WEBVTT

NOTE duration: "01:24:16"

NOTE language:en-us

NOTE Confidence: 0.8106434

00:00:00.000 --> 00:00:02.338 My name is metrical Shannon and welcome

NOTE Confidence: 0.8106434

 $00:00:02.338 \longrightarrow 00:00:05.272$  to the Yale Cancer Center Smilow Cancer

NOTE Confidence: 0.8106434

00:00:05.272 --> 00:00:08.062 Hospital breast Program CME lecture series.

NOTE Confidence: 0.8106434

 $00{:}00{:}08.070 \dashrightarrow 00{:}00{:}10.821$  We're going to wait a few minutes

NOTE Confidence: 0.8106434

 $00:00:10.821 \longrightarrow 00:00:13.978$  to have allow people to log in and

NOTE Confidence: 0.8106434

 $00:00:13.978 \longrightarrow 00:00:17.290$  hopefully right at 12 or 1201 will start.

NOTE Confidence: 0.8106434

 $00:00:17.290 \longrightarrow 00:00:19.696$  I'll be introducing Doctor Elizabeth Berger,

NOTE Confidence: 0.8106434

 $00:00:19.700 \longrightarrow 00:00:21.304$  Doctor Melanie Lynch and

NOTE Confidence: 0.8106434

00:00:21.304 --> 00:00:22.507 Doctor Rachel Greenup.

NOTE Confidence: 0.8106434

 $00:00:22.510 \longrightarrow 00:00:25.618$  The format will be that they will

NOTE Confidence: 0.8106434

 $00:00:25.618 \longrightarrow 00:00:28.943$  be giving them three talks in a row

NOTE Confidence: 0.8106434

 $00{:}00{:}28.943 \dashrightarrow 00{:}00{:}31.822$  and please put in as many questions

NOTE Confidence: 0.8106434

 $00:00:31.822 \longrightarrow 00:00:34.916$  as you like in the chat box.

NOTE Confidence: 0.8106434

 $00:00:34.920 \longrightarrow 00:00:37.528$  And we will do our best to have

 $00{:}00{:}37.528 \dashrightarrow 00{:}00{:}39.597$  an interactive session at the end,

NOTE Confidence: 0.8106434

 $00:00:39.600 \longrightarrow 00:00:41.230$  answering those questions and we

NOTE Confidence: 0.8106434

00:00:41.230 --> 00:00:42.860 really look forward to hearing

NOTE Confidence: 0.8106434

 $00:00:42.921 \longrightarrow 00:00:44.269$  your perspectives as well.

NOTE Confidence: 0.7752498

00:02:43.170 --> 00:02:45.026 So, uh, good afternoon,

NOTE Confidence: 0.7752498

00:02:45.026 --> 00:02:47.346 my name is Macrogol Shannon.

NOTE Confidence: 0.7752498

00:02:47.350 --> 00:02:50.128 Welcome to the Yale Cancer Center,

NOTE Confidence: 0.7752498

 $00:02:50.130 \longrightarrow 00:02:52.954$  Smilow Cancer Hospital breast

NOTE Confidence: 0.7752498

00:02:52.954 --> 00:02:55.778 program CME lecture series.

NOTE Confidence: 0.7752498

 $00:02:55.780 \longrightarrow 00:02:57.532$  Hopefully people will be

NOTE Confidence: 0.7752498

 $00{:}02{:}57.532 \dashrightarrow 00{:}02{:}59.284$  continuing to log in.

NOTE Confidence: 0.7752498

 $00{:}02{:}59.290 \dashrightarrow 00{:}03{:}02.098$  We really appreciate those of our

NOTE Confidence: 0.7752498

 $00{:}03{:}02.098 \to 00{:}03{:}04.560$  colleagues here in Connecticut and it.

NOTE Confidence: 0.7752498

00:03:04.560 --> 00:03:06.312 Yeah, and especially our

NOTE Confidence: 0.7752498

 $00:03:06.312 \longrightarrow 00:03:08.064$  counterparts around the world.

00:03:08.070 --> 00:03:11.574 I see my colleagues from China from Japan,

NOTE Confidence: 0.7752498

 $00{:}03{:}11.580 \dashrightarrow 00{:}03{:}15.100$  Turkey, South Korea and other places as well.

NOTE Confidence: 0.7752498

00:03:15.100 --> 00:03:17.991 So welcome, we're going to have three

NOTE Confidence: 0.7752498

 $00:03:17.991 \longrightarrow 00:03:20.360$  fantastic lectures of this afternoon.

NOTE Confidence: 0.7752498

00:03:20.360 --> 00:03:23.000 We'll start with Doctor Elizabeth Berger,

NOTE Confidence: 0.7752498

00:03:23.000 --> 00:03:25.880 who's assistant professor of surgery.

NOTE Confidence: 0.7752498

 $00:03:25.880 \longrightarrow 00:03:28.046$  Here at the Yale Cancer Center,

NOTE Confidence: 0.7752498

 $00:03:28.050 \longrightarrow 00:03:30.030$  Yale Department of Surgery discussing

NOTE Confidence: 0.7752498

 $00{:}03{:}30.030 \to 00{:}03{:}32.371$  updates and surgical management of our

NOTE Confidence: 0.7752498

 $00:03:32.371 \longrightarrow 00:03:34.207$  best of our breast cancer patients.

NOTE Confidence: 0.7752498

 $00:03:34.210 \longrightarrow 00:03:36.015$  Then it will be followed

NOTE Confidence: 0.7752498

00:03:36.015 --> 00:03:37.459 by Doctor Melanie Lynch,

NOTE Confidence: 0.7752498

 $00:03:37.460 \longrightarrow 00:03:39.964$  who is the director of Our Breast program

NOTE Confidence: 0.7752498

 $00:03:39.964 \longrightarrow 00:03:42.527$  and breast Surgery at Bridgeport Hospital.

NOTE Confidence: 0.7752498

 $00:03:42.530 \longrightarrow 00:03:43.974$  Talking about Uncle plastic

NOTE Confidence: 0.7752498

 $00:03:43.974 \longrightarrow 00:03:44.696$  breast conservation,

00:03:44.700 --> 00:03:45.690 an finally least,

NOTE Confidence: 0.7752498

 $00:03:45.690 \longrightarrow 00:03:48.000$  but not finally at last but not

NOTE Confidence: 0.7752498

00:03:48.072 --> 00:03:50.496 least will be Doctor Rachel Greenup,

NOTE Confidence: 0.7752498

00:03:50.500 --> 00:03:52.666 our section Chief for El surgery,

NOTE Confidence: 0.7752498

 $00:03:52.670 \longrightarrow 00:03:54.725$  discussing young women with breast

NOTE Confidence: 0.7752498

00:03:54.725 --> 00:03:55.958 cancer surgical perspective.

NOTE Confidence: 0.7752498

 $00:03:55.960 \longrightarrow 00:03:58.095$  Please put in as many questions as

NOTE Confidence: 0.7752498

 $00{:}03{:}58.095 \dashrightarrow 00{:}04{:}00{.}344$  you like into the chat box will do

NOTE Confidence: 0.7752498

 $00:04:00.344 \longrightarrow 00:04:02.862$  our best at the end to go through

NOTE Confidence: 0.7752498

 $00:04:02.862 \longrightarrow 00:04:05.226$  your questions and hopefully have an

NOTE Confidence: 0.7752498

 $00:04:05.226 \longrightarrow 00:04:07.230$  interactive dialogue as much as possible.

