So in terms of imaging, obviously mammography and ultrasound tend to be our main modalities and that is what we do at the shoreline MRI. We, you know for good quality MRI it requires a special breast coil as well as the higher magnets. The 3T magnet is what we prefer to perform our MRI on. So that’s why we only perform those down in New Haven or at Park Ave. So we’re not currently doing MRI. At Shoreline,
patients do need to go downtown for that.

You know, I just want to talk a little bit about the 3D mammography because we, you know we’ve been using this for more than a decade now and it has really improved our outcomes.

Yale was one of the five original beta sites for the development of this technology. So we’re quite proud of it and this led to the FDA approval in 2011.

So we have a long history of it at Yale and after FDA approval. We were the first in Connecticut to obtain a commercial unit and the actual 13th unit in the whole United States. So we’ve had it for a long time.
We've always offered it to all patients at no cost and it's really permitted us to have a really invaluable research database that we have been able to publish and do a lot of good studies with.

So basically you know a lot of these studies have shown, I think you know very well that the 3D mammography is very advantageous over treating mammography. Multiple sites now throughout the world, in North America, Europe, Asia have repeatedly shown that...
it results in lower recall rates and increased cancer detection, particularly for invasive cancers. And for those of you who might not have seen how it works, you can see here’s the 2D portion of the screening mammogram. And in the tomosynthesis, we look at these in one millimeter slices through the breast and the cancers really can pop out beautifully that otherwise would have been hiding. So it’s easy to understand how we can find more cancers, reduce the recalls for false positives,
prove the outcomes for patients.

All right.

Here’s just another example of a patient.

This is, it’s the screening mammogram and there’s a questionable asymmetry in the breast and that’s on the 2D portion when you look at the 3D.

Not only does it tell us exactly where it is in the breast, where it is in the breast, it’s actually down here on the 2D.

We might have thought it was up there, but it’s down there.

So we’re able to accurately localize lesions and we’re able
to characterize them better.

You see on the 2D that could easily have been missed, whereas here we exquisitely see the detail of the speculations. So we’re able to localize, characterize and then honestly patients go directly to ultrasound from from this, a lot of the diagnostic workup additional views. Are not necessary anymore. We can find things with ultrasound. We do a lot of this at the shoreline, lot of ultrasound guided biopsies because the majority of lesions other
than true calcification lesions can be biopsied with ultrasound. Just a note about tissue density with breast in mammography. The sensitivity of mammography is obviously related to tissue density. It’s an important aspect of interpreting a mammogram. While the sensitivity is very very high in fatty breast, it obviously is reduced even with the 3D mammography in denser tissue. So as you’re probably well aware, we were the first state in the nation to.
Uh, it’s today density notification law. So this took effect in October of 2009 and women are informed of their brands breast density and since that time many women with breasts, with dense breasts have opted to undergo supplemental screening particularly with ultrasound just something that we developed it at Yale. This is through our visage, our pack system and this is now FDA approved and this just.
breast density is a little bit of a subjective. It, you know, like classification, this makes it a little bit more objective. We get a density reading which is just an output on our workstations giving the breast density with the confidence. So it’s a nice tool that we’ve developed. I mentioned the mobile van before is one of our sites and just to mention it again because this does visit the shoreline, you know four to five times a month,
you may see it up in the parking lot taking up valuable parking spaces, but nonetheless it is good for our patients. We do screening on the van with the course 3D mammography and breast ultrasound. So this van which has been on the road for about 2 years now has both a mammography unit and an ultrasound separate. Sweets and while we’ve had a van for 35 some years in New Haven at Yale, this is the first time we’ve had mammography and ultrasound on the van. So certainly those women with dense tissue that really need the screening ultrasound as well can
be well accommodated on the van.

And here’s a case that was done on the van.

Patient with dense tissue had her mammography and her ultrasound and actually had multiple cancers in her breast.

Interventional procedures.

Like I said, we perform.

About two to three per day at the shoreline and patients love it.

Again, that is just something that is an extra piece of equipment.
So we’re doing those downtown right now, but maybe in the future we will when we have a little bit more resources at the shoreline ultrasound biopsies. Though again the majority of patients can undergo ultrasound biopsies, which is preferable modality, we also can localize. Patients for surgery using mammographic or sonographic guidance. We have dedicated breast imaging nurses now and this is that they’re invaluable and always one is always at the shoreline. So these these nurses help us with our procedures, patient care, communication, pathology,
follow up and then data entry.

So it’s really they’re, they’re wonderful. Here’s just an example. Again, Doctor Zaneski is going to talk more about the surgery side of things, you know. Diagnosed the patients, we image them, we work them up, we do the biopsies and then many of them are able to have surgery at the shoreline at which is just wonderful for them. We can do wire localizations which we’ve been doing for the last few years is a
radio frequency tag localization.

The advantage of this is it could be inserted a few days or weeks before surgery and then the patient. Need to go directly to surgery on that day and so that facilitates scheduling.

Here’s an example of a shoreline patient. Here is her screening mammogram. Obvious lesion in the breast. She goes directly to ultrasound, doesn’t need any extra views. Mammographic views. Ultrasound shows a highly suspicious mask. We then do a core biopsy and leave a marker. She comes back for a localization on the day of surgery and her specimen shows
the lesion and the tag all removed.

Very convenient for patients and they love it. Just in the next.

The very shortly hopefully few months we are going to be starting construction and we will have expansion of our breast imaging services at Yale, which at the shoreline which is much needed, which at the shoreline which is much needed, which at the shoreline which is much needed, which at the shoreline which is much needed, which at the shoreline which is much needed,

we will have an additional 3D mammography and ultrasound units. So this is going to help with patient scheduling and also in terms of the, the physical layout, we’re going to have a direct connection with the breast surgery suite.
So that permits patients to go back and forth. Because I’m happy to go out in the hallway, so it’s really a very comprehensive. Services and wonderful for patients, they love it and I think with this expansion we’ll be able to offer even more. More, get more patients in and offer more patients to be seen at the shoreline. Just a shout out to the wonderful technologists at the shoreline who take really good care of patients. So thank you very much. Hopefully that was helpful. Thank you so much Leanne and we have
00:09:06.265 --> 00:09:07.662 patients who specifically reach

00:09:07.662 --> 00:09:10.000 out to have you and doctor Butler?

00:09:10.000 --> 00:09:12.115 Do their mammograms and overwhelmingly

00:09:12.115 --> 00:09:14.230 their experience in the breast

00:09:14.300 --> 00:09:16.020 imaging suite and Guildford?

00:09:16.020 --> 00:09:17.580 is is incredibly positive

00:09:17.580 --> 00:09:19.140 and patient centered so.

00:09:19.140 --> 00:09:21.180 Thank you for all you do.

00:09:21.180 --> 00:09:23.997 Next up, we’re going to

00:09:24.000 --> 00:09:25.220 I’m thrilled to call him.

00:09:25.220 --> 00:09:27.956 My partner and a member of our team,

00:09:27.960 --> 00:09:30.010 doctors and Esky joined Yale

00:09:30.010 --> 00:09:32.060 School of Medicine in 2019,

00:09:32.060 --> 00:09:33.764 he’s an assistant professor.
Surgical oncology and cares for women with benign and malignant breast disease and also men with breast related issues. His clinical practice location is predominantly at the Shoreline Medical Center in Guilford, but he also has a clinic weekly and some IT operating room time at the New Haven site. And he received his medical degree from the State University of New York at Stony Brook and completed a fellowship in surgical oncology at the University of Pittsburgh. And he’s going to be giving us updates and breast cancer surgery. Thank you,
00:10:08.776 --> 00:10:09.139 Greg.
NOTE Confidence: 0.546841385
00:10:17.020 --> 00:10:20.430 Good. Thank you, Rachel. Look at
NOTE Confidence: 0.818510215
00:10:20.440 --> 00:10:21.820 the share my screen.
NOTE Confidence: 0.95629686
00:10:24.780 --> 00:10:25.370 OK.
NOTE Confidence: 0.95740778
00:10:28.710 --> 00:10:31.430 Thank you very much Rachel and and
NOTE Confidence: 0.95740778
00:10:31.430 --> 00:10:33.710 thank you everybody for attending
NOTE Confidence: 0.900367865
00:10:33.797 --> 00:10:35.525 on a on a rainy night.
NOTE Confidence: 0.900367865
00:10:35.530 --> 00:10:37.874 But my goal is tonight is to talk
NOTE Confidence: 0.900367865
00:10:37.874 --> 00:10:39.852 about breast surgery you know here
NOTE Confidence: 0.900367865
00:10:39.852 --> 00:10:41.838 at Guildford and also you know
NOTE Confidence: 0.900367865
00:10:41.909 --> 00:10:44.450 how we integrate it throughout
NOTE Confidence: 0.900367865
00:10:44.450 --> 00:10:45.970 the system here at smilow.
NOTE Confidence: 0.846369253846154
00:10:48.350 --> 00:10:51.325 So here’s our our grant institution here
NOTE Confidence: 0.846369253846154
00:10:51.325 --> 00:10:54.169 at Shoreline and as Doctor Philpotts,
NOTE Confidence: 0.846369253846154
00:10:54.170 --> 00:10:56.222 you know, describe very well the
NOTE Confidence: 0.846369253846154
amount of breast imaging that’s done here and also the various findings. You know that we can come across not all malignant, sometimes benign or needing close follow up and surgery is an important component for helping integrate that at times and of course our multidisciplinary team which will be talked about further. So this is a picture of our surgical clinic and you know I think a lot of times with surgery we think about that it’s a for malignancy. But I think a big part of our day including our nurse practitioners here at Guildford is things like benign disease.
We can't see your slides.

No, no. Sorry about that.

Sorry, sorry about that.

Can you try again?

Yeah, let me. Escape, yeah.

Yeah, share.

Is that better?

Can you see that?

Do you want to send them to me and I can share them from my computer? Sorry about that.

Can you see that?

Do you want to send them to me?

Do you want to send them to me and I can share them from my computer? Sorry about that.

OK. So I got them. Greg, why don’t you go ahead and keep talking and I’ll pull them up here.

Sorry about that. I don’t
know why it’s not sharing.

Alright, I think maybe now

we can. Now

we can see it.

Sorry about that everybody.

Right. Yeah. So you know again

this is the clinic and you know

what we see with our nurse practitioners or or things,

you know benign disease,

you know palpable masses that patients

may feel or if various imaging findings,

you know things that require a close

interval follow up will work with

radiology to follow those patients

or the wealth of biopsies can often
00:13:56.467 --> 00:13:59.024 be benign and how do you interpret
00:13:59.024 --> 00:14:01.908 them as your primary care or OBGYN.
00:14:01.910 --> 00:14:04.328 Positions you know what is a
00:14:04.328 --> 00:14:06.742 papilloma need or what type of
00:14:06.742 --> 00:14:09.366 follow up a library card inside you.
00:14:09.366 --> 00:14:12.222 We're very happy to see those patients
00:14:12.222 --> 00:14:15.604 and you know talk about the different
00:14:15.604 --> 00:14:17.920 management surgical options or even
00:14:17.920 --> 00:14:20.520 screening strategies and of course
00:14:20.520 --> 00:14:22.911 breast malignancy of course which you
00:14:22.911 --> 00:14:25.508 know breast surgeons are are both kind
00:14:25.508 --> 00:14:27.720 of associated with clinical trials.
00:14:27.720 --> 00:14:30.522 We enroll patients in our various
00:14:30.522 --> 00:14:32.850 surgical clinical trials and even.
00:14:32.850 --> 00:14:35.370 Follow those patients up and
coordinate the necessary imaging regarding the clinical trial protocol.

