

WEBVTT

NOTE duration:"01:16:00"

NOTE recognizability:0.881

NOTE language:en-us

NOTE Confidence: 0.853736194516129

00:00:00.000 --> 00:00:02.776 Hi, I'm doctor Melanie Lynch and I'm the

NOTE Confidence: 0.853736194516129

00:00:02.776 --> 00:00:05.098 director of breast surgery at Bridgeport

NOTE Confidence: 0.853736194516129

00:00:05.098 --> 00:00:08.333 in the Yale Health system and I am so

NOTE Confidence: 0.853736194516129

00:00:08.333 --> 00:00:10.570 excited to be here tonight to hear the

NOTE Confidence: 0.853736194516129

00:00:10.570 --> 00:00:13.312 insights and advice from my dynamic

NOTE Confidence: 0.853736194516129

00:00:13.312 --> 00:00:16.000 and smart colleagues in New Haven.

NOTE Confidence: 0.853736194516129

00:00:16.000 --> 00:00:19.088 We will have three speakers tonight who will

NOTE Confidence: 0.853736194516129

00:00:19.088 --> 00:00:23.170 discuss innovations in Breast Cancer Care.

NOTE Confidence: 0.853736194516129

00:00:23.170 --> 00:00:25.955 And our first speaker will

NOTE Confidence: 0.853736194516129

00:00:25.955 --> 00:00:28.183 be Doctor Elizabeth Berger.

NOTE Confidence: 0.853736194516129

00:00:28.190 --> 00:00:30.302 She has both a Masters degree

NOTE Confidence: 0.853736194516129

00:00:30.302 --> 00:00:31.710 and a medical degree,

NOTE Confidence: 0.853736194516129

00:00:31.710 --> 00:00:33.465 and she's an assistant professor

NOTE Confidence: 0.853736194516129

00:00:33.465 --> 00:00:34.869 of surgery and oncology.  
NOTE Confidence: 0.853736194516129

00:00:34.870 --> 00:00:37.060 Her medical degree comes from Loyola  
NOTE Confidence: 0.853736194516129

00:00:37.060 --> 00:00:39.746 University in Chicago and where she was  
NOTE Confidence: 0.853736194516129

00:00:39.746 --> 00:00:42.062 also a clinical research scholarship scholar,  
NOTE Confidence: 0.853736194516129

00:00:42.070 --> 00:00:44.392 and she completed her fellowship in  
NOTE Confidence: 0.853736194516129

00:00:44.392 --> 00:00:46.482 Breast Surgical Oncology at Memorial  
NOTE Confidence: 0.853736194516129

00:00:46.482 --> 00:00:48.398 Sloan Kettering Cancer Center,  
NOTE Confidence: 0.853736194516129

00:00:48.400 --> 00:00:51.070 where she was selected as a  
NOTE Confidence: 0.853736194516129

00:00:51.070 --> 00:00:52.850 breast cancer Alliance Fellow.  
NOTE Confidence: 0.853736194516129

00:00:52.850 --> 00:00:56.385 Her Master science comes from  
NOTE Confidence: 0.853736194516129

00:00:56.385 --> 00:00:57.799 Northwestern University.  
NOTE Confidence: 0.853736194516129

00:00:57.800 --> 00:01:00.078 Her research focuses in health  
NOTE Confidence: 0.853736194516129

00:01:00.078 --> 00:01:02.348 outcomes for breast cancer patients,  
NOTE Confidence: 0.853736194516129

00:01:02.350 --> 00:01:03.352 including quality care,  
NOTE Confidence: 0.853736194516129

00:01:03.352 --> 00:01:05.022 and she's going to discuss  
NOTE Confidence: 0.853736194516129

00:01:05.022 --> 00:01:06.878 innovations in breast cancer surgery.

NOTE Confidence: 0.9076711

00:01:08.980 --> 00:01:10.385 Great thank you Doctor Lynch for

NOTE Confidence: 0.9076711

00:01:10.385 --> 00:01:11.510 that very kind introduction and

NOTE Confidence: 0.917300996875

00:01:11.554 --> 00:01:12.760 I'm excited to be here tonight.

NOTE Confidence: 0.917300996875

00:01:12.760 --> 00:01:16.430 Thanks for everyone who's joined.

NOTE Confidence: 0.917300996875

00:01:16.430 --> 00:01:18.132 Let me share my screen.

NOTE Confidence: 0.917300996875

00:01:18.132 --> 00:01:21.239 And So what I hope to do tonight

NOTE Confidence: 0.917300996875

00:01:21.240 --> 00:01:22.880 is just provide some updates

NOTE Confidence: 0.917300996875

00:01:22.880 --> 00:01:24.192 in breast cancer surgery.

NOTE Confidence: 0.917300996875

00:01:24.200 --> 00:01:26.356 You know things in Breast Cancer Care

NOTE Confidence: 0.917300996875

00:01:26.356 --> 00:01:28.220 changes so frequently it's really hard,

NOTE Confidence: 0.917300996875

00:01:28.220 --> 00:01:30.208 I think to stay up to date,

NOTE Confidence: 0.917300996875

00:01:30.210 --> 00:01:34.120 time and so this is a a picture.

NOTE Confidence: 0.917300996875

00:01:34.120 --> 00:01:36.064 It's a kind of famous social media trend

NOTE Confidence: 0.917300996875

00:01:36.064 --> 00:01:37.943 that has been happening recently is you

NOTE Confidence: 0.917300996875

00:01:37.943 --> 00:01:39.880 know how it started and how how is.

NOTE Confidence: 0.917300996875

00:01:39.880 --> 00:01:42.358 Going so, Doctor William Halstead used to  
NOTE Confidence: 0.917300996875

00:01:42.358 --> 00:01:44.489 perform the holstead mastectomy or the  
NOTE Confidence: 0.917300996875

00:01:44.489 --> 00:01:46.859 radical mastectomy back in the late 1800s,  
NOTE Confidence: 0.917300996875

00:01:46.859 --> 00:01:48.953 where you know the entire breast  
NOTE Confidence: 0.917300996875

00:01:48.953 --> 00:01:52.044 as long as the as well as the PEC  
NOTE Confidence: 0.917300996875

00:01:52.044 --> 00:01:54.129 major minor muscle would be more  
NOTE Confidence: 0.917300996875

00:01:54.129 --> 00:01:55.784 removed and now Bernie Fisher,  
NOTE Confidence: 0.917300996875

00:01:55.784 --> 00:01:57.414 who actually recently passed away,  
NOTE Confidence: 0.917300996875

00:01:57.420 --> 00:01:59.530 who was instrumental in allowing  
NOTE Confidence: 0.917300996875

00:01:59.530 --> 00:02:01.218 really significant advances in  
NOTE Confidence: 0.917300996875

00:02:01.218 --> 00:02:03.210 breast cancer surgery for women,  
NOTE Confidence: 0.917300996875

00:02:03.210 --> 00:02:05.194 said, you know in God we trust all  
NOTE Confidence: 0.917300996875

00:02:05.194 --> 00:02:06.877 others must have data and he was,  
NOTE Confidence: 0.917300996875

00:02:06.880 --> 00:02:08.011 like I said,  
NOTE Confidence: 0.917300996875

00:02:08.011 --> 00:02:09.519 instrumental and allowing us  
NOTE Confidence: 0.917300996875

00:02:09.519 --> 00:02:10.650 to really deescalate.

NOTE Confidence: 0.917300996875

00:02:10.650 --> 00:02:13.630 Our surgical operations for women

NOTE Confidence: 0.917300996875

00:02:13.630 --> 00:02:17.025 and allow them to just really remove

NOTE Confidence: 0.917300996875

00:02:17.025 --> 00:02:19.802 the area of tissue of the breast and

NOTE Confidence: 0.917300996875

00:02:19.802 --> 00:02:21.968 not compromise any kind of uncle

NOTE Confidence: 0.917300996875

00:02:21.968 --> 00:02:23.979 logic outcomes for our patients.

NOTE Confidence: 0.917300996875

00:02:23.980 --> 00:02:26.572 So we talked a lot about D escalation

NOTE Confidence: 0.917300996875

00:02:26.572 --> 00:02:28.646 of Breast Cancer Care and really

NOTE Confidence: 0.917300996875

00:02:28.646 --> 00:02:31.230 what we're trying to do is provide

NOTE Confidence: 0.917300996875

00:02:31.230 --> 00:02:33.312 as good of uncle logic outcomes

NOTE Confidence: 0.917300996875

00:02:33.312 --> 00:02:35.350 for patients with less toxicity,

NOTE Confidence: 0.917300996875

00:02:35.350 --> 00:02:36.906 less morbidity.

NOTE Confidence: 0.917300996875

00:02:36.906 --> 00:02:41.574 And unless you know disfigurement of.

NOTE Confidence: 0.917300996875

00:02:41.580 --> 00:02:43.956 Body and so in the 1970s is when we

NOTE Confidence: 0.917300996875

00:02:43.956 --> 00:02:46.166 started to think about do we really

NOTE Confidence: 0.917300996875

00:02:46.166 --> 00:02:48.382 have to do mastectomies for women or

NOTE Confidence: 0.917300996875

00:02:48.382 --> 00:02:50.567 could we just perform lumpectomy's an ad?

NOTE Confidence: 0.917300996875

00:02:50.567 --> 00:02:52.212 For instance radiation Doctor Nolan

NOTE Confidence: 0.917300996875

00:02:52.212 --> 00:02:54.472 will talk about that a little bit later

NOTE Confidence: 0.917300996875

00:02:54.472 --> 00:02:56.419 tonight and allow for similar outcomes,

NOTE Confidence: 0.917300996875

00:02:56.420 --> 00:02:59.510 and that these trials really demonstrated

NOTE Confidence: 0.917300996875

00:02:59.510 --> 00:03:02.590 that equivalency of survival and even

NOTE Confidence: 0.917300996875

00:03:02.590 --> 00:03:05.404 really recurrence with the two operations.

NOTE Confidence: 0.917300996875

00:03:05.410 --> 00:03:08.080 Then we thought we started thinking

NOTE Confidence: 0.917300996875

00:03:08.080 --> 00:03:10.682 in the late 1990s that maybe women

NOTE Confidence: 0.917300996875

00:03:10.682 --> 00:03:11.778 over a certain age.

NOTE Confidence: 0.917300996875

00:03:11.780 --> 00:03:14.135 You could deescalate even radiation

NOTE Confidence: 0.917300996875

00:03:14.135 --> 00:03:17.160 therapy for certain kinds of cancers.

NOTE Confidence: 0.917300996875

00:03:17.160 --> 00:03:19.840 We also have really significantly

NOTE Confidence: 0.917300996875

00:03:19.840 --> 00:03:21.448 deescalated axillary surgery,

NOTE Confidence: 0.917300996875

00:03:21.450 --> 00:03:23.746 so armpit surgery of the lymph nodes

NOTE Confidence: 0.917300996875

00:03:23.746 --> 00:03:27.002 and this has allowed women to spare the

NOTE Confidence: 0.917300996875  
00:03:27.002 --> 00:03:28.766 morbidity of significant lymphoedema  
NOTE Confidence: 0.917300996875  
00:03:28.766 --> 00:03:31.489 in the arm range of motion problems.  
NOTE Confidence: 0.917300996875  
00:03:31.490 --> 00:03:34.470 Sensory changes of the arm.  
NOTE Confidence: 0.917300996875  
00:03:34.470 --> 00:03:36.610 And even into the 2000s,  
NOTE Confidence: 0.917300996875  
00:03:36.610 --> 00:03:38.474 in the present day,  
NOTE Confidence: 0.917300996875  
00:03:38.474 --> 00:03:40.804 the tailor X trial Dr.  
NOTE Confidence: 0.917300996875  
00:03:40.810 --> 00:03:42.490 Kanowitz will talk a little bit more about.  
NOTE Confidence: 0.917300996875  
00:03:42.490 --> 00:03:44.700 But we're thinking about even  
NOTE Confidence: 0.917300996875  
00:03:44.700 --> 00:03:45.584 deescalating chemotherapy.  
NOTE Confidence: 0.917300996875  
00:03:45.590 --> 00:03:47.306 For some women who have breast  
NOTE Confidence: 0.917300996875  
00:03:47.306 --> 00:03:48.790 cancer in a specific type,  
NOTE Confidence: 0.917300996875  
00:03:48.790 --> 00:03:50.746 and the comet trial is looking  
NOTE Confidence: 0.917300996875  
00:03:50.746 --> 00:03:52.050 at ductal carcinoma insight,  
NOTE Confidence: 0.917300996875  
00:03:52.050 --> 00:03:53.590 you or we call it pre cancer  
NOTE Confidence: 0.917300996875  
00:03:53.590 --> 00:03:54.670 or stage zero cancer,  
NOTE Confidence: 0.917300996875

00:03:54.670 --> 00:03:56.000 depending upon what you read  
NOTE Confidence: 0.917300996875

00:03:56.000 --> 00:03:57.330 and where you read it,  
NOTE Confidence: 0.917300996875

00:03:57.330 --> 00:04:00.084 and maybe not even operating on  
NOTE Confidence: 0.917300996875

00:04:00.084 --> 00:04:02.430 some patients who have DCIS.  
NOTE Confidence: 0.917300996875

00:04:02.430 --> 00:04:04.999 So if a patient who has breast  
NOTE Confidence: 0.917300996875

00:04:04.999 --> 00:04:06.100 cancer need surgery,  
NOTE Confidence: 0.917300996875

00:04:06.100 --> 00:04:08.004 what are some of the updates recently?  
NOTE Confidence: 0.917300996875

00:04:08.010 --> 00:04:10.264 You know that we are doing actively,  
NOTE Confidence: 0.917300996875

00:04:10.270 --> 00:04:12.910 you know at smiling and across the country.  
NOTE Confidence: 0.917300996875

00:04:12.910 --> 00:04:15.016 Some of the techniques and localization.  
NOTE Confidence: 0.917300996875

00:04:15.020 --> 00:04:16.646 So finding the mass in the  
NOTE Confidence: 0.917300996875

00:04:16.646 --> 00:04:17.730 breast and being able  
NOTE Confidence: 0.882707716

00:04:17.786 --> 00:04:20.266 to just do that one back to me have changed.  
NOTE Confidence: 0.882707716

00:04:20.270 --> 00:04:22.160 We know that we need to get healthy tissue,  
NOTE Confidence: 0.882707716

00:04:22.160 --> 00:04:23.072 around the lumpectomy.  
NOTE Confidence: 0.882707716

00:04:23.072 --> 00:04:25.200 So what are some of the ideas

NOTE Confidence: 0.882707716

00:04:25.268 --> 00:04:26.906 of the of what margins mean?

NOTE Confidence: 0.882707716

00:04:26.910 --> 00:04:27.684 \*\*\*\*\* sparing mastectomy?

NOTE Confidence: 0.882707716

00:04:27.684 --> 00:04:30.050 So when a patient does need a mastectomy,

NOTE Confidence: 0.882707716

00:04:30.050 --> 00:04:31.912 what, as far as what are we

NOTE Confidence: 0.882707716

00:04:31.912 --> 00:04:33.035 doing for \*\*\*\*\* sparing's?

NOTE Confidence: 0.882707716

00:04:33.035 --> 00:04:35.224 And how are we managing the armpit?

NOTE Confidence: 0.882707716

00:04:35.224 --> 00:04:36.972 The lymph nodes differently

NOTE Confidence: 0.882707716

00:04:36.972 --> 00:04:39.100 from you know years ago?

NOTE Confidence: 0.882707716

00:04:39.100 --> 00:04:40.820 And then I'll get into a very briefly.

NOTE Confidence: 0.882707716

00:04:40.820 --> 00:04:42.360 You know, are we operating on women

NOTE Confidence: 0.882707716

00:04:42.360 --> 00:04:43.902 who had stage four disease and you

NOTE Confidence: 0.882707716

00:04:43.902 --> 00:04:45.720 know a lot of people have high risk

NOTE Confidence: 0.882707716

00:04:45.720 --> 00:04:47.040 lesions that we're finding now.

NOTE Confidence: 0.882707716

00:04:47.040 --> 00:04:47.946 With, you know,

NOTE Confidence: 0.882707716

00:04:47.946 --> 00:04:49.456 improved screening mammograms and such.

NOTE Confidence: 0.882707716

00:04:49.460 --> 00:04:50.846 And what do we do with those  
NOTE Confidence: 0.882707716

00:04:50.846 --> 00:04:51.440 high risk lesions?  
NOTE Confidence: 0.882707716

00:04:51.440 --> 00:04:52.346 So just briefly,  
NOTE Confidence: 0.882707716

00:04:52.346 --> 00:04:54.460 not all breast cancers are the same.  
NOTE Confidence: 0.882707716

00:04:54.460 --> 00:04:56.684 We know one in eight women in this  
NOTE Confidence: 0.882707716

00:04:56.684 --> 00:04:58.608 country will develop breast cancer,  
NOTE Confidence: 0.882707716

00:04:58.610 --> 00:05:01.482 but there's a wide wide range of their  
NOTE Confidence: 0.882707716

00:05:01.482 --> 00:05:04.210 diagnosis and included in those diagnosis.  
NOTE Confidence: 0.882707716

00:05:04.210 --> 00:05:06.070 Are these this principle  
NOTE Confidence: 0.882707716

00:05:06.070 --> 00:05:07.648 of receptors and you know,  
NOTE Confidence: 0.882707716

00:05:07.648 --> 00:05:09.765 in a in a normal cancer in a I'm  
NOTE Confidence: 0.882707716

00:05:09.765 --> 00:05:11.662 sorry a cancerous breast cell we often  
NOTE Confidence: 0.882707716

00:05:11.662 --> 00:05:13.478 think about what actually feeds the  
NOTE Confidence: 0.882707716

00:05:13.478 --> 00:05:15.516 breast cancer to cause it to grow.  
NOTE Confidence: 0.882707716

00:05:15.516 --> 00:05:17.427 The cell growth and so some breast  
NOTE Confidence: 0.882707716

00:05:17.427 --> 00:05:19.209 cancers have the estrogen receptor.

NOTE Confidence: 0.882707716

00:05:19.210 --> 00:05:21.050 Some have the progesterone scepter.

NOTE Confidence: 0.882707716

00:05:21.050 --> 00:05:23.438 Somehow this her two protein receptor.

NOTE Confidence: 0.882707716

00:05:23.440 --> 00:05:25.204 But again you know each breast

NOTE Confidence: 0.882707716

00:05:25.204 --> 00:05:26.753 cancer is an incredibly different

NOTE Confidence: 0.882707716

00:05:26.753 --> 00:05:28.619 kind of breast cancer and it's

NOTE Confidence: 0.882707716

00:05:28.619 --> 00:05:30.479 really unique to that individual.

NOTE Confidence: 0.882707716

00:05:30.480 --> 00:05:32.818 And so the main stages of Breast

NOTE Confidence: 0.882707716

00:05:32.818 --> 00:05:35.090 Cancer Care or a lot we do.

NOTE Confidence: 0.882707716

00:05:35.090 --> 00:05:38.198 It's a very multi modality type of disease.

NOTE Confidence: 0.882707716

00:05:38.198 --> 00:05:39.878 We think about surgery sometimes.

NOTE Confidence: 0.882707716

00:05:39.880 --> 00:05:42.316 We oftentimes we think about chemotherapy.

NOTE Confidence: 0.882707716

00:05:42.320 --> 00:05:43.970 We think about radiation and sometimes

NOTE Confidence: 0.882707716

00:05:43.970 --> 00:05:45.460 we think about underpinned therapy.

NOTE Confidence: 0.882707716

00:05:45.460 --> 00:05:48.160 If it's a hormonally driven cancer,

NOTE Confidence: 0.882707716

00:05:48.160 --> 00:05:49.200 but as a surgeon,

NOTE Confidence: 0.882707716

00:05:49.200 --> 00:05:51.270 I think surgery is the most important.  
NOTE Confidence: 0.882707716

00:05:51.270 --> 00:05:52.548 Just kidding, of course,  
NOTE Confidence: 0.882707716

00:05:52.548 --> 00:05:55.128 but I'm going to talk a little bit about  
NOTE Confidence: 0.882707716

00:05:55.128 --> 00:05:56.958 surgical advance advancement of surgery,  
NOTE Confidence: 0.882707716

00:05:56.960 --> 00:05:59.245 so when we think about  
NOTE Confidence: 0.882707716

00:05:59.245 --> 00:06:00.506 lumpectomy versus mastectomy's.  
NOTE Confidence: 0.882707716

00:06:00.506 --> 00:06:01.890 Some of the lumpectomy,  
NOTE Confidence: 0.882707716

00:06:01.890 --> 00:06:04.050 UM advances we have seen is,  
NOTE Confidence: 0.882707716

00:06:04.050 --> 00:06:05.922 how do we really localize the  
NOTE Confidence: 0.882707716

00:06:05.922 --> 00:06:07.690 lesion or find that lesion?  
NOTE Confidence: 0.882707716

00:06:07.690 --> 00:06:09.738 Because that little clip that we leave in  
NOTE Confidence: 0.882707716

00:06:09.738 --> 00:06:11.630 the breast is of only two millimeters,  
NOTE Confidence: 0.882707716

00:06:11.630 --> 00:06:12.890 and it would be like finding  
NOTE Confidence: 0.882707716

00:06:12.890 --> 00:06:14.530 a needle in a haystack if we,  
NOTE Confidence: 0.882707716

00:06:14.530 --> 00:06:16.007 as surgeons try to go in and  
NOTE Confidence: 0.882707716

00:06:16.007 --> 00:06:17.359 just find it without help.

NOTE Confidence: 0.882707716

00:06:17.360 --> 00:06:20.104 So we used to use these wires.

NOTE Confidence: 0.882707716

00:06:20.110 --> 00:06:22.281 Wires used to be put into the breast

NOTE Confidence: 0.882707716

00:06:22.281 --> 00:06:24.255 and they still are at times when

NOTE Confidence: 0.882707716

00:06:24.255 --> 00:06:26.037 they're needed or and or appropriate,

NOTE Confidence: 0.882707716

00:06:26.040 --> 00:06:27.510 and the wires will be put in

NOTE Confidence: 0.882707716

00:06:27.510 --> 00:06:28.759 the same day of surgery.

NOTE Confidence: 0.882707716

00:06:28.760 --> 00:06:30.100 Sometimes the logistics get

NOTE Confidence: 0.882707716

00:06:30.100 --> 00:06:31.440 a little bit challenging.

NOTE Confidence: 0.882707716

00:06:31.440 --> 00:06:32.424 They can cause oh,

NOTE Confidence: 0.882707716

00:06:32.424 --> 00:06:34.378 are delays at times if the wire

NOTE Confidence: 0.882707716

00:06:34.378 --> 00:06:35.647 localization takes awhile,

NOTE Confidence: 0.882707716

00:06:35.650 --> 00:06:37.258 they can get dislodged.

NOTE Confidence: 0.882707716

00:06:37.258 --> 00:06:38.866 They're fairly uncomfortable as

NOTE Confidence: 0.882707716

00:06:38.866 --> 00:06:40.320 far as you know.

NOTE Confidence: 0.882707716

00:06:40.320 --> 00:06:42.119 You're getting wheeled down the day of

NOTE Confidence: 0.882707716

00:06:42.119 --> 00:06:43.959 surgery to the radiology department,  
NOTE Confidence: 0.882707716

00:06:43.960 --> 00:06:44.224 etc.  
NOTE Confidence: 0.882707716

00:06:44.224 --> 00:06:45.016 And of course,  
NOTE Confidence: 0.882707716

00:06:45.016 --> 00:06:46.600 if something were to happen with  
NOTE Confidence: 0.882707716

00:06:46.652 --> 00:06:47.820 the case gets canceled,  
NOTE Confidence: 0.882707716

00:06:47.820 --> 00:06:48.918 then that wire must come out.  
NOTE Confidence: 0.811604342727273

00:06:48.920 --> 00:06:50.108 You have it the way I  
NOTE Confidence: 0.811604342727273

00:06:50.108 --> 00:06:51.320 would have to be placed.  
NOTE Confidence: 0.811604342727273

00:06:51.320 --> 00:06:55.150 Again, an addition another day.  
NOTE Confidence: 0.811604342727273

00:06:55.150 --> 00:06:57.224 You can kind of see the, UM, challenges.  
NOTE Confidence: 0.811604342727273

00:06:57.224 --> 00:07:00.143 Sometimes of a liar placement that have  
NOTE Confidence: 0.811604342727273

00:07:00.143 --> 00:07:03.077 to happen on the same day of surgery.  
NOTE Confidence: 0.811604342727273

00:07:03.080 --> 00:07:04.944 And now what we've done is really decoupled.  
NOTE Confidence: 0.811604342727273

00:07:04.950 --> 00:07:08.460 This idea of localization and surgery.  
NOTE Confidence: 0.811604342727273

00:07:08.460 --> 00:07:10.357 And So what we've allowed to do  
NOTE Confidence: 0.811604342727273

00:07:10.357 --> 00:07:12.425 is we can put these little tags

NOTE Confidence: 0.811604342727273

00:07:12.425 --> 00:07:14.610 or seeds in next to the clip.

NOTE Confidence: 0.811604342727273

00:07:14.610 --> 00:07:17.882 Here's a great example of A tag being

NOTE Confidence: 0.811604342727273

00:07:17.882 --> 00:07:20.450 put in right next to that biopsy clip,

NOTE Confidence: 0.811604342727273

00:07:20.450 --> 00:07:22.725 and the device gives off a signal.

NOTE Confidence: 0.811604342727273

00:07:22.730 --> 00:07:24.122 This tag gives off a signal

NOTE Confidence: 0.811604342727273

00:07:24.122 --> 00:07:25.979 to us in the operating room.

NOTE Confidence: 0.811604342727273

00:07:25.980 --> 00:07:28.620 And it allows us to find the lesion.

NOTE Confidence: 0.811604342727273

00:07:28.620 --> 00:07:30.958 UM, were sometimes able to do smaller

NOTE Confidence: 0.811604342727273

00:07:30.958 --> 00:07:32.480 lumpectomy is because of that.

NOTE Confidence: 0.811604342727273

00:07:32.480 --> 00:07:34.010 We tend to minimize over delays

NOTE Confidence: 0.811604342727273

00:07:34.010 --> 00:07:36.039 because they can be put in days before,

NOTE Confidence: 0.811604342727273

00:07:36.040 --> 00:07:36.566 for instance,

NOTE Confidence: 0.811604342727273

00:07:36.566 --> 00:07:38.670 and so we can start right at 7:30

NOTE Confidence: 0.811604342727273

00:07:38.735 --> 00:07:40.697 in the morning for operating cases.

NOTE Confidence: 0.811604342727273

00:07:40.700 --> 00:07:43.420 And oftentimes in various studies,

NOTE Confidence: 0.811604342727273

00:07:43.420 --> 00:07:45.770 it's shown to improve patient  
NOTE Confidence: 0.811604342727273

00:07:45.770 --> 00:07:47.650 satisfaction with with surgery.  
NOTE Confidence: 0.811604342727273

00:07:47.650 --> 00:07:49.642 So I try to explain often to my  
NOTE Confidence: 0.811604342727273

00:07:49.642 --> 00:07:51.571 patients about margins and I think  
NOTE Confidence: 0.811604342727273

00:07:51.571 --> 00:07:53.286 it's a challenging concept sometimes.  
NOTE Confidence: 0.811604342727273

00:07:53.290 --> 00:07:54.858 So you know when we think about  
NOTE Confidence: 0.811604342727273

00:07:54.858 --> 00:07:56.238 the cancer cells in the breast,  
NOTE Confidence: 0.811604342727273

00:07:56.240 --> 00:07:57.975 there is often healthy tissue  
NOTE Confidence: 0.811604342727273

00:07:57.975 --> 00:07:59.363 around the breast around.  
NOTE Confidence: 0.811604342727273

00:07:59.370 --> 00:07:59.882 I'm sorry,  
NOTE Confidence: 0.811604342727273

00:07:59.882 --> 00:08:01.418 the cancer cells and what we  
NOTE Confidence: 0.811604342727273

00:08:01.418 --> 00:08:03.058 always want to try to make sure to  
NOTE Confidence: 0.811604342727273

00:08:03.058 --> 00:08:05.755 do is at the edges of this piece  
NOTE Confidence: 0.811604342727273

00:08:05.755 --> 00:08:07.380 of tissue we take out.  
NOTE Confidence: 0.811604342727273

00:08:07.380 --> 00:08:09.264 We want to make sure we  
NOTE Confidence: 0.811604342727273

00:08:09.264 --> 00:08:10.520 have healthy breast tissue.