NOTE Confidence: 0.7752498

 $00:04:07.230 \longrightarrow 00:04:09.390$  The nice thing is that this is going

NOTE Confidence: 0.7752498

 $00{:}04{:}09.390 \dashrightarrow 00{:}04{:}12.113$  to be recorded so you can go back and

NOTE Confidence: 0.7752498

 $00:04:12.113 \longrightarrow 00:04:14.230$  watch or listen or certainly forward

NOTE Confidence: 0.7752498

 $00:04:14.230 \longrightarrow 00:04:16.890$  it to colleagues and friends or around

 $00:04:16.890 \longrightarrow 00:04:18.816$  the country and around the world.

NOTE Confidence: 0.7752498

 $00{:}04{:}18.820 \dashrightarrow 00{:}04{:}22.040$  And this is the first of a three part series.

NOTE Confidence: 0.7752498

 $00:04:22.040 \longrightarrow 00:04:25.470$  Our next one will be May 27th.

NOTE Confidence: 0.7752498

 $00:04:25.470 \longrightarrow 00:04:27.684$  Will have Doctor Maryam Lustberg who's

NOTE Confidence: 0.7752498

00:04:27.684 --> 00:04:29.730 our incoming breast program director,

NOTE Confidence: 0.7752498

 $00:04:29.730 \longrightarrow 00:04:31.980$  speak along with Doctor Michael D

NOTE Confidence: 0.7752498

 $00{:}04{:}31.980 \dashrightarrow 00{:}04{:}33.980$  Geovanna and Doctor Andrew Silver,

NOTE Confidence: 0.7752498

 $00:04:33.980 \longrightarrow 00:04:35.920$  so with no further ado,

NOTE Confidence: 0.7752498

 $00{:}04{:}35.920 \dashrightarrow 00{:}04{:}38.629$  Doctor Elizabeth Berger, the podium is yours.

NOTE Confidence: 0.86935335

 $00:04:39.300 \longrightarrow 00:04:40.596$  Thank you Doctor Wilson

NOTE Confidence: 0.86935335

 $00:04:40.596 \longrightarrow 00:04:41.568$  for that introduction.

NOTE Confidence: 0.7862617

 $00:04:51.400 \longrightarrow 00:04:52.764$  Good morning I guess.

NOTE Confidence: 0.7862617

 $00:04:52.764 \longrightarrow 00:04:53.787$  Not good morning.

NOTE Confidence: 0.7862617

 $00{:}04{:}53.790 \dashrightarrow 00{:}04{:}54.918$  Good afternoon everyone.

NOTE Confidence: 0.7862617

 $00:04:54.918 \longrightarrow 00:04:57.550$  My name is Elizabeth as Doctor Wilson

NOTE Confidence: 0.7862617

 $00:04:57.613 \longrightarrow 00:04:59.647$  mentioned and I'm a new assistant

 $00:04:59.647 \longrightarrow 00:05:01.649$  professor here at Yale and hopefully

NOTE Confidence: 0.7862617

 $00:05:01.649 \longrightarrow 00:05:03.672$  in the next 15 to 20 minutes.

NOTE Confidence: 0.7862617

 $00:05:03.680 \longrightarrow 00:05:05.970$  I'll be just reviewing some

NOTE Confidence: 0.7862617

 $00:05:05.970 \longrightarrow 00:05:08.260$  updates and breast cancer surgery.

NOTE Confidence: 0.7862617

 $00:05:08.260 \longrightarrow 00:05:09.870$  In kind of the 21st,

NOTE Confidence: 0.7862617

 $00{:}05{:}09.870 \dashrightarrow 00{:}05{:}12.446$  if not the most recent five year history,

NOTE Confidence: 0.7862617

 $00:05:12.450 \longrightarrow 00:05:15.597$  so I'm sure a lot of you have seen this meme

NOTE Confidence: 0.7862617

 $00{:}05{:}15.597 \dashrightarrow 00{:}05{:}18.557$  on Twitter or other places in the Internet.

NOTE Confidence: 0.7862617

 $00:05:18.560 \longrightarrow 00:05:20.835$  Now, where, how has it started and

NOTE Confidence: 0.7862617

 $00:05:20.835 \longrightarrow 00:05:23.068$  where how's it going so you know,

NOTE Confidence: 0.7862617

 $00:05:23.070 \longrightarrow 00:05:25.743$  I'm sure we all know it started back with

NOTE Confidence: 0.7862617

00:05:25.743 --> 00:05:28.216 really William Halsted in the late 1800s,

NOTE Confidence: 0.7862617

 $00:05:28.220 \longrightarrow 00:05:29.830$  thinking that breast cancer was,

NOTE Confidence: 0.7862617

 $00:05:29.830 \longrightarrow 00:05:30.474$  you know,

NOTE Confidence: 0.7862617

 $00:05:30.474 \longrightarrow 00:05:32.084$  kind of locally advanced disease,

 $00:05:32.090 \longrightarrow 00:05:33.700$  and so the whole side,

NOTE Confidence: 0.7862617

 $00{:}05{:}33.700 \dashrightarrow 00{:}05{:}35.812$  mastectomy became kind of a routine

NOTE Confidence: 0.7862617

 $00:05:35.812 \longrightarrow 00:05:37.844$  operation for women where there was

NOTE Confidence: 0.7862617

 $00:05:37.844 \longrightarrow 00:05:39.818$  a removal of the PEC major muscle,

NOTE Confidence: 0.7862617

 $00:05:39.820 \longrightarrow 00:05:41.260$  the PEC minor muscle.

NOTE Confidence: 0.7862617

00:05:41.260 --> 00:05:44.105 Breast, all the lymph nodes and in fact,

NOTE Confidence: 0.7862617

00:05:44.110 --> 00:05:44.511 Interestingly,

NOTE Confidence: 0.7862617

00:05:44.511 --> 00:05:47.318 the removal of the muscle was felt

NOTE Confidence: 0.7862617

 $00{:}05{:}47.318 \dashrightarrow 00{:}05{:}48.943$  because an atomically it was felt

NOTE Confidence: 0.7862617

 $00:05:48.943 \longrightarrow 00:05:50.707$  that doing a level 1-2 and three

NOTE Confidence: 0.7862617

 $00{:}05{:}50.771 \dashrightarrow 00{:}05{:}52.776$  X axillary lymph node dissection

NOTE Confidence: 0.7862617

 $00:05:52.776 \longrightarrow 00:05:54.380$  was not anatomically feasible

NOTE Confidence: 0.7862617

 $00:05:54.380 \longrightarrow 00:05:55.822$  without removing that muscle.

NOTE Confidence: 0.7862617

 $00:05:55.822 \longrightarrow 00:05:58.230$  We've made a lot of progress since

NOTE Confidence: 0.7862617

 $00:05:58.300 \longrightarrow 00:06:01.108$  then and now we think more about just

NOTE Confidence: 0.7862617

 $00:06:01.108 \dashrightarrow 00:06:02.979$  lumpectomy's saving the breast tissue.

00:06:02.980 --> 00:06:05.820 Not having to do so much axillary surgery.

NOTE Confidence: 0.7862617

 $00:06:05.820 \longrightarrow 00:06:06.532$  Bernie Fisher,

NOTE Confidence: 0.7862617

00:06:06.532 --> 00:06:09.024 one of my favorite quotes from him.

NOTE Confidence: 0.7862617

 $00:06:09.030 \longrightarrow 00:06:12.486$  In God we trust all others must have data.

NOTE Confidence: 0.7862617

 $00:06:12.490 \longrightarrow 00:06:15.234$  It was really revolutionary in our country,

NOTE Confidence: 0.7862617

 $00:06:15.240 \longrightarrow 00:06:17.910$  especially thinking about how we can

NOTE Confidence: 0.7862617

 $00:06:17.910 \longrightarrow 00:06:20.539$  start to deescalate surgical care and

NOTE Confidence: 0.7862617

 $00:06:20.539 \longrightarrow 00:06:23.269$  all care in breast cancer with similar

NOTE Confidence: 0.7862617

 $00:06:23.269 \longrightarrow 00:06:25.510$  oncologic outcomes for our patients.