And you know with the cooperation of radiology, we’re able to offer surveillance, clinical exams for instance you know women who have undergone breast cancer surgery, oncology therapy and then it’s time for annual follow-up how much imaging is needed and we’re happy to see our patients for clinical exam and coordinate the follow-up mammogram on the same day.

A good portion of my clinic today was seeing some of our patients who
are one year follow up with same day.

Imaging and patients seem to be very happy to bundle those visits and make one trip to see the search and then the radiologists on one day take less time off from work, family and all the other busy things and also.

OK. Yeah, we can’t. We are stuck on the title slide.

Are they advancing now? You see surgical clinic slide? No, no, I’ll try and pull them up here, Greg. Thank you.
00:16:00.310 --> 00:16:01.750 I’ll stop sharing.
NOTE Confidence: 0.783316

00:16:11.510 --> 00:16:13.710 Apologies to the audience. Thank you
NOTE Confidence: 0.78811116

00:16:13.720 --> 00:16:15.070 for your patience.
NOTE Confidence: 0.90931463

00:16:16.900 --> 00:16:17.310 Yeah.
NOTE Confidence: 0.845175955714286

00:16:18.680 --> 00:16:21.228 And it’s not stopping the sharing either.
NOTE Confidence: 0.920403788333333

00:16:31.350 --> 00:16:33.420 Well, in the interest of time, why don’t
NOTE Confidence: 0.900537588

00:16:33.430 --> 00:16:35.650 we move forward with medical oncology
NOTE Confidence: 0.900537588

00:16:35.650 --> 00:16:38.236 and then we’ll come back or Doctor
NOTE Confidence: 0.900537588

00:16:38.236 --> 00:16:40.300 Butler from plastic surgery and we
NOTE Confidence: 0.900537588

00:16:40.300 --> 00:16:42.992 can come back to your slides when we
NOTE Confidence: 0.900537588

00:16:42.992 --> 00:16:45.278 get the technical issues worked out.
NOTE Confidence: 0.900537588

00:16:45.278 --> 00:16:48.950 Doctor Butler, Are you ready and loaded?
NOTE Confidence: 0.7968582225

00:16:50.580 --> 00:16:52.676 So I’m going to share my screen too.
NOTE Confidence: 0.7968582225

00:16:52.680 --> 00:16:54.588 Don’t have the same challenge, but I’m ready.
NOTE Confidence: 0.906935142

00:16:54.920 --> 00:16:56.640 I’m gonna introduce Doctor Butler.
NOTE Confidence: 0.906935142

00:16:56.640 --> 00:16:59.238 He’s an associate professor of surgery
00:16:59.238 --> 00:17:01.540 in plastics and reconstructive surgery,
NOTE Confidence: 0.906935142

00:17:01.540 --> 00:17:03.316 and he's the inaugural Yale Department
NOTE Confidence: 0.906935142

00:17:03.316 --> 00:17:05.199 of Surgery vice Chair of Diversity,
NOTE Confidence: 0.906935142

00:17:05.200 --> 00:17:06.860 Equity and Inclusion.
NOTE Confidence: 0.906935142

00:17:06.860 --> 00:17:08.750 He's board certified both by the
NOTE Confidence: 0.906935142

00:17:08.750 --> 00:17:10.659 American Board of Surgery and the
NOTE Confidence: 0.906935142

00:17:10.659 --> 00:17:12.423 American Board of Plastic Surgery and
NOTE Confidence: 0.906935142

00:17:12.423 --> 00:17:14.750 a Fellow of the American College of
NOTE Confidence: 0.906935142

00:17:14.750 --> 00:17:16.435 Surgeons and his clinical interests
NOTE Confidence: 0.906935142

00:17:16.440 --> 00:17:19.392 are in breast reconstruction and body
NOTE Confidence: 0.906935142

00:17:19.392 --> 00:17:21.360 contouring after bariatric surgery.
NOTE Confidence: 0.906935142

00:17:21.360 --> 00:17:24.648 Reductions left scars and aesthetic surgery,
NOTE Confidence: 0.906935142

00:17:24.650 --> 00:17:26.354 and we're thrilled to have him
NOTE Confidence: 0.906935142

00:17:26.354 --> 00:17:27.490 on our Yale team.
NOTE Confidence: 0.906935142

00:17:27.490 --> 00:17:29.060 So take it away, Paris,
NOTE Confidence: 0.8715973625
thank you very much for the kind introduction.

I’m going to share my screen. Maybe, Rachel. Just give me a thumbs up if you can see my screen when the time comes. Excellent. Looks great, wonderful.

So thanks for allowing me to join you this evening. I have most recently been recruited to Yale plastic surgery from the University of Pennsylvania. I’ve been on faculty here for a little over five months, kind of hard to believe and really fortunate to join an outstanding group.
of plastic surgeons within our division. We are growing our division rather significantly. We have six plastic surgeons amongst our faculty. We have a faculty of 12 now, which is rapidly grown in the last four or five years. Our chief is Bo Pomahac, so all six of these. Individuals perform plastic and reconstructive surgery on breast in one way, shape or form. The majority of us do reconstructive surgery as well on breast and I.
would say that is all about 50% of my practice in particular.

So we have Obama hawk who is our division chief.

We have doctor Hari, Ayala myself here, Doctor Melissa Mastriani, Dr Peck and Doctor Vasquez, myself, doctor Pomahac,

Dr Ayala and Doctor Peck will be at.

Shoreline facilities more times than not.

So we are delighted to care for this, for this Community and this patient for this Community and this patient population over the next I would say.

it’s really difficult to give an
00:19:01.374 --> 00:19:02.720 overview of plastic and reconstructive surgery in in eight to 10 minutes,

00:19:02.720 --> 00:19:04.666 but I'm going to do my best to to kind of keep it there.

00:19:04.670 --> 00:19:06.042 So as it pertains to the the goal of a breast reconstruction,

00:19:06.042 --> 00:19:07.570 to to kind of keep it there.

00:19:07.570 --> 00:19:09.705 We say as we're setting expectations with our patients and we don't try to oversell what our capacity is,

00:19:09.705 --> 00:19:12.469 but we also try to provide a nice light at the end of the tunnel as it pertains to.

00:19:12.470 --> 00:19:14.747 as many of you all know it’s to to restore breast appearance and clothes.

00:19:14.747 --> 00:19:16.870 We say as we're setting expectations with our patients and we don’t try to oversell what our capacity is,

00:19:16.870 --> 00:19:19.276 but we also try to provide a nice light at the end of the tunnel as it pertains to.

00:19:19.276 --> 00:19:21.946 We say as we're setting expectations with our patients and we don’t try to oversell what our capacity is,

00:19:21.946 --> 00:19:23.658 with our patients and we don’t try to oversell what our capacity is,

00:19:23.658 --> 00:19:25.507 but we also try to provide a nice light at the end of the tunnel as it pertains to.

00:19:25.507 --> 00:19:27.211 The, the,
the duration of the completion of their oncologic care. So in my opinion, I think we can do better than just getting them to appear normal in clothes. However, we do let them know once that bathing suit is removed and underwear is removed that they will see their scars and such how often is it performed. So if you look at the national data about 65% of the time. In the US,
formal breast reconstruction is performed in post mastectomy patients. So that equates to about 138,000 breast reconstruction procedures that are performed annually. This is data from 2020 and the numbers continue to just go up, which I obviously is a plastic surgeon. While I was at the University of Pennsylvania, we actually looked at who was
00:20:29.666 --> 00:20:30.509 getting breast reconstruction
NOTE Confidence: 0.868036085
00:20:30.509 --> 00:20:32.056 to determine what the rates were
NOTE Confidence: 0.868036085
00:20:32.056 --> 00:20:33.610 and also to determine if there
NOTE Confidence: 0.868036085
00:20:33.610 --> 00:20:35.015 are any patient populations that
NOTE Confidence: 0.868036085
00:20:35.015 --> 00:20:36.139 were not getting breast
NOTE Confidence: 0.855091302857143
00:20:36.140 --> 00:20:37.610 reconstruction at the same rate as others.
NOTE Confidence: 0.855091302857143
00:20:37.610 --> 00:20:40.508 And what we identified when we looked
NOTE Confidence: 0.855091302857143
00:20:40.508 --> 00:20:43.370 at national data over A6 year period,
NOTE Confidence: 0.855091302857143
00:20:43.370 --> 00:20:46.626 there are two subsets of the Community
NOTE Confidence: 0.855091302857143
00:20:46.626 --> 00:20:48.036 that don’t get breast reconstruction
NOTE Confidence: 0.855091302857143
00:20:48.036 --> 00:20:49.620 at the same rate as others.
NOTE Confidence: 0.855091302857143
00:20:49.620 --> 00:20:51.450 Those are more. Seasoned ladies,
NOTE Confidence: 0.855091302857143
00:20:51.450 --> 00:20:53.018 no one likes to be called old.
NOTE Confidence: 0.855091302857143
00:20:53.020 --> 00:20:56.140 So our ladies over 45 and then unfortunately
NOTE Confidence: 0.855091302857143
00:20:56.140 --> 00:20:58.942 our ladies of color and namely our
African American and our Latino women. And then when we look at insurance status, probably not a surprise that uninsured women would not receive breast reconstruction at the same rate as others. But we’ve also identified the fact that unfortunately, women who have public insurance don’t receive breast reconstruction at the rate as those that have private insurance. This is a soft spot for me because I do a lot of disparity research and scholastic effort, but I I do think that this is something that has been understated.
and something that needs to be addressed kind of nationwide. I'm going to do my best here at Yale University to help push that envelope and push that needle forward. So what is the best timing for reconstruction? Pretty much anytime, immediate or delayed, or typically both an option. There's been good, really good literature out there describing the fact that when a woman wakes up from a mastectomy and has the semblance of a breast mount it, it can be helpful emotionally, socially, psychologically.
And even functionally, I would say it’s probably strong language to say that it is gold standard to have it done immediately, but it is more common occurrence for us to now do it in an immediate setting rather than a delayed setting. That being said, we can offer and do offer breast reconstruction in a delayed setting, so anytime after that initial mastectomy. Who’s the candidate? I would say the vast majority of patients. So any woman who has had or
is going to have a mastectomy,

there's really no specific age limit.

Women over 60 are welcome to inquire and I recommend to my breast surgeons that any woman, regardless or agnostic of age, race, ethnicity, have an appointment or consultation with one of those plastic and reconstructive surgeons.

Breast reconstruction is covered by insurance.

I get this question all the time when I'm out in the community talking about breast reconstruction and doing my best to enhance breast health literacy.
Our country did a wonderful thing. In the late 90s, our legislators in DC passed the Women’s Health and Cancer Rights Act of 98, which mandated that insurance companies, if a woman has medical insurance, also mandated to cover breast reconstruction. For the duration of their life, and that also includes a balancing operation on say,
the contralateral side.

Patient suffers from a left sided cancer,

We do reconstruction on the left side.

Their insurance company is mandated

for me to also perform a balance

and procedure on that opposite side.

So as breast reconstruction safe,

this has come under a bit of attack of late,

particularly as it pertains to

implant based reconstruction.

So before I get to that,

I just want to comment that brush

reconstruction does not make the

breast cancer recur at any higher rate.