NOTE Confidence: 0.811604342727273  
00:08:10.520 --> 00:08:12.455 It is incredibly challenging and  
NOTE Confidence: 0.811604342727273  
00:08:12.455 --> 00:08:14.799 you know a frustration of all  
NOTE Confidence: 0.811604342727273  
00:08:14.799 --> 00:08:17.137 surgeons when you know we have some.  
NOTE Confidence: 0.811604342727273  
00:08:17.140 --> 00:08:18.844 Cancer at the edges and oftentimes  
NOTE Confidence: 0.811604342727273  
00:08:18.844 --> 00:08:20.699 it's it's cancer that we can't see.  
NOTE Confidence: 0.811604342727273  
00:08:20.700 --> 00:08:23.759 We can't feel, and unfortunately you know,  
NOTE Confidence: 0.811604342727273  
00:08:23.760 --> 00:08:25.768 it ends up being at the edge where  
NOTE Confidence: 0.811604342727273  
00:08:25.768 --> 00:08:27.362 it requires a second operation to  
NOTE Confidence: 0.811604342727273  
00:08:27.362 --> 00:08:29.400 go back and clean out the margins.  
NOTE Confidence: 0.811604342727273  
00:08:29.400 --> 00:08:31.591 There's a lot being done as far  
NOTE Confidence: 0.811604342727273  
00:08:31.591 --> 00:08:33.458 as trying to evaluate margins  
NOTE Confidence: 0.811604342727273  
00:08:33.458 --> 00:08:35.593 intraoperatively so at the same  
NOTE Confidence: 0.811604342727273  
00:08:35.593 --> 00:08:37.660 time of the operation.  
NOTE Confidence: 0.811604342727273  
00:08:37.660 --> 00:08:41.056 And unfortunately you know to date  
NOTE Confidence: 0.811604342727273  
00:08:41.056 --> 00:08:43.939 nothing has been demonstrated to be.  
NOTE Confidence: 0.811604342727273

00:08:43.940 --> 00:08:45.776 As good as we would like it to be,  
NOTE Confidence: 0.811604342727273

00:08:45.780 --> 00:08:48.068 to identify margin status  
NOTE Confidence: 0.811604342727273

00:08:48.068 --> 00:08:50.356 intraoperatively so you know.  
NOTE Confidence: 0.811604342727273

00:08:50.360 --> 00:08:51.548 Although it's a frustrating  
NOTE Confidence: 0.811604342727273

00:08:51.548 --> 00:08:53.033 conversation to have with patients  
NOTE Confidence: 0.811604342727273

00:08:53.033 --> 00:08:54.509 about how it takes about four to  
NOTE Confidence: 0.811604342727273

00:08:54.509 --> 00:08:56.139 five days to get these results back.  
NOTE Confidence: 0.811604342727273

00:08:56.140 --> 00:08:57.424 That's unfortunately where we're  
NOTE Confidence: 0.811604342727273

00:08:57.424 --> 00:08:59.182 at right now, but you know,  
NOTE Confidence: 0.811604342727273

00:08:59.182 --> 00:09:01.030 to be determined in the future if  
NOTE Confidence: 0.811604342727273

00:09:01.093 --> 00:09:03.115 we'll have updates as margin status.  
NOTE Confidence: 0.811604342727273

00:09:03.120 --> 00:09:04.300 So mastectomy is,  
NOTE Confidence: 0.811604342727273

00:09:04.300 --> 00:09:06.496 I think the general consensus sometimes  
NOTE Confidence: 0.811604342727273

00:09:06.496 --> 00:09:08.580 is that they're incredibly deforming,  
NOTE Confidence: 0.811604342727273

00:09:08.580 --> 00:09:09.931 and that you know I'm going to  
NOTE Confidence: 0.811604342727273

00:09:09.931 --> 00:09:10.690 leave me with it.

NOTE Confidence: 0.811604342727273

00:09:10.690 --> 00:09:12.058 You know, a terrible cosmetic outcome,

NOTE Confidence: 0.811604342727273

00:09:12.060 --> 00:09:13.866 but what we know now is that.

NOTE Confidence: 0.811604342727273

00:09:13.870 --> 00:09:17.010 We can do a lot of things to you know,

NOTE Confidence: 0.811604342727273

00:09:17.010 --> 00:09:19.122 allow women to hopefully feel you

NOTE Confidence: 0.811604342727273

00:09:19.122 --> 00:09:21.420 know as as natural as possible,

NOTE Confidence: 0.811604342727273

00:09:21.420 --> 00:09:23.286 especially with his \*\*\*\*\* sparing approach.

NOTE Confidence: 0.811604342727273

00:09:23.290 --> 00:09:24.818 And we do think a \*\*\*\*\* sparing

NOTE Confidence: 0.811604342727273

00:09:24.818 --> 00:09:26.974 approach is that you know a healthy

NOTE Confidence: 0.811604342727273

00:09:26.974 --> 00:09:29.274 approach to doing a mastectomy.

NOTE Confidence: 0.811604342727273

00:09:29.274 --> 00:09:32.250 This is a study looking at,

NOTE Confidence: 0.811604342727273

00:09:32.250 --> 00:09:33.118 for instance,

NOTE Confidence: 0.811604342727273

00:09:33.118 --> 00:09:34.854 women with genetic variants

NOTE Confidence: 0.811604342727273

00:09:34.854 --> 00:09:36.590 and allowing them a

NOTE Confidence: 0.8748738695

00:09:36.667 --> 00:09:38.447 very very good outcome as

NOTE Confidence: 0.8748738695

00:09:38.447 --> 00:09:40.227 far as a risk reduction.

NOTE Confidence: 0.8748738695

00:09:40.230 --> 00:09:41.484 Actually one of our the authors  
NOTE Confidence: 0.8748738695

00:09:41.484 --> 00:09:42.490 here is Doctor Green up.  
NOTE Confidence: 0.8748738695

00:09:42.490 --> 00:09:44.457 One of our very own here at.  
NOTE Confidence: 0.8748738695

00:09:44.460 --> 00:09:47.308 At yield and so it's a really nice  
NOTE Confidence: 0.8748738695

00:09:47.308 --> 00:09:49.556 technique now for women where they're  
NOTE Confidence: 0.8748738695

00:09:49.556 --> 00:09:52.297 able to were able to save their  
NOTE Confidence: 0.8748738695

00:09:52.297 --> 00:09:55.768 \*\*\*\*\* during a mastectomy procedure.  
NOTE Confidence: 0.8748738695

00:09:55.770 --> 00:09:57.606 A lot of women think about  
NOTE Confidence: 0.8748738695

00:09:57.606 --> 00:09:58.830 removing their other breasts,  
NOTE Confidence: 0.8748738695

00:09:58.830 --> 00:10:00.365 so the contralateral or the  
NOTE Confidence: 0.8748738695

00:10:00.365 --> 00:10:02.276 other side breast when they have  
NOTE Confidence: 0.8748738695

00:10:02.276 --> 00:10:03.856 a diagnosis of breast cancer.  
NOTE Confidence: 0.8748738695

00:10:03.860 --> 00:10:06.084 And it's a you know it's a conversation  
NOTE Confidence: 0.8748738695

00:10:06.084 --> 00:10:08.475 I often have with patients we all  
NOTE Confidence: 0.8748738695

00:10:08.475 --> 00:10:10.250 probably often have with patients.  
NOTE Confidence: 0.8748738695

00:10:10.250 --> 00:10:10.964 And you know,

NOTE Confidence: 0.8748738695

00:10:10.964 --> 00:10:12.392 I think it's always important to

NOTE Confidence: 0.8748738695

00:10:12.392 --> 00:10:13.822 remember that breast cancer does not

NOTE Confidence: 0.8748738695

00:10:13.822 --> 00:10:15.449 spread from one breast to the other.

NOTE Confidence: 0.8748738695

00:10:15.450 --> 00:10:17.544 Rest, we do know that when

NOTE Confidence: 0.8748738695

00:10:17.544 --> 00:10:18.940 women develop breast cancer,

NOTE Confidence: 0.8748738695

00:10:18.940 --> 00:10:20.739 they have a higher risk of developing

NOTE Confidence: 0.8748738695

00:10:20.739 --> 00:10:22.528 a breast cancer in the other breast.

NOTE Confidence: 0.8748738695

00:10:22.530 --> 00:10:25.257 But we also know that when we do a

NOTE Confidence: 0.8748738695

00:10:25.257 --> 00:10:27.187 contralateral or other sided mastectomy

NOTE Confidence: 0.8748738695

00:10:27.187 --> 00:10:29.142 does not improve their survival

NOTE Confidence: 0.8748738695

00:10:29.142 --> 00:10:31.428 from their original breast cancer.

NOTE Confidence: 0.8748738695

00:10:31.430 --> 00:10:33.982 There are of course reasons to pursue you

NOTE Confidence: 0.8748738695

00:10:33.982 --> 00:10:35.959 know contralateral prophylactic or surgery,

NOTE Confidence: 0.8748738695

00:10:35.960 --> 00:10:37.710 you know in the other breast without

NOTE Confidence: 0.8748738695

00:10:37.710 --> 00:10:39.447 breast cancer in it for many reasons.

NOTE Confidence: 0.8748738695

00:10:39.450 --> 00:10:41.615 But it's not always right  
NOTE Confidence: 0.8748738695

00:10:41.615 --> 00:10:43.347 for every single woman.  
NOTE Confidence: 0.8748738695

00:10:43.350 --> 00:10:45.371 So as far as doing armpit  
NOTE Confidence: 0.8748738695

00:10:45.371 --> 00:10:47.319 surgery or maxillary surgery,  
NOTE Confidence: 0.8748738695

00:10:47.320 --> 00:10:49.973 you know we often test these Sentinel  
NOTE Confidence: 0.8748738695

00:10:49.973 --> 00:10:52.899 nodes using two different kinds of dyes.  
NOTE Confidence: 0.8748738695

00:10:52.900 --> 00:10:53.791 One is blue.  
NOTE Confidence: 0.8748738695

00:10:53.791 --> 00:10:54.979 You can see here.  
NOTE Confidence: 0.8748738695

00:10:54.980 --> 00:10:56.807 I tell my patients all the time  
NOTE Confidence: 0.8748738695

00:10:56.807 --> 00:10:58.520 the the lymph node lights up,  
NOTE Confidence: 0.8748738695

00:10:58.520 --> 00:10:59.728 and it turns blue.  
NOTE Confidence: 0.8748738695

00:10:59.728 --> 00:11:01.916 Or we use this Geiger counter here  
NOTE Confidence: 0.8748738695

00:11:01.916 --> 00:11:04.072 and it really makes a noise in  
NOTE Confidence: 0.8748738695

00:11:04.072 --> 00:11:05.942 the operating room and it beeps  
NOTE Confidence: 0.8748738695

00:11:05.942 --> 00:11:08.090 really loudly and it tells us what  
NOTE Confidence: 0.8748738695

00:11:08.090 --> 00:11:09.940 are the Sentinel lymph nodes?

NOTE Confidence: 0.8748738695

00:11:09.940 --> 00:11:11.828 It's just a fancy word for saying kind

NOTE Confidence: 0.8748738695

00:11:11.828 --> 00:11:13.877 of the first lymph nodes that drain.

NOTE Confidence: 0.8748738695

00:11:13.880 --> 00:11:16.016 And these are the two mechanisms of how

NOTE Confidence: 0.8748738695

00:11:16.016 --> 00:11:18.708 we find those lymph nodes and we remove them.

NOTE Confidence: 0.8748738695

00:11:18.710 --> 00:11:20.558 I often hate this word as biopsy

NOTE Confidence: 0.8748738695

00:11:20.558 --> 00:11:22.701 because all women we see have really

NOTE Confidence: 0.8748738695

00:11:22.701 --> 00:11:24.316 gone through breast biopsies before.

NOTE Confidence: 0.8748738695

00:11:24.320 --> 00:11:26.064 And it's not that we stick a needle

NOTE Confidence: 0.8748738695

00:11:26.064 --> 00:11:27.740 into the lymph node and tests it.

NOTE Confidence: 0.8748738695

00:11:27.740 --> 00:11:30.120 We actually remove those lymph nodes to

NOTE Confidence: 0.8748738695

00:11:30.120 --> 00:11:32.850 make sure that there's no cancer in them.

NOTE Confidence: 0.8748738695

00:11:32.850 --> 00:11:33.771 Like I said,

NOTE Confidence: 0.8748738695

00:11:33.771 --> 00:11:35.920 just from the start of the presentation

NOTE Confidence: 0.8748738695

00:11:35.988 --> 00:11:37.866 that we've really tried hard to

NOTE Confidence: 0.8748738695

00:11:37.866 --> 00:11:39.790 deescalate or do less access or

NOTE Confidence: 0.8748738695

00:11:39.790 --> 00:11:41.904 surgery for all the morbidity of it.  
NOTE Confidence: 0.8748738695

00:11:41.910 --> 00:11:43.320 And this was a in,  
NOTE Confidence: 0.8748738695

00:11:43.320 --> 00:11:43.964 you know.  
NOTE Confidence: 0.8748738695

00:11:43.964 --> 00:11:45.896 Credibly powerful study done in the  
NOTE Confidence: 0.8748738695

00:11:45.896 --> 00:11:47.585 early 2000s that demonstrated that  
NOTE Confidence: 0.8748738695

00:11:47.585 --> 00:11:49.881 all women who have out some disease  
NOTE Confidence: 0.8748738695

00:11:49.938 --> 00:11:51.996 in the lymph nodes don't need an  
NOTE Confidence: 0.8748738695

00:11:51.996 --> 00:11:53.992 axillary lymph node dissection or a  
NOTE Confidence: 0.8748738695

00:11:53.992 --> 00:11:56.276 removal of all the lymph nodes in the armpit.  
NOTE Confidence: 0.8748738695

00:11:56.280 --> 00:11:59.150 And it's really allowed a lot of  
NOTE Confidence: 0.8748738695

00:11:59.150 --> 00:12:02.172 women to spare an axillary lymph node  
NOTE Confidence: 0.8748738695

00:12:02.172 --> 00:12:04.412 dissection for their breast cancers.  
NOTE Confidence: 0.8748738695

00:12:04.420 --> 00:12:05.988 This is another trial that I think  
NOTE Confidence: 0.8748738695

00:12:05.988 --> 00:12:07.509 Dr Kanos will get into further,  
NOTE Confidence: 0.8748738695

00:12:07.510 --> 00:12:09.446 but this is even now looking at even  
NOTE Confidence: 0.8748738695

00:12:09.446 --> 00:12:11.514 women who have positive lymph nodes

NOTE Confidence: 0.8748738695

00:12:11.514 --> 00:12:13.419 with hormone receptor positive disease.

NOTE Confidence: 0.8748738695

00:12:13.420 --> 00:12:15.860 So we estrogen and progesterone

NOTE Confidence: 0.8748738695

00:12:15.860 --> 00:12:16.836 positive diseases,

NOTE Confidence: 0.914575929333333

00:12:16.840 --> 00:12:18.825 even women who have positive

NOTE Confidence: 0.914575929333333

00:12:18.825 --> 00:12:20.810 lymph nodes might not necessarily

NOTE Confidence: 0.914575929333333

00:12:20.881 --> 00:12:22.866 need chemotherapy all the time.

NOTE Confidence: 0.914575929333333

00:12:22.870 --> 00:12:24.342 So we're giving chemotherapy

NOTE Confidence: 0.914575929333333

00:12:24.342 --> 00:12:26.550 a lot more often now before

NOTE Confidence: 0.914575929333333

00:12:26.620 --> 00:12:28.480 surgery to for various reasons,

NOTE Confidence: 0.914575929333333

00:12:28.480 --> 00:12:30.580 for various kinds of cancers and

NOTE Confidence: 0.914575929333333

00:12:30.649 --> 00:12:32.304 what we're realizing is surgeons

NOTE Confidence: 0.914575929333333

00:12:32.304 --> 00:12:34.743 is that we can still offer that

NOTE Confidence: 0.914575929333333

00:12:34.743 --> 00:12:36.523 Sentinel lymph node biopsy procedure

NOTE Confidence: 0.914575929333333

00:12:36.523 --> 00:12:39.118 as I just showed for women.

NOTE Confidence: 0.914575929333333

00:12:39.118 --> 00:12:41.648 Even who have chemotherapy first,

NOTE Confidence: 0.914575929333333

00:12:41.650 --> 00:12:43.546 and we don't always have to take out  
NOTE Confidence: 0.914575929333333  
00:12:43.546 --> 00:12:45.760 all the lymph nodes after chemotherapy.  
NOTE Confidence: 0.914575929333333  
00:12:45.760 --> 00:12:48.088 So if we use those two different dyes,  
NOTE Confidence: 0.914575929333333  
00:12:48.090 --> 00:12:50.674 the blue dye and the radioactive dye and  
NOTE Confidence: 0.914575929333333  
00:12:50.674 --> 00:12:53.137 we remove at least three lymph nodes.  
NOTE Confidence: 0.914575929333333  
00:12:53.140 --> 00:12:54.766 What we know is that that's  
NOTE Confidence: 0.914575929333333  
00:12:54.766 --> 00:12:56.240 safe for our patients to do,  
NOTE Confidence: 0.914575929333333  
00:12:56.240 --> 00:12:57.365 and if those lymph nodes  
NOTE Confidence: 0.914575929333333  
00:12:57.365 --> 00:12:58.490 don't have cancer in them,  
NOTE Confidence: 0.914575929333333  
00:12:58.490 --> 00:13:00.695 then we don't have to go on to an  
NOTE Confidence: 0.914575929333333  
00:13:00.695 --> 00:13:02.796 axillary lymph node dissection right now,  
NOTE Confidence: 0.914575929333333  
00:13:02.796 --> 00:13:04.777 the standard of care is that if  
NOTE Confidence: 0.914575929333333  
00:13:04.777 --> 00:13:06.687 any lymph nodes after chemotherapy  
NOTE Confidence: 0.914575929333333  
00:13:06.687 --> 00:13:08.637 still have cancer in them,  
NOTE Confidence: 0.914575929333333  
00:13:08.640 --> 00:13:10.194 we would go on and remove  
NOTE Confidence: 0.914575929333333  
00:13:10.194 --> 00:13:11.230 all the lymph nodes.

NOTE Confidence: 0.914575929333333  
00:13:11.230 --> 00:13:14.128 But a lot of my patients I talked to,  
NOTE Confidence: 0.914575929333333  
00:13:14.130 --> 00:13:15.650 if they're an appropriate  
NOTE Confidence: 0.914575929333333  
00:13:15.650 --> 00:13:17.170 candidate for this trial.  
NOTE Confidence: 0.914575929333333  
00:13:17.170 --> 00:13:19.683 If there's an ongoing trial asking this  
NOTE Confidence: 0.914575929333333  
00:13:19.683 --> 00:13:21.910 question as to whether some patients  
NOTE Confidence: 0.914575929333333  
00:13:21.910 --> 00:13:24.423 who have a little bit of cancer.  
NOTE Confidence: 0.914575929333333  
00:13:24.430 --> 00:13:26.596 Still left in the lymph nodes  
NOTE Confidence: 0.914575929333333  
00:13:26.596 --> 00:13:29.131 after surgery and me and actually  
NOTE Confidence: 0.914575929333333  
00:13:29.131 --> 00:13:30.649 lymph node dissection.  
NOTE Confidence: 0.914575929333333  
00:13:30.650 --> 00:13:33.986 Or could they just get what we call  
NOTE Confidence: 0.914575929333333  
00:13:33.986 --> 00:13:36.192 radiation after surgery or and you  
NOTE Confidence: 0.914575929333333  
00:13:36.192 --> 00:13:38.080 know as Doctor Knowlton on the call she  
NOTE Confidence: 0.914575929333333  
00:13:38.133 --> 00:13:39.750 will talk a lot more about radiation  
NOTE Confidence: 0.914575929333333  
00:13:39.750 --> 00:13:41.619 but why I love Breast Cancer Care  
NOTE Confidence: 0.914575929333333  
00:13:41.619 --> 00:13:43.305 is 'cause it's so multi modality  
NOTE Confidence: 0.914575929333333

00:13:43.310 --> 00:13:45.380 and multidisciplinary and we always  
NOTE Confidence: 0.914575929333333

00:13:45.380 --> 00:13:47.837 are talking to our colleagues in  
NOTE Confidence: 0.914575929333333

00:13:47.837 --> 00:13:49.745 the various specialties to try to  
NOTE Confidence: 0.914575929333333

00:13:49.745 --> 00:13:52.107 take the best care of our patients.  
NOTE Confidence: 0.914575929333333

00:13:52.110 --> 00:13:53.004 So stage four disease.  
NOTE Confidence: 0.914575929333333

00:13:53.004 --> 00:13:55.220 So what do I even mean by stage four?  
NOTE Confidence: 0.914575929333333

00:13:55.220 --> 00:13:57.196 Disease stage four diseases,  
NOTE Confidence: 0.914575929333333

00:13:57.196 --> 00:14:00.160 those women who have breast cancer  
NOTE Confidence: 0.914575929333333

00:14:00.245 --> 00:14:02.597 in other organs of their body?  
NOTE Confidence: 0.914575929333333

00:14:02.600 --> 00:14:03.428 For instance,  
NOTE Confidence: 0.914575929333333

00:14:03.428 --> 00:14:07.087 the liver or the lungs or the bones.  
NOTE Confidence: 0.914575929333333

00:14:07.087 --> 00:14:09.732 And there have been various  
NOTE Confidence: 0.914575929333333

00:14:09.732 --> 00:14:11.930 different data to suggest.  
NOTE Confidence: 0.914575929333333

00:14:11.930 --> 00:14:13.604 Either we should remove the tumor  
NOTE Confidence: 0.914575929333333

00:14:13.604 --> 00:14:15.643 in the breast if a woman has  
NOTE Confidence: 0.914575929333333

00:14:15.643 --> 00:14:17.073 cancer elsewhere in the body,

NOTE Confidence: 0.914575929333333

00:14:17.080 --> 00:14:19.775 or we shouldn't remove it and there's

NOTE Confidence: 0.914575929333333

00:14:19.775 --> 00:14:21.985 varying thoughts on that, but.

NOTE Confidence: 0.914575929333333

00:14:21.985 --> 00:14:25.516 The recent very well known very

NOTE Confidence: 0.914575929333333

00:14:25.516 --> 00:14:27.046 well known very well done,

NOTE Confidence: 0.914575929333333

00:14:27.050 --> 00:14:28.575 randomized controlled trial done by

NOTE Confidence: 0.914575929333333

00:14:28.575 --> 00:14:30.517 a woman Doctor Khan at Northwestern

NOTE Confidence: 0.914575929333333

00:14:30.517 --> 00:14:32.332 really demonstrated that it's going

NOTE Confidence: 0.914575929333333

00:14:32.332 --> 00:14:34.331 to be most important for women

NOTE Confidence: 0.914575929333333

00:14:34.331 --> 00:14:35.813 who have stage four disease to

NOTE Confidence: 0.914575929333333

00:14:35.813 --> 00:14:36.970 get on systemic therapy.

NOTE Confidence: 0.914575929333333

00:14:36.970 --> 00:14:39.610 So some kind of therapy to treat their

NOTE Confidence: 0.914575929333333

00:14:39.672 --> 00:14:42.150 whole body and that oftentimes it doesn't.

NOTE Confidence: 0.914575929333333

00:14:42.150 --> 00:14:42.834 In fact,

NOTE Confidence: 0.914575929333333

00:14:42.834 --> 00:14:44.544 it really doesn't improve their

NOTE Confidence: 0.914575929333333

00:14:44.544 --> 00:14:46.740 survival to remove the original tumor.

NOTE Confidence: 0.914575929333333

00:14:46.740 --> 00:14:47.936 There are, of course,  
NOTE Confidence: 0.9145759293333333

00:14:47.936 --> 00:14:49.730 reasons to do surgery on patients  
NOTE Confidence: 0.9145759293333333

00:14:49.787 --> 00:14:51.307 who have stage four disease.  
NOTE Confidence: 0.9145759293333333

00:14:51.310 --> 00:14:51.900 If the.  
NOTE Confidence: 0.9145759293333333

00:14:51.900 --> 00:14:54.720 Wound is if the breast has a bleeding wound,  
NOTE Confidence: 0.9145759293333333

00:14:54.720 --> 00:14:56.216 or if there's pain,  
NOTE Confidence: 0.9145759293333333

00:14:56.216 --> 00:14:58.086 or you know something palliative  
NOTE Confidence: 0.9145759293333333

00:14:58.086 --> 00:14:59.818 to help local control,  
NOTE Confidence: 0.9145759293333333

00:14:59.820 --> 00:15:02.088 but we do think that really  
NOTE Confidence: 0.9145759293333333

00:15:02.088 --> 00:15:04.054 helping women who have stage  
NOTE Confidence: 0.9145759293333333

00:15:04.054 --> 00:15:06.700 four disease to get on some kind  
NOTE Confidence: 0.9145759293333333

00:15:06.700 --> 00:15:08.733 of medicine systemically is the  
NOTE Confidence: 0.9145759293333333

00:15:08.733 --> 00:15:11.533 best for them up front right now.  
NOTE Confidence: 0.88136418

00:15:11.540 --> 00:15:13.187 And then last but not least,  
NOTE Confidence: 0.88136418

00:15:13.187 --> 00:15:15.070 you know there's a lot of questions  
NOTE Confidence: 0.88136418

00:15:15.128 --> 00:15:16.958 out there about high risk lesions,

NOTE Confidence: 0.88136418

00:15:16.960 --> 00:15:18.647 and this is a very complicated slide.

NOTE Confidence: 0.88136418

00:15:18.650 --> 00:15:20.410 Then I always told I was always told

NOTE Confidence: 0.88136418

00:15:20.410 --> 00:15:22.362 don't say that out loud 'cause you should

NOTE Confidence: 0.88136418

00:15:22.362 --> 00:15:24.390 change the slide if it's too complicated,

NOTE Confidence: 0.88136418

00:15:24.390 --> 00:15:26.550 but you know there are a lot of women

NOTE Confidence: 0.88136418

00:15:26.550 --> 00:15:28.666 are getting diagnosed with various kinds

NOTE Confidence: 0.88136418

00:15:28.666 --> 00:15:31.295 of high risk lesions such as radial

NOTE Confidence: 0.88136418

00:15:31.295 --> 00:15:33.175 scars or lobular carcinoma insight,

NOTE Confidence: 0.88136418

00:15:33.180 --> 00:15:35.285 Chu ductal carcinoma insight two

NOTE Confidence: 0.88136418

00:15:35.285 --> 00:15:37.390 versus lobular carcinoma inside shoe,

NOTE Confidence: 0.88136418

00:15:37.390 --> 00:15:39.166 and what we know about a lot of

NOTE Confidence: 0.88136418

00:15:39.166 --> 00:15:40.730 these high risk lesions or are.

NOTE Confidence: 0.88136418

00:15:40.730 --> 00:15:42.536 A fair amount increase your risk

NOTE Confidence: 0.88136418

00:15:42.536 --> 00:15:44.180 of developing a breast cancer,

NOTE Confidence: 0.88136418

00:15:44.180 --> 00:15:45.909 but not all have to come out.

NOTE Confidence: 0.88136418

00:15:45.910 --> 00:15:47.000 Some need to come out,  
NOTE Confidence: 0.88136418

00:15:47.000 --> 00:15:48.740 and that's a conversation you  
NOTE Confidence: 0.88136418

00:15:48.740 --> 00:15:51.140 know we often have with patients,  
NOTE Confidence: 0.88136418

00:15:51.140 --> 00:15:54.110 but not all need to come out and so it it.  
NOTE Confidence: 0.88136418

00:15:54.110 --> 00:15:56.666 It is constantly changing, getting updated.  
NOTE Confidence: 0.88136418

00:15:56.670 --> 00:15:59.062 And you know if you ever have questions  
NOTE Confidence: 0.88136418

00:15:59.062 --> 00:16:00.914 were obviously always available to answer  
NOTE Confidence: 0.88136418

00:16:00.914 --> 00:16:03.429 them and that's all we have for tonight.  
NOTE Confidence: 0.88136418

00:16:03.430 --> 00:16:05.145 So let me stop sharing my screen.  
NOTE Confidence: 0.88136418

00:16:05.150 --> 00:16:06.638 Thank you for the opportunity to  
NOTE Confidence: 0.88136418

00:16:06.638 --> 00:16:08.179 talk about the updates of surgery.  
NOTE Confidence: 0.71381494

00:16:09.340 --> 00:16:11.756 Doctor Berger, two quick  
NOTE Confidence: 0.71381494

00:16:11.756 --> 00:16:13.230 questions from the audience.  
NOTE Confidence: 0.71381494

00:16:13.230 --> 00:16:15.620 One was there ever a time when you  
NOTE Confidence: 0.71381494

00:16:15.620 --> 00:16:17.396 would use a wire localization instead  
NOTE Confidence: 0.71381494

00:16:17.396 --> 00:16:19.707 of A tag or a seed localization?

