a mammogram, it is not as difficult or painful as many may think. A lot of people now are talking about this new technology and I guess it is not so new anymore, but a lot of people still think of it and refer to it as a new technology, called 3D mammograms or tomosynthesis. What is that, is it better, is it worse, should people be demanding that kind of technology for screening?

Silber I think tomography or tomosynthesis can reduce callbacks for abnormalities, provides a clear picture and having been in a center where we use it, it is effective. The other thing that certain centers have is designated mammographers, who have been trained, that is all they do, it is funny because I think it may be a little controversial, the places that have tomosynthesis are often the places that have designated mammographers who are able to pick up things on a read that maybe someone who is a general radiologist cannot quite do. So, I think the 3D mammography or tomosynthesis is a good idea, something that I do for myself, but I also feel very comforted by having designated mammographers read my films.

Chagpar So people should be getting mammograms and hopefully with good dedicated mammographers, maybe with 3D technology to find these little lesions, but when you get a mammogram, it is so anxiety provoking when the technician says just one moment, we need to call you back, we need more films, how should patients respond to that and what happens in that situation? What should they expect?

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Silber I have patients who will call me and say, you know they told me that I need a 6-month follow-up or I need additional films and particularly women who have had breast cancer before are just absolutely panicked, but when I explain to them that the 6-month follow-up has less than a 2% chance of being malignant, it is often reassuring and I also say the mammographer knows your

history and is the last person that wants to miss a cancer, so they are very cautious and sometimes what is anxiety provoking is how cautious they are.

Chagpar And the truth of the matter is that the only thing worse than the anxiety of being called back and potentially finding a cancer is not finding one, and so, tell us a little bit more about what happens after the diagnosis of a breast cancer; oftentimes, people will go, will get their screening, they will be called back, the radiologist will say you know we see something that is worrisome, we need a biopsy. What happens at that point?

Silber The biopsy itself can often be done by the same radiologists who have the mammographers, and they may have an ultrasound-guided biopsy, they may have one that needs to be done under a mammogram to visualize and sometimes people even need something that is called MR or using an MRI to guide the biopsy, that is also I think in some ways the most anxiety provoking one. People are waiting for their biopsy results, and unfortunately, they do not come back right away or for the medical oncologist, I need additional information besides just saying malignant or benign to know what I am going to do, and it really does take close to a week to have the information that I need. So, I think that is just very hard for people.

Chagpar I think you are absolutely right, and we are going to take a short break for a medical minute. When we come back, we will talk more about what happens when you do get that diagnosis of breast cancer and what can be done about it? Please stay tuned to learn more about breast cancer awareness and access to trials with my guest, Dr. Andrea Silber.

Medical Minute Support comes from AstraZeneca, dedicated to advancing options and providing hope for people living with cancer. More information at astrazeneca-us.com. This is a medical minute about head and neck cancer. Although the percentage of oral and head and neck cancer patients in the United States is only about 5% of all diagnosed cancers, there are challenging side effects associated with these types of cancer and their treatment. Clinical trials are currently underway to test innovative new treatments for head and neck cancers, and in many cases,

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less radical surgeries are able to preserve nerves, arteries and muscles in the neck, enabling patients to move, speak, breathe and eat normally after surgery. More information is available at YaleCancerCenter.org. You are listening to Connecticut Public Radio.

Chagpar This is Dr. Anees Chagpar and I am joined tonight by my guest, Dr. Andrea Silber. We are talking breast cancer given that it is breast cancer awareness month and clinical trials. Now, before the break, we were talking about how anxiety provoking it is to wait. To wait when you have just had a biopsy done and you are potentially looking at a diagnosis of cancer but you do not know for sure, and it can take a long time and Andrea one of the things you said was sometimes it really does take up to a week to get the information we need, but that information is really critical in terms of what we do. Let's talk a little bit about what happens after a patient waits that week, gets the phone call or the appointment and is notified that yes you do have breast cancer.

Silber One thing I like to tell patients is that that tumor has probably been there for 5 years, which is what we know from kinetics of tumor growth, and so the week is not the difference between life and death that patients often fear, thinking of their experience with an infection that you need to identify right away. So, I tell people that it is better to treat with intelligence than treat with speed, and because of that, we have a multidisciplinary team that looks at every aspect of breast cancer care and come up with a treatment plan that everyone can live with, and I think that is something that is really great for a patient. They do not have to keep bouncing back and forth, oh you tell the surgeon that I want to give chemotherapy first. We decide as a team how best to approach this woman's cancer, not only based on tumor characteristics but based on the woman and there is obviously a choice. The good news is that there are more therapies that are available for breast cancer than ever before and also there are opportunities to avoid some of the more toxic therapies that have been used in the past.

Chagpar Tell us more about that. Tell us more about the different therapies that are available and how you avoid toxicity. Because I know there are a lot of patients and a lot of women listening to the show are thinking, nobody wants cancer number 1 and least of all, do they want the C word, not the C word cancer that is bad enough, but the other C word, chemotherapy. I think those are the two big fears. And how do you approach those fears as a medical oncologist?