We’ve looked at this over and over and
over again and there's no heightened rates of recurrence in patients who’ve had reconstruction versus those that opted to not have reconstruction or were not healthy enough for reconstruction. Higher complication rates are noted in smokers, obesity and diabetics. Sometimes we can optimize patients prior to surgery, other times we cannot. We just have to let them know once again what the expectations are and it sometimes does limit the options we have for the reconstruction. Silicone implants have been proven to...
be safe and reconstruction patients, even if they rupture, they don’t cause additional harm. So about six years ago, there was a lot of conversation about this association of anaplastic large cell lymphoma with textured implants. The FDA has identified a risk of about one in 30,000 women who had textured implants or risk of suffering anaplastic large cell lymphoma. The rates when you look more broadly, it’s like being less than being struck by lightning. That being said, I do.
NOTE Confidence: 0.872759584285714
00:24:50.900 --> 00:24:53.035 Address this with my patients at time
NOTE Confidence: 0.872759584285714
00:24:53.035 --> 00:24:55.116 of consultation and we we actually now
NOTE Confidence: 0.872759584285714
00:24:55.116 --> 00:24:57.188 give them paperwork and have them sign
NOTE Confidence: 0.872759584285714
00:24:57.188 --> 00:24:58.923 an affidavit with an understanding
NOTE Confidence: 0.872759584285714
00:24:58.923 --> 00:25:01.306 that this association has been made.
NOTE Confidence: 0.872759584285714
00:25:01.306 --> 00:25:03.278 Most recently there’s been
NOTE Confidence: 0.872759584285714
00:25:03.278 --> 00:25:05.250 conversation about an association
NOTE Confidence: 0.872759584285714
00:25:05.327 --> 00:25:07.892 with a rare type of of a skin cancer,
NOTE Confidence: 0.872759584285714
00:25:07.900 --> 00:25:09.640 squamous cell skin cancer associated
NOTE Confidence: 0.872759584285714
00:25:09.640 --> 00:25:11.821 with the capsule that can develop
NOTE Confidence: 0.872759584285714
00:25:11.821 --> 00:25:12.958 around the implant.
NOTE Confidence: 0.872759584285714
00:25:12.960 --> 00:25:16.138 There have been 15 reported cases worldwide.
NOTE Confidence: 0.872759584285714
00:25:16.140 --> 00:25:18.498 This has been in the news in the last
NOTE Confidence: 0.872759584285714
00:25:18.498 --> 00:25:20.870 four to six weeks and the FDA made it.
NOTE Confidence: 0.872759584285714
NOTE Confidence: 0.872759584285714
This is a statement from Bonita Ashar, the director of the Office of Surgical Infection Control Devices for the FDA, that right now we do not have enough information to say whether breast implants cause these cancers or if any types of implants pose higher risks than others. So the reason for the louder part of that statement is because the anaplastic large cell lymphoma has been associated with textured implants and not smooth implants. Thankfully, I really did not put in many textured implants,
have only put in smooth implants, but this skin cancer. Association has been identified both in smooth implants as well as textured implants and once again, we need to do additional studies and additional surveillance. So what are the methods of reconstruction? Once again, it would take 2 hours to go over our methods of breast reconstruction, but I kind of separate them. And then three buckets. First and foremost, I’d like to consider what we do as,
as breast reconstructive surgeons,

as this continuum of care.

So we offer aesthetic flat closures because not everyone wants breast reconstruction. 

Not everyone is healthy enough for breast reconstruction.

So we offer these services to our surgical oncology colleagues.

Breast oncology colleagues, 

as it pertains to mastectomy closures, 

then there’s implant based reconstruction 

and then autologous reconstruction. 

So aesthetic cloud closures 

are also becoming more common. 

This is an article from the Annals 

of Surgical Oncology in 2020 which
00:26:47.958 --> 00:26:49.926 documented the fact that there was some women that were pretty upset with the fact that 22% of the women that were surveyed did not have this offer to them as an option.

00:26:49.926 --> 00:26:51.873

00:26:51.873 --> 00:26:54.575

00:26:54.575 --> 00:26:56.450

00:26:56.450 --> 00:26:58.922

00:26:58.930 --> 00:26:59.264

Additionally, 74% of the women that did have a flag. Sure.

00:27:01.940 --> 00:27:03.578

00:27:03.580 --> 00:27:05.855

00:27:05.860 --> 00:27:08.212

So this you know plastic surgeons we like show and tell this is a patient that I. We’re very satisfied with their outcome. Rather recently operated on who decided that she did not want formal breast reconstruction,
she wanted to be closed flat.

Our incision patterns are changed over time.

There was more of an oblique incision initially and then we went to more of a horizontal.

And now I kind of prefer this incision that's that mimics the inframammary fold and we've gotten good results with it.

Women are able to be fitted with external prosthesis if they want. It also avoids any of the extra skin and intertrigo.

That can happen after mastectomy, particularly in large breasted women. So when it comes to our methods of
00:27:47.508 --> 00:27:49.439 of formal breast reconstruction,
00:27:49.440 --> 00:27:52.260 reconstructing a breast mound 75% of the time in this country it’s
00:27:52.260 --> 00:27:54.458 performed via the use of a of a of
00:27:54.458 --> 00:27:56.971 an implant typically in two stage
00:27:56.971 --> 00:27:58.831 fashion with a tissue expander placed
00:27:58.831 --> 00:28:01.201 slowly inflated over multiple weeks to
00:28:01.201 --> 00:28:03.348 months and then a permanent implant placed.
00:28:03.348 --> 00:28:05.840 And then 25% of the time we’re
00:28:05.840 --> 00:28:08.682 using an autologous technique,
00:28:08.682 --> 00:28:10.800 so using tissue from another
00:28:10.800 --> 00:28:13.500 part of the body to recreate,
00:28:13.500 --> 00:28:15.126 reconstuct and recreated.
00:28:15.126 --> 00:28:16.210 West Mound,
00:28:16.210 --> 00:28:17.918 I would say at Yale this number
is not necessarily reflective.

I would say that we do probably more 40 to 50% autologous and about 50 to 60% implant based.

This is very, we’re fortunate that the vast majority of us here have a background in microsurgical reconstruction which allows us to carry out this additional technique and provide this additional option for these patients.

So the realities of implant based reconstruction for the most part it’s for small to moderate breast sizes kind of aided, we’re limited in the size of implants.
NOTE Confidence: 0.729710134
00:28:52.835 --> 00:28:54.583 trial that is ongoing.
NOTE Confidence: 0.729710134
00:28:54.590 --> 00:28:56.634 So we may have some additional options
NOTE Confidence: 0.729710134
00:28:56.634 --> 00:28:58.649 for our larger breasted women or women
NOTE Confidence: 0.729710134
00:28:58.649 --> 00:29:00.990 that desire to to reach a larger size.
NOTE Confidence: 0.729710134
00:29:00.990 --> 00:29:02.290 It’s a shorter operative
NOTE Confidence: 0.729710134
00:29:02.290 --> 00:29:03.590 procedure about 2 hours,
NOTE Confidence: 0.729710134
00:29:03.590 --> 00:29:05.786 shorter hospitalization one to two days
NOTE Confidence: 0.729710134
00:29:05.786 --> 00:29:08.528 and once again as I said typically
NOTE Confidence: 0.729710134
00:29:08.528 --> 00:29:10.720 requires 2 procedures that expand or.
NOTE Confidence: 0.729710134
00:29:10.720 --> 00:29:12.670 Followed by a permanent implant.
NOTE Confidence: 0.729710134
00:29:12.670 --> 00:29:13.870 Implant replacement is recommended
NOTE Confidence: 0.729710134
00:29:13.870 --> 00:29:15.670 by all three of the big
NOTE Confidence: 0.859250781428571
00:29:15.731 --> 00:29:16.807 implant manufacturers to happen
NOTE Confidence: 0.859250781428571
00:29:16.807 --> 00:29:18.740 at the 10 to 15 year Mark.
NOTE Confidence: 0.859250781428571
00:29:18.740 --> 00:29:20.780 And then it’s not ideal for
NOTE Confidence: 0.859250781428571

patients that need radiation therapy

which once again could be

another hour long conversation.

And then for the most part

for unilateral operation,

the patient must have an understanding

that they should consider a balancing

procedure on the other side.

Realities of flat based reconstruction.

Once again we love, show and tell.

This is the woman that I did,

as in a delayed fashion,

we usually kind of steer women in

this direction if they are have a

larger BMI or a larger body habitus.

The operative procedure is longer,
It's longer and it's more difficult on the patient, at least up front. It also requires a longer hospitalization, usually three to four days. There is a risk of hernia or bulge. I don't oversell this, I inform patient. It's about the five to 10% risk of a hernia and then flat death is about 2% where that and at microsurgical anastomosis doesn’t work that’s about 2% nationwide. It’s not for smokers, not for super obese, not for those that have severe
comorbidities and then they also must know that this is typically not just a one and done either more times than option.

If you look at the literature I touch up operation either one or two maybe sometimes three is required in order to get them to do a result that they’re pleased with and we are also satisfied with.

I think there’s an operation out there called Uncle Plastic breast reduction surgery where a patient who has a small cancer and a larger...
breast that are very toxic breast and get the benefits of a breast reduction or a breast lift at the time of their cancer resection. This is the silver lining for many of our ladies. I do a lot of breast reduction surgery and being able to combine oncologic reconstructive principles along with breast reduction principles has caused this operation to be one of my favorites. I really think it’s the best of both worlds. Patients obviously will still necessitate
radiation therapy more times than not because this is a component of their breast conservation therapy. So this is a patient who had large breast, she had always wanted a breast reduction. We were able to do an uncle plastic reconstruction. This is actually after her. Radiation as well and she’s healed beautifully. She’s got just a still a little bit of skin darkening but was ecstatic with her result. Here’s another young lady. She had a cancer on the left side.
Lots of tosis.

Had always wanted a breast lift, thought she would be vain by setting it, setting herself for a breast lift. So we did a breast lift and and lumpectomy at the same time. And she was also quite pleased. 