NOTE Confidence: 0.94794017

00:16:20.790 --> 00:16:22.340 Yes, that's a great question,

NOTE Confidence: 0.94794017

00:16:22.340 --> 00:16:25.740 and absolutely so I think a couple examples.

NOTE Confidence: 0.94794017

00:16:25.740 --> 00:16:27.654 For instance, if we think that

NOTE Confidence: 0.94794017

00:16:27.654 --> 00:16:30.844 after a biopsy a patient has a very

NOTE Confidence: 0.94794017

00:16:30.844 --> 00:16:32.688 large hematoma associated blood

NOTE Confidence: 0.94794017

00:16:32.688 --> 00:16:34.569 collection around their cancer,

NOTE Confidence: 0.94794017

00:16:34.570 --> 00:16:37.050 it can be hard to put in that tag and

NOTE Confidence: 0.94794017

00:16:37.121 --> 00:16:39.470 get it in a place where we want it.

NOTE Confidence: 0.94794017

00:16:39.470 --> 00:16:41.535 Because there's a lot of fluid there,

NOTE Confidence: 0.94794017

00:16:41.540 --> 00:16:44.519 so the wire, for instance is a lot tends

NOTE Confidence: 0.94794017

00:16:44.519 --> 00:16:47.608 to be a little bit more accurate for

NOTE Confidence: 0.94794017

00:16:47.608 --> 00:16:50.236 localising lesion if there's if there's

NOTE Confidence: 0.94794017

00:16:50.236 --> 00:16:52.830 a fluid collection around the tumor,

NOTE Confidence: 0.94794017

00:16:52.830 --> 00:16:55.390 and then you know a second big reason

NOTE Confidence: 0.94794017

00:16:55.390 --> 00:16:57.629 sometimes is if there's a large area

NOTE Confidence: 0.94794017

00:16:57.629 --> 00:16:59.870 in the breast that we're trying to  
NOTE Confidence: 0.94794017

00:16:59.870 --> 00:17:02.430 bracket or get the extent of the lesion.  
NOTE Confidence: 0.94794017

00:17:02.430 --> 00:17:04.950 Sometimes wires can be easier to understand.  
NOTE Confidence: 0.94794017

00:17:04.950 --> 00:17:06.616 The extent of the lesion and not  
NOTE Confidence: 0.94794017

00:17:06.616 --> 00:17:10.134 putting in two tags, just two wires.  
NOTE Confidence: 0.94794017

00:17:10.134 --> 00:17:13.660 Dumb and dumb, you know there's a few,  
NOTE Confidence: 0.94794017

00:17:13.660 --> 00:17:15.082 probably other examples that I'm not  
NOTE Confidence: 0.94794017

00:17:15.082 --> 00:17:16.680 maybe thinking off the top of my head,  
NOTE Confidence: 0.94794017

00:17:16.680 --> 00:17:17.688 but I would say those are,  
NOTE Confidence: 0.94794017

00:17:17.690 --> 00:17:18.789 you know, two of the bigger ones.  
NOTE Confidence: 0.933339274285714

00:17:19.080 --> 00:17:21.012 Yeah, sometimes when it's just too close  
NOTE Confidence: 0.933339274285714

00:17:21.012 --> 00:17:23.117 to the skin or something like that.  
NOTE Confidence: 0.933339274285714

00:17:23.120 --> 00:17:24.536 And then there's one other question.  
NOTE Confidence: 0.933339274285714

00:17:24.540 --> 00:17:26.444 How is it possible to have a  
NOTE Confidence: 0.933339274285714

00:17:26.444 --> 00:17:27.913 negative Sentinel lymph node but  
NOTE Confidence: 0.933339274285714

00:17:27.913 --> 00:17:29.408 a positive axillary lymph node?

NOTE Confidence: 0.88491446

00:17:32.730 --> 00:17:34.450 Yeah, the terrible part about

NOTE Confidence: 0.88491446

00:17:34.450 --> 00:17:36.250 cancer is that it likes to

NOTE Confidence: 0.924196624090909

00:17:36.319 --> 00:17:38.263 spread and that sometimes you know

NOTE Confidence: 0.924196624090909

00:17:38.263 --> 00:17:40.410 even if lymph nodes are negative,

NOTE Confidence: 0.924196624090909

00:17:40.410 --> 00:17:41.610 cancer can be in the rest

NOTE Confidence: 0.924196624090909

00:17:41.610 --> 00:17:42.898 of the body, even sometimes.

NOTE Confidence: 0.924196624090909

00:17:42.898 --> 00:17:45.306 So, although we think that the process

NOTE Confidence: 0.924196624090909

00:17:45.306 --> 00:17:47.518 is the cancer from the breast goes

NOTE Confidence: 0.924196624090909

00:17:47.518 --> 00:17:49.796 to the Sentinel or the first lymph

NOTE Confidence: 0.924196624090909

00:17:49.796 --> 00:17:51.806 nodes that drain the breast first,

NOTE Confidence: 0.924196624090909

00:17:51.810 --> 00:17:53.868 cancer doesn't always behave by their rules,

NOTE Confidence: 0.924196624090909

00:17:53.870 --> 00:17:56.096 so it does sometimes happen that way.

NOTE Confidence: 0.9080975333333333

00:17:57.830 --> 00:18:02.408 OK. Thank you, that was terrific.

NOTE Confidence: 0.9080975333333333

00:18:02.410 --> 00:18:05.266 So Doctor Kanowitz will be next,

NOTE Confidence: 0.9080975333333333

00:18:05.270 --> 00:18:07.028 and she's an assistant professor of

NOTE Confidence: 0.9080975333333333

00:18:07.028 --> 00:18:08.422 Clinical Medicine, medical oncology,  
NOTE Confidence: 0.9080975333333333

00:18:08.422 --> 00:18:11.229 and she's the medical director of the  
NOTE Confidence: 0.9080975333333333

00:18:11.229 --> 00:18:13.700 Smilow Cancer Hospital in North Haven.  
NOTE Confidence: 0.9080975333333333

00:18:13.700 --> 00:18:15.250 She received her medical degree  
NOTE Confidence: 0.9080975333333333

00:18:15.250 --> 00:18:16.800 from Cornell and completed her  
NOTE Confidence: 0.9080975333333333

00:18:16.850 --> 00:18:18.398 fellowship in medical Oncology,  
NOTE Confidence: 0.9080975333333333

00:18:18.400 --> 00:18:20.080 also at Memorial Sloan Kettering.  
NOTE Confidence: 0.9080975333333333

00:18:20.080 --> 00:18:24.539 So this kind of a alumni reunion.  
NOTE Confidence: 0.9080975333333333

00:18:24.540 --> 00:18:26.400 Prior to joining Neil Decker,  
NOTE Confidence: 0.9080975333333333

00:18:26.400 --> 00:18:29.070 Canyon once was the medical director  
NOTE Confidence: 0.9080975333333333

00:18:29.070 --> 00:18:31.456 from apology services at Bristol  
NOTE Confidence: 0.9080975333333333

00:18:31.456 --> 00:18:33.560 Hospital Cancer Care Center.  
NOTE Confidence: 0.9080975333333333

00:18:33.560 --> 00:18:35.981 And so doctor Kanowitz is going to talk to  
NOTE Confidence: 0.9080975333333333

00:18:35.981 --> 00:18:38.590 us about innovations in medical oncology.  
NOTE Confidence: 0.859760132857143

00:18:41.280 --> 00:18:45.809 OK, I'm going to share my screen.  
NOTE Confidence: 0.740536365

00:18:51.260 --> 00:18:53.494 OK, I usually introduce myself

NOTE Confidence: 0.740536365

00:18:53.494 --> 00:18:56.422 as I was born in Brooklyn.

NOTE Confidence: 0.740536365

00:18:56.430 --> 00:18:58.950 I'm the product of the public

NOTE Confidence: 0.740536365

00:18:58.950 --> 00:19:01.510 school education in New York City,

NOTE Confidence: 0.740536365

00:19:01.510 --> 00:19:04.058 and then I went to Med school.

NOTE Confidence: 0.740536365

00:19:04.060 --> 00:19:07.993 So thank you for inviting me to talk tonight.

NOTE Confidence: 0.740536365

00:19:08.000 --> 00:19:10.597 It truly is a privilege to help

NOTE Confidence: 0.740536365

00:19:10.597 --> 00:19:13.019 care for patients in this Community

NOTE Confidence: 0.740536365

00:19:13.019 --> 00:19:15.473 and to work along with Doctor

NOTE Confidence: 0.740536365

00:19:15.473 --> 00:19:17.478 Berger and Doctor Knowlton.

NOTE Confidence: 0.85721282875

00:19:19.780 --> 00:19:22.088 I'm a medical oncologist.

NOTE Confidence: 0.85721282875

00:19:22.088 --> 00:19:24.396 I prescribe systemic therapies.

NOTE Confidence: 0.85721282875

00:19:24.400 --> 00:19:26.595 These are medicines that traveled

NOTE Confidence: 0.85721282875

00:19:26.595 --> 00:19:28.790 throughout the body and treat

NOTE Confidence: 0.85721282875

00:19:28.867 --> 00:19:31.027 cancer cells wherever they are.

NOTE Confidence: 0.85721282875

00:19:31.030 --> 00:19:34.068 Why? Because breast cancer is both a

NOTE Confidence: 0.85721282875

00:19:34.068 --> 00:19:36.478 local disease confined to the breast,  
NOTE Confidence: 0.85721282875

00:19:36.480 --> 00:19:39.390 but it's also a systemic disease.  
NOTE Confidence: 0.85721282875

00:19:39.390 --> 00:19:41.390 How do we know this?  
NOTE Confidence: 0.85721282875

00:19:41.390 --> 00:19:44.192 The year is 1968.  
NOTE Confidence: 0.85721282875

00:19:44.192 --> 00:19:46.880 Breast cancer is curable  
NOTE Confidence: 0.85721282875

00:19:46.880 --> 00:19:48.896 with radical surgery,  
NOTE Confidence: 0.85721282875

00:19:48.900 --> 00:19:52.316 and we saw those slides from Doctor Berger.  
NOTE Confidence: 0.85721282875

00:19:52.320 --> 00:19:55.968 Yet not all women remained cured.  
NOTE Confidence: 0.85721282875

00:19:55.970 --> 00:19:56.960 Doctor Fisher,  
NOTE Confidence: 0.85721282875

00:19:56.960 --> 00:19:59.930 who is a breast surgeon himself  
NOTE Confidence: 0.85721282875

00:19:59.930 --> 00:20:02.891 postulated and then proved that breast  
NOTE Confidence: 0.85721282875

00:20:02.891 --> 00:20:05.717 cancer is also a systemic disease,  
NOTE Confidence: 0.85721282875

00:20:05.720 --> 00:20:08.192 and he thought that unless we  
NOTE Confidence: 0.85721282875

00:20:08.192 --> 00:20:10.438 address microscopic cells that have  
NOTE Confidence: 0.85721282875

00:20:10.438 --> 00:20:12.526 traveled through the bloodstream,  
NOTE Confidence: 0.85721282875

00:20:12.530 --> 00:20:17.030 long term cure will be compromised.

NOTE Confidence: 0.85721282875

00:20:17.030 --> 00:20:19.809 No, this is not our oncology clinic.

NOTE Confidence: 0.85721282875

00:20:19.810 --> 00:20:22.228 During the height of the pandemic,

NOTE Confidence: 0.85721282875

00:20:22.230 --> 00:20:25.710 these are the battlefields of World War One.

NOTE Confidence: 0.85721282875

00:20:25.710 --> 00:20:29.250 What's war good for drug development,

NOTE Confidence: 0.85721282875

00:20:29.250 --> 00:20:32.630 nitrogen gas or chemical warfare

NOTE Confidence: 0.85721282875

00:20:32.630 --> 00:20:35.726 was noted to be toxic both to the

NOTE Confidence: 0.85721282875

00:20:35.726 --> 00:20:38.218 bone marrow and to blood cells.

NOTE Confidence: 0.85721282875

00:20:38.220 --> 00:20:41.604 And after the war it was the first

NOTE Confidence: 0.85721282875

00:20:41.604 --> 00:20:44.795 anti cancer agent used to treat

NOTE Confidence: 0.85721282875

00:20:44.795 --> 00:20:47.605 both leukemia and lymphoma cancers.

NOTE Confidence: 0.85721282875

00:20:47.610 --> 00:20:51.320 Of the bone marrow and the blood.

NOTE Confidence: 0.85721282875

00:20:51.320 --> 00:20:56.150 Let's go back to Doctor Fisher's time.

NOTE Confidence: 0.85721282875

00:20:56.150 --> 00:20:59.636 We now obviously have more effective

NOTE Confidence: 0.85721282875

00:20:59.636 --> 00:21:01.960 and safer chemotherapy drugs,

NOTE Confidence: 0.85721282875

00:21:01.960 --> 00:21:05.098 and we have his new theory.

NOTE Confidence: 0.85721282875

00:21:05.100 --> 00:21:07.920 A groundbreaking trial was designed  
NOTE Confidence: 0.85721282875

00:21:07.920 --> 00:21:10.176 to test his hypothesis.  
NOTE Confidence: 0.85721282875

00:21:10.180 --> 00:21:13.280 All women received curative surgery.  
NOTE Confidence: 0.85721282875

00:21:13.280 --> 00:21:16.200 Half the group received chemotherapy.  
NOTE Confidence: 0.85721282875

00:21:16.200 --> 00:21:18.032 Half the group didn't.  
NOTE Confidence: 0.85721282875

00:21:18.032 --> 00:21:20.780 The original study performed in the  
NOTE Confidence: 0.85721282875

00:21:20.859 --> 00:21:23.775 70s was actually performed in Europe.  
NOTE Confidence: 0.85721282875

00:21:23.780 --> 00:21:26.936 American surgeons would not let their  
NOTE Confidence: 0.85721282875

00:21:26.936 --> 00:21:29.040 patients participate because they  
NOTE Confidence: 0.85721282875

00:21:29.122 --> 00:21:31.924 felt that they could cure breast  
NOTE Confidence: 0.85721282875

00:21:31.924 --> 00:21:34.390 cancer and chemotherapy wasn't needed.  
NOTE Confidence: 0.85721282875

00:21:34.390 --> 00:21:35.830 This is the 20 year.  
NOTE Confidence: 0.85721282875

00:21:35.830 --> 00:21:38.830 Follow up with Doctor Fisher study  
NOTE Confidence: 0.85721282875

00:21:38.830 --> 00:21:41.416 that proves breast cancer is a  
NOTE Confidence: 0.85721282875

00:21:41.416 --> 00:21:44.090 systemic disease as well as locally.  
NOTE Confidence: 0.85721282875

00:21:44.090 --> 00:21:44.680 Clearly,

NOTE Confidence: 0.85721282875

00:21:44.680 --> 00:21:47.630 the women who got advantor

NOTE Confidence: 0.85721282875

00:21:47.630 --> 00:21:49.990 postoperative chemotherapy did better,

NOTE Confidence: 0.85721282875

00:21:49.990 --> 00:21:52.912 and the value of participating in

NOTE Confidence: 0.85721282875

00:21:52.912 --> 00:21:55.860 clinical trials cannot be overstated.

NOTE Confidence: 0.897891454615384

00:21:57.990 --> 00:22:00.601 This is your brain on drugs and

NOTE Confidence: 0.897891454615384

00:22:00.601 --> 00:22:03.110 I mean your blood on drugs.

NOTE Confidence: 0.897891454615384

00:22:03.110 --> 00:22:06.282 Germany had a lot of problems in the 1930s.

NOTE Confidence: 0.897891454615384

00:22:06.282 --> 00:22:08.934 You guessed it, how were they

NOTE Confidence: 0.897891454615384

00:22:08.934 --> 00:22:11.500 going to mass produce beer?

NOTE Confidence: 0.897891454615384

00:22:11.500 --> 00:22:13.624 The process of industrial

NOTE Confidence: 0.897891454615384

00:22:13.624 --> 00:22:16.810 fermentation grew into the fields of

NOTE Confidence: 0.897891454615384

00:22:16.902 --> 00:22:20.158 biotechnology and genetic engineering.

NOTE Confidence: 0.897891454615384

00:22:20.160 --> 00:22:22.680 This process was used for fuel,

NOTE Confidence: 0.897891454615384

00:22:22.680 --> 00:22:24.783 explosives and medicines

NOTE Confidence: 0.897891454615384

00:22:24.783 --> 00:22:27.587 like penicillin and insulin.

NOTE Confidence: 0.897891454615384

00:22:27.590 --> 00:22:30.854 In the early 90s the same process was  
NOTE Confidence: 0.897891454615384

00:22:30.854 --> 00:22:34.260 used to create a white cell growth  
NOTE Confidence: 0.897891454615384

00:22:34.260 --> 00:22:37.136 factor and this then allowed for safe,  
NOTE Confidence: 0.897891454615384

00:22:37.140 --> 00:22:38.910 constant, safe,  
NOTE Confidence: 0.897891454615384

00:22:38.910 --> 00:22:42.450 high concentrations of chemotherapy.  
NOTE Confidence: 0.897891454615384

00:22:42.450 --> 00:22:45.730 The panel on the left is a sample of blood.  
NOTE Confidence: 0.897891454615384

00:22:45.730 --> 00:22:47.949 The panel on the right is the  
NOTE Confidence: 0.897891454615384

00:22:47.949 --> 00:22:50.165 same sample after the patient was  
NOTE Confidence: 0.897891454615384

00:22:50.165 --> 00:22:52.150 given white cell growth factor.  
NOTE Confidence: 0.897891454615384

00:22:52.150 --> 00:22:54.410 The purple cells are infection  
NOTE Confidence: 0.897891454615384

00:22:54.410 --> 00:22:55.314 fighting cells.  
NOTE Confidence: 0.824298414666667

00:22:57.880 --> 00:23:00.841 So now we can safely give high doses and  
NOTE Confidence: 0.824298414666667

00:23:00.841 --> 00:23:03.797 the thought is chi chemotherapy works,  
NOTE Confidence: 0.824298414666667

00:23:03.800 --> 00:23:08.260 maybe more. Chemotherapy is better.  
NOTE Confidence: 0.824298414666667

00:23:08.260 --> 00:23:10.948 The era of high dose chemotherapy  
NOTE Confidence: 0.824298414666667

00:23:10.948 --> 00:23:13.709 took place in the early 90s.

NOTE Confidence: 0.824298414666667  
00:23:13.710 --> 00:23:16.748 The goal was to eradicate every last  
NOTE Confidence: 0.824298414666667  
00:23:16.748 --> 00:23:19.724 clone of breast cancer and then  
NOTE Confidence: 0.824298414666667  
00:23:19.724 --> 00:23:22.359 help the immune system reconstitute  
NOTE Confidence: 0.824298414666667  
00:23:22.359 --> 00:23:25.420 itself with this new growth factor,  
NOTE Confidence: 0.824298414666667  
00:23:25.420 --> 00:23:28.306 women were treated on clinical trials  
NOTE Confidence: 0.824298414666667  
00:23:28.306 --> 00:23:31.907 and yet many sought legal channels to  
NOTE Confidence: 0.824298414666667  
00:23:31.907 --> 00:23:35.498 get this new promising approach. That is,  
NOTE Confidence: 0.824298414666667  
00:23:35.498 --> 00:23:39.230 they sued their insurance company to get.  
NOTE Confidence: 0.824298414666667  
00:23:39.230 --> 00:23:41.270 This new technology?  
NOTE Confidence: 0.824298414666667  
00:23:41.270 --> 00:23:43.106 By the early 2000s,  
NOTE Confidence: 0.824298414666667  
00:23:43.106 --> 00:23:46.530 the jury was in the clinical trial.  
NOTE Confidence: 0.824298414666667  
00:23:46.530 --> 00:23:48.219 Data was reviewed,  
NOTE Confidence: 0.824298414666667  
00:23:48.219 --> 00:23:51.034 but the verdict was disappointing.  
NOTE Confidence: 0.824298414666667  
00:23:51.040 --> 00:23:55.065 This toxic approach did not improve outcomes,  
NOTE Confidence: 0.824298414666667  
00:23:55.070 --> 00:23:58.388 and again, it points out how important  
NOTE Confidence: 0.824298414666667

00:23:58.388 --> 00:24:02.740 it is to participate in clinical trials.  
NOTE Confidence: 0.824298414666667

00:24:02.740 --> 00:24:06.212 That's how we learn how to move  
NOTE Confidence: 0.824298414666667

00:24:06.212 --> 00:24:07.700 the field forward.  
NOTE Confidence: 0.824298414666667

00:24:07.700 --> 00:24:09.840 So maybe there's a better,  
NOTE Confidence: 0.824298414666667

00:24:09.840 --> 00:24:14.386 more sophisticated way the human  
NOTE Confidence: 0.824298414666667

00:24:14.386 --> 00:24:18.382 Genome Project was completed in 2003.  
NOTE Confidence: 0.824298414666667

00:24:18.382 --> 00:24:23.296 It took 13 years to complete scientists  
NOTE Confidence: 0.824298414666667

00:24:23.300 --> 00:24:25.706 all over the world worked together.  
NOTE Confidence: 0.824298414666667

00:24:25.710 --> 00:24:28.110 Let me just repeat that.  
NOTE Confidence: 0.824298414666667

00:24:28.110 --> 00:24:30.488 They actually worked together,  
NOTE Confidence: 0.824298414666667

00:24:30.488 --> 00:24:36.144 and the entire human genome was identified.  
NOTE Confidence: 0.824298414666667

00:24:36.150 --> 00:24:38.646 Using the same technology,  
NOTE Confidence: 0.824298414666667

00:24:38.646 --> 00:24:41.766 a scientist at Stanford analyzed  
NOTE Confidence: 0.824298414666667

00:24:41.766 --> 00:24:46.020 breast cancer tissue and he was able  
NOTE Confidence: 0.824298414666667

00:24:46.020 --> 00:24:48.895 to identify distinct DNA patterns,  
NOTE Confidence: 0.824298414666667

00:24:48.900 --> 00:24:50.628 but more importantly,

NOTE Confidence: 0.824298414666667  
00:24:50.628 --> 00:24:54.084 he was able to correlate these  
NOTE Confidence: 0.824298414666667  
00:24:54.084 --> 00:24:56.079 patterns with outcomes.  
NOTE Confidence: 0.824298414666667  
00:24:56.080 --> 00:24:58.995 A risk assessment tool was  
NOTE Confidence: 0.824298414666667  
00:24:58.995 --> 00:25:00.744 developed for prognosis,  
NOTE Confidence: 0.824298414666667  
00:25:00.750 --> 00:25:03.606 gives us a better idea of what the  
NOTE Confidence: 0.824298414666667  
00:25:03.606 --> 00:25:06.476 future looks like and prediction what.  
NOTE Confidence: 0.824298414666667  
00:25:06.476 --> 00:25:08.844 What do we predict?  
NOTE Confidence: 0.824298414666667  
00:25:08.850 --> 00:25:12.960 The best postoperative approach to be?  
NOTE Confidence: 0.824298414666667  
00:25:12.960 --> 00:25:15.980 Prognostic and predictive factors are  
NOTE Confidence: 0.824298414666667  
00:25:15.980 --> 00:25:18.680 universally used in the postoperative  
NOTE Confidence: 0.824298414666667  
00:25:18.680 --> 00:25:20.920 management of breast cancer,  
NOTE Confidence: 0.824298414666667  
00:25:20.920 --> 00:25:23.344 and the goal is to stratify  
NOTE Confidence: 0.824298414666667  
00:25:23.344 --> 00:25:24.960 women into two groups,  
NOTE Confidence: 0.824298414666667  
00:25:24.960 --> 00:25:28.560 those who will benefit from postoperative  
NOTE Confidence: 0.824298414666667  
00:25:28.560 --> 00:25:32.456 systemic therapies and those for whom  
NOTE Confidence: 0.824298414666667

00:25:32.456 --> 00:25:35.826 the toxicities outweighed the benefits.

NOTE Confidence: 0.824298414666667

00:25:35.830 --> 00:25:36.322 Classically,

NOTE Confidence: 0.824298414666667

00:25:36.322 --> 00:25:39.766 we've used the size of the tumor,

NOTE Confidence: 0.824298414666667

00:25:39.770 --> 00:25:40.874 the grade,

NOTE Confidence: 0.824298414666667

00:25:40.874 --> 00:25:43.634 the lymph node involvement to

NOTE Confidence: 0.824298414666667

00:25:43.634 --> 00:25:47.127 help guide us as to what to do.

NOTE Confidence: 0.824298414666667

00:25:47.130 --> 00:25:50.448 Now we have Oncotype and five or

NOTE Confidence: 0.824298414666667

00:25:50.448 --> 00:25:52.810 six other molecular studies where

NOTE Confidence: 0.824298414666667

00:25:52.810 --> 00:25:56.680 we look at the DNA of the cancer to

NOTE Confidence: 0.824298414666667

00:25:56.680 --> 00:25:59.460 predict the behavior of the tumor.

NOTE Confidence: 0.824298414666667

00:25:59.460 --> 00:26:02.029 So the size of the tumor women

NOTE Confidence: 0.824298414666667

00:26:02.029 --> 00:26:03.899 always ask what's my stage?

NOTE Confidence: 0.824298414666667

00:26:03.900 --> 00:26:05.750 It's all about the behavior.

NOTE Confidence: 0.824298414666667

00:26:05.750 --> 00:26:09.230 The biology size does not matter.

NOTE Confidence: 0.824298414666667

00:26:09.230 --> 00:26:10.450 We've heard it before,

NOTE Confidence: 0.824298414666667

00:26:10.450 --> 00:26:12.680 and you can quote me on that.

NOTE Confidence: 0.824298414666667

00:26:12.680 --> 00:26:14.960 If the risk is low,

NOTE Confidence: 0.824298414666667

00:26:14.960 --> 00:26:18.098 we use estrogen blocking tablets only.

NOTE Confidence: 0.824298414666667

00:26:18.100 --> 00:26:20.176 No chemotherapy is warranted.

NOTE Confidence: 0.824298414666667

00:26:20.176 --> 00:26:22.771 Dr Berger had mentioned some

NOTE Confidence: 0.824298414666667

00:26:22.771 --> 00:26:25.680 of the studies using Oncotype,

NOTE Confidence: 0.824298414666667

00:26:25.680 --> 00:26:29.761 Taylor X and RX Ponder so that

NOTE Confidence: 0.824298414666667

00:26:29.761 --> 00:26:33.280 we use these to guide us.

NOTE Confidence: 0.824298414666667

00:26:33.280 --> 00:26:35.086 You know, back in the old days,

NOTE Confidence: 0.824298414666667

00:26:35.090 --> 00:26:36.203 a decade ago,

NOTE Confidence: 0.824298414666667

00:26:36.203 --> 00:26:39.320 if the tumor was over half an inch,

NOTE Confidence: 0.824298414666667

00:26:39.320 --> 00:26:41.630 we prescribed chemotherapy.

NOTE Confidence: 0.9350415325

00:26:44.960 --> 00:26:48.508 The excitement started in 1979.