NOTE Confidence: 0.7862617

 $00:06:25.510 \longrightarrow 00:06:27.850$  So in thinking about the

NOTE Confidence: 0.7862617

 $00:06:27.850 \longrightarrow 00:06:30.190$  dees calation of Breast Cancer Care.

NOTE Confidence: 0.7862617

 $00{:}06{:}30.190 \dashrightarrow 00{:}06{:}32.505$  The Italians very easy were

NOTE Confidence: 0.7862617

 $00{:}06{:}32.505 \dashrightarrow 00{:}06{:}34.357$  instrumental in thinking about

NOTE Confidence: 0.7862617

 $00:06:34.357 \longrightarrow 00:06:36.689$  how we can compare quadrant,

NOTE Confidence: 0.7862617

 $00:06:36.690 \longrightarrow 00:06:39.350$  ectomy and radiation to really

 $00:06:39.350 \longrightarrow 00:06:42.010$  this idea about Halsted mastectomy

NOTE Confidence: 0.7862617

 $00:06:42.092 \longrightarrow 00:06:44.348$  and so they conducted a well

NOTE Confidence: 0.7862617

 $00:06:44.348 \longrightarrow 00:06:46.430$  done study in the 1970s.

NOTE Confidence: 0.7862617

 $00{:}06{:}46.430 \dashrightarrow 00{:}06{:}48.182$ Bernie Fisher in Petsburgh

NOTE Confidence: 0.7862617

00:06:48.182 --> 00:06:50.372 conducted the B6 trial looking

NOTE Confidence: 0.7862617

 $00:06:50.372 \longrightarrow 00:06:52.929$  at the total mastectomy versus.

NOTE Confidence: 0.794793912

 $00:06:55.070 \longrightarrow 00:06:56.327$  Lumpectomy with radiation.

NOTE Confidence: 0.794793912

 $00:06:56.327 \longrightarrow 00:06:58.841$  We then moved into the 1990s

NOTE Confidence: 0.794793912

00:06:58.841 --> 00:07:01.204 where we started thinking about

NOTE Confidence: 0.794793912

 $00:07:01.204 \longrightarrow 00:07:03.072$  deescalation of radiation therapy

NOTE Confidence: 0.794793912

 $00:07:03.072 \longrightarrow 00:07:06.008$  with the CLG trial with Kevin Hughes.

NOTE Confidence: 0.794793912

 $00:07:06.010 \longrightarrow 00:07:09.034$  Then Doctor Giuliano and a lot of

NOTE Confidence: 0.794793912

 $00{:}07{:}09.034 \dashrightarrow 00{:}07{:}11.333$  other people looked at dees calation

NOTE Confidence: 0.794793912

 $00{:}07{:}11.333 \dashrightarrow 00{:}07{:}14.075$  of axillary surgery in the 19

NOTE Confidence: 0.794793912

 $00:07:14.075 \longrightarrow 00:07:16.379$  late 1990s and early 2000s.

NOTE Confidence: 0.794793912

 $00:07:16.380 \longrightarrow 00:07:19.680$  With this 11 trial.

 $00{:}07{:}19.680 --> 00{:}07{:}20.326 \ \mathrm{Moving} \ \mathrm{forward},$ 

NOTE Confidence: 0.794793912

 $00{:}07{:}20.326 \dashrightarrow 00{:}07{:}22.264$  we then thought about maybe there

NOTE Confidence: 0.794793912

 $00:07:22.264 \longrightarrow 00:07:24.080$  are even options to dees calate

NOTE Confidence: 0.794793912

00:07:24.080 --> 00:07:26.306 chemotherapy for some of our patients,

NOTE Confidence: 0.794793912

 $00{:}07{:}26.310 \dashrightarrow 00{:}07{:}29.034$  especially in the ER PR positive

NOTE Confidence: 0.794793912

 $00:07:29.034 \longrightarrow 00:07:31.590$  cohorts with the tailor X trial.

NOTE Confidence: 0.794793912

 $00:07:31.590 \longrightarrow 00:07:34.622$  And now on going even there are multiple

NOTE Confidence: 0.794793912

00:07:34.622 --> 00:07:36.878 trials actually throughout the world,

NOTE Confidence: 0.794793912

 $00{:}07{:}36.880 \dashrightarrow 00{:}07{:}39.634$  the common trials actually in the

NOTE Confidence: 0.794793912

 $00{:}07{:}39.634 \dashrightarrow 00{:}07{:}42.064$  United States looking at dees calation

NOTE Confidence: 0.794793912

 $00:07:42.064 \longrightarrow 00:07:44.120$  of surgery and surveillance

NOTE Confidence: 0.794793912

00:07:44.120 --> 00:07:47.170 only for some subsets of DCIS.

NOTE Confidence: 0.794793912

 $00{:}07{:}47.170 \dashrightarrow 00{:}07{:}49.753$  So we even now are talking about

NOTE Confidence: 0.794793912

 $00:07:49.753 \longrightarrow 00:07:52.280$  maybe we can actually eliminate

NOTE Confidence: 0.794793912

 $00:07:52.280 \longrightarrow 00:07:55.620$  surgery altogether with some patients.

 $00:07:55.620 \longrightarrow 00:07:58.105$  There are ongoing trials looking

NOTE Confidence: 0.794793912

 $00{:}07{:}58.105 \dashrightarrow 00{:}07{:}59.596$  at excellent responders,

NOTE Confidence: 0.794793912

 $00:07:59.600 \longrightarrow 00:08:02.080$  and so these excellent responders

NOTE Confidence: 0.794793912

 $00:08:02.080 \longrightarrow 00:08:04.064$  are considered women who,

NOTE Confidence: 0.794793912

 $00:08:04.070 \longrightarrow 00:08:05.855$  after neoadjuvant chemotherapy,

NOTE Confidence: 0.794793912

 $00{:}08{:}05.855 \dashrightarrow 00{:}08{:}09.425$  no longer have any residual radiologic

NOTE Confidence: 0.794793912

 $00{:}08{:}09.425 \dashrightarrow 00{:}08{:}12.126$  findings of cancer in their breasts.

NOTE Confidence: 0.794793912

00:08:12.130 --> 00:08:14.727 All four actually of these trials are

NOTE Confidence: 0.794793912

 $00{:}08{:}14.727 \dashrightarrow 00{:}08{:}17.380$  three main ones throughout the world.

NOTE Confidence: 0.794793912

00:08:17.380 --> 00:08:17.863 Again,

NOTE Confidence: 0.794793912

00:08:17.863 --> 00:08:21.244 have looked at can we buy Oxy

NOTE Confidence: 0.794793912

 $00:08:21.244 \longrightarrow 00:08:23.470$  these now radiologic?

NOTE Confidence: 0.794793912

 $00{:}08{:}23.470 \dashrightarrow 00{:}08{:}25.300$  Areas where there is no longer

NOTE Confidence: 0.794793912

 $00:08:25.300 \longrightarrow 00:08:26.923$  cancer and maybe even avoid

NOTE Confidence: 0.794793912

00:08:26.923 --> 00:08:28.939 surgery on some of these patients,

NOTE Confidence: 0.794793912

 $00:08:28.940 \longrightarrow 00:08:31.236$  but the data is still pretty raw

 $00:08:31.236 \longrightarrow 00:08:33.309$  considering that in all these trials

NOTE Confidence: 0.794793912

 $00{:}08{:}33.309 \dashrightarrow 00{:}08{:}35.696$  we still found a false negative rates

NOTE Confidence: 0.794793912

 $00:08:35.759 \longrightarrow 00:08:37.747$  very high and the thought is is

NOTE Confidence: 0.794793912

 $00:08:37.747 \longrightarrow 00:08:39.533$  that they did some subgroup analysis

NOTE Confidence: 0.794793912

 $00:08:39.533 \longrightarrow 00:08:41.399$  and felt that the false negative

NOTE Confidence: 0.794793912

 $00:08:41.399 \longrightarrow 00:08:43.403$  rate was lowest amongst her two

NOTE Confidence: 0.794793912

 $00:08:43.403 \longrightarrow 00:08:45.038$  positive in triple negative disease.