And my slideshow here’s a woman who was actually turned down for breast reductions previously developed. And then finally a much more seasoned lady, I had a breast surgeon that that sent
00:32:18.302 --> 00:32:19.950 this patient to me said I don’t think
NOTE Confidence: 0.819561746153846
00:32:19.997 --> 00:32:21.485 there’s anything we really can do.
NOTE Confidence: 0.819561746153846
00:32:21.490 --> 00:32:23.258 And the radiation oncologist,
NOTE Confidence: 0.819561746153846
00:32:23.258 --> 00:32:25.026 we’re concerned about radiating
NOTE Confidence: 0.819561746153846
00:32:25.026 --> 00:32:27.633 such a large entatic breast causing
NOTE Confidence: 0.819561746153846
00:32:27.633 --> 00:32:30.720 lymphedema in the breast and we were
NOTE Confidence: 0.819561746153846
00:32:30.797 --> 00:32:33.184 able to to give her this result.
NOTE Confidence: 0.819561746153846
00:32:33.190 --> 00:32:35.698 So in short and in summary,
NOTE Confidence: 0.819561746153846
00:32:35.700 --> 00:32:37.149 there are many options and I believe
NOTE Confidence: 0.819561746153846
00:32:37.149 --> 00:32:38.763 that all patients should be offered a
NOTE Confidence: 0.819561746153846
00:32:38.763 --> 00:32:39.953 consultation with a plastic surgeon.
NOTE Confidence: 0.819561746153846
00:32:39.960 --> 00:32:43.026 To just discuss those reconstructive options,
NOTE Confidence: 0.819561746153846
00:32:43.030 --> 00:32:45.142 I’m a big proponent of shared
NOTE Confidence: 0.819561746153846
00:32:45.142 --> 00:32:45.846 decision making.
NOTE Confidence: 0.819561746153846
00:32:45.850 --> 00:32:48.524 I don’t push patients in any direction.
NOTE Confidence: 0.819561746153846
00:32:48.530 --> 00:32:50.042 I kind of provide them the menu and
then we have a good conversation about what’s going to be best for them. And then as I mentioned before, the method and timing of the procedure is one that should fulfill the patients needs and lifestyle. So with that I will stop sharing. Thank you all very much. Yeah. Thank you so much, Doctor Butler, and we’re so lucky to have you at Yale. Paris has a national reputation in oncoplastic reconstruction and many of our patients have thought about breast reduction or lift their whole life. And the ability to have it covered by...
insurance or the inability to pay cash
00:33:27.577 --> 00:33:30.410 has prohibited them from moving forward.
NOTE Confidence: 0.942527464
00:33:30.410 --> 00:33:32.462 So when they come to us with a cancer,
NOTE Confidence: 0.942527464
00:33:32.470 --> 00:33:35.536 it's an opportunity to both improve.
NOTE Confidence: 0.942527464
00:33:35.540 --> 00:33:38.258 Eristics and also make it easier
NOTE Confidence: 0.942527464
00:33:38.258 --> 00:33:40.070 for their downstream treatment
NOTE Confidence: 0.942527464
00:33:40.149 --> 00:33:42.309 with lower risk of lymphedema.
NOTE Confidence: 0.942527464
00:33:42.310 --> 00:33:43.210 As you mentioned,
NOTE Confidence: 0.942527464
00:33:43.210 --> 00:33:45.830 we're going to ship back to Doctor Zaneski.
NOTE Confidence: 0.942527464
00:33:45.830 --> 00:33:48.238 I think we've resolved our technical issues.
NOTE Confidence: 0.942527464
00:33:48.240 --> 00:33:50.512 So Eliza is going to load up his
NOTE Confidence: 0.942527464
00:33:50.512 --> 00:33:52.772 slides and we look forward to
NOTE Confidence: 0.942527464
00:33:52.772 --> 00:33:54.792 hearing about breast cancer surgery.
NOTE Confidence: 0.5556801
00:34:02.560 --> 00:34:06.450 OK. Alright, great. Thank you.
NOTE Confidence: 0.67799021
00:34:07.570 --> 00:34:09.370 Yes. And you'll be advancing them.
NOTE Confidence: 0.67799021
00:34:09.370 --> 00:34:11.126 Uh, thank you so much.
You have advanced to the next slide.

Great. And again, one more.

Perfect. Yeah.

We got stuff at the surgical clinic.


So, so this is, you know, an operating room here at Shoreline.

Detailed view, you can see the operating room table and

In the back right is our intraoperative

facts atron where we take specimen

radiographs and of course of

course the instrument table and

the operations that we do here you
00:34:48.053 --> 00:34:49.628 know surgical excision, biopsy,
NOTE Confidence: 0.805293687777778
00:34:49.628 --> 00:34:52.048 you know things like atypia,
NOTE Confidence: 0.805293687777778
00:34:52.050 --> 00:34:53.850 some women choose to have
NOTE Confidence: 0.805293687777778
00:34:53.850 --> 00:34:54.570 fibroadenomas removed.
NOTE Confidence: 0.805293687777778
00:34:54.570 --> 00:34:56.600 These are benign tumors and so all
NOTE Confidence: 0.805293687777778
00:34:56.600 --> 00:34:59.186 can be done here with with the
NOTE Confidence: 0.805293687777778
00:34:59.186 --> 00:35:00.830 localization as doctor Philpotts.
NOTE Confidence: 0.805293687777778
00:35:00.830 --> 00:35:02.759 Mentioned or without.
NOTE Confidence: 0.805293687777778
00:35:02.759 --> 00:35:05.974 Breast conservation to classical lumpectomy,
NOTE Confidence: 0.805293687777778
00:35:05.980 --> 00:35:08.215 the big departure from radical
NOTE Confidence: 0.805293687777778
00:35:08.215 --> 00:35:10.450 mastectomy decades ago that we’re
NOTE Confidence: 0.805293687777778
00:35:10.521 --> 00:35:13.460 performing hopefully over 70% of the
NOTE Confidence: 0.805293687777778
00:35:13.460 --> 00:35:16.100 time for early stage breast cancer.
NOTE Confidence: 0.805293687777778
00:35:16.100 --> 00:35:17.094 Radiological localization,
NOTE Confidence: 0.805293687777778
00:35:17.094 --> 00:35:20.573 Doctor Phil Potsin over that with wire
NOTE Confidence: 0.805293687777778
00:35:20.573 --> 00:35:22.478 localization and tag localization.
I’ll show some images as well. Localization can be same day, you know bundled with you want Academy or we have the option to localize the small tumors and radiology. Sleep on a separate day and then do the going back to me as a first case early in the in the morning. Axillary surgery, things like Sentinel lymph node biopsy routinely performed here actually lymph node dissection or a lymph node excision biopsy to help our hematologists and oncologists with lymphoma diagnosis.
were often involved in that.

And as we go forward, we’ll be introducing mastectomy. Under the directorship of Doctor Greenup at Shoreline, Same Day mastectomies, possibly in the near future, mastectomies with immediate breast reconstruction, implant based, possibly same day discharge. It was working on that in New Haven. That’s a new addition to the Department of Surgery. And maybe even overnight stay at Shoreline one day. So all these things are are being
thought about and discussed to again bring more complex breast and reconstruction surgery out to the community and closer to the patient’s home that the next slide please.

Yea. This is again some of the localization. I can see the two wires there. That’s a bracketed lumpectomy. And then the other image is what we call our tag localization, which can be placed prior to the day of surgery. And again, these are utilized to find small tumors within the breast that are not palpable. Next slide.

There’s a picture of a
Sentinel lymph node biopsy.

I can see the tiny blue dye.

We can do intraoperative injection of the radioisotope or the blue dye. These are two markers that are injected into the breast to help identify the Sentinel lymph node biopsy. And that’s part of a routine staging process. As we are moving forward, there’s a new initiative called the Choosing wisely initiative.

Businesses from the Society of Surgical Oncology and the American Board of Internal Medicine where maybe we can deescalate and not have to do or routinely do a Sentinel lymph node
biopsy for our women who are 70 and above.

Early stage breast cancer with favorable biologic markers,

meaning estrogen receptor positive,

her two negative patients are taking to this very strongly when we discuss this because what it’s able to do is reduce the amount of side effects when the even though it’s low risk with Sentinel and biopsy,

we’re able to lower that even further by not removing lymph nodes and also a range of motion issues.

So that’s been a new, a new approach in surgical.
College over the last four to five years.

And the next slide please.

And the specimen radiograph again, you know,

focusing on the instrument.

Uh, the machine in the back,

right when we do the lower

back we were able to do.

Immediate specimen radiograph,

this is very good for confirming your

removal of the tumor of the biopsy clip,

but it also helps with with

helps us with margin status.

You know one of the big things with

successful oncologic surgery is negative

margins for invasive cancers 2 Senate,
carcinoma in situ only lobectomies and we're able to gain more a lot of information with the intraoperative specimen radiograph to look at the margins. To see as a surgeon, you know are things looking very good on that radio graph and to take shave margins at that time of surgery and thereby reduce the risk of second operations for margin resection. You know our goal is to keep that and never achieve 0, but we want to find a very nice range where it’s not too high, not too well,
so we can have good cosmetic outcome, and that machine is very important.

Next slide please.

Go back one here, and we are. Yeah.

So again, this is a special radiograph. The larger one is a lumpectomy, and to the middle slide is a lymph node. You know the tiny lymph node with the biopsy clip in it here at Yale over routinely put a biopsy clip after a lymph node has been radiologically biopsied.

And we can confirm retrieval of that in the operating room to
help with our accuracy and false negative rates with Sentinel. You know biopsy. Next slide please.

And with regard to clinical trials at the shoreline and in our clinics, we’re able to offer you know, two trials, surgical trials. This the alliance A 011202 was open here and is now reached the coral and we’ll be awaiting those results in about 5 years. And we’ve had patients who’ve enrolled and able to do their files with us at Shoreline and we’re actively recruiting within the comet trial.
You know, we’re asking ourselves. Finally, believe it or not is aggressive treatment as you know,

are invasive cancer type treatments necessary for precancerous disease,

ductal carcinoma inside you and this is a randomized trial looking at,

believe it or not, possibly omitting surgery,

ductal carcinoma inside you and this is a randomized trial looking at,

possibly omitting surgery, randomizing women with favorable DCIS,

meaning a low risk to surgery or no surgery with the options of some of the other adjuvant therapies.

Um, so we’ve recruited patients at Shoreline already in our actively recruiting in this,
this trial to answer some of these pending questions of how aggressively do we need to treat ductal carcinoma in situ.

And comprehensive care, you know, a lot of our discussions when patients come in with newly diagnosed breast cancer or even high risk things like genetic counseling.

With appropriate referrals due to our genetic counselors. They’re not on site at Shoreline,
but certainly by zoom can do referrals.

Uh, social work we have on site social workers who help us uh routinely and

we’re very grateful to their help our outpatient oncology rehabilitation services,

OK, not on site,

but again a quick phone call to the director Scott Kaposa who is always willing to see our patients promptly and streamline them for various post surgical issues or even non post surgical issues, things like lymphedema.

Um or postmastectomy, pain,

all of those different things.

Uh, nutrition consultation,
00:42:48.234 --> 00:42:50.824 again um within the system,
00:42:50.830 --> 00:42:53.385 we’re able to access that at Smilo
00:42:53.385 --> 00:42:56.030 as well as smoking cessation.
00:42:56.030 --> 00:42:58.190 Patients have been very receptive
00:42:58.190 --> 00:43:00.350 to these consultations and part
00:43:00.421 --> 00:43:02.546 of our comprehensive care model.
00:43:02.550 --> 00:43:03.330 Next slide please.
00:43:06.570 --> 00:43:09.070 That concludes my discussion.
00:43:09.070 --> 00:43:11.569 Like to thank everybody for their time.
00:43:11.570 --> 00:43:13.460 The Breast Center number is
00:43:13.460 --> 00:43:15.350 there and there’s my e-mail.
00:43:15.350 --> 00:43:17.900 You know, certainly I encourage anybody
00:43:17.900 --> 00:43:20.470 to e-mail me directly and certainly
00:43:20.470 --> 00:43:22.852 will provide my cell phone number
00:43:22.852 --> 00:43:25.532 because a lot of the most difficult
00:43:25.532 --> 00:43:26.506
discussions I think in the primary

We're happy to help integrate and answer those.

Those questions, uh what types of follow-up screening strategies for high risk. Um, you know all of those different things. So always happy to help problem solve and would really encourage anyone to primary care OBGYN setting to certainly send an e-mail how can we help you remember sure surgery at shoreline for breast cancer, you know from Yale started in 2020 that was our first breast surgery there.
Breast conservation so alive. Of changing quickly um. And we would like to certainly get your feedback on how we can help you navigate your patients view benign disease, high risk as well as malignancy. And there's a shout out to Doctor Horowitz who started the clinic here several years ago with Doctor Kiley and it's a torture carrying and we've since her retirement we've added breast surgery and even expanding to reconstruction under the directorship of Doctor. Or Salvador.
Great things there.

And that's Elizabeth, our nurse practitioner, uh Renee, one of our assistants, and Sherry, one of our nurses and coordinators.

Again, feel free to always send an e-mail and happy to help in any way.