NOTE Confidence: 0.9350415325

00:26:48.508 --> 00:26:52.220 The gene, her two, was identified

NOTE Confidence: 0.9350415325

00:26:52.220 --> 00:26:55.100 a scientist at Genentech,

NOTE Confidence: 0.9350415325

00:26:55.100 --> 00:26:58.690 a new fledgling pharmaceutical company,

NOTE Confidence: 0.9350415325

00:26:58.690 --> 00:27:01.105 discovered the gene and the  
NOTE Confidence: 0.9350415325

00:27:01.105 --> 00:27:03.950 protein that the gene encodes for.  
NOTE Confidence: 0.892935877142857

00:27:06.170 --> 00:27:10.076 Genentech was just bought for \$5  
NOTE Confidence: 0.892935877142857

00:27:10.076 --> 00:27:12.458 billion this past year so if you  
NOTE Confidence: 0.892935877142857

00:27:12.458 --> 00:27:14.729 were looking to buy it you lost out.  
NOTE Confidence: 0.82409241

00:27:16.760 --> 00:27:19.058 Doctor Dennis Slamon,  
NOTE Confidence: 0.82409241

00:27:19.058 --> 00:27:21.356 a medical oncologist,  
NOTE Confidence: 0.82409241

00:27:21.360 --> 00:27:24.380 ran into this scientist at  
NOTE Confidence: 0.82409241

00:27:24.380 --> 00:27:27.400 Genentech at the Denver Airport.  
NOTE Confidence: 0.82409241

00:27:27.400 --> 00:27:30.640 They were both returning to California  
NOTE Confidence: 0.82409241

00:27:30.640 --> 00:27:33.082 and they started talking and ultimately  
NOTE Confidence: 0.82409241

00:27:33.082 --> 00:27:35.420 they both started to work together  
NOTE Confidence: 0.82409241

00:27:35.420 --> 00:27:38.552 on the her two gene and hypothesized  
NOTE Confidence: 0.82409241

00:27:38.552 --> 00:27:41.616 that overexpression or overactivity  
NOTE Confidence: 0.82409241

00:27:41.616 --> 00:27:46.910 plays a role in breast cancer growth and.  
NOTE Confidence: 0.82409241

00:27:46.910 --> 00:27:50.258 It causes the cancer to grow

NOTE Confidence: 0.82409241

00:27:50.258 --> 00:27:51.932 rapidly and spread.

NOTE Confidence: 0.82409241

00:27:51.940 --> 00:27:56.224 Their goal was to work on a medication that

NOTE Confidence: 0.82409241

00:27:56.224 --> 00:28:00.400 would target or block this growth signal.

NOTE Confidence: 0.82409241

00:28:00.400 --> 00:28:02.000 They ran out of money.

NOTE Confidence: 0.82409241

00:28:02.000 --> 00:28:02.898 What happened?

NOTE Confidence: 0.82409241

00:28:02.898 --> 00:28:06.041 An executive at Genentech came to the

NOTE Confidence: 0.82409241

00:28:06.041 --> 00:28:08.656 rescue when his mom was diagnosed

NOTE Confidence: 0.82409241

00:28:08.656 --> 00:28:11.360 with her two positive breast cancer.

NOTE Confidence: 0.821251315909091

00:28:13.840 --> 00:28:16.360 Harry Connick Junior played the

NOTE Confidence: 0.821251315909091

00:28:16.360 --> 00:28:19.426 role of Doctor Dennis Slamon in

NOTE Confidence: 0.821251315909091

00:28:19.426 --> 00:28:22.198 the lifetime made for TV movie

NOTE Confidence: 0.821251315909091

00:28:22.198 --> 00:28:24.760 about the development of Herceptin.

NOTE Confidence: 0.8085173275

00:28:29.560 --> 00:28:34.280 So the left side is a a normal

NOTE Confidence: 0.8085173275

00:28:34.280 --> 00:28:38.040 normal cell and we can see that the.

NOTE Confidence: 0.8085173275

00:28:38.040 --> 00:28:41.304 That the her two receptors on the surface.

NOTE Confidence: 0.8085173275

00:28:41.310 --> 00:28:44.865 It sends a message to the brain of the  
NOTE Confidence: 0.8085173275

00:28:44.865 --> 00:28:49.346 cell the nucleus hears or her two positive  
NOTE Confidence: 0.8085173275

00:28:49.346 --> 00:28:52.619 or overexpressing breast cancer cell and.  
NOTE Confidence: 0.8085173275

00:28:52.620 --> 00:28:55.491 And the message is there a lot of messages  
NOTE Confidence: 0.8085173275

00:28:55.491 --> 00:28:58.204 for the cancer cell to grow and divide  
NOTE Confidence: 0.8085173275

00:28:58.204 --> 00:29:00.669 being sent to the nucleus, Herceptin.  
NOTE Confidence: 0.8085173275

00:29:00.669 --> 00:29:04.582 And obviously we we found the same  
NOTE Confidence: 0.8085173275

00:29:04.582 --> 00:29:07.505 slide Elizabeth Herceptin blocks that  
NOTE Confidence: 0.8085173275

00:29:07.505 --> 00:29:10.925 message being sent to the nucleus.  
NOTE Confidence: 0.8085173275

00:29:10.930 --> 00:29:12.710 It shuts it down.  
NOTE Confidence: 0.8085173275

00:29:12.710 --> 00:29:15.948 In the 1990s, clinical trials again,  
NOTE Confidence: 0.8085173275

00:29:15.948 --> 00:29:19.470 clinical trials in advanced disease taught  
NOTE Confidence: 0.8085173275

00:29:19.558 --> 00:29:22.660 us that Herceptin is highly effective.  
NOTE Confidence: 0.8085173275

00:29:22.660 --> 00:29:26.380 Against her two overexpressing breast cancer,  
NOTE Confidence: 0.8085173275

00:29:26.380 --> 00:29:29.572 both when given with chemotherapy and  
NOTE Confidence: 0.8085173275

00:29:29.572 --> 00:29:33.005 also when given alone and in fact

NOTE Confidence: 0.8085173275

00:29:33.005 --> 00:29:36.050 it's so effective that it was looked

NOTE Confidence: 0.8085173275

00:29:36.150 --> 00:29:39.174 at in the postoperative setting in

NOTE Confidence: 0.8085173275

00:29:39.174 --> 00:29:42.184 the early 2000s there were clinical

NOTE Confidence: 0.8085173275

00:29:42.184 --> 00:29:45.777 trials all over the world comparing.

NOTE Confidence: 0.8085173275

00:29:45.777 --> 00:29:47.971 Postoperative chemotherapy,

NOTE Confidence: 0.8085173275

00:29:47.971 --> 00:29:52.359 with and without Herceptin.

NOTE Confidence: 0.8085173275

00:29:52.360 --> 00:29:55.888 This data was presented at a big

NOTE Confidence: 0.8085173275

00:29:55.888 --> 00:30:00.180 conference in 2004 in in this country.

NOTE Confidence: 0.8085173275

00:30:00.180 --> 00:30:03.680 And. I I was at that meeting,

NOTE Confidence: 0.8085173275

00:30:03.680 --> 00:30:04.564 everything stopped.

NOTE Confidence: 0.8085173275

00:30:04.564 --> 00:30:07.216 You couldn't get into the room

NOTE Confidence: 0.8085173275

00:30:07.216 --> 00:30:09.835 where the study was presented and

NOTE Confidence: 0.8085173275

00:30:09.835 --> 00:30:12.313 there were monitors all all over

NOTE Confidence: 0.8085173275

00:30:12.391 --> 00:30:15.072 the the pavilion all over the halls

NOTE Confidence: 0.8085173275

00:30:15.072 --> 00:30:18.162 and everyone was just in awe.

NOTE Confidence: 0.8085173275

00:30:18.162 --> 00:30:18.806 Adding.  
NOTE Confidence: 0.8085173275

00:30:18.806 --> 00:30:22.026 Adding Herceptin trastuzumab to post  
NOTE Confidence: 0.8085173275

00:30:22.026 --> 00:30:24.442 operative chemotherapy reduced the  
NOTE Confidence: 0.8085173275

00:30:24.442 --> 00:30:30.230 odds of the cancer coming back by 50%.  
NOTE Confidence: 0.8085173275

00:30:30.230 --> 00:30:33.446 There are now five or six.  
NOTE Confidence: 0.8085173275

00:30:33.450 --> 00:30:36.890 Targeted anti her to drugs.  
NOTE Confidence: 0.8085173275

00:30:36.890 --> 00:30:39.572 And these drugs and drug combinations  
NOTE Confidence: 0.8085173275

00:30:39.572 --> 00:30:43.737 are used in a host of clinical settings.  
NOTE Confidence: 0.8085173275

00:30:43.740 --> 00:30:46.728 These agents have tamed a very  
NOTE Confidence: 0.8085173275

00:30:46.728 --> 00:30:49.294 aggressive breast cancer and really  
NOTE Confidence: 0.8085173275

00:30:49.294 --> 00:30:52.228 changed the future for women diagnosed  
NOTE Confidence: 0.8085173275

00:30:52.228 --> 00:30:55.219 with her two positive disease.  
NOTE Confidence: 0.8085173275

00:30:55.220 --> 00:30:57.460 We're going to move on to another  
NOTE Confidence: 0.8085173275

00:30:57.460 --> 00:30:59.120 class of systemic therapies,  
NOTE Confidence: 0.8085173275

00:30:59.120 --> 00:31:03.188 anti estrogen therapy, or endocrine therapy.  
NOTE Confidence: 0.8085173275

00:31:03.190 --> 00:31:06.088 So estrogen is made in the ovaries

NOTE Confidence: 0.8085173275

00:31:06.088 --> 00:31:09.667 and the adrenal gland and it's guided

NOTE Confidence: 0.8085173275

00:31:09.667 --> 00:31:12.482 by communication and feedback between

NOTE Confidence: 0.8085173275

00:31:12.482 --> 00:31:16.128 multiple organs, including the brain.

NOTE Confidence: 0.8085173275

00:31:16.130 --> 00:31:18.608 Again, to understand where we are now,

NOTE Confidence: 0.8085173275

00:31:18.610 --> 00:31:21.270 we're going to go back in time.

NOTE Confidence: 0.8085173275

00:31:21.270 --> 00:31:24.347 This story starts in late 1800s.

NOTE Confidence: 0.8085173275

00:31:24.347 --> 00:31:28.049 A scientist remove the ovaries of

NOTE Confidence: 0.8085173275

00:31:28.049 --> 00:31:31.021 lactating rabbit and lactation or

NOTE Confidence: 0.8085173275

00:31:31.021 --> 00:31:33.329 breast milk production stopped

NOTE Confidence: 0.8085173275

00:31:33.330 --> 00:31:36.235 while why stop there the next year,

NOTE Confidence: 0.8085173275

00:31:36.240 --> 00:31:38.984 he removed the ovaries of a woman.

NOTE Confidence: 0.8085173275

00:31:38.990 --> 00:31:41.318 It was a pre menopausal woman

NOTE Confidence: 0.8085173275

00:31:41.318 --> 00:31:42.482 with advanced stage,

NOTE Confidence: 0.8085173275

00:31:42.490 --> 00:31:45.310 four incurable breast cancer and we

NOTE Confidence: 0.8085173275

00:31:45.310 --> 00:31:48.739 saw that the breast cancer regressed.

NOTE Confidence: 0.8085173275

00:31:48.740 --> 00:31:52.335 Estrogen was discovered in the 1920s  
NOTE Confidence: 0.8085173275

00:31:52.335 --> 00:31:55.785 and we subsequently learned about the  
NOTE Confidence: 0.8085173275

00:31:55.785 --> 00:31:59.038 relationship of estrogen to breast tissue.  
NOTE Confidence: 0.8085173275

00:31:59.040 --> 00:32:02.736 But it was clear that depriving breast  
NOTE Confidence: 0.8085173275

00:32:02.736 --> 00:32:05.850 cancer from estrogen was therapeutic,  
NOTE Confidence: 0.8085173275

00:32:05.850 --> 00:32:08.676 so over the next several decades,  
NOTE Confidence: 0.8085173275

00:32:08.680 --> 00:32:12.034 women were subjected to some very  
NOTE Confidence: 0.8085173275

00:32:12.034 --> 00:32:15.130 barbaric procedures to decrease estrogen.  
NOTE Confidence: 0.8085173275

00:32:15.130 --> 00:32:17.280 They had their ovaries removed.  
NOTE Confidence: 0.8085173275

00:32:17.280 --> 00:32:19.020 Adrenal glands removed.  
NOTE Confidence: 0.8085173275

00:32:19.020 --> 00:32:22.818 And even the pituitary gland in the brain.  
NOTE Confidence: 0.965349666666667

00:32:26.090 --> 00:32:30.418 It wasn't until 1967 that  
NOTE Confidence: 0.965349666666667

00:32:30.418 --> 00:32:33.250 tamoxifen was synthesized.  
NOTE Confidence: 0.965349666666667

00:32:33.250 --> 00:32:36.646 It looks like estrogen and thereby  
NOTE Confidence: 0.965349666666667

00:32:36.646 --> 00:32:39.667 blocks true estrogen from stimulating  
NOTE Confidence: 0.965349666666667

00:32:39.667 --> 00:32:42.967 growth of breast cancer cells.

NOTE Confidence: 0.965349666666667

00:32:42.970 --> 00:32:46.036 It was initially used to treat

NOTE Confidence: 0.965349666666667

00:32:46.036 --> 00:32:50.235 advanced stage disease and in 1988,

NOTE Confidence: 0.965349666666667

00:32:50.235 --> 00:32:52.760 just like the studies using

NOTE Confidence: 0.965349666666667

00:32:52.760 --> 00:32:54.275 post operative chemotherapy,

NOTE Confidence: 0.965349666666667

00:32:54.280 --> 00:32:56.520 we learned that it decreased.

NOTE Confidence: 0.965349666666667

00:32:56.520 --> 00:32:58.986 The odds of the cancer coming

NOTE Confidence: 0.965349666666667

00:32:58.986 --> 00:33:01.310 back outside of the breast,

NOTE Confidence: 0.965349666666667

00:33:01.310 --> 00:33:02.994 just like chemotherapy did.

NOTE Confidence: 0.965349666666667

00:33:02.994 --> 00:33:05.099 And again we learned this

NOTE Confidence: 0.965349666666667

00:33:05.099 --> 00:33:06.700 through clinical trials,

NOTE Confidence: 0.965349666666667

00:33:06.700 --> 00:33:09.836 participation in clinical trials

NOTE Confidence: 0.965349666666667

00:33:09.836 --> 00:33:14.540 and tamoxifen is so effective that.

NOTE Confidence: 0.965349666666667

00:33:14.540 --> 00:33:17.788 It was proven in late 90s that it

NOTE Confidence: 0.965349666666667

00:33:17.788 --> 00:33:21.092 can be used as a preventive agent

NOTE Confidence: 0.965349666666667

00:33:21.092 --> 00:33:24.938 for women who are at high risk for

NOTE Confidence: 0.965349666666667

00:33:24.938 --> 00:33:27.128 the development of breast cancer.  
NOTE Confidence: 0.965349666666667

00:33:27.130 --> 00:33:29.825 There are now multiple generations  
NOTE Confidence: 0.965349666666667

00:33:29.825 --> 00:33:32.520 of anti estrogen therapies and  
NOTE Confidence: 0.965349666666667

00:33:32.603 --> 00:33:35.213 anti estrogen drugs are amongst  
NOTE Confidence: 0.965349666666667

00:33:35.213 --> 00:33:37.823 the most widely prescribed anti  
NOTE Confidence: 0.965349666666667

00:33:37.911 --> 00:33:40.146 cancer agents in the world.  
NOTE Confidence: 0.923204462

00:33:42.960 --> 00:33:46.314 The same way organs communicate to  
NOTE Confidence: 0.923204462

00:33:46.314 --> 00:33:48.550 produce hormones like estrogen.  
NOTE Confidence: 0.923204462

00:33:48.550 --> 00:33:52.526 There's a lot of communication within cells,  
NOTE Confidence: 0.923204462

00:33:52.530 --> 00:33:56.328 both healthy cells and cancer cells.  
NOTE Confidence: 0.903570272727273

00:34:00.470 --> 00:34:03.775 Walking or interrupting some of  
NOTE Confidence: 0.903570272727273

00:34:03.775 --> 00:34:07.080 these internal messages can overcome  
NOTE Confidence: 0.903570272727273

00:34:07.187 --> 00:34:11.792 resistance or enhance drug effectiveness.  
NOTE Confidence: 0.903570272727273

00:34:11.792 --> 00:34:16.436 So a pellissippi or pick ray blocks,  
NOTE Confidence: 0.903570272727273

00:34:16.436 --> 00:34:19.664 blocks and altered communication  
NOTE Confidence: 0.903570272727273

00:34:19.664 --> 00:34:22.784 gene and makes anti estrogen

NOTE Confidence: 0.903570272727273

00:34:22.784 --> 00:34:25.630 therapy more effective everolimus.

NOTE Confidence: 0.903570272727273

00:34:25.630 --> 00:34:31.450 Bypasses a resistance mechanism and makes

NOTE Confidence: 0.903570272727273

00:34:31.450 --> 00:34:36.569 anti estrogen therapy effective again.

NOTE Confidence: 0.936140615833333

00:34:39.220 --> 00:34:41.334 Just like in life, there is a

NOTE Confidence: 0.936140615833333

00:34:41.334 --> 00:34:43.320 time and season for everything,

NOTE Confidence: 0.936140615833333

00:34:43.320 --> 00:34:46.659 and the same is true for breast cancer cell.

NOTE Confidence: 0.936140615833333

00:34:46.660 --> 00:34:49.480 There are times when the cell

NOTE Confidence: 0.936140615833333

00:34:49.480 --> 00:34:52.017 is more susceptible to the

NOTE Confidence: 0.936140615833333

00:34:52.017 --> 00:34:54.807 effects of anti estrogen therapy.

NOTE Confidence: 0.936140615833333

00:34:54.810 --> 00:34:58.098 And there are drugs.

NOTE Confidence: 0.936140615833333

00:34:58.100 --> 00:34:59.928 That do exactly that.

NOTE Confidence: 0.936140615833333

00:34:59.928 --> 00:35:02.670 Set the stage for the cancer

NOTE Confidence: 0.936140615833333

00:35:02.769 --> 00:35:05.149 cell being more effective.

NOTE Confidence: 0.936140615833333

00:35:05.150 --> 00:35:07.172 We have a reenactment below and

NOTE Confidence: 0.936140615833333

00:35:07.172 --> 00:35:09.738 and this is how I understand it.

NOTE Confidence: 0.936140615833333

00:35:09.740 --> 00:35:12.368 So this is how I explain it to patients.

NOTE Confidence: 0.936140615833333

00:35:12.370 --> 00:35:14.800 So whoops.

NOTE Confidence: 0.936140615833333

00:35:14.800 --> 00:35:17.578 OK, so on the left panel

NOTE Confidence: 0.936140615833333

00:35:17.578 --> 00:35:20.100 if I'm the cancer cell,

NOTE Confidence: 0.936140615833333

00:35:20.100 --> 00:35:23.400 Paula is the anti estrogen drug.

NOTE Confidence: 0.936140615833333

00:35:23.400 --> 00:35:26.264 She's trying to hurt me but I can

NOTE Confidence: 0.936140615833333

00:35:26.264 --> 00:35:29.088 still defend myself on the right panel.

NOTE Confidence: 0.936140615833333

00:35:29.090 --> 00:35:32.938 We can add in one of these cell

NOTE Confidence: 0.936140615833333

00:35:32.938 --> 00:35:36.015 cycle inhibitors that puts the

NOTE Confidence: 0.936140615833333

00:35:36.015 --> 00:35:38.691 the estrogen sensitive estrogen

NOTE Confidence: 0.936140615833333

00:35:38.691 --> 00:35:41.866 sensitive cell in a particularly

NOTE Confidence: 0.936140615833333

00:35:41.866 --> 00:35:44.926 vulnerable state for anti estrogen.

NOTE Confidence: 0.936140615833333

00:35:44.930 --> 00:35:46.619 Therapy, so Amy,

NOTE Confidence: 0.936140615833333

00:35:46.619 --> 00:35:49.997 who's who's holding my arms up,

NOTE Confidence: 0.936140615833333

00:35:50.000 --> 00:35:53.798 makes me vulnerable to Paula anti

NOTE Confidence: 0.936140615833333

00:35:53.798 --> 00:35:57.119 estrogen therapy and what we're

NOTE Confidence: 0.936140615833333

00:35:57.119 --> 00:35:59.823 seeing are unprecedented responses

NOTE Confidence: 0.936140615833333

00:35:59.823 --> 00:36:04.390 when we add cell cycle inhibitors

NOTE Confidence: 0.936140615833333

00:36:04.390 --> 00:36:08.230 to anti estrogen therapy and

NOTE Confidence: 0.936140615833333

00:36:08.230 --> 00:36:11.302 precedent durations of response.

NOTE Confidence: 0.936140615833333

00:36:11.310 --> 00:36:13.530 Gamechanger these drugs are now being

NOTE Confidence: 0.936140615833333

00:36:13.530 --> 00:36:16.589 looked at in the postoperative setting.

NOTE Confidence: 0.89454824

00:36:19.920 --> 00:36:22.540 Contrary to popular belief,

NOTE Confidence: 0.89454824

00:36:22.540 --> 00:36:26.020 most breast cancer is not inherited,

NOTE Confidence: 0.89454824

00:36:26.020 --> 00:36:30.020 and in fact only about 10% of women

NOTE Confidence: 0.89454824

00:36:30.020 --> 00:36:33.545 develop breast cancer because they've

NOTE Confidence: 0.89454824

00:36:33.545 --> 00:36:37.109 inherited that vulnerability from a gene

NOTE Confidence: 0.89454824

00:36:37.109 --> 00:36:40.266 like a mutated or altered BRCA gene.

NOTE Confidence: 0.89454824

00:36:40.270 --> 00:36:46.518 BRCA is repair gene and when it's mutated?

NOTE Confidence: 0.89454824

00:36:46.520 --> 00:36:48.550 It allows for the development

NOTE Confidence: 0.89454824

00:36:48.550 --> 00:36:50.580 of breast cancer because it

NOTE Confidence: 0.89454824

00:36:50.659 --> 00:36:52.799 no longer repairs the mistake.  
NOTE Confidence: 0.89454824

00:36:52.800 --> 00:36:55.900 Parked inhibitors reset this repair  
NOTE Confidence: 0.89454824

00:36:55.900 --> 00:37:01.132 process and this is yet another class of  
NOTE Confidence: 0.89454824

00:37:01.132 --> 00:37:04.910 systemic agents that we use for women  
NOTE Confidence: 0.89454824

00:37:04.910 --> 00:37:08.110 who have BRCA positive breast cancer.  
NOTE Confidence: 0.89454824

00:37:08.110 --> 00:37:10.954 We not only use it in the metastatic disease,  
NOTE Confidence: 0.89454824

00:37:10.960 --> 00:37:13.760 we now use it in the postoperative disease  
NOTE Confidence: 0.89454824

00:37:13.760 --> 00:37:16.828 in the postoperative curative setting.  
NOTE Confidence: 0.886307702857143

00:37:19.660 --> 00:37:21.706 Antibody drug conjugates.  
NOTE Confidence: 0.886307702857143

00:37:21.706 --> 00:37:26.270 Chemotherapy of the future. I ask.  
NOTE Confidence: 0.886307702857143

00:37:26.270 --> 00:37:28.414 Uhm, antibodies like Herceptin  
NOTE Confidence: 0.886307702857143

00:37:28.414 --> 00:37:32.360 not only bind and block the cell  
NOTE Confidence: 0.886307702857143

00:37:32.360 --> 00:37:35.520 surface proteins and block messages.  
NOTE Confidence: 0.886307702857143

00:37:35.520 --> 00:37:38.320 They can really act like FedEx or  
NOTE Confidence: 0.886307702857143

00:37:38.320 --> 00:37:40.890 Amazon and actually deliver packages.  
NOTE Confidence: 0.886307702857143

00:37:40.890 --> 00:37:44.665 So antibody drug conjugates are

NOTE Confidence: 0.886307702857143  
00:37:44.665 --> 00:37:48.440 antibodies where we attach chemotherapy,  
NOTE Confidence: 0.886307702857143  
00:37:48.440 --> 00:37:50.115 and then we deliver that  
NOTE Confidence: 0.886307702857143  
00:37:50.115 --> 00:37:51.790 chemotherapy not throughout the body,  
NOTE Confidence: 0.886307702857143  
00:37:51.790 --> 00:37:54.166 but directly to the cancer cell.  
NOTE Confidence: 0.886307702857143  
00:37:54.170 --> 00:37:58.825 So TDM one is Herceptin with the  
NOTE Confidence: 0.886307702857143  
00:37:58.825 --> 00:38:01.610 chemotherapy drug attached to it.  
NOTE Confidence: 0.886307702857143  
00:38:01.610 --> 00:38:06.230 Sacituzumab is another antibody to a surface.  
NOTE Confidence: 0.886307702857143  
00:38:06.230 --> 00:38:09.303 Protein called trope 2 and it's attached  
NOTE Confidence: 0.886307702857143  
00:38:09.303 --> 00:38:12.344 to a very potent chemotherapy drug  
NOTE Confidence: 0.886307702857143  
00:38:12.344 --> 00:38:16.152 that we commonly use in colon cancer.  
NOTE Confidence: 0.9016957  
00:38:21.850 --> 00:38:25.540 So I I think what I what I really  
NOTE Confidence: 0.9016957  
00:38:25.540 --> 00:38:29.138 want to what I really want to  
NOTE Confidence: 0.9016957  
00:38:29.138 --> 00:38:32.510 say is that the treatment today.  
NOTE Confidence: 0.9016957  
00:38:32.510 --> 00:38:35.426 Is were clinical trials yesterday and  
NOTE Confidence: 0.9016957  
00:38:35.426 --> 00:38:38.548 that's how we that's how we learn.  
NOTE Confidence: 0.9016957

00:38:38.550 --> 00:38:40.909 That's how we move the field forward.  
NOTE Confidence: 0.9016957

00:38:40.910 --> 00:38:44.090 So every time we participate  
NOTE Confidence: 0.9016957

00:38:44.090 --> 00:38:45.998 in clinical research.  
NOTE Confidence: 0.9016957

00:38:46.000 --> 00:38:48.496 We pay forward the benefits that  
NOTE Confidence: 0.9016957

00:38:48.496 --> 00:38:51.060 we have for people behind us.  
NOTE Confidence: 0.967474025714286

00:38:53.630 --> 00:38:56.997 And until every woman who's been diagnosed,  
NOTE Confidence: 0.967474025714286

00:38:57.000 --> 00:38:58.810 or man who's been diagnosed  
NOTE Confidence: 0.967474025714286

00:38:58.810 --> 00:39:00.620 with breast cancer is cured,  
NOTE Confidence: 0.967474025714286

00:39:00.620 --> 00:39:02.790 there's still a long way to go.  
NOTE Confidence: 0.811745072

00:39:10.540 --> 00:39:12.604 Needed to unmute myself there, sorry.  
NOTE Confidence: 0.811745072

00:39:12.604 --> 00:39:15.540 Add two quick questions.  
NOTE Confidence: 0.811745072

00:39:15.540 --> 00:39:19.580 The first comes from.  
NOTE Confidence: 0.811745072

00:39:19.580 --> 00:39:21.788 Doctor Knowlton and she's asking about  
NOTE Confidence: 0.811745072

00:39:21.788 --> 00:39:23.965 app Elicitive and if it's available  
NOTE Confidence: 0.811745072

00:39:23.965 --> 00:39:26.198 off trial and are you using it?  
NOTE Confidence: 0.88283308

00:39:27.090 --> 00:39:29.770 It is available off trial,

NOTE Confidence: 0.88283308

00:39:29.770 --> 00:39:33.242 so it's used in in the metastatic

NOTE Confidence: 0.88283308

00:39:33.242 --> 00:39:35.808 setting and there has to be.

NOTE Confidence: 0.88283308

00:39:35.810 --> 00:39:38.953 There has to be a certain alteration

NOTE Confidence: 0.88283308

00:39:38.953 --> 00:39:42.210 in the the pick three pathway,

NOTE Confidence: 0.88283308

00:39:42.210 --> 00:39:44.912 so we commonly test not not only

NOTE Confidence: 0.88283308

00:39:44.912 --> 00:39:48.438 do we do the Oncotype testing in

NOTE Confidence: 0.88283308

00:39:48.438 --> 00:39:51.268 the post operative setting for

NOTE Confidence: 0.88283308

00:39:51.268 --> 00:39:54.287 women whose disease has spread,

NOTE Confidence: 0.88283308

00:39:54.290 --> 00:39:57.880 we also do molecular testing.

NOTE Confidence: 0.88283308

00:39:57.880 --> 00:40:00.463 Looking for targeted agents and it's one

NOTE Confidence: 0.88283308

00:40:00.463 --> 00:40:03.316 of the first things that we look for,

NOTE Confidence: 0.88283308

00:40:03.320 --> 00:40:06.515 so we use it along with anti estrogen agents.

NOTE Confidence: 0.88283308

00:40:06.520 --> 00:40:09.124 And yes it's an FDA approved drug.