NOTE Confidence: 0.794793912

00:08:45.040 --> 00:08:45.394 However,

NOTE Confidence: 0.794793912

00:08:45.394 --> 00:08:47.872 these are really the highest group risk

NOTE Confidence: 0.794793912

 $00{:}08{:}47.872 \dashrightarrow 00{:}08{:}50.086$  patients as we know to miss disease

NOTE Confidence: 0.794793912

00:08:50.086 --> 00:08:51.909 because of the ongoing or because

NOTE Confidence: 0.794793912

 $00{:}08{:}51.909 \dashrightarrow 00{:}08{:}54.128$  of the trials that we've looked at.

NOTE Confidence: 0.794793912

 $00{:}08{:}54.130 \dashrightarrow 00{:}08{:}56.566$  With the addition of TDM wan an capeside,

NOTE Confidence: 0.794793912

 $00:08:56.570 \longrightarrow 00:08:58.994$  it being the agent setting for her two

NOTE Confidence: 0.794793912

 $00:08:58.994 \longrightarrow 00:09:00.839$  positive season triple negative that

 $00:09:00.839 \longrightarrow 00:09:03.197$  improve overall and disease free survival.

NOTE Confidence: 0.794793912

 $00{:}09{:}03.200 \dashrightarrow 00{:}09{:}05.568$  So although we might get to a point

NOTE Confidence: 0.794793912

 $00:09:05.568 \longrightarrow 00:09:07.848$  where if we have excellent responders

NOTE Confidence: 0.794793912

 $00:09:07.848 \dashrightarrow 00:09:10.879$  and not have to perform surgery on them,

NOTE Confidence: 0.794793912

 $00:09:10.880 \longrightarrow 00:09:13.250$  I think that's still a

NOTE Confidence: 0.794793912

 $00:09:13.250 \longrightarrow 00:09:15.620$  little bit in the future.

NOTE Confidence: 0.794793912

00:09:15.620 --> 00:09:15.926 Alright,

NOTE Confidence: 0.794793912

 $00:09:15.926 \longrightarrow 00:09:19.163$  so if we have to do surgery on our patients

NOTE Confidence: 0.794793912

 $00:09:19.163 \longrightarrow 00:09:22.026$  then what are the really the updates?

NOTE Confidence: 0.794793912

00:09:22.030 --> 00:09:24.134 So I'm going to briefly touch on some

NOTE Confidence: 0.794793912

 $00:09:24.134 \longrightarrow 00:09:26.530$  of the GNU localization techniques that

NOTE Confidence: 0.794793912

 $00:09:26.530 \longrightarrow 00:09:28.790$  we're using for press conservation.

NOTE Confidence: 0.794793912

 $00:09:28.790 \longrightarrow 00:09:30.572$  What what our margin status and

NOTE Confidence: 0.794793912

00:09:30.572 --> 00:09:32.710 when should we re excited patients

NOTE Confidence: 0.794793912

 $00:09:32.710 \longrightarrow 00:09:34.486$  after they undergo surgery?

NOTE Confidence: 0.794793912

00:09:34.490 --> 00:09:35.778 Some \*\*\*\*\* sparing discussions

 $00:09:35.778 \longrightarrow 00:09:38.400$  in terms of who is a candidate,

NOTE Confidence: 0.794793912

 $00{:}09{:}38.400 \dashrightarrow 00{:}09{:}40.437$  the management of the XR on going

NOTE Confidence: 0.794793912

00:09:40.437 --> 00:09:41.841 discussions on going confusion

NOTE Confidence: 0.794793912

00:09:41.841 --> 00:09:43.737 about upfront surgical management,

NOTE Confidence: 0.794793912

00:09:43.740 --> 00:09:44.492 neoadjuvant therapy,

NOTE Confidence: 0.794793912

00:09:44.492 --> 00:09:46.748 and the surgical management of XR.

NOTE Confidence: 0.794793912

00:09:46.750 --> 00:09:48.962 A brief touch on stage four disease

NOTE Confidence: 0.794793912

 $00{:}09{:}48.962 \dashrightarrow 00{:}09{:}51.571$  and in high risk lesions went to

NOTE Confidence: 0.794793912

 $00:09:51.571 \longrightarrow 00:09:53.953$  excise so wire localizations of breast

NOTE Confidence: 0.794793912

 $00{:}09{:}54.025 \dashrightarrow 00{:}09{:}56.245$  lesions are has been very common

NOTE Confidence: 0.794793912

 $00{:}09{:}56.245 \dashrightarrow 00{:}09{:}58.460$  across the country and many places

NOTE Confidence: 0.794793912

 $00:09:58.460 \longrightarrow 00:10:00.285$  actually are still using wires.

NOTE Confidence: 0.794793912

 $00:10:00.290 \longrightarrow 00:10:00.649$  However,

NOTE Confidence: 0.794793912

 $00:10:00.649 \longrightarrow 00:10:03.162$  we know that wires need to be

NOTE Confidence: 0.794793912

 $00:10:03.162 \longrightarrow 00:10:05.418$  placed the same day of surgery.

00:10:05.420 --> 00:10:07.245 There can be very challenging

NOTE Confidence: 0.794793912

 $00:10:07.245 \longrightarrow 00:10:08.340$  logistics with wires.

NOTE Confidence: 0.794793912

 $00:10:08.340 \longrightarrow 00:10:10.302$  They can lead to potential or

NOTE Confidence: 0.794793912

00:10:10.302 --> 00:10:12.947 delays of the wires placed in the

NOTE Confidence: 0.794793912

00:10:12.947 --> 00:10:14.631 morning and something happens

NOTE Confidence: 0.794793912

 $00:10:14.631 \longrightarrow 00:10:15.894$  and often times they

NOTE Confidence: 0.8000743

 $00:10:15.963 \longrightarrow 00:10:17.100$  are gets delayed.

NOTE Confidence: 0.8000743

 $00:10:17.100 \longrightarrow 00:10:18.660$  These wires can get dislodge.

NOTE Confidence: 0.8000743

 $00{:}10{:}18.660 \mathrel{--}{>} 00{:}10{:}19.908$  They're often hanging outside

NOTE Confidence: 0.8000743

 $00:10:19.908 \longrightarrow 00:10:21.156$  of the women's breast,

NOTE Confidence: 0.8000743

 $00{:}10{:}21.160 \mathrel{--}{>} 00{:}10{:}23.032$  and so in travel and transport

NOTE Confidence: 0.8000743

 $00:10:23.032 \longrightarrow 00:10:24.280$  they can get dislodged.

NOTE Confidence: 0.8000743

 $00:10:24.280 \longrightarrow 00:10:25.835$  They can lead to larger

NOTE Confidence: 0.8000743

 $00:10:25.835 \longrightarrow 00:10:27.079$  lumpectomy specimens as well.