Thank you so much, Greg. And I think the community had big concerns that we would not be able to fill doctor Horowitz’s tremendous role in caring for our breast cancer patients. Those are big shoes to fill, but we're doing our best to keep up.
So we all prioritize access and a high quality patient centered care and we're here to help anytime.

So I’m going to turn it over to Doctor Zahir.

It’s a pleasure to introduce the next speaker known her for some time. Sarah Mcgillion is an associate professor of medicine, and she cares for patients with breast cancer in New Haven and more recently we are so happy to have her in Guilford. She’s also involved in education of students, residents and fellows here.
at Yale outside the clinic.

She's involved with cancer outcomes,

public policy and effective veness research,

which is called Copper Center

at Yale Cancer Center,

with a specific interest in

chemotherapy regimens used in the

treatment of breast cancer and how

they are used in clinical practice.

So welcome, Sarah.

So welcome everybody like Doctor Butler.

I think that this is clearly a topic

that fits very nicely into 10 minutes.

Describe my job in 10 minutes,
no problem. As what you said,
I do see patients at the Guildford location one day a week.
I'm also in New Haven one day a week.
But what we're really what we really want to get across is
anything we can do in New Haven, we can also do in Guildford and.
I love working in Guildford.
I love the parking situation.
Air rights is my worst nightmare.
But I love the the group that we have out here and I love my colleagues in Guildford.
So with the few small exceptions
of a couple of clinical trials
that really have very high level needs and rapid turnaround, we can do just about anything in Guildford that we can do in New Haven. What I really want to get across. If you have a patient who’s been diagnosed with breast cancer, she’s in for a ride, but she is also in for a ride. So if a patient has breast cancer, there’s a multidisciplinary team consisting of a medical oncologist, a radiation oncologist, and a surgeon and those three different disciplines work closely with
our diagnostic imagers as doctor Philpotts has described to get appropriate imaging right off the bat. We also have social work, physical therapy, Nutrition, genetics, fertility and reproductive endocrinology, all prior to the patient who might then have to undergo chemotherapy. Each of those little dots is a treatment. Then the patient might have surgery with a breast surgeon and a reconstructive surgeon as doctor Zaneski and Doctor Butler have described. They might continue on getting more
chemotherapy or more anti cancer therapy
prior to then getting radiation,
which could be up to 30 or even more.
With nutrition,
physical therapy all along the way and then once the definitive treatment is finished,
there’s continued follow-up visits,
mammograms, bone density studies,
injections, physical therapy and the list goes on and on.
So this is not one stop shopping,
this really requires a closely knit group of clinicians who are working together to provide the best care.
So just a little bit more about multidisciplinary care in the actual treatment of breast cancer itself. The goal of breast surgery is to remove the known cancer, obtain negative margins, evaluate the lymph nodes, removed the involved lymph nodes. Surgery alone can be curative radiation on top of that, and I don’t want to steal Doctor Higgins’s Thunder. However, the goal of radiation, as I like to describe it in clinic,
is to mop up any microscopic disease in
the breast and the regional lymph nodes,
and this is generally administered
after lumpectomy and can be recommended
even after a mastectomy and this.
The goal of radiation is to reduce local
recurrence. So then you might say,
well surgery, radiation,
well surgery is all clean.
Why do you need a medical oncologist?
Well, we have a different goal
in medical oncology and our goal
is to mop up the microscopically
undetectable disease systemically.
And our goal is to reduce the risk
of distant recurrence to reduce
the likelihood that a patient dies of metastatic breast cancer.

Umm. Nope. I’m going to do a little more animation.

This is what happens when you oops, when you copy forward animated things.

So how do we decide who gets what medical treatment? It’s a really complicated story. It takes into account patient characteristics, their age, their medical comorbidities, their own personal preferences. It takes into account tumor stage, which is tumor size, nodal status,
and the presence or absence of metastatic disease and tumor characteristics such as grade hormone, receptor status. Her two status. And I know that these may not be quite familiar. Concepts, but they the goal of this slide is to just demonstrate that it’s not one-size-fits-all for all patients. And based on that combination we then choose a systemic therapy. I want to review really quickly staging you know it’s it’s funny everybody comes into clinic and they that this is their number one question,
what’s my stage because apparently that’s the most common question as the nodal status and the presence of metastases.

More recently we started incorporating some of these other features of a breast cancer such as the grade, the estrogen receptor, and the progesterone receptor to come up with a more prognostic stage that’s really more aligned with the patient’s overall prognosis.
So you might say, OK, well what does all that mean? Grade is a measure of how aggressive the cancer appears under the microscope as described by our pathology colleagues. And in general, the higher the grade, the more aggressive we have to be to prevent a systemic recurrence. Then we get on to the estrogen and progesterone receptors. These are nuclear based hormone receptors. They and the kind of quick and dirty way of thinking about these is if the cancer expressed expresses...
estrogen or progesterone receptors, it’s fueled by hormones and so hormone deprivation or interference with that receptor and ligand interaction can be a therapeutic option and we have medications that do just that. Her two is a member of the EGFR family of cell surface receptors, and it can be overexpressed in some of the most aggressive breast cancers. Her two positive or her her two overexpressing cancers are often poorly differentiated and two overexpressing cancers are require chemotherapy and really, really aggressive and intense therapy.
We also have gene expression profiles at our disposal that can help determine whether or not a patient needs chemotherapy. One such example is the Oncotype DX, which is a 21 cancer related gene expression panel that spits out a number on a scale of zero to 100. The higher the number, the higher the risk of the recurrence. If that number is over 25 in general, chemotherapy is going to be discussed. It’s a kind of a quick and dirty way of thinking about what’s the underlying biology of the cancer.
we take a lot of things into consideration. We take into account medical history and the presence or absence of heart disease, diabetes, osteoporosis, prior venous thromboembolism, autoimmune disease and then importantly, and we haven’t mentioned this much, but we take into account family history, there are a lot of different genetic syndromes associated with breast cancer and the presence or absence of a genetic predisposition. May impact not only local therapy, but it’s becoming increasingly used to determine what systemic
therapies might be used. So I’ll quiz you all on this a little bit later.
These are all the chemotherapy regimens actually. These are not all of them, these are some of them, but they’re complicated and they all have different side effects. They all have different schedules, they all have different needs, different central access requirements, different durations. It’s because of this that doctors are here and I have a job.
but it’s complicated and different.

regimens are used for different.

Different settings.

We use a lot of different chemotherapy drugs.

Here are some common ones and

some of the more long-term side

effects that can happen.

These are really potent drugs

that do kill cancer,

and it’s great that they kill cancer,

but they can cause other problems as well,

namely cardiomyopathy with

some of the anthracyclines,

neuropathy with some of the taxanes,

and hypersensitivity

95
00:54:27.235 --> 00:54:29.055 reactions across the board.
NOTE Confidence: 0.8808648844
00:54:31.700 --> 00:54:33.228 Just really quickly, we,
NOTE Confidence: 0.8808648844
00:54:33.228 --> 00:54:34.756 the multidisciplinary treatment of
NOTE Confidence: 0.8808648844
00:54:34.756 --> 00:54:36.687 breast cancer does require conversations
NOTE Confidence: 0.8808648844
00:54:36.687 --> 00:54:38.913 for a number of different clinical
NOTE Confidence: 0.8808648844
00:54:38.913 --> 00:54:40.980 scenarios where we have to decide, well,
NOTE Confidence: 0.8808648844
00:54:40.980 --> 00:54:43.260 who’s going first, surgery going first?
NOTE Confidence: 0.8808648844
00:54:43.260 --> 00:54:45.198 Is chemotherapy going first? Are we,
NOTE Confidence: 0.8808648844
00:54:45.200 --> 00:54:48.296 are we thinking about other strategies?
NOTE Confidence: 0.8808648844
00:54:48.300 --> 00:54:50.432 And there are different
NOTE Confidence: 0.8808648844
00:54:50.432 --> 00:54:52.564 rationales for doing either.
NOTE Confidence: 0.8808648844
00:54:52.570 --> 00:54:54.295 It’s called adjuvant systemic therapy
NOTE Confidence: 0.8808648844
00:54:54.295 --> 00:54:56.906 when surgery is 1st and it’s called
NOTE Confidence: 0.8808648844
00:54:56.906 --> 00:54:58.966 neoadjuvant when chemotherapy is first.
NOTE Confidence: 0.8808648844
00:54:58.970 --> 00:55:00.257 So if you ever see that in a note,
NOTE Confidence: 0.8808648844
00:55:00.260 --> 00:55:01.884 that’s kind of all that that’s describing.
But this really does require close communication, particularly between the surgeon and the medical oncologist, but often requires the radiation input as well as the reconstructive surgery input to plan down the line once chemotherapy is complete. And then moving on into the more chronic phase of cancer of many cancer treatments, we use a lot of anti estrogen therapy, namely tamoxifen or other aromatase inhibitors which work by preventing the peripheral aromatization of steroids into estrogen.
And they work in different ways. They have pretty nasty potential side effects. Tamoxifen can cause vasomotor symptoms like hot flashes. Food changes. There's a small risk of blood clots and uterine cancer, although it may be helpful for osteoporosis. Aromatase inhibitors, on the other hand, can cause more of a second menopause in postmenopausal women with a persistent or even more pronounced low estrogen state. and can cause vasomotor symptoms, accelerated bone loss,
and even increased cholesterol. Once we’ve completed the definitive treatment or are into the surveillance phase, we do history and physicals one to four times per year. We do periodic screenings for family history. We manage some of the acute and chronic toxicities of our cancer treatments. Patients get annual mammograms. I think it’s important to note that we’re not doing routine surveillance imaging in the absence of clinical signs and symptoms that suggest recurrence. However, there may be a.
A low threshold to image in the setting of symptoms that meet what I like to call the three P’s symptoms that are perplexing, persistent or progressive. And that’s that’s where patients with a history of cancer may end up getting more scans as a result of. Unfortunately about 15% of the time are are curative treatments aren’t effective or patients present with metastatic breast cancer. The most common sites of breast
cancer metastases are bone,

liver, lung,

with brain being a distant fourth.

Although on average the life expectancy after a diagnosis of breast cancer is about two years,

this is a huge spectrum with patients that could live for even decades depending on some of their disease burden, their performance status, what type of breast cancer they have, and then the response that their cancer has to treatment. I wanted just to mention that this
an area that breast cancer and breast oncology is an area of a lot of research with lots of novel drugs that are all at our beck and call and all of which can be either administered IV IM subcutaneously or orally with new targeted agents such as CDK 46 inhibitors, PARP inhibitors, PI3 kinase inhibitors and antibody drug. Projects, and I'm not gonna bore you with all the mechanisms of all of those things, but they are new and exciting, keeping people with metastatic breast cancer alive for longer, to enjoy more quality life with their loved ones.
That is all that I have.

Thank you very much for the opportunity.

I'll turn it back over to I think Doctor Zahir.

Thank you, Sarah. That was wonderful.

That was an excellent review of what we do in 10 minutes and I completely agree with you.

We try to do what we are doing in New Haven and even more because of the very people that are presenting here tonight.

So before I go on to the last speaker, I just want to mention if you have any questions, please be prepared to ask.

And don’t be afraid to ask.
and write them down.

Also, there’s a choice to do that.

So the next speaker is really a pleasure

to introduce Doctor Susan Higgins,

I think for many years.

She’s a professor of therapeutic

radiology and of obstetrics,

She also serves as a.

Last year of Wellness and engagement

for therapeutic radiology and she is

a medical director for the radiation

Oncology at Shoreline Medical Center.