NOTE Confidence: 0.904249848636364

00:40:10.100 --> 00:40:12.338 And the second question is about

NOTE Confidence: 0.904249848636364

00:40:12.338 --> 00:40:13.830 standard endocrine therapy in

NOTE Confidence: 0.904249848636364

00:40:13.900 --> 00:40:15.814 combination with pick Ray from the  
NOTE Confidence: 0.904249848636364

00:40:15.814 --> 00:40:18.850 start as the first line therapy so.  
NOTE Confidence: 0.54888531

00:40:22.280 --> 00:40:23.888 Pic Ray has  
NOTE Confidence: 0.780935846

00:40:23.920 --> 00:40:25.820 a lot of side effects.  
NOTE Confidence: 0.780935846

00:40:25.820 --> 00:40:28.875 It's not a well tolerated  
NOTE Confidence: 0.780935846

00:40:28.875 --> 00:40:31.218 drug and it's exciting,  
NOTE Confidence: 0.780935846

00:40:31.218 --> 00:40:35.250 but I think we're finding right now  
NOTE Confidence: 0.780935846

00:40:35.361 --> 00:40:39.627 more exciting the cell cycle inhibitors.  
NOTE Confidence: 0.780935846

00:40:39.630 --> 00:40:41.049 So that's palbociclib.  
NOTE Confidence: 0.780935846

00:40:41.049 --> 00:40:44.360 We have all these liquid names right?  
NOTE Confidence: 0.780935846

00:40:44.360 --> 00:40:49.010 Palbociclib ribociclib abemaciclib  
NOTE Confidence: 0.780935846

00:40:49.010 --> 00:40:50.714 they look so exciting.  
NOTE Confidence: 0.780935846

00:40:50.714 --> 00:40:53.270 That they're all being looked at  
NOTE Confidence: 0.780935846

00:40:53.357 --> 00:40:55.970 in the postoperative setting up,  
NOTE Confidence: 0.780935846

00:40:55.970 --> 00:40:58.170 and it's a little early,  
NOTE Confidence: 0.780935846

00:40:58.170 --> 00:41:00.060 but I do think that pick

NOTE Confidence: 0.780935846

00:41:00.060 --> 00:41:02.169 Ray will will be looked at.

NOTE Confidence: 0.780935846

00:41:02.170 --> 00:41:05.678 I think part of the part of

NOTE Confidence: 0.780935846

00:41:05.678 --> 00:41:08.492 the concern is some of these

NOTE Confidence: 0.780935846

00:41:08.492 --> 00:41:10.819 alterations or mutations only

NOTE Confidence: 0.780935846

00:41:10.819 --> 00:41:12.886 develop after someone's been

NOTE Confidence: 0.780935846

00:41:12.886 --> 00:41:14.826 exposed to anti estrogen therapy.

NOTE Confidence: 0.780935846

00:41:14.830 --> 00:41:19.044 We don't necessarily see them de Novo,

NOTE Confidence: 0.780935846

00:41:19.050 --> 00:41:21.216 so it's something that the cell.

NOTE Confidence: 0.780935846

00:41:21.220 --> 00:41:25.552 Learns to do too to overcome

NOTE Confidence: 0.780935846

00:41:25.552 --> 00:41:28.440 the anti estrogen effects.

NOTE Confidence: 0.780935846

00:41:28.440 --> 00:41:30.288 Good good, good question,

NOTE Confidence: 0.82961434

00:41:30.970 --> 00:41:32.860 good questions yeah.

NOTE Confidence: 0.82961434

00:41:32.860 --> 00:41:35.380 And and Doctor Knowlton,

NOTE Confidence: 0.82961434

00:41:35.380 --> 00:41:36.608 our third speaker tonight,

NOTE Confidence: 0.82961434

00:41:36.608 --> 00:41:39.178 excited to hear what she has to say

NOTE Confidence: 0.82961434

00:41:39.178 --> 00:41:41.188 about radiation therapy in breast cancer.

NOTE Confidence: 0.82961434

00:41:41.190 --> 00:41:42.895 Dr Knowlton is an associate

NOTE Confidence: 0.82961434

00:41:42.895 --> 00:41:43.918 professor in clinical,

NOTE Confidence: 0.82961434

00:41:43.920 --> 00:41:45.884 therapeutic radiology and medical

NOTE Confidence: 0.82961434

00:41:45.884 --> 00:41:48.339 director of the Smilow Cancer

NOTE Confidence: 0.82961434

00:41:48.339 --> 00:41:50.399 Hospital Care Center in Hamden.

NOTE Confidence: 0.82961434

00:41:50.400 --> 00:41:52.188 She received her medical degree at

NOTE Confidence: 0.82961434

00:41:52.188 --> 00:41:54.359 SUNY at Stony Brook and a Master of

NOTE Confidence: 0.82961434

00:41:54.359 --> 00:41:57.020 Arts from NYU and then completed her

NOTE Confidence: 0.82961434

00:41:57.020 --> 00:41:58.780 residency at Hahnemann University,

NOTE Confidence: 0.82961434

00:41:58.780 --> 00:42:02.200 Drexel University and her special.

NOTE Confidence: 0.82961434

00:42:02.200 --> 00:42:03.010 Realization in radiation

NOTE Confidence: 0.82961434

00:42:03.010 --> 00:42:04.360 therapy is for breast cancer,

NOTE Confidence: 0.82961434

00:42:04.360 --> 00:42:06.590 lung cancer and bone metastases,

NOTE Confidence: 0.82961434

00:42:06.590 --> 00:42:08.882 and in 2019 she earned the

NOTE Confidence: 0.82961434

00:42:08.882 --> 00:42:10.410 Smilow Luminary Award for

NOTE Confidence: 0.82961434

00:42:10.485 --> 00:42:12.469 excellence in Patient Care.

NOTE Confidence: 0.82961434

00:42:12.470 --> 00:42:13.940 So we're excited to hear

NOTE Confidence: 0.82961434

00:42:13.940 --> 00:42:15.740 we have to say thank you,

NOTE Confidence: 0.878433188333333

00:42:16.110 --> 00:42:18.168 thanks Doctor Lynch and thanks everyone.

NOTE Confidence: 0.878433188333333

00:42:18.170 --> 00:42:19.829 And welcome. I see a lot of

NOTE Confidence: 0.878433188333333

00:42:19.829 --> 00:42:21.089 patient names in the chat,

NOTE Confidence: 0.878433188333333

00:42:21.090 --> 00:42:24.922 so thanks everyone for coming and if some

NOTE Confidence: 0.878433188333333

00:42:24.922 --> 00:42:26.970 of you have seen me talk before at these,

NOTE Confidence: 0.878433188333333

00:42:26.970 --> 00:42:28.804 I promise you there's some new slides.

NOTE Confidence: 0.878433188333333

00:42:28.810 --> 00:42:30.797 If you bear with me alright,

NOTE Confidence: 0.878433188333333

00:42:30.797 --> 00:42:34.206 I'm going to share my screen now.

NOTE Confidence: 0.878433188333333

00:42:34.210 --> 00:42:39.101 OK, and from the beginning. Here we go.

NOTE Confidence: 0.878433188333333

00:42:39.101 --> 00:42:43.514 OK so I so this is me and I have no

NOTE Confidence: 0.878433188333333

00:42:43.514 --> 00:42:46.044 conflicts of interest to report.

NOTE Confidence: 0.878433188333333

00:42:46.050 --> 00:42:49.200 So I know that I tried not to be too

NOTE Confidence: 0.878433188333333

00:42:49.289 --> 00:42:52.787 repetitive from our our other panelists,  
NOTE Confidence: 0.878433188333333

00:42:52.790 --> 00:42:56.045 but here's the basics on treatment for  
NOTE Confidence: 0.878433188333333

00:42:56.045 --> 00:42:58.448 breast cancer, which we know often.  
NOTE Confidence: 0.878433188333333

00:42:58.448 --> 00:43:00.650 Surgery is the mainstay of care,  
NOTE Confidence: 0.878433188333333

00:43:00.650 --> 00:43:02.510 as both Doctor Berger and Doctor  
NOTE Confidence: 0.878433188333333

00:43:02.510 --> 00:43:04.180 Kanowitz discussed at some points.  
NOTE Confidence: 0.878433188333333

00:43:04.180 --> 00:43:07.630 Now, chemotherapy is becoming before surgery,  
NOTE Confidence: 0.878433188333333

00:43:07.630 --> 00:43:09.470 but I'm the radiation oncologist,  
NOTE Confidence: 0.878433188333333

00:43:09.470 --> 00:43:11.745 so I put the most basic format  
NOTE Confidence: 0.878433188333333

00:43:11.745 --> 00:43:14.255 down here where surgery can either  
NOTE Confidence: 0.878433188333333

00:43:14.255 --> 00:43:16.195 be breast conserving surgery.  
NOTE Confidence: 0.878433188333333

00:43:16.200 --> 00:43:19.168 Where the breast is maintained and only  
NOTE Confidence: 0.878433188333333

00:43:19.168 --> 00:43:22.319 the tumor is removed or mastectomy,  
NOTE Confidence: 0.878433188333333

00:43:22.320 --> 00:43:25.315 where the entire breast is removed and  
NOTE Confidence: 0.878433188333333

00:43:25.315 --> 00:43:27.505 there's obviously nodal surgery as well.  
NOTE Confidence: 0.878433188333333

00:43:27.510 --> 00:43:29.145 That's involved in Doctor Berger

NOTE Confidence: 0.878433188333333  
00:43:29.145 --> 00:43:31.717 talked a lot about the Sentinel lymph  
NOTE Confidence: 0.878433188333333  
00:43:31.717 --> 00:43:33.887 node biopsy and axillary dissection.  
NOTE Confidence: 0.878433188333333  
00:43:33.890 --> 00:43:35.410 And plus or minus chemo.  
NOTE Confidence: 0.878433188333333  
00:43:35.410 --> 00:43:36.156 As mentioned,  
NOTE Confidence: 0.878433188333333  
00:43:36.156 --> 00:43:38.394 the chemo can become come before  
NOTE Confidence: 0.878433188333333  
00:43:38.394 --> 00:43:40.718 the surgery and then plus or  
NOTE Confidence: 0.878433188333333  
00:43:40.718 --> 00:43:41.849 minus radiation therapy.  
NOTE Confidence: 0.878433188333333  
00:43:41.850 --> 00:43:45.048 After breast conserving therapy, usually yes.  
NOTE Confidence: 0.878433188333333  
00:43:45.050 --> 00:43:48.529 We offer radiation therapy but not always.  
NOTE Confidence: 0.878433188333333  
00:43:48.530 --> 00:43:50.408 And after mastectomy sometimes A and  
NOTE Confidence: 0.878433188333333  
00:43:50.408 --> 00:43:53.205 so and we will get into the details on  
NOTE Confidence: 0.878433188333333  
00:43:53.205 --> 00:43:55.421 that and how that's been evolving as  
NOTE Confidence: 0.878433188333333  
00:43:55.421 --> 00:43:57.787 part of this theme that you've been  
NOTE Confidence: 0.878433188333333  
00:43:57.787 --> 00:44:00.260 hearing a little bit about D escalation  
NOTE Confidence: 0.878433188333333  
00:44:00.260 --> 00:44:03.372 of care with the goal of reducing  
NOTE Confidence: 0.878433188333333

00:44:03.372 --> 00:44:06.057 toxicity while maintaining good outcomes.

NOTE Confidence: 0.878433188333333

00:44:06.060 --> 00:44:07.908 And then there's hormonal

NOTE Confidence: 0.878433188333333

00:44:07.908 --> 00:44:09.756 therapy or targeted therapy.

NOTE Confidence: 0.878433188333333

00:44:09.760 --> 00:44:12.565 This would be the definitive

NOTE Confidence: 0.878433188333333

00:44:12.565 --> 00:44:13.687 treatment pathway.

NOTE Confidence: 0.878433188333333

00:44:13.690 --> 00:44:17.760 So what is radiation therapy?

NOTE Confidence: 0.878433188333333

00:44:17.760 --> 00:44:20.091 So it's a field of medicine that

NOTE Confidence: 0.878433188333333

00:44:20.091 --> 00:44:21.855 uses ionizing radiation to treat

NOTE Confidence: 0.878433188333333

00:44:21.855 --> 00:44:23.600 a variety of medical conditions,

NOTE Confidence: 0.878433188333333

00:44:23.600 --> 00:44:24.662 most often cancer.

NOTE Confidence: 0.878433188333333

00:44:24.662 --> 00:44:27.140 What radiation really is is that the

NOTE Confidence: 0.878433188333333

00:44:27.209 --> 00:44:29.554 packet of energy that moves through the

NOTE Confidence: 0.878433188333333

00:44:29.554 --> 00:44:31.782 air with the wavelength and frequency

NOTE Confidence: 0.878433188333333

00:44:31.782 --> 00:44:35.024 wavelength is how high and low does it go,

NOTE Confidence: 0.878433188333333

00:44:35.024 --> 00:44:36.626 and frequency is how quickly does

NOTE Confidence: 0.878433188333333

00:44:36.626 --> 00:44:38.799 it go through that weight length,

NOTE Confidence: 0.878433188333333

00:44:38.800 --> 00:44:40.735 and that the wavelength and

NOTE Confidence: 0.878433188333333

00:44:40.735 --> 00:44:42.670 frequency is what gives radiation.

NOTE Confidence: 0.878433188333333

00:44:42.670 --> 00:44:43.454 It's properties,

NOTE Confidence: 0.878433188333333

00:44:43.454 --> 00:44:46.590 so for example this radiation from the sun.

NOTE Confidence: 0.878433188333333

00:44:46.590 --> 00:44:48.210 There's radiation from the microwave,

NOTE Confidence: 0.878433188333333

00:44:48.210 --> 00:44:51.330 a light in your home is delivering radiation.

NOTE Confidence: 0.878433188333333

00:44:51.330 --> 00:44:52.746 It could be a blue light,

NOTE Confidence: 0.878433188333333

00:44:52.750 --> 00:44:54.050 and all of those different

NOTE Confidence: 0.878433188333333

00:44:54.050 --> 00:44:55.809 ways that if we can see it,

NOTE Confidence: 0.878433188333333

00:44:55.810 --> 00:44:56.653 if we can't,

NOTE Confidence: 0.878433188333333

00:44:56.653 --> 00:44:58.339 it's all related to the wavelength

NOTE Confidence: 0.878433188333333

00:44:58.339 --> 00:44:59.230 and frequency.

NOTE Confidence: 0.878433188333333

00:44:59.230 --> 00:45:01.210 So ionizing radiation is radiation.

NOTE Confidence: 0.878433188333333

00:45:01.210 --> 00:45:03.964 With enough energy and having those

NOTE Confidence: 0.878433188333333

00:45:03.964 --> 00:45:06.627 properties from its wavelength and frequency

NOTE Confidence: 0.878433188333333

00:45:06.627 --> 00:45:09.273 to remove an electron from an atom,  
NOTE Confidence: 0.878433188333333  
00:45:09.280 --> 00:45:11.428 causing that atom to become charged.  
NOTE Confidence: 0.878433188333333  
00:45:11.430 --> 00:45:14.078 And that's the basis for how it damages.  
NOTE Confidence: 0.878433188333333  
00:45:14.080 --> 00:45:16.438 The cells and so the plan.  
NOTE Confidence: 0.878433188333333  
00:45:16.440 --> 00:45:18.170 When you're treating somebody with  
NOTE Confidence: 0.878433188333333  
00:45:18.170 --> 00:45:20.302 the radiation is to get enough  
NOTE Confidence: 0.878433188333333  
00:45:20.302 --> 00:45:22.342 dose in there to kill whatever  
NOTE Confidence: 0.878433188333333  
00:45:22.342 --> 00:45:24.319 cancer cells you're aiming to kill,  
NOTE Confidence: 0.878433188333333  
00:45:24.320 --> 00:45:27.112 but but not damage the normal cells and  
NOTE Confidence: 0.878433188333333  
00:45:27.112 --> 00:45:29.879 and those of you who've had radiation.  
NOTE Confidence: 0.87640584  
00:45:29.880 --> 00:45:32.320 Oh yes, the normal cells do get damaged  
NOTE Confidence: 0.87640584  
00:45:32.320 --> 00:45:34.568 because that's why you get skin irritation.  
NOTE Confidence: 0.87640584  
00:45:34.570 --> 00:45:36.316 But the point is to allow  
NOTE Confidence: 0.87640584  
00:45:36.316 --> 00:45:38.000 the normal cells to repair.  
NOTE Confidence: 0.87640584  
00:45:38.000 --> 00:45:40.525 They are better at repairing  
NOTE Confidence: 0.87640584  
00:45:40.525 --> 00:45:43.050 from the damage from ionizing

NOTE Confidence: 0.87640584

00:45:43.142 --> 00:45:46.280 radiation than the cancer cells are.

NOTE Confidence: 0.87640584

00:45:46.280 --> 00:45:48.510 Uhm? Sorry I can't.

NOTE Confidence: 0.87640584

00:45:48.510 --> 00:45:50.382 I'm trying to fear we go OK, alright,

NOTE Confidence: 0.87640584

00:45:50.382 --> 00:45:53.278 so radiation therapy and breast cancer or so.

NOTE Confidence: 0.87640584

00:45:53.280 --> 00:45:55.644 The purpose is to eradicate residual

NOTE Confidence: 0.87640584

00:45:55.644 --> 00:45:57.616 disease within the breast or

NOTE Confidence: 0.87640584

00:45:57.616 --> 00:45:59.578 chest wall or the regional nodes.

NOTE Confidence: 0.87640584

00:45:59.580 --> 00:46:01.806 So that is the reason why

NOTE Confidence: 0.87640584

00:46:01.806 --> 00:46:03.899 following lumpectomy or the breast

NOTE Confidence: 0.87640584

00:46:03.899 --> 00:46:06.019 conserving surgery that radiation

NOTE Confidence: 0.87640584

00:46:06.019 --> 00:46:08.139 is usually offered because.

NOTE Confidence: 0.87640584

00:46:08.140 --> 00:46:10.030 We know from multiple studies that

NOTE Confidence: 0.87640584

00:46:10.030 --> 00:46:12.362 there is risk of having cancer cells

NOTE Confidence: 0.87640584

00:46:12.362 --> 00:46:14.700 left behind even in the setting of

NOTE Confidence: 0.87640584

00:46:14.766 --> 00:46:16.806 the most amazing lumpectomy ever,

NOTE Confidence: 0.87640584

00:46:16.810 --> 00:46:18.602 with nice negative nodes.  
NOTE Confidence: 0.87640584

00:46:18.602 --> 00:46:21.290 And we treat higher risk patients  
NOTE Confidence: 0.87640584

00:46:21.366 --> 00:46:22.960 following mastectomy,  
NOTE Confidence: 0.87640584

00:46:22.960 --> 00:46:24.871 where we think that they are at  
NOTE Confidence: 0.87640584

00:46:24.871 --> 00:46:26.508 greater risk to have residual  
NOTE Confidence: 0.87640584

00:46:26.508 --> 00:46:28.020 cancer cells left behind.  
NOTE Confidence: 0.87640584

00:46:28.020 --> 00:46:29.667 And we see here in this third bullet point,  
NOTE Confidence: 0.87640584

00:46:29.670 --> 00:46:31.824 those would be patients with greater  
NOTE Confidence: 0.87640584

00:46:31.824 --> 00:46:34.034 than 5 centimeters of tumor within  
NOTE Confidence: 0.87640584

00:46:34.034 --> 00:46:36.170 the breast and or involved nodes.  
NOTE Confidence: 0.87640584

00:46:36.170 --> 00:46:38.249 And we always want to use evidence  
NOTE Confidence: 0.87640584

00:46:38.249 --> 00:46:38.843 based medicine,  
NOTE Confidence: 0.87640584

00:46:38.850 --> 00:46:41.226 so we want to base our treatments on studies,  
NOTE Confidence: 0.87640584

00:46:41.230 --> 00:46:43.211 not just on our feelings or what  
NOTE Confidence: 0.87640584

00:46:43.211 --> 00:46:45.410 we think the best thing to do in  
NOTE Confidence: 0.87640584

00:46:45.410 --> 00:46:47.090 our treatment is designed to treat

NOTE Confidence: 0.87640584

00:46:47.090 --> 00:46:48.808 the breast or the chest wall,

NOTE Confidence: 0.87640584

00:46:48.810 --> 00:46:51.090 plus or minus the regional lymph

NOTE Confidence: 0.87640584

00:46:51.090 --> 00:46:53.119 nodes depending upon if that's

NOTE Confidence: 0.87640584

00:46:53.119 --> 00:46:54.995 needed and to avoid the healthy

NOTE Confidence: 0.87640584

00:46:54.995 --> 00:46:56.430 tissues as much as possible.

NOTE Confidence: 0.87640584

00:46:56.430 --> 00:46:58.812 Even though I said that healthy

NOTE Confidence: 0.87640584

00:46:58.812 --> 00:47:01.179 tissues have the ability to repair.

NOTE Confidence: 0.87640584

00:47:01.180 --> 00:47:02.420 The heart and the lungs.

NOTE Confidence: 0.87640584

00:47:02.420 --> 00:47:04.076 They don't need to be radiated.

NOTE Confidence: 0.87640584

00:47:04.080 --> 00:47:06.984 They don't have Keith left behind in them,

NOTE Confidence: 0.87640584

00:47:06.990 --> 00:47:09.574 so we want to avoid the heart and

NOTE Confidence: 0.87640584

00:47:09.574 --> 00:47:12.258 the lungs to keep the toxicity down.

NOTE Confidence: 0.87640584

00:47:12.260 --> 00:47:13.478 And as it says at the bottom,

NOTE Confidence: 0.87640584

00:47:13.480 --> 00:47:14.945 a small amount of radiation

NOTE Confidence: 0.87640584

00:47:14.945 --> 00:47:16.760 to the normal organs is safe,

NOTE Confidence: 0.87640584

00:47:16.760 --> 00:47:20.530 but we try to avoid this as much as possible.

NOTE Confidence: 0.87640584

00:47:20.530 --> 00:47:22.301 So if someone were to come to

NOTE Confidence: 0.87640584

00:47:22.301 --> 00:47:23.850 see me in the office,

NOTE Confidence: 0.87640584

00:47:23.850 --> 00:47:26.146 the first step would be besides meeting

NOTE Confidence: 0.87640584

00:47:26.146 --> 00:47:28.439 a whole bunch of people before me.

NOTE Confidence: 0.87640584

00:47:28.440 --> 00:47:30.988 The registered nurse to do an intake,

NOTE Confidence: 0.87640584

00:47:30.990 --> 00:47:33.215 our social worker to introduce

NOTE Confidence: 0.87640584

00:47:33.215 --> 00:47:34.550 themselves to you,

NOTE Confidence: 0.87640584

00:47:34.550 --> 00:47:35.770 our advanced practice nurse.

NOTE Confidence: 0.87640584

00:47:35.770 --> 00:47:38.310 Also to kind of lay the groundwork.

NOTE Confidence: 0.87640584

00:47:38.310 --> 00:47:40.569 Then I would you would meet me and we

NOTE Confidence: 0.87640584

00:47:40.569 --> 00:47:42.923 would do an exam and we would talk about.

NOTE Confidence: 0.87640584

00:47:42.930 --> 00:47:44.586 We review your history.

NOTE Confidence: 0.87640584

00:47:44.586 --> 00:47:46.656 Make sure that I'm understanding

NOTE Confidence: 0.87640584

00:47:46.656 --> 00:47:48.860 everything that's happened and we

NOTE Confidence: 0.87640584

00:47:48.860 --> 00:47:51.260 would review why the radiation is.

NOTE Confidence: 0.87640584

00:47:51.260 --> 00:47:53.640 And if you've had breast conserving surgery,

NOTE Confidence: 0.87640584

00:47:53.640 --> 00:47:55.832 we would talk about a little bit about

NOTE Confidence: 0.87640584

00:47:55.832 --> 00:47:57.899 why that is and and how that help.

NOTE Confidence: 0.87640584

00:47:57.900 --> 00:47:59.564 Radiation can improve outcomes.

NOTE Confidence: 0.87640584

00:47:59.564 --> 00:48:01.644 If you had a mastectomy,

NOTE Confidence: 0.87640584

00:48:01.650 --> 00:48:04.037 you had reasons to have the radiation,

NOTE Confidence: 0.87640584

00:48:04.040 --> 00:48:05.858 such as involved nodes or a

NOTE Confidence: 0.87640584

00:48:05.858 --> 00:48:07.500 large tumor within the chest.

NOTE Confidence: 0.87640584

00:48:07.500 --> 00:48:10.326 We would discuss that as well.

NOTE Confidence: 0.87640584

00:48:10.330 --> 00:48:13.179 And we would talk about the treatment

NOTE Confidence: 0.87640584

00:48:13.179 --> 00:48:16.090 course and potential risks and the benefits.

NOTE Confidence: 0.87640584

00:48:16.090 --> 00:48:17.198 And then you know,

NOTE Confidence: 0.87640584

00:48:17.198 --> 00:48:19.850 if you were to agree to the radiation,

NOTE Confidence: 0.87640584

00:48:19.850 --> 00:48:22.986 we would then schedule the CT simulation.

NOTE Confidence: 0.87640584

00:48:22.990 --> 00:48:25.230 So that's the first step of our radiation.