NOTE Confidence: 0.8000743

00:10:27.080 --> 00:10:28.328 Many patients complain of

NOTE Confidence: 0.8000743

00:10:28.328 --> 00:10:29.264 dissatisfaction being cold,

 $00:10:29.270 \longrightarrow 00:10:30.830$  being scared of having wires

NOTE Confidence: 0.8000743

 $00:10:30.830 \longrightarrow 00:10:32.078$  outside of their breasts,

NOTE Confidence: 0.8000743

 $00:10:32.080 \longrightarrow 00:10:34.257$  and then obviously, if the case were

NOTE Confidence: 0.8000743

 $00:10:34.257 \longrightarrow 00:10:36.129$  to get cancelled for any reason,

NOTE Confidence: 0.8000743

 $00{:}10{:}36.130 \dashrightarrow 00{:}10{:}37.996$  those wires have to get replaced.

NOTE Confidence: 0.8000743

 $00:10:38.000 \longrightarrow 00:10:40.488$  They have to get removed and then replaced

NOTE Confidence: 0.8000743

 $00:10:40.488 \longrightarrow 00:10:43.309$  again if they have to come back for surgery.

NOTE Confidence: 0.8000743

 $00:10:43.310 \longrightarrow 00:10:45.494$  So what we've looked at then in

NOTE Confidence: 0.8000743

 $00:10:45.494 \longrightarrow 00:10:48.730$  how to localize, and this is just.

NOTE Confidence: 0.8000743

 $00:10:48.730 \longrightarrow 00:10:51.178$  A map from a study that was actually

NOTE Confidence: 0.8000743

00:10:51.178 --> 00:10:53.076 done looking at one institution's

NOTE Confidence: 0.8000743

 $00:10:53.076 \longrightarrow 00:10:55.512$  experience with wires and how many

NOTE Confidence: 0.8000743

 $00{:}10{:}55.512 \rightarrow 00{:}10{:}57.112$  different touch points patients have

NOTE Confidence: 0.8000743

00:10:57.112 --> 00:10:59.737 when they actually have to get the

NOTE Confidence: 0.8000743

00:10:59.740 --> 00:11:02.309 wired on the same day of surgery,

 $00:11:02.310 \longrightarrow 00:11:04.140$  and as you can see,

NOTE Confidence: 0.8000743

00:11:04.140 --> 00:11:07.076 it's a mess of spaghetti if you will,

NOTE Confidence: 0.8000743

 $00:11:07.080 \longrightarrow 00:11:09.294$  because now what we are moving

NOTE Confidence: 0.8000743

 $00:11:09.294 \longrightarrow 00:11:11.659$  towards are what we call seeds.

NOTE Confidence: 0.8000743

00:11:11.660 --> 00:11:13.556 Seeds are a nice option for

NOTE Confidence: 0.8000743

 $00{:}11{:}13.556 \dashrightarrow 00{:}11{:}15.287$  patients because they can get

NOTE Confidence: 0.8000743

00:11:15.287 --> 00:11:16.907 placed anytime before surgery.

NOTE Confidence: 0.8000743

 $00:11:16.910 \longrightarrow 00:11:17.584$  They aren't.

NOTE Confidence: 0.8000743

00:11:17.584 --> 00:11:19.606 They don't have to be placed

NOTE Confidence: 0.8000743

 $00:11:19.606 \longrightarrow 00:11:21.109$  the day of surgery.

NOTE Confidence: 0.8000743

 $00:11:21.110 \longrightarrow 00:11:22.510$  It completely decouples the

NOTE Confidence: 0.8000743

00:11:22.510 --> 00:11:24.260 scheduling of radiology and surgery,

NOTE Confidence: 0.8000743

 $00:11:24.260 \longrightarrow 00:11:25.820$  so that increases the flexibility

NOTE Confidence: 0.8000743

00:11:25.820 --> 00:11:27.068 with surgeon flexibility and

NOTE Confidence: 0.8000743

00:11:27.068 --> 00:11:28.459 with radiology flexibility,

NOTE Confidence: 0.8000743

 $00:11:28.460 \longrightarrow 00:11:30.572$  they've been shown in various different

 $00:11:30.572 \longrightarrow 00:11:33.009$  studies to minimize OR delays it allows.

NOTE Confidence: 0.8000743

00:11:33.010 --> 00:11:33.360 Obviously,

NOTE Confidence: 0.8000743

00:11:33.360 --> 00:11:35.110 for our first case start,

NOTE Confidence: 0.8000743

00:11:35.110 --> 00:11:37.672 the patient can get their seat placed

NOTE Confidence: 0.8000743

 $00{:}11{:}37.672 \dashrightarrow 00{:}11{:}41.044$  a few days before and come in and still

NOTE Confidence: 0.8000743

 $00:11:41.044 \longrightarrow 00:11:43.957$  go to the operating room at 7:15 or 7.

NOTE Confidence: 0.8000743

 $00:11:43.960 \longrightarrow 00:11:47.256$  30 There have been data looking at that.

NOTE Confidence: 0.8000743

 $00:11:47.260 \longrightarrow 00:11:49.235$  They create smaller lumpectomy specimens

NOTE Confidence: 0.8000743

 $00:11:49.235 \longrightarrow 00:11:51.210$  and overall there's some reports

NOTE Confidence: 0.8000743

 $00:11:51.264 \longrightarrow 00:11:53.048$  on improved patient satisfaction.

NOTE Confidence: 0.8000743

 $00:11:53.050 \longrightarrow 00:11:55.312$  You know, they don't have to

NOTE Confidence: 0.8000743

00:11:55.312 --> 00:11:57.999 spend all day at the hospital.

NOTE Confidence: 0.8000743

00:11:58.000 --> 00:11:58.826 You know,

NOTE Confidence: 0.8000743

00:11:58.826 --> 00:12:01.717 they don't be NPO for so long,

NOTE Confidence: 0.8000743

 $00:12:01.720 \longrightarrow 00:12:03.976$  and they can get this done

 $00:12:03.976 \longrightarrow 00:12:06.260$  at their at their leisure.

NOTE Confidence: 0.8000743

 $00{:}12{:}06.260 \dashrightarrow 00{:}12{:}10.646$  Kind of the previously to surgery.

NOTE Confidence: 0.8000743

 $00:12:10.650 \longrightarrow 00:12:14.157$  So in the Mount margins and how?

NOTE Confidence: 0.8000743

 $00:12:14.160 \longrightarrow 00:12:18.669$  How much is enough to take for breast tissue?

NOTE Confidence: 0.8000743

 $00:12:18.670 \longrightarrow 00:12:21.170$  One of our colleagues here,

NOTE Confidence: 0.8000743

00:12:21.170 --> 00:12:22.172 Doctor Moran,

NOTE Confidence: 0.8000743

 $00{:}12{:}22.172 \dashrightarrow 00{:}12{:}24.176$  was instrumental in creating

NOTE Confidence: 0.8000743

00:12:24.176 --> 00:12:26.180 a consensus guideline study.

NOTE Confidence: 0.8000743

 $00{:}12{:}26.180 \dashrightarrow 00{:}12{:}28.032$  An expert multidisciplinary panel.

NOTE Confidence: 0.8000743

 $00:12:28.032 \longrightarrow 00:12:30.810$  In looking at what should our

NOTE Confidence: 0.8000743

 $00{:}12{:}30.884 \dashrightarrow 00{:}12{:}33.200$  margins before invasive disease,

NOTE Confidence: 0.8000743

 $00:12:33.200 \longrightarrow 00:12:36.719$  but also for DCIS and so there was a

NOTE Confidence: 0.8000743

 $00:12:36.719 \longrightarrow 00:12:39.810$  multi disciplinary panel convened.