She completed her residency in

therapeutic radiology at Yale and
Great Great for Yale and all of us that she decided to stay here. For nearly 25 years she has dedicated herself as an educator, mentor, researcher and above all a dedicated clinician at Yale. It’s really a pleasure to work with her. We all, the all the patients as well as the staff at at the shoreline are so grateful that she’s here with us and takes care of our patients. Thank you.
01:00:15.410 --> 01:00:16.554 Yep. Thank you Angie.
NOTE Confidence: 0.8753506
01:00:16.554 --> 01:00:18.270 I’m going to share my screen
NOTE Confidence: 0.8753506
01:00:18.270 --> 01:00:21.210 and hopefully let me get to.
NOTE Confidence: 0.83398247
01:00:23.540 --> 01:00:25.640 Let’s see if I can get this
NOTE Confidence: 0.83398247
01:00:25.640 --> 01:00:29.030 to show the slideshow. OK.
NOTE Confidence: 0.8398247
01:00:29.030 --> 01:00:30.694 Hold on one second. OK.
NOTE Confidence: 0.8398247
01:00:30.694 --> 01:00:31.590 Can everybody see that?
NOTE Confidence: 0.928922105
01:00:33.820 --> 01:00:35.172 So one of the things I wanted to
NOTE Confidence: 0.928922105
01:00:35.172 --> 01:00:36.549 do was just a little bit of a,
NOTE Confidence: 0.928922105
01:00:36.550 --> 01:00:39.374 a little bit of a historic overview before
NOTE Confidence: 0.928922105
01:00:39.374 --> 01:00:42.607 I talk about radiation and and basically.
NOTE Confidence: 0.928922105
01:00:42.610 --> 01:00:44.374 It continues on some of the themes
NOTE Confidence: 0.928922105
01:00:44.374 --> 01:00:46.068 that others have talked about here.
NOTE Confidence: 0.928922105
01:00:46.070 --> 01:00:47.684 But in terms of the regional
NOTE Confidence: 0.928922105
01:00:47.684 --> 01:00:49.310 oncology services and the shoreline,
NOTE Confidence: 0.928922105
01:00:49.310 --> 01:00:51.608 you know we started the Shoreline
Medical Center actually it’s now about 18 years ago and it was one of the first places where we were able to get Yale medical Oncology, radiation oncology and diagnostic imaging under the same roof.

And I think we all had you know great hopes for the shoreline that are all now sort of coming true.

So it’s it’s a really exciting time to be here.

And Umm, we had served at this phase of the Yale New Haven Hospital, Shoreline Medical Center phase in the early 2000s,
but then we in 2019 here,

well in the near term we had this

smile all of course expansion

of our Cancer Center downtown

with the Smilow Cancer Center.

And then in 2019,

the investment in our infrastructure here

with the renovation and expansion of

all of our oncology and imaging services,

including upgrades that gave

us a beautiful surgical center.

With more accommodations for our

breast surgeons including our

plastic surgeons and more space for

our medical oncology colleagues.

And I think that you know we continue
to build the team and build the services.

And what we’re seeing now in 2022 as my colleagues have spoken about is that we really have a truly comprehensive multidisciplinary oncology Center for breast care here and we are happy to see you know in our. Our catchment area is expanding. And you know, we’re just very happy to serve the community and I think that as you know, we’re seeing a lot of gratitude from the patients and it’s just a great place to work and a great place to Park,
01:02:29.610 --> 01:02:30.100 right, Sarah?
NOTE Confidence: 0.846441477692308
01:02:32.870 --> 01:02:34.067 Not only a great place to work
NOTE Confidence: 0.846441477692308
01:02:34.067 --> 01:02:35.198 but a great place to Park.
NOTE Confidence: 0.846441477692308
01:02:35.200 --> 01:02:37.270 But anyway, so I just wanted to you know
NOTE Confidence: 0.846441477692308
01:02:37.270 --> 01:02:39.276 just I think if I get one point across
NOTE Confidence: 0.846441477692308
01:02:39.276 --> 01:02:41.137 is we’re happy to see your patients,
NOTE Confidence: 0.846441477692308
01:02:41.140 --> 01:02:42.946 we love working here and you know
NOTE Confidence: 0.846441477692308
01:02:42.946 --> 01:02:44.716 it’s one stop shopping for patients
NOTE Confidence: 0.846441477692308
01:02:44.716 --> 01:02:46.907 with breast cancer and it’s sort of
NOTE Confidence: 0.846441477692308
01:02:46.962 --> 01:02:48.825 a dream come true for a lot of us.
NOTE Confidence: 0.846441477692308
01:02:48.830 --> 01:02:52.200 So basically with regard to
NOTE Confidence: 0.846441477692308
01:02:52.200 --> 01:02:53.548 radiation therapy.
NOTE Confidence: 0.846441477692308
01:02:53.550 --> 01:02:55.766 To do a little bit of an overview,
NOTE Confidence: 0.846441477692308
01:02:55.770 --> 01:02:57.520 uh, people know a little less about
NOTE Confidence: 0.846441477692308
01:02:57.520 --> 01:02:59.162 radiation than they do about some
NOTE Confidence: 0.846441477692308
01:02:59.162 --> 01:03:00.557 of the other oncologic disciplines.
So I’ll just start with like a little tiny intro of radiation 101, then talk about radiation therapy and the multidisciplinary treatment of breast cancer, both for breast conservation and patients who have had a mastectomy. And one of the technical advances that I wanted to talk about today is one of our, our projects that we began a few years ago that’s at all of our sites. That has really changed what we do with regard to treatment and that’s the deep inspiration breath hold technique.
01:03:31.020 --> 01:03:32.630 I thought it would be helpful to
NOTE Confidence: 0.846441477692308
01:03:32.681 --> 01:03:33.923 speak about some of the things
NOTE Confidence: 0.846441477692308
01:03:33.923 --> 01:03:35.768 that we do for our patients with
NOTE Confidence: 0.846441477692308
01:03:35.768 --> 01:03:37.378 metastatic disease because as our
NOTE Confidence: 0.846441477692308
01:03:37.378 --> 01:03:39.716 systemic therapies are getting better,
NOTE Confidence: 0.846441477692308
01:03:39.716 --> 01:03:41.964 we’re being called upon.
NOTE Confidence: 0.846441477692308
01:03:41.970 --> 01:03:44.226 We as radiation oncologists are being
NOTE Confidence: 0.846441477692308
01:03:44.226 --> 01:03:46.785 called upon now even more to help
NOTE Confidence: 0.846441477692308
01:03:46.785 --> 01:03:48.765 with the sites of sanctuary sites
NOTE Confidence: 0.846441477692308
01:03:48.765 --> 01:03:51.141 like the CNS and some extracranial
NOTE Confidence: 0.846441477692308
01:03:51.141 --> 01:03:53.116 sites have been static disease.
NOTE Confidence: 0.846441477692308
01:03:53.120 --> 01:03:55.955 So, you know, for five decades now,
NOTE Confidence: 0.846441477692308
01:03:55.960 --> 01:03:57.645 radiation therapy has been an
NOTE Confidence: 0.846441477692308
01:03:57.645 --> 01:03:59.330 essential part of the oncologic
NOTE Confidence: 0.846441477692308
01:03:59.385 --> 01:04:01.180 triad of oncologic treatments and
NOTE Confidence: 0.846441477692308
01:04:01.180 --> 01:04:03.640 about 50% of people who have cancer
receive radiation therapy during their course of their illness.

And it's radiation is a key component of curative breast cancer treatment, both in breast conservation therapy where patients who receive lumpectomy in general with a few exceptions, but most patients who get a lumpectomy. It's followed by as as Doctor McCallion pointed out, we are the cleanup crew radiation therapies used to take care of microscopic cells that might be left in the breast or nodes and following mastectomy select patients.
not all, but many patients received postmastectomy radiation therapy. To reduce the risk of local recurrence, radiation has been shown to be really safe and effective, and it can reduce the risk of local and regional recurrences by 50 to 70%. And in certain patient subsets, radiation therapy is associated with an increase in survival. And in general, um, this very basic radiobiology. It’s ionizing radiation causes damage to cellular DNA and in malignant cells. They are not able to repair this DNA.
damage and they cannot reproduce in normal cells.

There’s also damage to the DNA, but it’s normal cells are better able to repair this type of DNA damage. And radiation therapy is delivered with the linear accelerator. We have two bays downstairs in our department, we’d say emits high energy photon beams and we target the breast and regional nodes. And what you see here is just a schematic of a patient on the treatment table getting what we would call breast tangents.
And in the upper right hand corner, you can see that we’re targeting the breast and we basically have a tangential field that comes across the chest wall and you can see that sometimes we have a little bit of underlying. Along in the field and we’re going to talk about that in a minute. But basically, as Doctor Magellan referred to, we do daily treatments and it’s delivered over the course of three to six weeks, so there is some time involved. Treatment again is directed at the breast or chest wall with or without the regional nodes.
And the way it’s done is in terms of the just logistics, patients come in for something called the simulation, which is a CAT scan and they’re immobilized in the position that we’re going to use for treatment. And basically it’s shown here they’re on a slant board. The arms are over the head because we need to have the arms out of the way when we treat the breast and the nose with fields that are directed and those at the chest. And what we get is a CT scan that
01:06:38.910 --> 01:06:40.618 shows us the patient’s entire,
NOTE Confidence: 0.766930606666667
01:06:40.620 --> 01:06:41.104 you know,
NOTE Confidence: 0.766930606666667
01:06:41.104 --> 01:06:43.685 body and we can do sort of a 3D
NOTE Confidence: 0.766930606666667
01:06:43.685 --> 01:06:46.108 reconstruction. Of their body.
NOTE Confidence: 0.766930606666667
01:06:46.110 --> 01:06:48.616 And the doctor then goes to the
NOTE Confidence: 0.766930606666667
01:06:48.616 --> 01:06:51.162 computer and we use that CT data
NOTE Confidence: 0.766930606666667
01:06:51.162 --> 01:06:52.206 set to contour.
NOTE Confidence: 0.766930606666667
01:06:52.210 --> 01:06:54.172 We will contour out the targets
NOTE Confidence: 0.766930606666667
01:06:54.172 --> 01:06:56.586 which are the breast and the nodes
NOTE Confidence: 0.766930606666667
01:06:56.586 --> 01:06:58.316 and then the physician prescribes
NOTE Confidence: 0.766930606666667
01:06:58.316 --> 01:07:00.459 the the dose to those targets.
NOTE Confidence: 0.766930606666667
01:07:00.460 --> 01:07:02.700 Then then our sophisticated
NOTE Confidence: 0.766930606666667
01:07:02.700 --> 01:07:04.380 treatment planning system
NOTE Confidence: 0.808383406
01:07:04.380 --> 01:07:05.630 comes up with what we
NOTE Confidence: 0.808383406
01:07:05.630 --> 01:07:06.880 call a 3D conformal plan.
NOTE Confidence: 0.808383406
01:07:06.880 --> 01:07:09.124 It's a basically the optimal beam
arrangement and the beam strength and beam shape to maximize the dose to the targets which breast in nodes and minimize the dose to the organs at risk like the lung and heart. So this is sort of a what a this actually comes right off of our treatment planning system. This is what you would see when you do that 3D conformal treatment in the upper left hand corner. I don’t know if you could see my can you see my pointer here? Probably not, but in the upper, you can’t good in the upper left hand corner.
Thank you, Sarah.
You can see there are two tangential fields and there’s a green that represents the dose to the breast tissue.
So this would be a right breast cancer,
a beam would be coming this way from the right,
a beam from the left and then a single field that’s pointed at the patient for the Super cloud fields.
But this would be a typical sort of dose distribution and this is the, this is what the physician basically is.
Is going to you know devise in order to treat that patient’s breast cancer.
I’m have one sort of schematic here
just to show you again this is a cross section of a patient’s heart. In Gray’s lungs in black, the actual treatment fields for a right breast cancer, one would be the lateral field, one would be a medial field and the beams basically treat the breast and just some of the underlying lung. For postmastectomy radiation, it’s very similar sort of theme. But in this case, we’re treating the chest wall or a reconstructed breast, whether that’s an implant or a deep flap and the regional notes.
So again, you can see on the patient that the regional notes up above in the clavicle area and under the arm are being treated along with the chest wall. And not everyone who has a mastectomy needs postmastectomy radiation. We often have lots of discussions with patients about whether they fall into the category that is high risk and that usually includes. Patients with positive nodes AT3 or larger tumor or a positive margin. So what has happened over the years is that our technical advances have basically been aimed at making this a safer treatment, and that means
maximizing the dose of the target,

minimizing the dose to the underlying organs and for left press treatment,

the underlying organs that we’re trying to spare a lung and heart.