NOTE Confidence: 0.920201311363636

00:48:25.230 --> 00:48:28.160 Is the planning is to do a CAT scan of  
NOTE Confidence: 0.920201311363636

00:48:28.240 --> 00:48:30.832 the patient in the treatment position  
NOTE Confidence: 0.920201311363636

00:48:30.832 --> 00:48:33.719 so they can design the radiation.  
NOTE Confidence: 0.920201311363636

00:48:33.720 --> 00:48:36.678 When I first went into residency,  
NOTE Confidence: 0.920201311363636

00:48:36.680 --> 00:48:38.408 we were not using CAT scans.  
NOTE Confidence: 0.920201311363636

00:48:38.410 --> 00:48:40.498 Well they were just kind of becoming the.  
NOTE Confidence: 0.920201311363636

00:48:40.500 --> 00:48:43.660 The norm, but just about when I started,  
NOTE Confidence: 0.920201311363636

00:48:43.660 --> 00:48:44.716 we were using flora,  
NOTE Confidence: 0.920201311363636

00:48:44.716 --> 00:48:47.581 which is a type of X ray and it was  
NOTE Confidence: 0.920201311363636

00:48:47.581 --> 00:48:49.399 so it was much more rudimentary.  
NOTE Confidence: 0.920201311363636

00:48:49.400 --> 00:48:52.016 Even in my somewhat brief career,  
NOTE Confidence: 0.920201311363636

00:48:52.020 --> 00:48:54.120 I've seen such major changes,  
NOTE Confidence: 0.920201311363636

00:48:54.120 --> 00:48:56.416 but the CT scan is used to design  
NOTE Confidence: 0.920201311363636

00:48:56.416 --> 00:48:58.046 the radiation treatment plan and  
NOTE Confidence: 0.920201311363636

00:48:58.046 --> 00:49:00.356 we do it in the treatment position.  
NOTE Confidence: 0.920201311363636

00:49:00.360 --> 00:49:01.260 'cause if you think about it,

NOTE Confidence: 0.920201311363636  
00:49:01.260 --> 00:49:03.588 that's the position we do this scan and  
NOTE Confidence: 0.920201311363636  
00:49:03.588 --> 00:49:06.155 that's the position we designed the plan in,  
NOTE Confidence: 0.920201311363636  
00:49:06.160 --> 00:49:08.470 and that's the position we need to get you in  
NOTE Confidence: 0.920201311363636  
00:49:08.526 --> 00:49:10.838 each day for the treatment and the treatment.  
NOTE Confidence: 0.920201311363636  
00:49:10.840 --> 00:49:13.048 Position is designed to give us the best  
NOTE Confidence: 0.920201311363636  
00:49:13.048 --> 00:49:15.367 access to treat what needs to be treated.  
NOTE Confidence: 0.920201311363636  
00:49:15.370 --> 00:49:17.320 The breast, the chest wall,  
NOTE Confidence: 0.920201311363636  
00:49:17.320 --> 00:49:19.990 the nodes and to stay off  
NOTE Confidence: 0.920201311363636  
00:49:19.990 --> 00:49:21.770 of the healthy tissues.  
NOTE Confidence: 0.920201311363636  
00:49:21.770 --> 00:49:23.522 There's no typically for  
NOTE Confidence: 0.920201311363636  
00:49:23.522 --> 00:49:24.836 breast cancer treatments.  
NOTE Confidence: 0.920201311363636  
00:49:24.840 --> 00:49:26.760 There's no dye given  
NOTE Confidence: 0.920201311363636  
00:49:26.760 --> 00:49:28.680 during these CT simulation.  
NOTE Confidence: 0.920201311363636  
00:49:28.680 --> 00:49:30.110 So the patient is typically  
NOTE Confidence: 0.920201311363636  
00:49:30.110 --> 00:49:31.540 placed on a breast board,  
NOTE Confidence: 0.920201311363636

00:49:31.540 --> 00:49:33.136 with or without a mold underneath her,  
NOTE Confidence: 0.920201311363636

00:49:33.140 --> 00:49:34.715 so this is and you could see  
NOTE Confidence: 0.920201311363636

00:49:34.715 --> 00:49:36.199 in the top right that's.  
NOTE Confidence: 0.920201311363636

00:49:36.200 --> 00:49:38.200 It's a standard breast board,  
NOTE Confidence: 0.920201311363636

00:49:38.200 --> 00:49:39.908 so every day that a patient were  
NOTE Confidence: 0.920201311363636

00:49:39.908 --> 00:49:41.780 to come in for her treatments,  
NOTE Confidence: 0.920201311363636

00:49:41.780 --> 00:49:43.810 we would make sure that the breast  
NOTE Confidence: 0.920201311363636

00:49:43.810 --> 00:49:45.618 full at the same and that arm  
NOTE Confidence: 0.920201311363636

00:49:45.618 --> 00:49:47.377 bar that you see at the top that  
NOTE Confidence: 0.920201311363636

00:49:47.377 --> 00:49:48.667 was in the same position.  
NOTE Confidence: 0.920201311363636

00:49:48.670 --> 00:49:50.838 And then these this Ridge here at the  
NOTE Confidence: 0.920201311363636

00:49:50.838 --> 00:49:53.070 bottom is called the bus stop so that  
NOTE Confidence: 0.920201311363636

00:49:53.070 --> 00:49:54.843 you don't slide and everything needs  
NOTE Confidence: 0.920201311363636

00:49:54.843 --> 00:49:57.339 to be in the exact same position when  
NOTE Confidence: 0.920201311363636

00:49:57.340 --> 00:49:59.452 you come in for your treatment as it  
NOTE Confidence: 0.920201311363636

00:49:59.452 --> 00:50:01.836 was for the planning scan and then

NOTE Confidence: 0.920201311363636  
00:50:01.836 --> 00:50:04.517 we paste wires typically around the breast.  
NOTE Confidence: 0.920201311363636  
00:50:04.520 --> 00:50:06.430 These are these are only.  
NOTE Confidence: 0.920201311363636  
00:50:06.430 --> 00:50:07.801 Rudimentary field borders,  
NOTE Confidence: 0.920201311363636  
00:50:07.801 --> 00:50:10.086 but they do have importance  
NOTE Confidence: 0.920201311363636  
00:50:10.086 --> 00:50:11.669 'cause they're based on.  
NOTE Confidence: 0.920201311363636  
00:50:11.670 --> 00:50:12.790 When we were feeling,  
NOTE Confidence: 0.920201311363636  
00:50:12.790 --> 00:50:14.874 but we can make lots of adjustments  
NOTE Confidence: 0.920201311363636  
00:50:14.874 --> 00:50:17.226 to fine tune them based on the  
NOTE Confidence: 0.920201311363636  
00:50:17.226 --> 00:50:19.400 images that we get in the CAT scan.  
NOTE Confidence: 0.920201311363636  
00:50:19.400 --> 00:50:22.088 And here this patient in the  
NOTE Confidence: 0.920201311363636  
00:50:22.088 --> 00:50:25.064 bottom right has a scar wire  
NOTE Confidence: 0.920201311363636  
00:50:25.064 --> 00:50:27.784 also over her lumpectomy scar.  
NOTE Confidence: 0.920201311363636  
00:50:27.790 --> 00:50:29.812 So we placed wires around the  
NOTE Confidence: 0.920201311363636  
00:50:29.812 --> 00:50:32.035 breast tissue and on any relevant  
NOTE Confidence: 0.920201311363636  
00:50:32.035 --> 00:50:34.659 scars as a man and you will get  
NOTE Confidence: 0.920201311363636

00:50:34.659 --> 00:50:37.506 tattoos to help us set you up in  
NOTE Confidence: 0.920201311363636

00:50:37.506 --> 00:50:39.321 the perfect position each day.  
NOTE Confidence: 0.920201311363636

00:50:39.330 --> 00:50:41.654 Typically a tattoo on the right lateral  
NOTE Confidence: 0.920201311363636

00:50:41.654 --> 00:50:43.600 chest wall though between the breasts  
NOTE Confidence: 0.920201311363636

00:50:43.600 --> 00:50:45.679 at the lower end at the bottom.  
NOTE Confidence: 0.920201311363636

00:50:45.680 --> 00:50:48.380 And it maybe you can see this little dot  
NOTE Confidence: 0.920201311363636

00:50:48.380 --> 00:50:51.268 on my wrist is an old fashioned tattoo.  
NOTE Confidence: 0.920201311363636

00:50:51.270 --> 00:50:53.016 A lot of my patients in the audience you're  
NOTE Confidence: 0.920201311363636

00:50:53.016 --> 00:50:54.560 going to say what that's old fashioned.  
NOTE Confidence: 0.920201311363636

00:50:54.560 --> 00:50:55.499 I have that.  
NOTE Confidence: 0.920201311363636

00:50:55.499 --> 00:50:57.735 Yes it is now will that fashion.  
NOTE Confidence: 0.920201311363636

00:50:57.735 --> 00:51:00.220 Because now in the last 18 months,  
NOTE Confidence: 0.920201311363636

00:51:00.220 --> 00:51:02.695 we've piloted throughout our Hamden  
NOTE Confidence: 0.920201311363636

00:51:02.695 --> 00:51:04.180 and Greenwich Park.  
NOTE Confidence: 0.920201311363636

00:51:04.180 --> 00:51:06.140 But it's been taken on at the  
NOTE Confidence: 0.920201311363636

00:51:06.140 --> 00:51:07.886 other sites where we used tattoos

NOTE Confidence: 0.920201311363636  
00:51:07.886 --> 00:51:09.846 that are only able to be viewed  
NOTE Confidence: 0.866260744333333  
00:51:09.913 --> 00:51:11.789 by the UV light so the patients  
NOTE Confidence: 0.866260744333333  
00:51:11.789 --> 00:51:13.812 don't have to have these constant  
NOTE Confidence: 0.866260744333333  
00:51:13.812 --> 00:51:16.640 reminders now of these tattoos on their  
NOTE Confidence: 0.866260744333333  
00:51:16.718 --> 00:51:19.118 bodies of their previous radiation.  
NOTE Confidence: 0.866260744333333  
00:51:19.120 --> 00:51:21.604 But we still have the benefit of the tattoo,  
NOTE Confidence: 0.866260744333333  
00:51:21.610 --> 00:51:23.858 which is a mark that won't wash off.  
NOTE Confidence: 0.866260744333333  
00:51:23.860 --> 00:51:26.422 And if a patient ever needs additional  
NOTE Confidence: 0.866260744333333  
00:51:26.422 --> 00:51:28.326 radiation, it does help us if we  
NOTE Confidence: 0.866260744333333  
00:51:28.326 --> 00:51:30.249 ever need to match prior fields.  
NOTE Confidence: 0.8454874975  
00:51:32.370 --> 00:51:35.746 So excuse me. So after we do that,  
NOTE Confidence: 0.8454874975  
00:51:35.750 --> 00:51:37.826 planning scan when we have to  
NOTE Confidence: 0.8454874975  
00:51:37.826 --> 00:51:40.025 design the plan. So what happens?  
NOTE Confidence: 0.8454874975  
00:51:40.025 --> 00:51:44.176 Well I have to draw on every slice of the CAT  
NOTE Confidence: 0.8454874975  
00:51:44.176 --> 00:51:47.859 scan which is done in 2 millimeter slices,  
NOTE Confidence: 0.8454874975

00:51:47.860 --> 00:51:50.320 sometimes three, but typically two.  
NOTE Confidence: 0.8454874975

00:51:50.320 --> 00:51:52.950 What constitutes the breast tissue?  
NOTE Confidence: 0.8454874975

00:51:52.950 --> 00:51:54.962 What constitutes the tumor  
NOTE Confidence: 0.8454874975

00:51:54.962 --> 00:51:57.477 cavity or the lumpectomy bed?  
NOTE Confidence: 0.8454874975

00:51:57.480 --> 00:52:00.630 The various lymph node regions?  
NOTE Confidence: 0.8454874975

00:52:00.630 --> 00:52:02.040 The heart. In the lungs,  
NOTE Confidence: 0.8454874975

00:52:02.040 --> 00:52:03.795 so that the planning software  
NOTE Confidence: 0.8454874975

00:52:03.795 --> 00:52:04.848 can recognize it.  
NOTE Confidence: 0.8454874975

00:52:04.850 --> 00:52:06.770 So that's the first step.  
NOTE Confidence: 0.8454874975

00:52:06.770 --> 00:52:08.090 Then when I've done that,  
NOTE Confidence: 0.8454874975

00:52:08.090 --> 00:52:10.702 then I work with a certified medical  
NOTE Confidence: 0.8454874975

00:52:10.702 --> 00:52:12.462 dosimetrist that someone a dosimetrist  
NOTE Confidence: 0.8454874975

00:52:12.462 --> 00:52:14.906 is someone who has a four year  
NOTE Confidence: 0.8454874975

00:52:14.906 --> 00:52:16.531 degree in radiation planning and  
NOTE Confidence: 0.8454874975

00:52:16.531 --> 00:52:18.379 certified means nationally certified,  
NOTE Confidence: 0.8454874975

00:52:18.380 --> 00:52:20.750 and that the certified medical assistant

NOTE Confidence: 0.8454874975

00:52:20.750 --> 00:52:24.020 I worked together to come up with a plan

NOTE Confidence: 0.8454874975

00:52:24.020 --> 00:52:26.032 using the planning software to give

NOTE Confidence: 0.8454874975

00:52:26.032 --> 00:52:28.948 an even dose to whatever needs to be treated.

NOTE Confidence: 0.8454874975

00:52:28.950 --> 00:52:30.250 The breast, the chest wall,

NOTE Confidence: 0.8454874975

00:52:30.250 --> 00:52:31.414 the nodes or not.

NOTE Confidence: 0.8454874975

00:52:31.414 --> 00:52:33.160 Meaning that we don't have hot

NOTE Confidence: 0.8454874975

00:52:33.222 --> 00:52:34.858 spots with extra radiation,

NOTE Confidence: 0.8454874975

00:52:34.860 --> 00:52:35.968 or you limit those,

NOTE Confidence: 0.8454874975

00:52:35.968 --> 00:52:38.025 and we obviously don't want cold spots

NOTE Confidence: 0.8454874975

00:52:38.025 --> 00:52:40.035 where there's two little that's given,

NOTE Confidence: 0.8454874975

00:52:40.040 --> 00:52:41.615 and we also want to analyze the

NOTE Confidence: 0.8454874975

00:52:41.615 --> 00:52:43.387 dose to the heart and the lungs,

NOTE Confidence: 0.8454874975

00:52:43.390 --> 00:52:45.812 and make sure that they are below

NOTE Confidence: 0.8454874975

00:52:45.812 --> 00:52:47.600 what's considered safe thresholds.

NOTE Confidence: 0.8454874975

00:52:47.600 --> 00:52:50.810 And let's say below sea threshold.

NOTE Confidence: 0.8454874975

00:52:50.810 --> 00:52:52.871 But we can do a a plan where we're

NOTE Confidence: 0.8454874975

00:52:52.871 --> 00:52:54.750 even get further below the safe

NOTE Confidence: 0.8454874975

00:52:54.750 --> 00:52:56.674 threshold for the heart and the

NOTE Confidence: 0.8454874975

00:52:56.674 --> 00:52:58.578 lungs you always want to do that.

NOTE Confidence: 0.8454874975

00:52:58.580 --> 00:53:00.385 There's this principle and radiation

NOTE Confidence: 0.8454874975

00:53:00.385 --> 00:53:02.420 oncology called ALARA as low as.

NOTE Confidence: 0.8454874975

00:53:02.420 --> 00:53:03.384 Reasonably achievable,

NOTE Confidence: 0.8454874975

00:53:03.384 --> 00:53:06.276 which means that you always want

NOTE Confidence: 0.8454874975

00:53:06.276 --> 00:53:08.564 to have your nontarget tissues

NOTE Confidence: 0.8454874975

00:53:08.564 --> 00:53:11.455 to be have their dose that they

NOTE Confidence: 0.8454874975

00:53:11.541 --> 00:53:13.606 receive as low as possible.

NOTE Confidence: 0.8454874975

00:53:13.610 --> 00:53:16.103 I'm so when we do when I'm eating a

NOTE Confidence: 0.8454874975

00:53:16.103 --> 00:53:18.188 patient in doing the physical exam,

NOTE Confidence: 0.8454874975

00:53:18.190 --> 00:53:20.620 looking for a lot of things,

NOTE Confidence: 0.8454874975

00:53:20.620 --> 00:53:22.286 and one of the things I'm thinking

NOTE Confidence: 0.8454874975

00:53:22.286 --> 00:53:23.756 about when I have the patient

NOTE Confidence: 0.8454874975

00:53:23.756 --> 00:53:25.696 lay back on the table and put her

NOTE Confidence: 0.8454874975

00:53:25.696 --> 00:53:27.214 arms up and feeling the breast,

NOTE Confidence: 0.8454874975

00:53:27.220 --> 00:53:28.610 my mind is spinning about.

NOTE Confidence: 0.8454874975

00:53:28.610 --> 00:53:31.220 What's the best position to

NOTE Confidence: 0.8454874975

00:53:31.220 --> 00:53:33.308 treat this patient in?

NOTE Confidence: 0.8454874975

00:53:33.310 --> 00:53:34.745 Is this patient going to be best

NOTE Confidence: 0.8454874975

00:53:34.745 --> 00:53:36.069 treated in the prone position,

NOTE Confidence: 0.8454874975

00:53:36.070 --> 00:53:38.310 lying on his or her for their stomach,

NOTE Confidence: 0.8454874975

00:53:38.310 --> 00:53:40.860 or supine lying on the back?

NOTE Confidence: 0.8454874975

00:53:40.860 --> 00:53:43.038 We can use different beam angles to come in.

NOTE Confidence: 0.8454874975

00:53:43.040 --> 00:53:44.192 We want to.

NOTE Confidence: 0.8454874975

00:53:44.192 --> 00:53:46.880 Angle the beam so that we stay

NOTE Confidence: 0.8454874975

00:53:46.977 --> 00:53:50.085 anterior and lateral to the heart.

NOTE Confidence: 0.8454874975

00:53:50.090 --> 00:53:51.371 We can use field and field which

NOTE Confidence: 0.8454874975

00:53:51.371 --> 00:53:52.680 is the most modern technique.

NOTE Confidence: 0.8454874975

00:53:52.680 --> 00:53:54.157 In fact another article came out just  
NOTE Confidence: 0.8454874975

00:53:54.157 --> 00:53:55.669 the other day that I need to read.  
NOTE Confidence: 0.8454874975

00:53:55.670 --> 00:53:57.364 It's sitting in my in basket but  
NOTE Confidence: 0.8454874975

00:53:57.364 --> 00:53:59.308 showing in the old days you had one  
NOTE Confidence: 0.8454874975

00:53:59.308 --> 00:54:01.016 beam from the medial and one from  
NOTE Confidence: 0.8454874975

00:54:01.016 --> 00:54:02.498 the lateral to treat the breast  
NOTE Confidence: 0.8454874975

00:54:02.498 --> 00:54:04.490 and you had some very minor ways  
NOTE Confidence: 0.8454874975

00:54:04.490 --> 00:54:06.765 that you could change how the dose  
NOTE Confidence: 0.8454874975

00:54:06.765 --> 00:54:08.555 was distributed within that beam.  
NOTE Confidence: 0.8454874975

00:54:08.560 --> 00:54:10.947 Now while a patient is being treated,  
NOTE Confidence: 0.8454874975

00:54:10.950 --> 00:54:12.636 there are leaves that are constantly  
NOTE Confidence: 0.8454874975

00:54:12.636 --> 00:54:14.500 opening and closing to change the  
NOTE Confidence: 0.8454874975

00:54:14.500 --> 00:54:17.318 shape of the beam and that'll help  
NOTE Confidence: 0.8454874975

00:54:17.318 --> 00:54:19.940 us avoid hot spots and cold spots.  
NOTE Confidence: 0.8454874975

00:54:19.940 --> 00:54:22.250 And it's been associated with a better  
NOTE Confidence: 0.912966235

00:54:22.319 --> 00:54:25.260 cosmetic outcome, so all of our sites

NOTE Confidence: 0.912966235

00:54:25.260 --> 00:54:28.670 are using the field and field technique.

NOTE Confidence: 0.912966235

00:54:28.670 --> 00:54:31.206 Well, one thing that we can do the

NOTE Confidence: 0.912966235

00:54:31.206 --> 00:54:33.333 dosimetrist and I is design a custom

NOTE Confidence: 0.912966235

00:54:33.333 --> 00:54:35.705 made heart block and the head of the

NOTE Confidence: 0.912966235

00:54:35.705 --> 00:54:37.749 machine to make sure and I'll show

NOTE Confidence: 0.912966235

00:54:37.750 --> 00:54:39.766 you some pictures of that to make sure

NOTE Confidence: 0.912966235

00:54:39.766 --> 00:54:41.748 that the heart is not in the direct

NOTE Confidence: 0.912966235

00:54:41.748 --> 00:54:43.436 beam and the use of deep inspiration

NOTE Confidence: 0.912966235

00:54:43.436 --> 00:54:45.083 breath hold which I have some slides

NOTE Confidence: 0.912966235

00:54:45.083 --> 00:54:47.160 coming up and I know many of you who

NOTE Confidence: 0.912966235

00:54:47.160 --> 00:54:48.510 are treated with this technique.

NOTE Confidence: 0.912966235

00:54:48.510 --> 00:54:50.840 So here's the supine position

NOTE Confidence: 0.912966235

00:54:50.840 --> 00:54:53.170 IE lying on your back.

NOTE Confidence: 0.912966235

00:54:53.170 --> 00:54:55.330 We see that breast board here raised up

NOTE Confidence: 0.912966235

00:54:55.330 --> 00:54:57.720 the arm bars a little out of the field.

NOTE Confidence: 0.912966235

00:54:57.720 --> 00:54:59.264 There's a bus stop.  
NOTE Confidence: 0.912966235

00:54:59.264 --> 00:55:00.666 Underneath this person's bottom,  
NOTE Confidence: 0.912966235

00:55:00.666 --> 00:55:03.460 so the under the sheet that you can't see.  
NOTE Confidence: 0.912966235

00:55:03.460 --> 00:55:04.360 And then of course,  
NOTE Confidence: 0.912966235

00:55:04.360 --> 00:55:05.710 there's the pillow under the knees.  
NOTE Confidence: 0.912966235

00:55:05.710 --> 00:55:07.495 So for this patient you know each  
NOTE Confidence: 0.912966235

00:55:07.495 --> 00:55:09.238 day that she gets treatment that  
NOTE Confidence: 0.912966235

00:55:09.238 --> 00:55:11.373 breast board is at the same height,  
NOTE Confidence: 0.912966235

00:55:11.380 --> 00:55:12.130 the same pillow,  
NOTE Confidence: 0.912966235

00:55:12.130 --> 00:55:13.380 under the knees everything is.  
NOTE Confidence: 0.912966235

00:55:13.380 --> 00:55:15.774 And then we line up her tattoos.  
NOTE Confidence: 0.912966235

00:55:15.780 --> 00:55:17.751 You can see that black X on the corner  
NOTE Confidence: 0.912966235

00:55:17.751 --> 00:55:19.667 there which would which is helping to  
NOTE Confidence: 0.912966235

00:55:19.667 --> 00:55:21.858 draw attention to where her tattoo is for us.  
NOTE Confidence: 0.912966235

00:55:21.860 --> 00:55:23.510 That's the tattoo is just  
NOTE Confidence: 0.912966235

00:55:23.510 --> 00:55:24.830 a little dot though.

NOTE Confidence: 0.912966235

00:55:24.830 --> 00:55:26.741 But we line up the tattoos to

NOTE Confidence: 0.912966235

00:55:26.741 --> 00:55:28.739 a laser grid in the treatment.

NOTE Confidence: 0.912966235

00:55:28.740 --> 00:55:30.960 Room that's calibrated daily by

NOTE Confidence: 0.912966235

00:55:30.960 --> 00:55:33.642 the medical physicist to make sure

NOTE Confidence: 0.912966235

00:55:33.642 --> 00:55:35.958 that the patient is not rotated

NOTE Confidence: 0.912966235

00:55:35.958 --> 00:55:37.990 and the position is spot on.

NOTE Confidence: 0.912966235

00:55:37.990 --> 00:55:40.286 So here's an example of right breast

NOTE Confidence: 0.912966235

00:55:40.286 --> 00:55:42.672 radiation in the supine position, IE.

NOTE Confidence: 0.912966235

00:55:42.672 --> 00:55:45.408 Lying on the back and the beam edge.

NOTE Confidence: 0.912966235

00:55:45.410 --> 00:55:47.450 You can see coming in here,

NOTE Confidence: 0.912966235

00:55:47.450 --> 00:55:49.172 and there's very little dose spillage

NOTE Confidence: 0.912966235

00:55:49.172 --> 00:55:51.066 that's deep to the beam edge because

NOTE Confidence: 0.912966235

00:55:51.066 --> 00:55:53.249 it's set up in what we call a tangent.

NOTE Confidence: 0.912966235

00:55:53.250 --> 00:55:54.865 It's not like two flashlights

NOTE Confidence: 0.912966235

00:55:54.865 --> 00:55:56.157 coming into that patient.

NOTE Confidence: 0.912966235

00:55:56.160 --> 00:55:57.928 What we do is we angle the beam  
NOTE Confidence: 0.912966235

00:55:57.928 --> 00:56:00.102 so that the edge of the beam is  
NOTE Confidence: 0.912966235

00:56:00.102 --> 00:56:01.214 what goes into treatment,  
NOTE Confidence: 0.912966235

00:56:01.220 --> 00:56:03.404 and that causes what we call a  
NOTE Confidence: 0.912966235

00:56:03.404 --> 00:56:04.734 non divergent posterior border  
NOTE Confidence: 0.912966235

00:56:04.734 --> 00:56:06.714 where very little dose will will.  
NOTE Confidence: 0.89433801125

00:56:09.100 --> 00:56:11.915 We'll go behind or deep to those beams so  
NOTE Confidence: 0.89433801125

00:56:11.915 --> 00:56:13.475 you can see in this right breast patient.  
NOTE Confidence: 0.89433801125

00:56:13.480 --> 00:56:14.806 It's super easy to keep the  
NOTE Confidence: 0.89433801125

00:56:14.806 --> 00:56:16.020 radiation off of the heart,  
NOTE Confidence: 0.89433801125

00:56:16.020 --> 00:56:17.884 but we would still always use that olyra  
NOTE Confidence: 0.89433801125

00:56:17.884 --> 00:56:20.078 if we could do something where we still  
NOTE Confidence: 0.89433801125

00:56:20.078 --> 00:56:22.260 got the breast tissue in the way we liked,  
NOTE Confidence: 0.89433801125

00:56:22.260 --> 00:56:23.800 but we could spare the heart more,  
NOTE Confidence: 0.89433801125

00:56:23.800 --> 00:56:26.024 we would always go with that plan and  
NOTE Confidence: 0.89433801125

00:56:26.024 --> 00:56:27.870 this patient does have a small liver

NOTE Confidence: 0.89433801125  
00:56:27.870 --> 00:56:30.135 block you can see on the right photo to  
NOTE Confidence: 0.89433801125  
00:56:30.135 --> 00:56:34.950 keep her liver out of the radiation beam.  
NOTE Confidence: 0.89433801125  
00:56:34.950 --> 00:56:36.858 Here's a heart block, which is,  
NOTE Confidence: 0.89433801125  
00:56:36.860 --> 00:56:39.188 you know, one of our tried true ways.  
NOTE Confidence: 0.89433801125  
00:56:39.190 --> 00:56:41.630 Once we got the CT scan up going.  
NOTE Confidence: 0.89433801125  
00:56:41.630 --> 00:56:45.674 You know 1010 to 15 years ago too.  
NOTE Confidence: 0.89433801125  
00:56:45.674 --> 00:56:47.570 Had the direct beam,  
NOTE Confidence: 0.89433801125  
00:56:47.570 --> 00:56:49.354 you could see that those are those leaves  
NOTE Confidence: 0.89433801125  
00:56:49.354 --> 00:56:51.388 in the head of the machine that we can  
NOTE Confidence: 0.89433801125  
00:56:51.388 --> 00:56:53.119 shape to follow the edge of the heart.  
NOTE Confidence: 0.89433801125  
00:56:53.120 --> 00:56:54.947 You just have to be careful that  
NOTE Confidence: 0.89433801125  
00:56:54.947 --> 00:56:56.657 when you're you can't just go  
NOTE Confidence: 0.89433801125  
00:56:56.657 --> 00:56:58.397 crazy in designing the heart block  
NOTE Confidence: 0.89433801125  
00:56:58.400 --> 00:57:00.368 while we love sparing the heart,  
NOTE Confidence: 0.89433801125  
00:57:00.370 --> 00:57:02.330 we also want to make sure that if we go  
NOTE Confidence: 0.89433801125

00:57:02.385 --> 00:57:04.296 are too generous with the heart block,  
NOTE Confidence: 0.89433801125

00:57:04.300 --> 00:57:07.905 we won't treat the breast tissue properly.  
NOTE Confidence: 0.89433801125

00:57:07.910 --> 00:57:09.510 And here's the prone position.  
NOTE Confidence: 0.89433801125

00:57:09.510 --> 00:57:12.289 This is a patient laying on her  
NOTE Confidence: 0.89433801125

00:57:12.289 --> 00:57:14.869 stomach in the prone position.  
NOTE Confidence: 0.89433801125

00:57:14.870 --> 00:57:16.290 Some patients are excellent  
NOTE Confidence: 0.89433801125

00:57:16.290 --> 00:57:18.065 candidates and some are not.  
NOTE Confidence: 0.89433801125

00:57:18.070 --> 00:57:19.827 Who would be a poor candidate while  
NOTE Confidence: 0.89433801125

00:57:19.827 --> 00:57:21.858 a patient that tells me that she's  
NOTE Confidence: 0.89433801125

00:57:21.858 --> 00:57:23.388 highly uncomfortable lying on her  
NOTE Confidence: 0.89433801125

00:57:23.388 --> 00:57:25.258 stomach but not be the best candidate.  
NOTE Confidence: 0.89433801125

00:57:25.260 --> 00:57:27.941 There is certain positions of the tumor  
NOTE Confidence: 0.89433801125

00:57:27.941 --> 00:57:30.171 and exceptionally medial tumor is not  
NOTE Confidence: 0.89433801125

00:57:30.171 --> 00:57:32.205 always the best for prone positioning.  
NOTE Confidence: 0.89433801125

00:57:32.210 --> 00:57:32.918 For example,  
NOTE Confidence: 0.89433801125

00:57:32.918 --> 00:57:35.042 and we are not using prone

NOTE Confidence: 0.89433801125

00:57:35.042 --> 00:57:36.870 positioning at our institution.

NOTE Confidence: 0.89433801125

00:57:36.870 --> 00:57:40.825 If the nodes need to be treated.

NOTE Confidence: 0.89433801125

00:57:40.830 --> 00:57:43.026 So here's some pictures of some

NOTE Confidence: 0.89433801125

00:57:43.026 --> 00:57:45.779 radiation beams in the prone positioning,

NOTE Confidence: 0.89433801125

00:57:45.780 --> 00:57:47.868 so you could see for this patient when

NOTE Confidence: 0.89433801125

00:57:47.868 --> 00:57:50.395 you look on the picture on the left that

NOTE Confidence: 0.89433801125

00:57:50.395 --> 00:57:52.101 mean edges cutting right through and

NOTE Confidence: 0.89433801125

00:57:52.101 --> 00:57:54.710 that edge of the heart is right in there.