Silber One thing I would like to tell my patients, I am happy when I do not have to give chemotherapy, maybe not quite as happy as the person who is not getting chemotherapy but we are on the same page in wanting to avoid toxicity, and so for people with early stage breast cancer, we used to really over-treat to try to make sure that the few early stage breast cancers that were bad actors were appropriately

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treated and therefore treated some of the good actors with chemotherapy. This year, the TAILORx was released at ASCO which is our American Society of Clinical Oncology meeting, and we participated in that trial, which allowed people who have a molecular diagnostic test called Oncotype, perhaps to forego chemotherapy and that most women with early stage breast cancer that is hormone receptor positive have a good chance of avoiding chemotherapy. There are other molecular diagnostics and women might say, well that is great for women that have hormone receptor positive breast cancer, my breast cancer is HER2 positive. We have more anti-HER2 antibody therapy than ever before with great outcomes for tumors that used to be incurable, and now, even more advanced tumors that are HER2 positive may be curable with some of the antibody therapy and the triple-negative breast cancers we're at the cusp of having really novel therapies using immunotherapy and other targeted therapies that have not been used before in breast cancer that are going to make a difference.

Chagpar That is a really nice segue way into thinking about how do these novel therapies actually get to the patient? And that really is through clinical trials. But for a lot of patients that is the other C word that is really scary, clinical trials. Nobody wants to be a guinea pig. So, what do you say to the patients about that?

Silber I like to call clinical trials best care because we only have clinical trials when the answer is not apparent. Some clinical trials actually look at less aggressive treatment than is considered standard of care, and some of the clinical trials have novel therapies but if there were not a need, there would not be a clinical trial. So, what it allows people is more care, more investigation, perhaps advanced or novel therapy that will be tomorrow's standard of care and one thing I have noticed in my patients is the chance to also contribute to be altruistic, and I find it very moving but many patients are motivated by the opportunity to help others through their illness.

Chagpar Yeah. And I think that one thing that you pointed out that is so true is even outside of the altruistic mission, which I think a lot of patients have, the idea that you are always comparing standard of care to what we think is better, means that on average people who participate in clinical trials will have better outcomes than people who do not. And so, that is yet another motivator to participate in clinical trials, but Andrea, I know that another one of your big areas of research and interest is in disparities, and I think that there are some disparities with regards to clinical trial participation, in part due to historical events that have really colored clinical trials in a very bad light. What do you say to patients who may be African-American, they may be of minority race or ethnicity who have some real concerns based on historical precedent about clinical trials?

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Silber You bring up a really important topic. I think most minorities are very aware of Tuskegee and Henrietta Lacks, and those were both situations of exploitation and questionable ethics, but when I talk to the patients and particularly minority patients, I talk about that they have been excluded from clinical trials, that there are drugs that are approved and out there that have not been tested on women who are African-American or even women with diabetes or women with high blood pressure and sometimes when you are looking at minority patients, you are looking at patients who have higher rates of diabetes and high blood pressure and it may change outcomes. It is really important to have patients who reflect a country involved in clinical research because they are going to be the recipients of these therapies and it is important to know if we see a difference in outcome for someone who is African-American, let us know that before the drug is on the market.

Chagpar So, in other words, you do not want to treat an African-American woman with a drug that has been approved on the back of a clinical trial where the only participants were Caucasian, given that the outcomes might be different in those two populations, but how do you make people feel more comfortable about the fact that clinical trials these days are ethically run, that this will not be another Tuskegee and this will not be another Henrietta Lacks because the historical precedent, the researchers in those situations were also touting the same thing, we have novel therapies, we want to look at different issues, we are helping society, but there were questionable ethics involved in those cases. How do you get around those concerns?

Silber Well, one thing that I have in the breast center is a number of other patients who are minorities, who have participated in clinical trials and have volunteered in many ways to be a sounding board for a patient who is considering it, and sometimes when I am approaching a patient, I will say, call this woman, see what she has to say, you can ask her anything you want about me, I am not going to be present, my study is not going to be present and I think that has been very helpful. I think the more diverse our workforce is, that will help with trust and I am not only talking about physicians, I am talking about mammography technicians and nurses and other health providers, community health providers who believe in this. But I also find my staff is incredibly helpful because many of the people who are on my staff are community members themselves and women of color, and I think of our breast center as being really a team approach from the moment the patient walks in the door, it is not just our center, it is many centers, but there is something special about a breast center where someone may feel well cared for and trusted and clinical trials are all about trust. But honestly, chemotherapy is all about trust. I have to consent someone for chemotherapy and to have a trusting relationship is important.

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Chagpar Absolutely. And the truth of the matter is that there are so many rigorous provisions in place to ensure that the unethical behavior that occurred in the past will never occur again or at least should never occur again. But I think your comments about having a trusting relationship and a breast center that is inclusive and pluralist are really important. Now, when you talk about this multidisciplinary approach, we kind of talked a little bit about chemotherapy and immunotherapy and some of the novel therapies coming down the pipe, sometimes patients may wonder if that is all they need to do if they have an estrogen receptor positive cancer and they are told or they have friends who take a pill for their cancer and that essentially starves the cancer of the estrogen that feeds it, do they really need any other therapies? Silber Well, that may be appropriate for a small group of patients or patients who may be very elderly that could not tolerate coming daily for radiation, but most women who have breast conservation, in other words who did not have a mastectomy, are going to need radiation as part of their treatment so there would be surgery, radiation and then maybe endocrine therapy or the pill that you talked about. But there are going to be more studies that will show that maybe we can forego radiation in a certain group of patients or forego surgery and radiation. There are patients that are going to clearly benefit from just having systemic therapy alone, but that is not the majority of women with breast cancer.

Dr. Andrea Silber is an Associate Clinical Professor of Medicine and Medical Oncology at Yale School of Medicine. If you have questions, the address is canceranswers@yale.edu and past editions of the program are available in audio and written form at YaleCancerCenter.org. I am Bruce Barber reminding you to tune in each week to learn more about the fight against cancer here on Connecticut Public Radio.