So one of the new things we’ve been able to do in the last few years is to address this with the deep inspiration breath hold.

Technique.

But let me just show you what the challenge is from an anatomic standpoint.

I think was just showing you that the tangent fields that we’re trying to use are coming across the chest wall.
and you’re trying to treat the green, which is the breast tissue without encountering too much lung, which is black and heart circled here in red. But the problem is, in many ladies, the heart and lung are immediately adjacent to our target. And in the past, we could adjust the beams, we could change the strength of the beam, we could shape the beam, but we couldn’t change the anatomy. So we do now have a technique to do that and it’s called the deep inspiration breath hole technique.
And it’s there are two things we need to do this we have to use in surface imaging system.

Uh, a specific surface imaging system that I’ll show you in a minute, and a special gated treatment delivery system.

So the surface imaging system is a new technology that allows us to map out and actually in real time put a surface map on a patient. Using a light system, there are three cameras and we’re able to check a patient’s
position prior to treatment.
NOTE Confidence: 0.928653492142857

And see if they’re in the correct position.
NOTE Confidence: 0.928653492142857

By looking at the overlay of a pre
NOTE Confidence: 0.928653492142857

sort of pre recorded or pre obtained
NOTE Confidence: 0.928653492142857

body contour and basically when
NOTE Confidence: 0.928653492142857

blue and green coincide they’re in
NOTE Confidence: 0.928653492142857

the exact right position position.
NOTE Confidence: 0.928653492142857

Every part of their body is within a few
NOTE Confidence: 0.928653492142857

millimeters on you know where it should be,
NOTE Confidence: 0.928653492142857

but if you see red or yellow that
NOTE Confidence: 0.928653492142857

means that body part is in or out of
NOTE Confidence: 0.928653492142857

the plane of the field and basically
NOTE Confidence: 0.928653492142857

that allows us to maneuver them in the
NOTE Confidence: 0.928653492142857

exact position prior to treatment,
NOTE Confidence: 0.928653492142857

which is really important again
NOTE Confidence: 0.928653492142857

when we’re trying to.
Deliver with, you know, sub millimeter to millimeter accuracy. The other thing this does is allows us to track in real time these cameras are on in real time and giving constant feedback so that as a patient’s chest wall changes in the motion of the chest as the chest wall moves, we are able to track the chest wall. And that allows us to perform what we call gated treatments. So when the patient is breathing we can choose when to deliver radiation and when to have the...
radiation beam stopped and we call those gated treatments. So it actually all starts when we simulate the patient. So when they come in for simulation and we used a basically a just a mockup of a torso here. But when they come in, there's a a camera here that actually starts to collect this data on their surface of the patient, collects the surface image and we pick up a spot for tracking their chest wall motion. And who so once we picked that spot? We then have the patient start
breathing and where this is what
we’re seeing in the control room,
the patients actually in,
let’s imagine this patients in the simulator.
And we’re tracking this position on
their chest. They have these goggles on.
We asked them to basically,
this is their baseline breath
and then we ask them to inhale.
You’ll see they’ll hold their
breath and then we exhale and
the baseline breathing inhale.
What we’re trying to do is figure
out exactly what position can they
sort of reproducibly obtain with,
you know, expanding their chest.

In other words, what’s their kind of comfortable breath hold volume?

And it’s really cool because what was really interesting about this is we thought, this is going to be too much for patients. It’s going to make them really nervous. But what was really cool about it was it gave them something to do. And the Goggles Act sort of like A to insulate them from other, like, distractors. And it actually helped a lot of our patients feel more comfortable.
And I think people like to participate in their care. You know, people like say, oh, what can I do to help myself? And when we tell them this is something you could do and you can’t do it wrong, they like that. So when we do the simulation and you look at. The comparison will do basically a simulation. We’ll look at it in free breathing, and we’ll look at what their chest looks like in breath. You can see this patient in free breathing.
The chest is right up against, I'm sorry, the heart is right up against the chest wall. You could see the heart sitting on the diaphragm on the right when they expand. The heart that creates a little space between the heart and the chest wall. So diaphragm drops and the heart moves down. The heart that creates a little space between the heart and the chest wall. So diaphragm drops and the heart moves down and away from the chest wall. So now when we go to do our planning.

So Step 2, as you did your simulation, now you want to go back and do your treatment plan. And on the left you could see free breathing.
01:14:35.500 --> 01:14:37.756 The chest is sort of collapsed.

01:14:37.760 --> 01:14:38.604 And there's the line.

01:14:38.604 --> 01:14:40.283 That little green line is where we’d like

01:14:40.283 --> 01:14:41.779 to put the edge of our tangent field.

01:14:41.780 --> 01:14:42.758 You could see it’s right near,

01:14:42.760 --> 01:14:44.765 actually right near the left

01:14:44.765 --> 01:14:45.968 anterior descending artery.

01:14:45.970 --> 01:14:47.380 But when the patient on the

01:14:47.380 --> 01:14:48.610 is doing their breath hold,

01:14:48.610 --> 01:14:49.858 this is the same patient on

01:14:49.858 --> 01:14:50.950 the right and breath hold.

01:14:50.950 --> 01:14:52.786 We’ve moved the chest on the

01:14:52.786 --> 01:14:54.641 contents of the chest such that

01:14:54.641 --> 01:14:56.615 the heart is now moved away from

01:14:56.615 --> 01:14:58.651 the field and a smaller portion of

NOTE Confidence: 0.866093403333334

133
the lung is now being radiated.

So actually you know it was really a game changer because now you know your sort of therapeutic ratio, your risk benefit is really changed because you've been able to change the internal organs.

And then finally, when they get on the treatment machine, you have to have what's called a gated delivery system. So now we've set up the plan.

They know what to do with the goggles, but when you actually deliver radiation, you have to have a system that basically will only give the...
01:15:26.565 --> 01:15:28.375 radiation when they’re in the
NOTE Confidence: 0.866093403333334
01:15:28.375 --> 01:15:30.042 exact correct breath hold position.
NOTE Confidence: 0.866093403333334
01:15:30.042 --> 01:15:32.490 And I tell them you can’t do it wrong
NOTE Confidence: 0.866093403333334
01:15:32.552 --> 01:15:34.869 because they all get nervous about that.
NOTE Confidence: 0.866093403333334
01:15:34.870 --> 01:15:36.872 But basically we have three cameras in
NOTE Confidence: 0.866093403333334
01:15:36.872 --> 01:15:39.156 the room and the three cameras again
NOTE Confidence: 0.866093403333334
01:15:39.156 --> 01:15:41.660 are tracking the patient’s chest wall motion.
NOTE Confidence: 0.866093403333334
01:15:41.660 --> 01:15:42.638 And this biofeedback allows them
NOTE Confidence: 0.866093403333334
01:15:42.638 --> 01:15:45.520 to position their chest in exactly
NOTE Confidence: 0.866093403333334
01:15:45.520 --> 01:15:47.080 the right spot and when they’re
NOTE Confidence: 0.866093403333334
01:15:47.080 --> 01:15:48.989 And we have,
NOTE Confidence: 0.866093403333334
01:15:48.990 --> 01:15:50.486 a vertical line that goes up and down.
NOTE Confidence: 0.866093403333334
01:15:50.490 --> 01:15:52.380 And this biofeedback allows them
NOTE Confidence: 0.866093403333334
01:15:52.380 --> 01:15:54.674 to position their chest in exactly
NOTE Confidence: 0.866093403333334
01:15:54.674 --> 01:15:56.672 the right spot and when they’re
NOTE Confidence: 0.866093403333334
in that spot

and their chest wall is expanded.

The beam goes on, treatments delivered in 20 seconds,

30 seconds at a time and when they exhale the beam goes off.

So this is a way that you know again with this system that we use we can significantly reduce the dose to the heart and lung.

And again it was a real game changer because this is an actually this is being used with lymphomas and other thoracic malignancies because now using breath hold we can actually change their anatomy to suit what
we need to do for the malignancy.

And then just two final things I wanted to speak about.

Now that we have such great systemic therapies,

we are seeing that we’re using more and more radiation therapy and a stereotactic fashion to deliver radiation.

In higher doses to more targeted sites so that we can optimize the control of both intracranial and extracranial metastatic disease.

For intracranial metastatic disease, we have the only gamma knife stereotactic radiosurgery unit in the state.
We have a huge gamma knife program.

It's very active.

I don’t know how many thousands of patients they see a year,

but it’s I’d say the gamma knife is pretty much running almost all the time.

Now we also have a new program with Doctor Ann,

which is the Spine SRS program and that program with Doctor Mandel is getting very active.

And I’ll just.

I’ll give the little background in why we do spine radiosurgery in a minute,

but we also have the ability to do body radio surgery and that would
01:17:36.651 --> 01:17:39.042 be for sites that again someone
NOTE Confidence: 0.817686503461538
01:17:39.042 --> 01:17:40.854 has a long disease free interval,
NOTE Confidence: 0.817686503461538
01:17:40.860 --> 01:17:42.743 something comes up in a site that
NOTE Confidence: 0.817686503461538
01:17:42.743 --> 01:17:45.326 we feel might be the only site or a
NOTE Confidence: 0.817686503461538
01:17:45.326 --> 01:17:47.076 limited site of extracranial metastatic
disease. We can also do body SRS.
NOTE Confidence: 0.817686503461538
01:17:47.076 --> 01:17:50.500 disease. We can also do body SRS.
NOTE Confidence: 0.817686503461538
01:17:50.500 --> 01:17:53.302 So any type of stereotactic radiosurgery
NOTE Confidence: 0.817686503461538
01:17:53.302 --> 01:17:55.840 requires a very highly precise,
NOTE Confidence: 0.817686503461538
01:17:55.840 --> 01:17:58.008 precise treatment and a
NOTE Confidence: 0.817686503461538
01:17:58.008 --> 01:17:59.634 lot of immobilization.
NOTE Confidence: 0.817686503461538
01:17:59.640 --> 01:18:00.820 But the advantage there is
NOTE Confidence: 0.817686503461538
01:18:00.820 --> 01:18:02.360 that you can treat a large,
NOTE Confidence: 0.817686503461538
01:18:02.360 --> 01:18:04.435 a small target with extremely
NOTE Confidence: 0.817686503461538
01:18:04.435 --> 01:18:06.980 high doses and very high dose,
NOTE Confidence: 0.817686503461538
01:18:06.980 --> 01:18:08.212 steep falloff of dose.
NOTE Confidence: 0.817686503461538
So very little dose to the surrounding tissue and it’s typically done in a single fraction. This is actually being used very frequently for lung cancers. Now for early stage lung cancer, the benefit from metastases is that you can get more durable local control and again in select patients. As they spoke about with the spine SBRT program, the spine SBRT, here’s just a Schematic that shows how precise it is. You can see that you can take this very high dose curve which is red and wrap a very high dose around the vertebral body while avoiding the spinal canal.
canal, spinal cord and that dose can be adjusted within again a few millimeters. It's a very precise treatment. It requires milligrams, etcetera, but very helpful for various patient populations. Spinus PR T is being used for people with oligo metastatic disease, especially if it’s a new diagnosis. Some people have a limited metastatic lesion after a long interval from their primary diagnosis. Or for people who have previously radiated spine metastases, we've done maybe external beam,
and then they have a recurrence, which is unusual, but maybe a recurrence a few years later. We can give this and spare the spinal cord and treat the vertebral body. And finally, just our gamma knife program and especially in this era of very effective targeted therapies, we still have the brain is still a sanctuary site. We are still dealing with people who have uncontrolled or come to us with uncontrolled intracranial disease. And with our gamma knife program, we’re able to deliver very high doses of...
01:19:54.262 --> 01:19:56.498 radiation to multiple brain metastases.