NOTE Confidence: 0.89433801125

00:57:54.710 --> 00:57:57.412 But we see in the prone bone we're

NOTE Confidence: 0.89433801125

00:57:57.412 --> 00:57:59.519 able to make the beam angle so

NOTE Confidence: 0.89433801125

00:57:59.519 --> 00:58:01.660 that the heart stayed behind it,

NOTE Confidence: 0.89433801125

00:58:01.660 --> 00:58:04.726 and another benefit of the prom for

NOTE Confidence: 0.89433801125

00:58:04.726 --> 00:58:08.071 some patients can be if they have a a

NOTE Confidence: 0.89433801125

00:58:08.071 --> 00:58:11.101 more pendulous breast with a larger.

NOTE Confidence: 0.89433801125

00:58:11.101 --> 00:58:11.743 Fold underneath,

NOTE Confidence: 0.89433801125

00:58:11.743 --> 00:58:13.990 that's an area that can get more  
NOTE Confidence: 0.89433801125

00:58:14.054 --> 00:58:16.029 skin irritation from the radiation.  
NOTE Confidence: 0.89433801125

00:58:16.030 --> 00:58:18.073 But if we treat the patient in the prone  
NOTE Confidence: 0.89433801125

00:58:18.073 --> 00:58:20.950 position, it'll lift the breast up.  
NOTE Confidence: 0.89433801125

00:58:20.950 --> 00:58:22.024 Helps a lot.  
NOTE Confidence: 0.89433801125

00:58:22.024 --> 00:58:24.968 We can see here for this patient on  
NOTE Confidence: 0.89433801125

00:58:24.968 --> 00:58:27.474 our left where the heart is going  
NOTE Confidence: 0.89433801125

00:58:27.474 --> 00:58:30.257 into the to the to the field edge,  
NOTE Confidence: 0.89433801125

00:58:30.260 --> 00:58:32.038 and here on our right with this  
NOTE Confidence: 0.89433801125

00:58:32.038 --> 00:58:33.734 patient holding her breath the hardest  
NOTE Confidence: 0.89433801125

00:58:33.734 --> 00:58:35.492 pulled completely out of the mean,  
NOTE Confidence: 0.89433801125

00:58:35.500 --> 00:58:37.607 but sometimes you may have had treatment  
NOTE Confidence: 0.89433801125

00:58:37.607 --> 00:58:39.910 with me and we did the breath hold,  
NOTE Confidence: 0.89433801125

00:58:39.910 --> 00:58:41.326 but I in the end I ended up  
NOTE Confidence: 0.89433801125

00:58:41.326 --> 00:58:42.350 treating you with the free.  
NOTE Confidence: 0.89433801125

00:58:42.350 --> 00:58:43.090 Breathing thing,

NOTE Confidence: 0.89433801125

00:58:43.090 --> 00:58:44.940 or perhaps with your with

NOTE Confidence: 0.89433801125

00:58:44.940 --> 00:58:46.050 another radiation oncologist.

NOTE Confidence: 0.89433801125

00:58:46.050 --> 00:58:47.550 And that's because sometimes

NOTE Confidence: 0.89433801125

00:58:47.550 --> 00:58:49.050 it's really not needed.

NOTE Confidence: 0.89433801125

00:58:49.050 --> 00:58:50.730 The heart is sometimes nicely

NOTE Confidence: 0.89433801125

00:58:50.730 --> 00:58:52.410 out of the field even

NOTE Confidence: 0.943158238333333

00:58:52.484 --> 00:58:53.531 without the DIBH,

NOTE Confidence: 0.943158238333333

00:58:53.531 --> 00:58:55.778 and it does allow a shorter treatment

NOTE Confidence: 0.943158238333333

00:58:55.778 --> 00:58:58.161 time on the treatment table if you

NOTE Confidence: 0.943158238333333

00:58:58.161 --> 00:59:00.530 are treating with the free breathing.

NOTE Confidence: 0.943158238333333

00:59:00.530 --> 00:59:02.826 So, so that's kind of the basics

NOTE Confidence: 0.943158238333333

00:59:02.826 --> 00:59:04.911 about radiation and where we've come

NOTE Confidence: 0.943158238333333

00:59:04.911 --> 00:59:07.333 and sort of the most modern techniques

NOTE Confidence: 0.943158238333333

00:59:07.405 --> 00:59:09.547 to treat the breast and the nodes.

NOTE Confidence: 0.943158238333333

00:59:09.550 --> 00:59:10.800 Try to keeping the event,

NOTE Confidence: 0.943158238333333

00:59:10.800 --> 00:59:13.098 the doses even as possible and  
NOTE Confidence: 0.9431582383333333

00:59:13.098 --> 00:59:15.617 sparing the lung and heart as most  
NOTE Confidence: 0.9431582383333333

00:59:15.617 --> 00:59:18.668 as pop as most as we possibly can.  
NOTE Confidence: 0.9431582383333333

00:59:18.670 --> 00:59:21.918 Umso D escalation of treatment for breast  
NOTE Confidence: 0.9431582383333333

00:59:21.918 --> 00:59:24.349 cancer is interesting in radiation,  
NOTE Confidence: 0.9431582383333333

00:59:24.350 --> 00:59:27.605 because of course it's related to toxicity,  
NOTE Confidence: 0.9431582383333333

00:59:27.610 --> 00:59:29.254 but it's also related to how  
NOTE Confidence: 0.9431582383333333

00:59:29.254 --> 00:59:30.889 many treatments you have to come  
NOTE Confidence: 0.9431582383333333

00:59:30.889 --> 00:59:32.403 for and people might say, well,  
NOTE Confidence: 0.9431582383333333

00:59:32.403 --> 00:59:34.454 how is that D escalation of treatment?  
NOTE Confidence: 0.9431582383333333

00:59:34.460 --> 00:59:35.570 Well, you think about it,  
NOTE Confidence: 0.9431582383333333

00:59:35.570 --> 00:59:38.224 it's less time away from a patient's family,  
NOTE Confidence: 0.9431582383333333

00:59:38.224 --> 00:59:39.370 their personal life,  
NOTE Confidence: 0.9431582383333333

00:59:39.370 --> 00:59:42.386 less time off from work and people can  
NOTE Confidence: 0.9431582383333333

00:59:42.386 --> 00:59:44.860 have financial toxicity from their way  
NOTE Confidence: 0.96076769

00:59:45.030 --> 00:59:46.578 from their cancer treatment.

NOTE Confidence: 0.9367946

00:59:46.910 --> 00:59:49.395 And so if we can help patients.

NOTE Confidence: 0.9367946

00:59:49.400 --> 00:59:51.152 Finish their treatments and get back

NOTE Confidence: 0.9367946

00:59:51.152 --> 00:59:53.591 to work or get back to doing the

NOTE Confidence: 0.9367946

00:59:53.591 --> 00:59:55.409 things that they enjoy more quickly

NOTE Confidence: 0.9367946

00:59:55.472 --> 00:59:57.188 without compromising outcomes.

NOTE Confidence: 0.9367946

00:59:57.190 --> 00:59:59.290 That sounds like the best plan

NOTE Confidence: 0.9367946

00:59:59.290 --> 01:00:01.586 so conventional whole breast

NOTE Confidence: 0.9367946

01:00:01.586 --> 01:00:05.030 irradiation was five to six weeks,

NOTE Confidence: 0.9367946

01:00:05.030 --> 01:00:06.596 so five weeks to the whole

NOTE Confidence: 0.9367946

01:00:06.596 --> 01:00:08.060 breast and then a boost,

NOTE Confidence: 0.9367946

01:00:08.060 --> 01:00:09.968 which is an additional treatment to

NOTE Confidence: 0.9367946

01:00:09.968 --> 01:00:12.457 where the tumor was in 5 to 8 fractions.

NOTE Confidence: 0.9367946

01:00:12.460 --> 01:00:14.040 So people were getting treated

NOTE Confidence: 0.9367946

01:00:14.040 --> 01:00:15.620 for five to six weeks,

NOTE Confidence: 0.9367946

01:00:15.620 --> 01:00:18.140 even if they had an early stage cancer.

NOTE Confidence: 0.9367946

01:00:18.140 --> 01:00:20.024 Just following them back.  
NOTE Confidence: 0.9367946

01:00:20.024 --> 01:00:23.768 To me, however, now there's three  
NOTE Confidence: 0.9367946

01:00:23.768 --> 01:00:25.760 well done randomized trials,  
NOTE Confidence: 0.9367946

01:00:25.760 --> 01:00:27.958 all with 12 years of median fault.  
NOTE Confidence: 0.9367946

01:00:27.960 --> 01:00:29.580 Meaning half of the patients  
NOTE Confidence: 0.9367946

01:00:29.580 --> 01:00:31.200 have been followed for longer  
NOTE Confidence: 0.9367946

01:00:31.261 --> 01:00:33.271 that support a shorter course of  
NOTE Confidence: 0.9367946

01:00:33.271 --> 01:00:35.028 treatments for patients who receive  
NOTE Confidence: 0.9367946

01:00:35.028 --> 01:00:36.798 radiation to the breast alone,  
NOTE Confidence: 0.9367946

01:00:36.800 --> 01:00:40.592 and there's a 16 fraction regimen to the  
NOTE Confidence: 0.9367946

01:00:40.592 --> 01:00:42.799 breast that would use a four fraction boost,  
NOTE Confidence: 0.9367946

01:00:42.800 --> 01:00:44.180 or 15 fraction regimen.  
NOTE Confidence: 0.9367946

01:00:44.180 --> 01:00:45.560 That's what we use.  
NOTE Confidence: 0.9367946

01:00:45.560 --> 01:00:47.558 So most of our patients now,  
NOTE Confidence: 0.9367946

01:00:47.560 --> 01:00:49.296 if the nodes don't need to be treated,  
NOTE Confidence: 0.9367946

01:00:49.300 --> 01:00:50.114 are getting.

NOTE Confidence: 0.9367946

01:00:50.114 --> 01:00:52.556 Treated in 15 or 19 treatments,

NOTE Confidence: 0.9367946

01:00:52.560 --> 01:00:54.732 so three or four weeks as

NOTE Confidence: 0.9367946

01:00:54.732 --> 01:00:57.310 opposed to the five to six weeks.

NOTE Confidence: 0.9367946

01:00:57.310 --> 01:00:57.941 Uhm,

NOTE Confidence: 0.9367946

01:00:57.941 --> 01:01:01.727 others other trials have found that

NOTE Confidence: 0.9367946

01:01:01.727 --> 01:01:04.950 there's decreased the large tiles,

NOTE Confidence: 0.9367946

01:01:04.950 --> 01:01:07.434 found no statistical difference

NOTE Confidence: 0.9367946

01:01:07.434 --> 01:01:10.354 between outcomes and no statistical

NOTE Confidence: 0.9367946

01:01:10.354 --> 01:01:13.144 difference between the side effects,

NOTE Confidence: 0.9367946

01:01:13.150 --> 01:01:14.562 so they were unchanged,

NOTE Confidence: 0.9367946

01:01:14.562 --> 01:01:16.680 although there were some quality of

NOTE Confidence: 0.9367946

01:01:16.741 --> 01:01:18.636 life surveys that went along with it

NOTE Confidence: 0.9367946

01:01:18.636 --> 01:01:20.699 that did find improved quality of life

NOTE Confidence: 0.9367946

01:01:20.699 --> 01:01:22.505 for patients with the shorter course.

NOTE Confidence: 0.9367946

01:01:22.510 --> 01:01:25.216 But some non randomized and smaller

NOTE Confidence: 0.9367946

01:01:25.216 --> 01:01:27.740 trials have found decreased toxicity.  
NOTE Confidence: 0.9367946

01:01:27.740 --> 01:01:28.222 Obviously,  
NOTE Confidence: 0.9367946

01:01:28.222 --> 01:01:30.150 the decreased healthcare costs  
NOTE Confidence: 0.9367946

01:01:30.150 --> 01:01:32.078 and improved patient convenience  
NOTE Confidence: 0.9367946

01:01:32.078 --> 01:01:33.790 with the shorter course.  
NOTE Confidence: 0.9367946

01:01:33.790 --> 01:01:34.105 Uh,  
NOTE Confidence: 0.9367946

01:01:34.105 --> 01:01:36.310 so I talked about how at Yale  
NOTE Confidence: 0.9367946

01:01:36.310 --> 01:01:38.385 were doing the the 15 fractions  
NOTE Confidence: 0.9367946

01:01:38.385 --> 01:01:40.443 to the whole breast plus or  
NOTE Confidence: 0.9367946

01:01:40.522 --> 01:01:42.667 minus the four boost patients,  
NOTE Confidence: 0.9367946

01:01:42.670 --> 01:01:44.960 and this is typically without  
NOTE Confidence: 0.9367946

01:01:44.960 --> 01:01:46.334 additional nodal fields.  
NOTE Confidence: 0.9367946

01:01:46.340 --> 01:01:48.867 And when when the breast is intact,  
NOTE Confidence: 0.9367946

01:01:48.870 --> 01:01:49.983 that being said,  
NOTE Confidence: 0.9367946

01:01:49.983 --> 01:01:52.930 there are some ongoing studies to say hey,  
NOTE Confidence: 0.9367946

01:01:52.930 --> 01:01:54.390 is this safe to do?

NOTE Confidence: 0.9367946

01:01:54.390 --> 01:01:56.750 If a patient had mastectomy?

NOTE Confidence: 0.9367946

01:01:56.750 --> 01:01:59.270 If you need to treat the patients

NOTE Confidence: 0.9367946

01:01:59.270 --> 01:02:01.649 nodes and they're all looking very

NOTE Confidence: 0.9367946

01:02:01.649 --> 01:02:04.097 promising and in very select cases.

NOTE Confidence: 0.9367946

01:02:04.100 --> 01:02:05.240 Following mastectomy,

NOTE Confidence: 0.9367946

01:02:05.240 --> 01:02:08.660 I've started using the Hypo frac.

NOTE Confidence: 0.9367946

01:02:08.660 --> 01:02:10.680 The shorter course of treatment,

NOTE Confidence: 0.9367946

01:02:10.680 --> 01:02:13.048 the three to four weeks rather than the

NOTE Confidence: 0.9367946

01:02:13.048 --> 01:02:16.020 five to six in the setting of trading.

NOTE Confidence: 0.9367946

01:02:16.020 --> 01:02:19.790 The nodes or following mastectomy.

NOTE Confidence: 0.9367946

01:02:19.790 --> 01:02:21.750 I talked about a boost so I just

NOTE Confidence: 0.9367946

01:02:21.750 --> 01:02:23.281 wanted to put this on briefly

NOTE Confidence: 0.9367946

01:02:23.281 --> 01:02:25.144 to show you a boost is typically

NOTE Confidence: 0.9367946

01:02:25.144 --> 01:02:26.804 four or five extra fractions

NOTE Confidence: 0.9367946

01:02:26.804 --> 01:02:29.271 to where the tumor was a man.

NOTE Confidence: 0.9367946

01:02:29.271 --> 01:02:31.910 They are after the whole breast treatment.

NOTE Confidence: 0.9367946

01:02:31.910 --> 01:02:34.325 They're sort of like the bonus they

NOTE Confidence: 0.9367946

01:02:34.325 --> 01:02:36.640 the boost has been shown in the

NOTE Confidence: 0.9367946

01:02:36.640 --> 01:02:39.100 setting of lumpectomy to be helpful

NOTE Confidence: 0.9367946

01:02:39.100 --> 01:02:41.939 for patients of all ages from under

NOTE Confidence: 0.9367946

01:02:41.940 --> 01:02:44.856 45 to go up to the into the 80s.

NOTE Confidence: 0.9367946

01:02:44.860 --> 01:02:47.940 Really, however, the UM,

NOTE Confidence: 0.9367946

01:02:47.940 --> 01:02:50.190 their update on the boost trials.

NOTE Confidence: 0.9367946

01:02:50.190 --> 01:02:51.807 They were mostly done in the 90s.

NOTE Confidence: 0.9367946

01:02:51.810 --> 01:02:53.567 There is the boost and no boost

NOTE Confidence: 0.9367946

01:02:53.567 --> 01:02:54.990 trial and they'll be on trial.

NOTE Confidence: 0.9367946

01:02:54.990 --> 01:02:56.700 They've been so those patients

NOTE Confidence: 0.9367946

01:02:56.700 --> 01:02:58.410 have a lot of median

NOTE Confidence: 0.9299056933333333

01:02:58.482 --> 01:03:01.137 follow up now and they did publish a 20

NOTE Confidence: 0.9299056933333333

01:03:01.137 --> 01:03:03.557 year update and they've said that found

NOTE Confidence: 0.9299056933333333

01:03:03.557 --> 01:03:05.776 that it was most beneficial for while.

NOTE Confidence: 0.9299056933333333

01:03:05.776 --> 01:03:08.050 It did still benefit patients of all ages,

NOTE Confidence: 0.9299056933333333

01:03:08.050 --> 01:03:09.865 it was most significant to

NOTE Confidence: 0.9299056933333333

01:03:09.865 --> 01:03:12.180 benefit women age 60 and under.

NOTE Confidence: 0.9299056933333333

01:03:12.180 --> 01:03:14.236 I do tend to offer the boost for

NOTE Confidence: 0.9299056933333333

01:03:14.236 --> 01:03:16.487 pay if we're doing the modern

NOTE Confidence: 0.9299056933333333

01:03:16.487 --> 01:03:18.567 hypofractionation to offer the boost

NOTE Confidence: 0.9299056933333333

01:03:18.567 --> 01:03:21.476 for both patients under 70, we know.

NOTE Confidence: 0.9299056933333333

01:03:21.476 --> 01:03:25.230 70s The new 60 but I do talk about

NOTE Confidence: 0.9299056933333333

01:03:25.230 --> 01:03:28.095 it with people that I've as an

NOTE Confidence: 0.9299056933333333

01:03:28.095 --> 01:03:30.603 option and what are their goals?

NOTE Confidence: 0.9299056933333333

01:03:30.610 --> 01:03:32.938 So now we're getting even shorter,

NOTE Confidence: 0.9299056933333333

01:03:32.940 --> 01:03:34.608 Ultra Hypo fractionation.

NOTE Confidence: 0.9299056933333333

01:03:34.608 --> 01:03:38.500 We have the fast regimen which looked

NOTE Confidence: 0.9299056933333333

01:03:38.592 --> 01:03:41.327 at these five fraction courses.

NOTE Confidence: 0.9299056933333333

01:03:41.330 --> 01:03:42.940 They actually compare them back

NOTE Confidence: 0.9299056933333333

01:03:42.940 --> 01:03:45.570 to the older five week course.  
NOTE Confidence: 0.9299056933333333

01:03:45.570 --> 01:03:47.550 The 25 fraction courses,  
NOTE Confidence: 0.9299056933333333

01:03:47.550 --> 01:03:49.776 which just makes sense that 25 fraction  
NOTE Confidence: 0.9299056933333333

01:03:49.776 --> 01:03:51.790 court has decades of data behind it,  
NOTE Confidence: 0.9299056933333333

01:03:51.790 --> 01:03:54.654 so they were really comparing it to those.  
NOTE Confidence: 0.9299056933333333

01:03:54.660 --> 01:03:58.020 Gold standard and these were once a week,  
NOTE Confidence: 0.9299056933333333

01:03:58.020 --> 01:04:00.028 so once a week for five weeks and  
NOTE Confidence: 0.9299056933333333

01:04:00.028 --> 01:04:02.183 at 10 years and we liked this  
NOTE Confidence: 0.9299056933333333

01:04:02.183 --> 01:04:04.220 ten years in a randomized trial.  
NOTE Confidence: 0.9299056933333333

01:04:04.220 --> 01:04:06.680 Which is the best type of trial to look for?  
NOTE Confidence: 0.9299056933333333

01:04:06.680 --> 01:04:07.418 Good evidence?  
NOTE Confidence: 0.9299056933333333

01:04:07.418 --> 01:04:09.263 There was no significant difference  
NOTE Confidence: 0.9299056933333333

01:04:09.263 --> 01:04:11.844 in normal tissue effects and outcomes.  
NOTE Confidence: 0.9299056933333333

01:04:11.844 --> 01:04:13.380 Local regional recurrence,  
NOTE Confidence: 0.9299056933333333

01:04:13.380 --> 01:04:14.414 distant recurrence,  
NOTE Confidence: 0.9299056933333333

01:04:14.414 --> 01:04:16.999 overall survival were the same,

NOTE Confidence: 0.9299056933333333

01:04:17.000 --> 01:04:18.356 so the NCCN,

NOTE Confidence: 0.9299056933333333

01:04:18.356 --> 01:04:20.616 which is a National Cancer

NOTE Confidence: 0.9299056933333333

01:04:20.616 --> 01:04:21.520 Consortium network,

NOTE Confidence: 0.9299056933333333

01:04:21.520 --> 01:04:25.030 has has updated their recommendations.

NOTE Confidence: 0.9299056933333333

01:04:25.030 --> 01:04:27.830 To say that we can use the fast regimen or

NOTE Confidence: 0.9299056933333333

01:04:27.900 --> 01:04:30.564 consider it at least for people over 50,

NOTE Confidence: 0.9299056933333333

01:04:30.570 --> 01:04:33.242 although I tend to be a little over

NOTE Confidence: 0.9299056933333333

01:04:33.242 --> 01:04:36.020 60 with early stage breast cancer,

NOTE Confidence: 0.9299056933333333

01:04:36.020 --> 01:04:38.204 meaning they have a DCIS or a

NOTE Confidence: 0.9299056933333333

01:04:38.204 --> 01:04:39.905 smaller tumor and negative nodes

NOTE Confidence: 0.9299056933333333

01:04:39.905 --> 01:04:41.993 who do not require a boost.

NOTE Confidence: 0.9299056933333333

01:04:42.000 --> 01:04:45.310 That is why I am I try to have my

NOTE Confidence: 0.9299056933333333

01:04:45.419 --> 01:04:49.136 patience that we consider this for be

NOTE Confidence: 0.9299056933333333

01:04:49.140 --> 01:04:51.450 over 60 because remember the boost was

NOTE Confidence: 0.9299056933333333

01:04:51.450 --> 01:04:53.099 really beneficial for everybody that

NOTE Confidence: 0.9299056933333333

01:04:53.099 --> 01:04:55.192 was under 60 and there's no boost.  
NOTE Confidence: 0.9299056933333333

01:04:55.200 --> 01:04:58.268 Component to this fast regimen we have  
NOTE Confidence: 0.9299056933333333

01:04:58.268 --> 01:05:00.660 not started using a Fast forward at Yale.  
NOTE Confidence: 0.9299056933333333

01:05:00.660 --> 01:05:02.935 They are using it at some institution.  
NOTE Confidence: 0.9299056933333333

01:05:02.940 --> 01:05:04.648 I know MD Anderson is using it,  
NOTE Confidence: 0.9299056933333333

01:05:04.650 --> 01:05:05.392 for example,  
NOTE Confidence: 0.9299056933333333

01:05:05.392 --> 01:05:07.989 where those five treatments rather than once  
NOTE Confidence: 0.9299056933333333

01:05:07.989 --> 01:05:10.839 a week are just given Monday through Friday.  
NOTE Confidence: 0.9299056933333333

01:05:10.839 --> 01:05:14.610 But we're not quite yet ready for that here.  
NOTE Confidence: 0.9299056933333333

01:05:14.610 --> 01:05:17.004 We like to see a little MD Anderson said.  
NOTE Confidence: 0.9299056933333333

01:05:17.010 --> 01:05:18.694 Awesome place, believe me,  
NOTE Confidence: 0.9299056933333333

01:05:18.694 --> 01:05:21.220 but we would feel more comfortable  
NOTE Confidence: 0.9299056933333333

01:05:21.289 --> 01:05:23.359 with a little bit longer data.  
NOTE Confidence: 0.9299056933333333

01:05:23.360 --> 01:05:25.128 As you can see on my slide here,  
NOTE Confidence: 0.9299056933333333

01:05:25.130 --> 01:05:26.750 there's just five years of data.  
NOTE Confidence: 0.9299056933333333

01:05:26.750 --> 01:05:28.490 Rather than attend that we

NOTE Confidence: 0.9299056933333333  
01:05:28.490 --> 01:05:30.570 have for the fast regimen and.  
NOTE Confidence: 0.9299056933333333  
01:05:30.570 --> 01:05:33.069 And so we'd like to wait a  
NOTE Confidence: 0.9299056933333333  
01:05:33.069 --> 01:05:34.879 little bit longer on that.  
NOTE Confidence: 0.9299056933333333  
01:05:34.880 --> 01:05:37.295 And the fast is used for selected  
NOTE Confidence: 0.9299056933333333  
01:05:37.295 --> 01:05:39.962 patients at Yale, the once a week.  
NOTE Confidence: 0.9299056933333333  
01:05:39.962 --> 01:05:42.002 Not the Fast forward yet.  
NOTE Confidence: 0.9299056933333333  
01:05:42.010 --> 01:05:44.824 Uhm, but what about omitting the radiation?  
NOTE Confidence: 0.9299056933333333  
01:05:44.830 --> 01:05:46.552 Maybe some people don't even need  
NOTE Confidence: 0.9299056933333333  
01:05:46.552 --> 01:05:49.185 the radiation, and that's true.  
NOTE Confidence: 0.9299056933333333  
01:05:49.185 --> 01:05:52.306 This CL GB 9343 is often quoted,  
NOTE Confidence: 0.9299056933333333  
01:05:52.310 --> 01:05:54.806 and if patients make this criteria,  
NOTE Confidence: 0.9299056933333333  
01:05:54.810 --> 01:05:57.386 there are 70 or greater their tumors,  
NOTE Confidence: 0.9299056933333333  
01:05:57.390 --> 01:05:58.762 2 centimeters or less,  
NOTE Confidence: 0.9299056933333333  
01:05:58.762 --> 01:06:00.477 they have an estrogen receptor  
NOTE Confidence: 0.9299056933333333  
01:06:00.477 --> 01:06:01.270 positive cancer.  
NOTE Confidence: 0.9299056933333333

01:06:01.270 --> 01:06:03.790 Their node native on their  
NOTE Confidence: 0.9299056933333333

01:06:03.790 --> 01:06:04.798 surgical procedure,  
NOTE Confidence: 0.904798997647059

01:06:04.800 --> 01:06:07.392 or if they did not have any nodal surgery  
NOTE Confidence: 0.904798997647059

01:06:07.392 --> 01:06:10.174 on the exam and imaging and the patient.  
NOTE Confidence: 0.904798997647059

01:06:10.180 --> 01:06:12.154 This is starred because the patient needs.  
NOTE Confidence: 0.904798997647059

01:06:12.160 --> 01:06:14.095 Be willing and able to  
NOTE Confidence: 0.904798997647059

01:06:14.095 --> 01:06:15.256 take endocrine therapy.  
NOTE Confidence: 0.904798997647059

01:06:15.260 --> 01:06:17.440 The pill that doctor Kanowitz  
NOTE Confidence: 0.904798997647059

01:06:17.440 --> 01:06:19.184 discussed for five years.  
NOTE Confidence: 0.904798997647059

01:06:19.190 --> 01:06:21.446 We really not quite there yet,  
NOTE Confidence: 0.904798997647059

01:06:21.450 --> 01:06:24.820 especially with no Angevin treatment.  
NOTE Confidence: 0.904798997647059

01:06:24.820 --> 01:06:27.320 After a lumpectomy for surgery,  
NOTE Confidence: 0.904798997647059

01:06:27.320 --> 01:06:30.080 we do like to see some sort of  
NOTE Confidence: 0.904798997647059

01:06:30.080 --> 01:06:31.320 additional insurance policy,  
NOTE Confidence: 0.904798997647059

01:06:31.320 --> 01:06:32.382 whether it's.  
NOTE Confidence: 0.904798997647059

01:06:32.382 --> 01:06:35.514 Radiation, or the pill and the other

NOTE Confidence: 0.904798997647059

01:06:35.514 --> 01:06:37.410 reason is too is that all patients on

NOTE Confidence: 0.904798997647059

01:06:37.466 --> 01:06:39.689 this trial did take the pill for five years.

NOTE Confidence: 0.904798997647059

01:06:39.690 --> 01:06:42.210 So at 10 years the local regional

NOTE Confidence: 0.904798997647059

01:06:42.210 --> 01:06:44.530 recurrence was super low with the

NOTE Confidence: 0.904798997647059

01:06:44.530 --> 01:06:46.485 tamoxifen only the endocrine pill,

NOTE Confidence: 0.904798997647059

01:06:46.490 --> 01:06:49.034 only it was 10%.