NOTE Confidence: 0.8000743

00:12:39.810 --> 00:12:42.365 They looked at meta analysis of 33

NOTE Confidence: 0.8000743

00:12:42.365 --> 00:12:44.659 studies with over 28,000 patients,

NOTE Confidence: 0.8000743

00:12:44.660 --> 00:12:47.460 and in the invasive setting what they

 $00:12:47.460 \longrightarrow 00:12:50.358$  found was that no tumor on ink was

NOTE Confidence: 0.8000743

 $00{:}12{:}50.358 \dashrightarrow 00{:}12{:}53.493$  a safe margin and that it did not

NOTE Confidence: 0.8000743

 $00:12:53.493 \longrightarrow 00:12:56.367$  increase its lateral breast tumor recurrence.

NOTE Confidence: 0.8000743

00:12:56.370 --> 00:12:59.610 If we truly had no tumor on ink,

NOTE Confidence: 0.8000743

 $00:12:59.610 \longrightarrow 00:13:02.546$  and the thought was that because of the

NOTE Confidence: 0.8000743

 $00{:}13{:}02.546 \dashrightarrow 00{:}13{:}04.860$  systemic therapy after invasive disease,

NOTE Confidence: 0.8000743

 $00:13:04.860 \longrightarrow 00:13:07.302$  that this was a sufficient margin

NOTE Confidence: 0.8000743

 $00:13:07.302 \longrightarrow 00:13:10.339$  because of for the invasive disease.

NOTE Confidence: 0.8000743

 $00:13:10.340 \longrightarrow 00:13:12.445$  They asked the same question

NOTE Confidence: 0.8000743

00:13:12.445 --> 00:13:14.129 in the DCIS setting,

NOTE Confidence: 0.8000743

00:13:14.130 --> 00:13:17.066 So what we know about DCIS is that

NOTE Confidence: 0.8000743

 $00{:}13{:}17.066 \dashrightarrow 00{:}13{:}19.598$  it often has skipped lesions.

NOTE Confidence: 0.8000743

 $00{:}13{:}19.600 \dashrightarrow 00{:}13{:}21.705$  It's not just necessarily one

NOTE Confidence: 0.8000743

00:13:21.705 --> 00:13:23.389 focal mass and so,

NOTE Confidence: 0.8000743

 $00:13:23.390 \longrightarrow 00:13:25.495$  and we often don't give

00:13:25.495 --> 00:13:27.179 systemic therapy for DCIS,

NOTE Confidence: 0.8000743

00:13:27.180 --> 00:13:27.996 IE chemotherapy,

NOTE Confidence: 0.8000743

 $00:13:27.996 \longrightarrow 00:13:30.852$  so the thought was in looking at

NOTE Confidence: 0.8000743

 $00:13:30.852 \longrightarrow 00:13:33.299$  the analysis of over 30 studies

NOTE Confidence: 0.8000743

 $00:13:33.299 \longrightarrow 00:13:35.259$  for the DCIS panel with

NOTE Confidence: 0.7939793

 $00:13:35.343 \longrightarrow 00:13:37.573$  over 8000 patients with the

NOTE Confidence: 0.7939793

 $00{:}13{:}37.573 \dashrightarrow 00{:}13{:}40.154$  thought was that 2 millimeters of.

NOTE Confidence: 0.7939793

00:13:40.154 --> 00:13:41.874 Margin was sufficient to reduce

NOTE Confidence: 0.7939793

 $00:13:41.874 \longrightarrow 00:13:44.570$  the risk of in breast recurrence.

NOTE Confidence: 0.7939793

 $00:13:44.570 \longrightarrow 00:13:47.209$  They did look at various margin widths.

NOTE Confidence: 0.7939793

 $00:13:47.210 \longrightarrow 00:13:49.592$  5 millimeters, 1 centimeter and further

NOTE Confidence: 0.7939793

 $00{:}13{:}49.592 \dashrightarrow 00{:}13{:}52.279$  margin with did not decrease in breast

NOTE Confidence: 0.7939793

 $00:13:52.279 \longrightarrow 00:13:54.680$  recurrence and so to this day we

NOTE Confidence: 0.7939793

 $00:13:54.751 \longrightarrow 00:13:57.037$  still use the 2 millimeter margin.

NOTE Confidence: 0.7939793

00:13:57.040 --> 00:13:59.686 With for pure DCIS in the breast,

NOTE Confidence: 0.7939793

 $00:13:59.690 \longrightarrow 00:14:01.958$  no tumor on ink for invasive.

00:14:04.190 --> 00:14:06.782 And our very own Doctor Tag power here

NOTE Confidence: 0.83158356

 $00:14:06.782 \longrightarrow 00:14:09.519$  at Yale and multiple others here at

NOTE Confidence: 0.83158356

 $00:14:09.519 \longrightarrow 00:14:12.037$  Yale did a randomized control trial

NOTE Confidence: 0.83158356

 $00{:}14{:}12.037 \dashrightarrow 00{:}14{:}14.635$  looking at this principle of margins,

NOTE Confidence: 0.83158356

00:14:14.640 --> 00:14:17.296 which was published not so long ago in

NOTE Confidence: 0.83158356

 $00:14:17.296 \longrightarrow 00:14:20.057$  the New England Journal of Medicine.

NOTE Confidence: 0.83158356

 $00:14:20.060 \longrightarrow 00:14:22.382$  The thought was is so people

NOTE Confidence: 0.83158356

 $00:14:22.382 \longrightarrow 00:14:23.930$  do margin very differently.

NOTE Confidence: 0.83158356

 $00{:}14{:}23.930 \dashrightarrow 00{:}14{:}26.096$  In breast surgery some people take

NOTE Confidence: 0.83158356

 $00:14:26.096 \longrightarrow 00:14:28.180$  margins off the actual specimen.

NOTE Confidence: 0.83158356

00:14:28.180 --> 00:14:30.115 Some do full shave margins

NOTE Confidence: 0.83158356

 $00:14:30.115 \longrightarrow 00:14:31.663$  within the cavity routinely.

NOTE Confidence: 0.83158356

00:14:31.670 --> 00:14:33.630 Some do select margins based

NOTE Confidence: 0.83158356

 $00:14:33.630 \longrightarrow 00:14:35.198$  upon what their image.

NOTE Confidence: 0.83158356

 $00:14:35.200 \longrightarrow 00:14:36.448$  What's their specimen?

 $00:14:36.448 \longrightarrow 00:14:38.944$  Looks like on the image radiograph

NOTE Confidence: 0.83158356

 $00{:}14{:}38.944 \dashrightarrow 00{:}14{:}41.812$  and so this trial asked that very

NOTE Confidence: 0.83158356

 $00:14:41.812 \longrightarrow 00:14:43.896$  question about whether shave margins

NOTE Confidence: 0.83158356

 $00:14:43.896 \longrightarrow 00:14:46.046$  help with decreasing margin positive

NOTE Confidence: 0.83158356

 $00:14:46.046 \longrightarrow 00:14:48.584$  ITI they looked at 235 patients.

NOTE Confidence: 0.83158356

00:14:48.584 --> 00:14:51.433 They were randomized so they underwent a

NOTE Confidence: 0.83158356

 $00:14:51.433 \longrightarrow 00:14:54.012$  lumpectomy and then they were randomized

NOTE Confidence: 0.83158356

00:14:54.012 --> 00:14:56.112 to essentially no additional straight

NOTE Confidence: 0.83158356

 $00{:}14{:}56.179 \dashrightarrow 00{:}14{:}58.249$  margins or routine shape margins.

NOTE Confidence: 0.83158356

 $00:14:58.250 \longrightarrow 00:15:00.340$  And as you can imagine,

NOTE Confidence: 0.83158356

 $00:15:00.340 \longrightarrow 00:15:03.119$  what they found was that in routine

NOTE Confidence: 0.83158356

 $00:15:03.119 \longrightarrow 00:15:05.838$  shape margins it reduced the margin.