01:19:56.500 --> 01:19:58.120 It's a single treatment session.

01:19:58.120 --> 01:19:59.038 People go home.

01:19:59.038 --> 01:20:01.670 I know that Doctor Bindra says his famous,

01:20:01.670 --> 01:20:01.882 his,

01:20:01.882 --> 01:20:03.790 his favorite call is like the people who say,

01:20:03.790 --> 01:20:04.240 Oh yeah,

01:20:04.240 --> 01:20:06.040 I just went golfing like the guys like

01:20:06.092 --> 01:20:07.856 24 hours out and he gives him a follow

01:20:07.856 --> 01:20:09.689 up call and the guy was out golfing.

01:20:09.690 --> 01:20:11.022 It's a very,

01:20:11.022 --> 01:20:15.434 very beneficial, very effective treatment and gives more

01:20:15.434 --> 01:20:17.366 durable local control for brain medicine,

01:20:17.370 --> 01:20:18.930 significant decrease in morbidity

NOTE Confidence: 0.80468742777778
when compared with our standard whole brain radiation therapy.
And you know, Doctor Chang and my other colleagues are just always available and a doctor is here and I work really closely with them. And and Doctor McGauley and we we can get those patients to the gamma knife people to the spine radio surgeons and anything they need at any time. So we we have a very like hand in glove type of relationship with them. So basically radiation therapy to summarize is an essential part of the multidisciplinary.
It’s very safe and effective, and I think the DBH is making it even more safe and effective. It reduces the risk of local and regional recurrence by 50 to 70%. And you know what’s really going to help in the future with quality of life for patients, especially for gamma knife. Use of these stereotactic procedures to control local regional disease and metastatic disease. Thank you very much.
comprehensive with short review of radiation

oncology and what we provide here.

The biggest thing is availability of all the providers and really the great thing that I can call you and get the person in fairly quickly within the same day or sometimes within 24 hours and that’s wonderful.

So thank you very much for everybody to join us today and I just was hoping we would have some questions from the audience.

I don’t know how do they ask I don’t see any.

I’m going to stop sharing. There we go.

I don’t know how do they ask
01:22:03.274 --> 01:22:04.130 questions, I’m not sure.
01:22:05.820 --> 01:22:06.980 I’m looking at the question
01:22:08.440 --> 01:22:08.440 answer in the chat,
01:22:12.240 --> 01:22:14.337 So I may ask one question of all the,
01:22:14.340 --> 01:22:16.140 you know, all the speakers
01:22:17.940 --> 01:22:20.916 Umm, it’s a very simple question.
01:22:20.920 --> 01:22:22.915 What do you think is the most
01:22:24.355 --> 01:22:26.451 over the past year and it can be
01:22:26.514 --> 01:22:28.348 one or two sentences and we can
01:22:28.348 --> 01:22:30.199 finish up this meeting this evening.
I think the biggest breakthrough was the use of an antibody drug conjugate, which is kind of like a very directed heat seeking missile toward the her two protein which is effective in not just people who have truly hurt to overexpressing cancers, but lots of different other kinds that have very low levels of expression. Kind of revolutionary in the treatment of metastatic disease waji. I would point out that there is a question that asks about the best way to initiate a referral to the breast team. You can answer there.
through any referrals to breast surgery can be breast surgery.

Guildford can be breast surgery New Haven.

And a part of our process is to try to make sure that we're accommodating where the patient’s coming from. So that if the patient is located on the shoreline, we really try to get them into the shoreline because there’s no reason for them to shut down and tolerate the air rights garage.

And you know, if there’s ever any question, you’re welcome to call us. Any one of us call me especially
if you want to. I mean, I will get the person in right away.
All of the providers here. I know, I know they can, they can make space.
I happen to know that people sit in the queue for our referrals for less than 24 hours, so we usually make those appointments within one business day.
So Leanne, what do you want to tell us about the latest development in radiology over the past year, there have been many.
In the past year. Not really sure if there’s anything really in the in the past year.
I mean there are things artificial intelligence is obviously taking off in breast imaging. It’s a challenging area though compared to other areas of radiology. Mammography is just really one of the hardest things. But I think we’ll see that coming very shortly and that should help us some you know hopefully improve our accuracy and reduce again a lot of false positives. I think that’s that’s where I see it, it helping a lot. I can’t share any more slides.
01:24:47.700 --> 01:24:48.375 on Thomas synthesis,
NOTE Confidence: 0.9131738125
01:24:48.380 --> 01:24:50.228 but we’re going to be presenting
NOTE Confidence: 0.9131738125
01:24:50.228 --> 01:24:51.467 data next month looking,
NOTE Confidence: 0.9131738125
01:24:51.467 --> 01:24:52.081 you know,
NOTE Confidence: 0.9131738125
01:24:52.081 --> 01:24:54.230 we’ve been doing it for 10 years
NOTE Confidence: 0.9131738125
01:24:54.292 --> 01:24:56.189 and looking at all of our cancers
NOTE Confidence: 0.9131738125
01:24:56.189 --> 01:24:57.848 on detected with Thomas synthesis
NOTE Confidence: 0.9131738125
01:24:57.848 --> 01:24:59.930 and comparing it with the 2D
NOTE Confidence: 0.9131738125
01:24:59.994 --> 01:25:02.076 mammography and we are finding a
NOTE Confidence: 0.9131738125
01:25:02.076 --> 01:25:04.000 difference in the advanced cancers,
NOTE Confidence: 0.9131738125
01:25:04.000 --> 01:25:09.140 significantly fewer advanced cancers, so.
NOTE Confidence: 0.9131738125
01:25:09.140 --> 01:25:10.388 You know,
NOTE Confidence: 0.9131738125
01:25:10.388 --> 01:25:12.614 that’s it’s encouraging you know,
NOTE Confidence: 0.9131738125
01:25:12.614 --> 01:25:13.499 because we just don’t want
NOTE Confidence: 0.9131738125
01:25:13.499 --> 01:25:14.360 to find more cancers,
NOTE Confidence: 0.9131738125
01:25:14.360 --> 01:25:16.448 we want to find the bad cancers and we’re
finding the bad cancers at a a lower stage.
So really feel good about that.
So, you know, definitely tomosynthesis is is here to stay, there's no doubt about that.
But yeah, I think AI is going to be the next big thing.
Any of the other speakers, Paris or Greg, Susan, the medical devices, the the prosthesis, the implants they get better and better. We're on our fifth generation of
implants at this point in time and
they increasingly get more sturdy.
I have been in practice long enough.
So president plants of silicone breast implants have been out for well over 50 years.
And that first generation and even second generation when they ruptured it was a nightmare to remove them and I've had to do more than my fair share. This fifth generation they call them cohesive, stable so. The gummy bear implants. So you can imagine a gummy bear, if you cut a gummy bear in half, nothing leaks out.
That’s what all of these new devices are like, which is of benefit in many ways. One is they tended to have better durability. The second is that they tend to have longer and better projection for a longer period of time. So I would say and over the course of the year this most recent generations kind of come out and really has become very popular. Great.
you know through residency and fellowship I think and also the menu clinical trials we see at breast. I think what I've seen the most is the patients now inactive participant. Yeah, they now have a big voice in terms of how much imaging they want to do, much imaging they want to do, and I think what we're going to see more and more with the help of plastic surgery. You know we're able to give them more surgical options.
01:27:21.950 --> 01:27:24.035 You know as we’re accumulating
01:27:24.035 --> 01:27:26.016 more trials we’re finding that
01:27:26.016 --> 01:27:28.308 you know maybe less axillary lymph
01:27:28.308 --> 01:27:29.638 node dissections and surgeries,
01:27:29.638 --> 01:27:31.218 maybe patients are going to
01:27:31.218 --> 01:27:32.558 be doing just as well.
01:27:32.560 --> 01:27:35.916 We have a lot of trials that have met
01:27:35.916 --> 01:27:39.004 accuro and are going to be releasing their,
01:27:39.010 --> 01:27:41.229 you know their data in five years
01:27:41.229 --> 01:27:43.727 and I think it’s nice to see
01:27:43.727 --> 01:27:45.567 you know the patient advocacy.
01:27:45.570 --> 01:27:47.844 For themselves and and they’ve really
01:27:47.844 --> 01:27:50.002 been an active participant and you
01:27:50.002 --> 01:27:51.742 know it’s nice to see physicians
who have had an open year and a lot

of our conversations are are really
grounded toward them and and
we’re happy to provide all those
different operations different options.

So it’s really been enlightening.

Thank you. That’s, that’s great.

Susan, you want to add something?

I would say that the thing I’ve
seen over the last few years that’s
been gratifying on a personal level
and I think my colleagues are,
we’re just enjoying working with our
plastics colleagues and making sort
of this I think multidisciplinary
efforts of knowing when and how to
kind of coordinate the radiation
with regard to all the different
reconstruction techniques has been
really gratifying and as they check.
Says the techniques change.
We like to learn how to change with them.
We all have very good communication and
we’re able to sort of preempt a lot of
the issues that I think maybe in the
beginning of many years ago when we
people started doing plastics procedures,
NOTE Confidence: 0.866679508888889
we didn’t know all the questions
NOTE Confidence: 0.866679508888889
to ask up front.
NOTE Confidence: 0.866679508888889
But now I think we have a really
great workflow for communicating
NOTE Confidence: 0.866679508888889
with their colleagues and patients
NOTE Confidence: 0.866679508888889
get really good oncologic as well
NOTE Confidence: 0.866679508888889
as plastics outcomes because we’re
NOTE Confidence: 0.866679508888889
all sort of on the same page and
NOTE Confidence: 0.866679508888889
speaking the same language.
NOTE Confidence: 0.866679508888889
So I think our patients really
NOTE Confidence: 0.866679508888889
benefit from that.
NOTE Confidence: 0.866679508888889
I think all of us have a lot of
NOTE Confidence: 0.866679508888889
sort of satisfaction from that
NOTE Confidence: 0.866679508888889
part of our job and it continues
NOTE Confidence: 0.866679508888889
to evolve and get better.
Thank you. Thank you very much. I think we are just about to overtime and I really greatly appreciate all of you for joining us and really appreciate for what you do every day. Have a great night.

Thanks very much. Thank you. Take care.