NOTE Confidence: 0.904798997647059

01:06:49.034 --> 01:06:51.130 A local regional recurrence,

NOTE Confidence: 0.904798997647059

01:06:51.130 --> 01:06:54.142 so 90% of patients basically not

NOTE Confidence: 0.904798997647059

01:06:54.142 --> 01:06:56.150 experiencing a local regional

NOTE Confidence: 0.904798997647059

01:06:56.235 --> 01:06:58.942 recurrence are 98% of patients in

NOTE Confidence: 0.904798997647059

01:06:58.942 --> 01:07:00.907 the radiation plus tamoxifen arm.

NOTE Confidence: 0.904798997647059

01:07:00.910 --> 01:07:03.590 She might say, well, hey, it doesn't that.

NOTE Confidence: 0.904798997647059

01:07:03.590 --> 01:07:07.689 Eight 8%. Make me have beating and it does.

NOTE Confidence: 0.904798997647059

01:07:07.690 --> 01:07:08.894 It was statistically significant.

NOTE Confidence: 0.904798997647059

01:07:08.894 --> 01:07:11.245 It does mean if you skip the radiation

NOTE Confidence: 0.904798997647059

01:07:11.245 --> 01:07:12.940 of 8% greater chance of having the  
NOTE Confidence: 0.904798997647059

01:07:12.940 --> 01:07:14.140 cancer returned in the breast.  
NOTE Confidence: 0.904798997647059

01:07:14.140 --> 01:07:14.764 But frankly,  
NOTE Confidence: 0.904798997647059

01:07:14.764 --> 01:07:17.260 a 90% chance of going 10 years without  
NOTE Confidence: 0.904798997647059

01:07:17.327 --> 01:07:19.307 getting the breast cancer back in  
NOTE Confidence: 0.904798997647059

01:07:19.307 --> 01:07:21.309 the breast is pretty good odds.  
NOTE Confidence: 0.904798997647059

01:07:21.310 --> 01:07:22.828 But here's the real reason why  
NOTE Confidence: 0.904798997647059

01:07:22.828 --> 01:07:24.669 it's OK to omit the radiation.  
NOTE Confidence: 0.904798997647059

01:07:24.670 --> 01:07:26.380 It's because there was no difference  
NOTE Confidence: 0.904798997647059

01:07:26.380 --> 01:07:28.480 in the breast cancer specific survival,  
NOTE Confidence: 0.904798997647059

01:07:28.480 --> 01:07:30.706 which was excellent on both arms.  
NOTE Confidence: 0.904798997647059

01:07:30.710 --> 01:07:32.840 No difference in overall survival,  
NOTE Confidence: 0.904798997647059

01:07:32.840 --> 01:07:34.576 which was the same in many patients  
NOTE Confidence: 0.904798997647059

01:07:34.576 --> 01:07:35.700 in this age group.  
NOTE Confidence: 0.904798997647059

01:07:35.700 --> 01:07:37.620 Ended up dying of something else.  
NOTE Confidence: 0.904798997647059

01:07:37.620 --> 01:07:40.161 No difference in time to metastasis or

NOTE Confidence: 0.904798997647059

01:07:40.161 --> 01:07:42.530 the development of distant metastasis.

NOTE Confidence: 0.904798997647059

01:07:42.530 --> 01:07:45.225 So the 10 year probability of freedom

NOTE Confidence: 0.904798997647059

01:07:45.225 --> 01:07:47.672 from metastasis was 95% in both arms,

NOTE Confidence: 0.904798997647059

01:07:47.672 --> 01:07:49.610 so the radiation didn't do anything

NOTE Confidence: 0.904798997647059

01:07:49.673 --> 01:07:51.377 to improve overall survival.

NOTE Confidence: 0.904798997647059

01:07:51.380 --> 01:07:52.092 For this.

NOTE Confidence: 0.904798997647059

01:07:52.092 --> 01:07:54.228 For these patients that meet this

NOTE Confidence: 0.904798997647059

01:07:54.228 --> 01:07:56.274 criteria to prove overall survival

NOTE Confidence: 0.904798997647059

01:07:56.274 --> 01:07:58.800 breast cancer specific survival or the

NOTE Confidence: 0.904798997647059

01:07:58.872 --> 01:08:01.307 risk for cancer developing elsewhere.

NOTE Confidence: 0.904798997647059

01:08:01.310 --> 01:08:03.622 We may see in the next few years

NOTE Confidence: 0.904798997647059

01:08:03.622 --> 01:08:05.724 that we're opening up this idea

NOTE Confidence: 0.904798997647059

01:08:05.724 --> 01:08:07.902 of not having the radiation after

NOTE Confidence: 0.904798997647059

01:08:07.975 --> 01:08:09.859 lumpectomy to more patients.

NOTE Confidence: 0.904798997647059

01:08:09.860 --> 01:08:12.725 The prime two trial enrolled

NOTE Confidence: 0.904798997647059

01:08:12.725 --> 01:08:14.425 women 65 and older.  
NOTE Confidence: 0.904798997647059

01:08:14.425 --> 01:08:16.675 Although the number of patients aged  
NOTE Confidence: 0.904798997647059

01:08:16.675 --> 01:08:19.523 65 and 66 was quite low on the trial.  
NOTE Confidence: 0.904798997647059

01:08:19.530 --> 01:08:21.567 But 60, but still the upper 60s.  
NOTE Confidence: 0.904798997647059

01:08:21.570 --> 01:08:22.900 Now it's opening for them,  
NOTE Confidence: 0.904798997647059

01:08:22.900 --> 01:08:27.184 and it did allow some larger tumors.  
NOTE Confidence: 0.904798997647059

01:08:27.190 --> 01:08:29.066 Up to three centimeters.  
NOTE Confidence: 0.904798997647059

01:08:29.066 --> 01:08:32.516 They did have their 10 year update  
NOTE Confidence: 0.904798997647059

01:08:32.516 --> 01:08:34.878 recently at I believe it was at Astro  
NOTE Confidence: 0.904798997647059

01:08:34.878 --> 01:08:37.110 last year or San Antonio Breast conference.  
NOTE Confidence: 0.904798997647059

01:08:37.110 --> 01:08:37.894 I forget,  
NOTE Confidence: 0.904798997647059

01:08:37.894 --> 01:08:40.638 but the they have not published the  
NOTE Confidence: 0.904798997647059

01:08:40.638 --> 01:08:43.639 peer reviewed paper yet and we like to  
NOTE Confidence: 0.904798997647059

01:08:43.639 --> 01:08:46.916 wait for the paper rather than just the.  
NOTE Confidence: 0.904798997647059

01:08:46.920 --> 01:08:50.188 Presentation at the conference.  
NOTE Confidence: 0.904798997647059

01:08:50.190 --> 01:08:52.760 Doctor Berger talked about omitting

NOTE Confidence: 0.904798997647059  
01:08:52.760 --> 01:08:55.330 radiation in ductal carcinoma insight.  
NOTE Confidence: 0.904798997647059  
01:08:55.330 --> 01:08:58.186 Two, so we are at Yale.  
NOTE Confidence: 0.904798997647059  
01:08:58.190 --> 01:09:00.409 We have the comic trial that's open.  
NOTE Confidence: 0.904798997647059  
01:09:00.410 --> 01:09:02.522 Our principal investigators,  
NOTE Confidence: 0.904798997647059  
01:09:02.522 --> 01:09:03.930 Dr Golshan,  
NOTE Confidence: 0.904798997647059  
01:09:03.930 --> 01:09:06.478 but it is looking now at withholding  
NOTE Confidence: 0.904798997647059  
01:09:06.478 --> 01:09:09.327 even surgery in grade one and grade two.  
NOTE Confidence: 0.904798997647059  
01:09:09.330 --> 01:09:10.662 Ductal carcinoma insight do.  
NOTE Confidence: 0.904798997647059  
01:09:10.662 --> 01:09:11.328 And therefore,  
NOTE Confidence: 0.904798997647059  
01:09:11.330 --> 01:09:12.770 if these patients don't have surgery,  
NOTE Confidence: 0.904798997647059  
01:09:12.770 --> 01:09:14.989 they're not going to be having radiation.  
NOTE Confidence: 0.890885084  
01:09:14.990 --> 01:09:16.934 Lord is the same trial open  
NOTE Confidence: 0.890885084  
01:09:16.934 --> 01:09:18.865 over in Europe and there's  
NOTE Confidence: 0.890885084  
01:09:18.865 --> 01:09:21.117 actually 4 international trials.  
NOTE Confidence: 0.890885084  
01:09:21.120 --> 01:09:22.510 Comet Lord and two others  
NOTE Confidence: 0.890885084

01:09:22.510 --> 01:09:23.900 whose names are escaping me,  
NOTE Confidence: 0.890885084

01:09:23.900 --> 01:09:25.895 but I do know that the principal  
NOTE Confidence: 0.890885084

01:09:25.895 --> 01:09:28.050 investigators on all of them meet regularly,  
NOTE Confidence: 0.890885084

01:09:28.050 --> 01:09:29.499 and they're going to share their data,  
NOTE Confidence: 0.890885084

01:09:29.500 --> 01:09:31.845 which is going to give us a  
NOTE Confidence: 0.890885084

01:09:31.845 --> 01:09:33.950 lot of great information.  
NOTE Confidence: 0.890885084

01:09:33.950 --> 01:09:36.092 And so we're really looking at  
NOTE Confidence: 0.890885084

01:09:36.092 --> 01:09:37.985 can screen detected low risk  
NOTE Confidence: 0.890885084

01:09:37.985 --> 01:09:39.970 DCIS that's found on mammogram?  
NOTE Confidence: 0.890885084

01:09:39.970 --> 01:09:42.280 No symptoms with presentation like no  
NOTE Confidence: 0.890885084

01:09:42.280 --> 01:09:44.010 bloody \*\*\*\*\* discharge or anything and  
NOTE Confidence: 0.890885084

01:09:44.010 --> 01:09:46.370 if it has to be grade one or grade two,  
NOTE Confidence: 0.890885084

01:09:46.370 --> 01:09:49.737 can it be managed successfully with just  
NOTE Confidence: 0.890885084

01:09:49.737 --> 01:09:52.090 active surveillance and no surgery?  
NOTE Confidence: 0.890885084

01:09:52.090 --> 01:09:54.802 Uhm, that's the end of my talk and  
NOTE Confidence: 0.890885084

01:09:54.802 --> 01:09:57.418 I'm happy to answer any questions.

NOTE Confidence: 0.890885084

01:09:57.420 --> 01:10:00.021 And I'm sorry that we went over from the

NOTE Confidence: 0.890885084

01:10:00.021 --> 01:10:02.840 8:00 o'clock bravo that was wonderful.

NOTE Confidence: 0.890885084

01:10:02.840 --> 01:10:03.410 Thanks.

NOTE Confidence: 0.8906403575

01:10:03.500 --> 01:10:06.708 There are a bunch of questions for you.

NOTE Confidence: 0.8906403575

01:10:06.710 --> 01:10:09.190 The first question is about

NOTE Confidence: 0.8906403575

01:10:09.190 --> 01:10:12.280 having a lumpectomy back in

NOTE Confidence: 0.8906403575

01:10:12.280 --> 01:10:15.480 2009 with mammosite radiation.

NOTE Confidence: 0.8906403575

01:10:15.480 --> 01:10:18.294 And Mammosite isn't currently used as much,

NOTE Confidence: 0.8906403575

01:10:18.300 --> 01:10:20.904 and the long, long term safety

NOTE Confidence: 0.8906403575

01:10:20.904 --> 01:10:22.970 of mammosite still good is.

NOTE Confidence: 0.8906403575

01:10:22.970 --> 01:10:23.930 The date is still good.

NOTE Confidence: 0.8906403575

01:10:23.930 --> 01:10:25.916 And why isn't mammosite used anymore?

NOTE Confidence: 0.827645566

01:10:26.270 --> 01:10:29.260 OK, that's a great question.

NOTE Confidence: 0.827645566

01:10:29.260 --> 01:10:31.690 Well, so one of the reasons that we were the

NOTE Confidence: 0.827645566

01:10:31.745 --> 01:10:34.007 mammoth site is perfectly fine treatment,

NOTE Confidence: 0.827645566

01:10:34.010 --> 01:10:36.866 especially for well chosen patients in.  
NOTE Confidence: 0.827645566

01:10:36.870 --> 01:10:38.815 The suitable category for for  
NOTE Confidence: 0.827645566

01:10:38.815 --> 01:10:40.760 what we call partial breast,  
NOTE Confidence: 0.827645566

01:10:40.760 --> 01:10:43.088 where we treat just where the tumor was.  
NOTE Confidence: 0.827645566

01:10:43.090 --> 01:10:45.496 And that's patience with the lower  
NOTE Confidence: 0.827645566

01:10:45.496 --> 01:10:48.089 grade small or earlier stage cancer.  
NOTE Confidence: 0.827645566

01:10:48.090 --> 01:10:49.955 You know, no nodal involvement  
NOTE Confidence: 0.827645566

01:10:49.955 --> 01:10:51.447 and actually the outcomes,  
NOTE Confidence: 0.827645566

01:10:51.450 --> 01:10:54.432 as far as recurrence and control  
NOTE Confidence: 0.827645566

01:10:54.432 --> 01:10:57.979 of the cancer they have done well.  
NOTE Confidence: 0.827645566

01:10:57.980 --> 01:10:59.288 So why do we stop them?  
NOTE Confidence: 0.827645566

01:10:59.290 --> 01:10:59.568 Amosite?  
NOTE Confidence: 0.827645566

01:10:59.568 --> 01:11:02.070 Well, it is a bit of an invasive procedure.  
NOTE Confidence: 0.827645566

01:11:02.070 --> 01:11:03.406 For those of you who don't know it,  
NOTE Confidence: 0.827645566

01:11:03.410 --> 01:11:05.274 it has a device.  
NOTE Confidence: 0.827645566

01:11:05.274 --> 01:11:08.540 A balloon device that sits within the.

NOTE Confidence: 0.827645566

01:11:08.540 --> 01:11:11.364 Tumor bed and you have a lumen that

NOTE Confidence: 0.827645566

01:11:11.364 --> 01:11:14.096 escapes from the body and it's so it's

NOTE Confidence: 0.827645566

01:11:14.096 --> 01:11:16.551 so nor attached in and the patient

NOTE Confidence: 0.827645566

01:11:16.551 --> 01:11:19.078 has that device in her breast for

NOTE Confidence: 0.827645566

01:11:19.080 --> 01:11:21.621 a week while she gets twice daily

NOTE Confidence: 0.827645566

01:11:21.621 --> 01:11:23.427 radiation therapy for Monday through

NOTE Confidence: 0.827645566

01:11:23.427 --> 01:11:26.011 Friday or for five days so well as

NOTE Confidence: 0.827645566

01:11:26.086 --> 01:11:28.726 convenient that it was done with a week.

NOTE Confidence: 0.827645566

01:11:28.730 --> 01:11:30.458 But it does have that invasive

NOTE Confidence: 0.827645566

01:11:30.458 --> 01:11:31.935 component of having a foreign

NOTE Confidence: 0.827645566

01:11:31.935 --> 01:11:33.549 body in the in the breast,

NOTE Confidence: 0.827645566

01:11:33.550 --> 01:11:35.937 which can be uncomfortable for some people,

NOTE Confidence: 0.827645566

01:11:35.940 --> 01:11:38.887 but the what was really the problem.

NOTE Confidence: 0.827645566

01:11:38.890 --> 01:11:41.440 Was that the cosmetic outcome

NOTE Confidence: 0.827645566

01:11:41.440 --> 01:11:43.990 was not so hot patients.

NOTE Confidence: 0.827645566

01:11:43.990 --> 01:11:45.850 Some trials have not shown this,  
NOTE Confidence: 0.827645566

01:11:45.850 --> 01:11:48.892 but others have shown that there  
NOTE Confidence: 0.827645566

01:11:48.892 --> 01:11:51.305 is more fibrosis in the breast,  
NOTE Confidence: 0.827645566

01:11:51.305 --> 01:11:53.075 meaning firm tissue after the treatment.  
NOTE Confidence: 0.827645566

01:11:53.080 --> 01:11:56.105 Sometimes that can be uncomfortable  
NOTE Confidence: 0.827645566

01:11:56.105 --> 01:11:57.315 for patients.  
NOTE Confidence: 0.827645566

01:11:57.320 --> 01:11:59.170 The appearance of the breast  
NOTE Confidence: 0.827645566

01:11:59.170 --> 01:12:02.370 was not as good and now that we  
NOTE Confidence: 0.827645566

01:12:02.370 --> 01:12:04.490 have are embracing these shorter  
NOTE Confidence: 0.827645566

01:12:04.490 --> 01:12:07.189 courses of treatment for patients.  
NOTE Confidence: 0.827645566

01:12:07.190 --> 01:12:09.864 That don't would they don't require having  
NOTE Confidence: 0.827645566

01:12:09.864 --> 01:12:11.928 a something invasive in the breast.  
NOTE Confidence: 0.827645566

01:12:11.930 --> 01:12:13.670 We stopped offering the mammoth site  
NOTE Confidence: 0.827645566

01:12:13.670 --> 01:12:16.032 at at Yale because of that because we  
NOTE Confidence: 0.827645566

01:12:16.032 --> 01:12:17.742 were able to offer patients shorter  
NOTE Confidence: 0.827645566

01:12:17.801 --> 01:12:19.966 course treatments without requiring that.

NOTE Confidence: 0.827645566

01:12:19.970 --> 01:12:22.958 But as far as cancer recurrence,

NOTE Confidence: 0.827645566

01:12:22.960 --> 01:12:24.868 the data is still excellent for

NOTE Confidence: 0.827645566

01:12:24.868 --> 01:12:25.822 well chosen patients,

NOTE Confidence: 0.827645566

01:12:25.830 --> 01:12:26.926 and I think I did see that you

NOTE Confidence: 0.827645566

01:12:26.926 --> 01:12:27.889 had a doctor carcinoma.

NOTE Confidence: 0.827645566

01:12:27.890 --> 01:12:30.634 Insight two in the in the questions,

NOTE Confidence: 0.827645566

01:12:30.640 --> 01:12:32.826 and so I would not. That should not.

NOTE Confidence: 0.827645566

01:12:32.826 --> 01:12:34.170 That is not why we stopped it.

NOTE Confidence: 0.827645566

01:12:34.170 --> 01:12:35.952 We did not stop it because

NOTE Confidence: 0.827645566

01:12:35.952 --> 01:12:37.140 of concerns about recurrence.

NOTE Confidence: 0.927805015555556

01:12:37.750 --> 01:12:39.615 OK, and then there's another

NOTE Confidence: 0.927805015555556

01:12:39.615 --> 01:12:41.107 question about side effects.

NOTE Confidence: 0.927805015555556

01:12:41.110 --> 01:12:45.090 First, what are the side effects

NOTE Confidence: 0.927805015555556

01:12:45.090 --> 01:12:47.365 associated with the fast treatment

NOTE Confidence: 0.927805015555556

01:12:47.365 --> 01:12:50.856 and is how does it compare to regular

NOTE Confidence: 0.927805015555556

01:12:50.856 --> 01:12:53.609 radiation and then Part B is with?  
NOTE Confidence: 0.927805015555556

01:12:53.610 --> 01:12:55.248 How can you avoid the fight?  
NOTE Confidence: 0.927805015555556

01:12:55.250 --> 01:12:58.148 This side effect of a radiation burn?  
NOTE Confidence: 0.927805015555556

01:12:58.150 --> 01:12:59.370 You know these significant  
NOTE Confidence: 0.927805015555556

01:12:59.370 --> 01:13:00.895 changes to the soft tissue,  
NOTE Confidence: 0.835214823529412

01:13:02.080 --> 01:13:05.347 so it is true that the shorter course is  
NOTE Confidence: 0.835214823529412

01:13:05.347 --> 01:13:08.765 the three to four weeks while it wasn't.  
NOTE Confidence: 0.835214823529412

01:13:08.770 --> 01:13:11.002 On those larger trials, showing a  
NOTE Confidence: 0.835214823529412

01:13:11.002 --> 01:13:13.090 significant decrease in skin toxicity,  
NOTE Confidence: 0.835214823529412

01:13:13.090 --> 01:13:14.656 smaller trials have shown have shown  
NOTE Confidence: 0.835214823529412

01:13:14.656 --> 01:13:16.287 that there is less toxicity with  
NOTE Confidence: 0.835214823529412

01:13:16.287 --> 01:13:17.907 the shorter course going from three  
NOTE Confidence: 0.835214823529412

01:13:17.907 --> 01:13:19.777 to four weeks from the five to six,  
NOTE Confidence: 0.835214823529412

01:13:19.780 --> 01:13:22.294 and subsequently as well the fast  
NOTE Confidence: 0.835214823529412

01:13:22.294 --> 01:13:25.650 to the once a week for five weeks.  
NOTE Confidence: 0.835214823529412

01:13:25.650 --> 01:13:28.110 The data showed no significant difference.

NOTE Confidence: 0.835214823529412  
01:13:28.110 --> 01:13:30.960 However, I will the patients that  
NOTE Confidence: 0.835214823529412  
01:13:30.960 --> 01:13:34.367 we observe they do tend to have  
NOTE Confidence: 0.835214823529412  
01:13:34.367 --> 01:13:36.247 less side effects than.  
NOTE Confidence: 0.835214823529412  
01:13:36.250 --> 01:13:37.490 Than acute side effects,  
NOTE Confidence: 0.835214823529412  
01:13:37.490 --> 01:13:39.350 IE skin reaction then people that  
NOTE Confidence: 0.835214823529412  
01:13:39.408 --> 01:13:41.334 are undergoing the longer course of  
NOTE Confidence: 0.835214823529412  
01:13:41.334 --> 01:13:43.475 treatment just from what I see them  
NOTE Confidence: 0.835214823529412  
01:13:43.475 --> 01:13:45.077 during their weekly skin checks and  
NOTE Confidence: 0.835214823529412  
01:13:45.077 --> 01:13:46.666 see them for their follow up with me.  
NOTE Confidence: 0.835214823529412  
01:13:46.670 --> 01:13:48.360 You know, two months afterwards.  
NOTE Confidence: 0.835214823529412  
01:13:48.360 --> 01:13:49.686 I know we're not supposed to  
NOTE Confidence: 0.835214823529412  
01:13:49.686 --> 01:13:50.830 use what observation ULL data,  
NOTE Confidence: 0.835214823529412  
01:13:50.830 --> 01:13:51.954 but we've seen it,  
NOTE Confidence: 0.835214823529412  
01:13:51.954 --> 01:13:54.634 but so I would say that that we are  
NOTE Confidence: 0.835214823529412  
01:13:54.634 --> 01:13:56.950 seeing less less skin toxicity with  
NOTE Confidence: 0.835214823529412

01:13:56.950 --> 01:13:59.500 the shorter courses and so with  
NOTE Confidence: 0.835214823529412

01:13:59.586 --> 01:14:02.112 the fast having the least amount  
NOTE Confidence: 0.835214823529412

01:14:02.112 --> 01:14:04.859 of skin toxicity to prevent it.  
NOTE Confidence: 0.835214823529412

01:14:04.859 --> 01:14:06.338 Well, we prescribe.  
NOTE Confidence: 0.835214823529412

01:14:06.340 --> 01:14:08.700 A steroid cream called mometasone.  
NOTE Confidence: 0.835214823529412

01:14:08.700 --> 01:14:10.020 There's nothing to prevent it.  
NOTE Confidence: 0.835214823529412

01:14:10.020 --> 01:14:12.975 Everybody gets some skin irritation  
NOTE Confidence: 0.835214823529412

01:14:12.975 --> 01:14:14.748 to some degree.  
NOTE Confidence: 0.835214823529412

01:14:14.750 --> 01:14:16.955 What we can do in the planning and limit  
NOTE Confidence: 0.835214823529412

01:14:16.955 --> 01:14:18.806 those hotspots as much as possible,  
NOTE Confidence: 0.835214823529412

01:14:18.810 --> 01:14:20.434 which we talked about a little bit,  
NOTE Confidence: 0.835214823529412

01:14:20.440 --> 01:14:22.546 but then we do prescribe a  
NOTE Confidence: 0.835214823529412

01:14:22.546 --> 01:14:23.950 steroid cream called mometasone.  
NOTE Confidence: 0.835214823529412

01:14:23.950 --> 01:14:26.148 There was a well done randomized trial  
NOTE Confidence: 0.835214823529412

01:14:26.148 --> 01:14:28.070 looking at patients using mometasone.  
NOTE Confidence: 0.835214823529412

01:14:28.070 --> 01:14:30.422 This steroid cream once a day Monday

NOTE Confidence: 0.835214823529412  
01:14:30.422 --> 01:14:32.502 through Friday and the weekends for one  
NOTE Confidence: 0.835214823529412  
01:14:32.502 --> 01:14:35.109 and up to one to two weeks afterwards.  
NOTE Confidence: 0.835214823529412  
01:14:35.110 --> 01:14:37.000 It actually had no negative side  
NOTE Confidence: 0.835214823529412  
01:14:37.000 --> 01:14:38.979 effects on the trial that showed  
NOTE Confidence: 0.835214823529412  
01:14:38.980 --> 01:14:41.190 reduction in acute skin toxicity.  
NOTE Confidence: 0.835214823529412  
01:14:41.190 --> 01:14:42.534 It doesn't mean it made it zero,  
NOTE Confidence: 0.835214823529412  
01:14:42.540 --> 01:14:43.928 it was just reduction.  
NOTE Confidence: 0.835214823529412  
01:14:43.928 --> 01:14:45.548 But you know, everyone's.  
NOTE Confidence: 0.835214823529412  
01:14:45.548 --> 01:14:48.438 Different, their skin is different.  
NOTE Confidence: 0.835214823529412  
01:14:48.440 --> 01:14:50.498 But we we also provide a  
NOTE Confidence: 0.835214823529412  
01:14:50.498 --> 01:14:51.870 high quality moisture lotion.  
NOTE Confidence: 0.835214823529412  
01:14:51.870 --> 01:14:53.196 You don't have to use ours,  
NOTE Confidence: 0.835214823529412  
01:14:53.200 --> 01:14:55.468 we just like stuff that doesn't have  
NOTE Confidence: 0.835214823529412  
01:14:55.468 --> 01:14:59.015 a lot of scent or is it heavy on  
NOTE Confidence: 0.835214823529412  
01:14:59.015 --> 01:15:00.683 the antioxidants during treatment?  
NOTE Confidence: 0.835214823529412

01:15:00.690 --> 01:15:03.720 Uhm and then drinking water and  
NOTE Confidence: 0.835214823529412

01:15:03.720 --> 01:15:06.258 eating protein and allowing yourself  
NOTE Confidence: 0.835214823529412

01:15:06.258 --> 01:15:09.040 to rest and giving it time.  
NOTE Confidence: 0.894014022727273

01:15:12.630 --> 01:15:14.286 Great thank you.  
NOTE Confidence: 0.894014022727273

01:15:14.286 --> 01:15:16.494 Any other comments from  
NOTE Confidence: 0.894014022727273

01:15:16.494 --> 01:15:21.090 anybody on the panel? Uhm?  
NOTE Confidence: 0.894014022727273

01:15:21.090 --> 01:15:22.329 Doctor Berger's answer  
NOTE Confidence: 0.894014022727273

01:15:22.329 --> 01:15:23.568 on active surveillance,  
NOTE Confidence: 0.894014022727273

01:15:23.570 --> 01:15:26.447 which is also a hot topic too.  
NOTE Confidence: 0.804425374285714

01:15:27.330 --> 01:15:29.472 I don't think it went to Barbara, so I'll  
NOTE Confidence: 0.804425374285714

01:15:29.472 --> 01:15:32.190 send it to the person who asked, sorry.  
NOTE Confidence: 0.920675645

01:15:33.910 --> 01:15:36.276 Alright, well thank you so much and  
NOTE Confidence: 0.920675645

01:15:36.276 --> 01:15:38.566 thank you for everyone who joined  
NOTE Confidence: 0.920675645

01:15:38.566 --> 01:15:40.966 us tonight for this really great  
NOTE Confidence: 0.920675645

01:15:40.966 --> 01:15:43.557 forum and we're just so excited to  
NOTE Confidence: 0.920675645

01:15:43.557 --> 01:15:45.316 have such talented and dedicated

NOTE Confidence: 0.920675645

01:15:45.316 --> 01:15:47.738 physicians in all of our care centers.

NOTE Confidence: 0.920675645

01:15:47.740 --> 01:15:50.596 So thank you again for all of your

NOTE Confidence: 0.920675645

01:15:50.596 --> 01:15:53.300 leadership and have a good night. Thank you.

NOTE Confidence: 0.944942965

01:15:54.410 --> 01:15:55.420 Thanks everyone.