NOTE Confidence: 0.83158356

 $00:15:05.840 \longrightarrow 00:15:08.042$  Margin positive ITI rate and the

NOTE Confidence: 0.83158356

00:15:08.042 --> 00:15:09.903 reexcision rate so less patients

NOTE Confidence: 0.83158356

 $00:15:09.903 \longrightarrow 00:15:12.150$  had to go back to the operating

NOTE Confidence: 0.83158356

 $00:15:12.150 \longrightarrow 00:15:14.700$  room for further re excisions less

 $00:15:14.700 \longrightarrow 00:15:16.536$  patients had positive margins.

NOTE Confidence: 0.83158356

 $00{:}15{:}16.540 {\:\dashrightarrow\:} 00{:}15{:}19.347$  So if we're not doing breast conservation

NOTE Confidence: 0.83158356

00:15:19.347 --> 00:15:21.889 and we're thinking about mastectomies,

NOTE Confidence: 0.83158356

 $00:15:21.890 \longrightarrow 00:15:25.274$  what are some of the options

NOTE Confidence: 0.83158356

00:15:25.274 --> 00:15:27.530 for patients in mastectomies?

NOTE Confidence: 0.83158356

 $00:15:27.530 \longrightarrow 00:15:30.833$  We've now had a lot longer term data in

NOTE Confidence: 0.83158356

 $00:15:30.833 \longrightarrow 00:15:32.734$  looking at \*\*\*\*\* sparing mastectomy's.

NOTE Confidence: 0.83158356

 $00{:}15{:}32.734 \dashrightarrow 00{:}15{:}34.966$  The data is still relatively new.

NOTE Confidence: 0.83158356

 $00:15:34.970 \longrightarrow 00:15:36.470$  Consider all things considered,

NOTE Confidence: 0.83158356

 $00{:}15{:}36.470 {\:{\circ}{\circ}{\circ}}>00{:}15{:}38.720$  but a lot more longitudinal data

NOTE Confidence: 0.83158356

 $00:15:38.784 \longrightarrow 00:15:40.174$  that \*\*\*\*\* sparing mastectomy's

NOTE Confidence: 0.83158356

 $00:15:40.174 \longrightarrow 00:15:42.034$  are safe for patients uncle.

NOTE Confidence: 0.83158356

 $00:15:42.040 \longrightarrow 00:15:42.436$  Logically,

NOTE Confidence: 0.83158356

 $00:15:42.436 \longrightarrow 00:15:44.416$  however there are definitely criteria

NOTE Confidence: 0.83158356

 $00:15:44.416 \longrightarrow 00:15:46.705$  that we consider when we think

00:15:46.705 --> 00:15:48.403 about performing a \*\*\*\*\* sparing

NOTE Confidence: 0.83158356

 $00:15:48.403 \longrightarrow 00:15:50.055$  mastectomy conservatively I would

NOTE Confidence: 0.83158356

 $00:15:50.055 \longrightarrow 00:15:53.688$  say a lot of people still use the two

NOTE Confidence: 0.83158356

 $00:15:53.688 \longrightarrow 00:15:55.926$  centimeters that the cancer should be

NOTE Confidence: 0.83158356

 $00:15:55.995 \longrightarrow 00:15:58.365$  2 centimeters away from the \*\*\*\*\*.

NOTE Confidence: 0.83158356

 $00:15:58.370 \longrightarrow 00:16:00.440$  Oftentimes we think about early stage

NOTE Confidence: 0.83158356

 $00:16:00.440 \longrightarrow 00:16:02.540$  breast cancer patients as appropriate.

NOTE Confidence: 0.83158356

00:16:02.540 --> 00:16:03.984 \*\*\*\*\* sparing mastectomy candidate.

NOTE Confidence: 0.83158356

 $00:16:03.984 \longrightarrow 00:16:06.150$  The idea of multi focal multi

NOTE Confidence: 0.83158356

00:16:06.213 --> 00:16:07.089 centric disease.

NOTE Confidence: 0.83158356

00:16:07.090 --> 00:16:09.736 Most people will stay away from offering

NOTE Confidence: 0.83158356

 $00:16:09.736 \dashrightarrow 00:16:11.876$  a \*\*\*\*\* sparing for those patients.

NOTE Confidence: 0.83158356

 $00:16:11.876 \longrightarrow 00:16:14.433$  And of course if they have any

NOTE Confidence: 0.83158356

00:16:14.433 --> 00:16:16.558 significant ptosis of the brassware,

NOTE Confidence: 0.83158356

 $00:16:16.560 \longrightarrow 00:16:18.080$  their cosmetic outcome wouldn't

NOTE Confidence: 0.83158356

 $00:16:18.080 \longrightarrow 00:16:18.840$  be inappropriate.

 $00:16:18.840 \longrightarrow 00:16:20.884$  Cosmetic outcome for \*\*\*\*\*\*

NOTE Confidence: 0.83158356

 $00:16:20.884 \longrightarrow 00:16:21.906$  sparing mastectomy.

NOTE Confidence: 0.83158356

00:16:21.910 --> 00:16:23.722 Prophylactic surgery is a great option

NOTE Confidence: 0.83158356

 $00:16:23.722 \longrightarrow 00:16:25.775$  for patients if they are undergoing

NOTE Confidence: 0.83158356

 $00:16:25.775 \longrightarrow 00:16:27.691$  prophylactic surgery for \*\*\*\*\* sparing.

NOTE Confidence: 0.83158356

00:16:27.691 --> 00:16:30.078 Mastectomy is an I'll show you a

NOTE Confidence: 0.83158356

 $00:16:30.078 \longrightarrow 00:16:32.142$  trial looking at the Braca population

NOTE Confidence: 0.83158356

 $00:16:32.142 \longrightarrow 00:16:33.470$  and in \*\*\*\*\* sparing's.

NOTE Confidence: 0.83158356

 $00:16:33.470 \longrightarrow 00:16:34.830$  Strong contraindications for \*\*\*\*\*\*

NOTE Confidence: 0.83158356

 $00:16:34.830 \longrightarrow 00:16:37.242$  sparing so any locally advanced or

NOTE Confidence: 0.83158356

00:16:37.242 --> 00:16:39.445 inflammatory breast cancer or we do

NOTE Confidence: 0.83158356

 $00{:}16{:}39.445 \dashrightarrow 00{:}16{:}41.557$  not want to leave skin behind and so

NOTE Confidence: 0.83158356

00:16:41.621 --> 00:16:44.008 we would not offer our patients \*\*\*\*\*\*

NOTE Confidence: 0.83158356

 $00:16:44.010 \longrightarrow 00:16:46.050$  Springs for those types of cancers.

NOTE Confidence: 0.83158356

 $00:16:46.050 \longrightarrow 00:16:47.772$  Any kind of skin involvement and

00:16:47.772 --> 00:16:49.829 of course any kind of pathological

NOTE Confidence: 0.83158356

 $00:16:49.829 \longrightarrow 00:16:51.959$  radiologic involvement of the \*\*\*\*\*.

NOTE Confidence: 0.83158356

 $00:16:51.960 \longrightarrow 00:16:53.240$  Our clinical involvement of

NOTE Confidence: 0.83158356

 $00:16:53.240 \longrightarrow 00:16:54.486$  the \*\*\*\*\* as well,

NOTE Confidence: 0.83158356

 $00:16:54.486 \longrightarrow 00:16:56.304$  and then we think about high

NOTE Confidence: 0.83158356

00:16:56.304 --> 00:16:58.038 risk patients for Noble Springs.

NOTE Confidence: 0.83158356

 $00{:}16{:}58.040 \dashrightarrow 00{:}16{:}59.774$  Not that we wouldn't offer them

NOTE Confidence: 0.83158356

 $00:16:59.774 \longrightarrow 00:17:01.356$  if they're smokers or diabetics

NOTE Confidence: 0.83158356

00:17:01.356 --> 00:17:02.840 or a previous radiation,

NOTE Confidence: 0.83158356

 $00:17:02.840 \longrightarrow 00:17:04.784$  but we definitely counsel patients in

NOTE Confidence: 0.83158356

 $00:17:04.784 \longrightarrow 00:17:07.026$  terms of them having higher risk of

NOTE Confidence: 0.83158356

 $00:17:07.026 \longrightarrow 00:17:09.960 ******$  necrosis with these risk factors.

NOTE Confidence: 0.83158356

00:17:09.960 --> 00:17:12.991 So looking at the Uncle Logic safety

NOTE Confidence: 0.83158356

00:17:12.991 --> 00:17:14.723 of prophylactic \*\*\*\*\* sparing

NOTE Confidence: 0.83158356

00:17:14.723 --> 00:17:16.888 mastectomy in the Bracco population,

NOTE Confidence: 0.8060805

 $00{:}17{:}16.890 \dashrightarrow 00{:}17{:}19.606$  about 550 patients were looked at in

 $00:17:19.606 \longrightarrow 00:17:23.230$  this JAMA study and found that there was

NOTE Confidence: 0.8060805

 $00:17:23.230 \longrightarrow 00:17:25.615$  no ipsilateral breast cancer recurrence

NOTE Confidence: 0.8060805

00:17:25.695 --> 00:17:28.145 in the risk reducing \*\*\*\*\* sparing

NOTE Confidence: 0.8060805

 $00:17:28.145 \longrightarrow 00:17:31.190$  mastectomy group so it was deemed a

NOTE Confidence: 0.8060805

 $00:17:31.190 \longrightarrow 00:17:33.542$  safe technical procedure thinking also

NOTE Confidence: 0.8060805

 $00{:}17{:}33.542 \dashrightarrow 00{:}17{:}36.804$  keeping in mind though that the median

NOTE Confidence: 0.8060805

 $00:17:36.879 \longrightarrow 00:17:39.959$  followups are still only 34 or 56 months.

NOTE Confidence: 0.8060805

00:17:39.960 --> 00:17:41.955 These are obviously getting more

NOTE Confidence: 0.8060805

00:17:41.955 --> 00:17:44.200 longitudinal as as time progress is,

NOTE Confidence: 0.8060805

 $00:17:44.200 \longrightarrow 00:17:45.672$  but overall you know.

NOTE Confidence: 0.8060805

00:17:45.672 --> 00:17:49.048 I think we all agree that \*\*\*\*\* sparing's

NOTE Confidence: 0.8060805

 $00:17:49.048 \longrightarrow 00:17:52.138$  are safer genetic variant carriers.

NOTE Confidence: 0.8060805

 $00:17:52.140 \longrightarrow 00:17:54.240$  And then what about the contralateral

NOTE Confidence: 0.8060805

 $00:17:54.240 \longrightarrow 00:17:55.290$  prophylactic mastectomy conversation?

NOTE Confidence: 0.8060805

00:17:55.290 --> 00:17:55.916 You know?

 $00:17:55.916 \longrightarrow 00:17:58.420$  I think a lot of women come into

NOTE Confidence: 0.8060805

00:17:58.495 --> 00:18:01.099 clinic saying I want both of my

NOTE Confidence: 0.8060805

 $00:18:01.099 \longrightarrow 00:18:03.340$  breasts removed if I have cancer.

NOTE Confidence: 0.8060805

 $00:18:03.340 \longrightarrow 00:18:05.440$  I never want this coming back.

NOTE Confidence: 0.8060805

00:18:05.440 --> 00:18:07.792 I don't want it to spread from

NOTE Confidence: 0.8060805

 $00:18:07.792 \longrightarrow 00:18:09.640$  one breast to the other.

NOTE Confidence: 0.8060805

00:18:09.640 --> 00:18:11.390 We know breast cancer doesn't

NOTE Confidence: 0.8060805

 $00:18:11.390 \longrightarrow 00:18:12.440$  spread that way.

NOTE Confidence: 0.8060805

 $00:18:12.440 \longrightarrow 00:18:13.916$  We know that contralateral

NOTE Confidence: 0.8060805

00:18:13.916 --> 00:18:15.392 prophylactic mastectomy is actually

NOTE Confidence: 0.8060805

 $00:18:15.392 \longrightarrow 00:18:17.339$  not associated with a survival benefit.

NOTE Confidence: 0.8060805

 $00:18:17.340 \longrightarrow 00:18:18.740$  It's double the surgery.

NOTE Confidence: 0.8060805

 $00:18:18.740 \longrightarrow 00:18:20.840$  It's double the risk of complication.

NOTE Confidence: 0.8060805

 $00:18:20.840 \longrightarrow 00:18:22.870$  It's double the recovery time.

NOTE Confidence: 0.8060805

00:18:22.870 --> 00:18:23.815 It's definitely appropriate

NOTE Confidence: 0.8060805

 $00:18:23.815 \longrightarrow 00:18:25.075$  in for some women,

00:18:25.080 --> 00:18:26.796 and you know if the anxiety

NOTE Confidence: 0.8060805

 $00:18:26.796 \longrightarrow 00:18:28.683$  and the angst of having breast

NOTE Confidence: 0.8060805

00:18:28.683 --> 00:18:31.056 cancer is just too much for them.

NOTE Confidence: 0.8060805

00:18:31.060 --> 00:18:32.470 I think that's in completely appropriate

NOTE Confidence: 0.8060805

 $00:18:32.470 \longrightarrow 00:18:33.961$  reason to do a contralateral

NOTE Confidence: 0.8060805

 $00{:}18{:}33.961 \dashrightarrow 00{:}18{:}35.470$  profiler prophylactic mastectomy,

NOTE Confidence: 0.8060805

00:18:35.470 --> 00:18:37.710 but I think making sure that the

NOTE Confidence: 0.8060805

00:18:37.710 --> 00:18:39.903 patients understand and have a have a

NOTE Confidence: 0.8060805

 $00{:}18{:}39.903 \dashrightarrow 00{:}18{:}41.655$  good understanding of the data behind

NOTE Confidence: 0.8060805

00:18:41.713 --> 00:18:43.657 why they're choosing such a thing.

NOTE Confidence: 0.8060805

00:18:43.660 --> 00:18:45.555 There's also you know \*\*\*\*\* dysfunction,

NOTE Confidence: 0.8060805

 $00:18:45.555 \longrightarrow 00:18:46.815$  psychological dysfunction with losing

NOTE Confidence: 0.8060805

 $00{:}18{:}46.815 \dashrightarrow 00{:}18{:}48.390$  sensation of their entire chest,

NOTE Confidence: 0.8060805

 $00:18:48.390 \longrightarrow 00:18:49.960$  all things to think about,

NOTE Confidence: 0.8060805

 $00:18:49.960 \longrightarrow 00:18:51.736$  and to really encourage a shared

 $00:18:51.736 \longrightarrow 00:18:53.430$  decision making with your patience.

NOTE Confidence: 0.8320103

 $00{:}18{:}55.660 \dashrightarrow 00{:}18{:}57.208$  So the surgical management

NOTE Confidence: 0.8320103

00:18:57.208 --> 00:18:59.143 of the XR has changed.

NOTE Confidence: 0.8320103

 $00{:}18{:}59.150 \dashrightarrow 00{:}19{:}01.502$  I would argue drastically in the last

NOTE Confidence: 0.8320103

 $00:19:01.502 \longrightarrow 00:19:03.915$  20 years where we're obviously using

NOTE Confidence: 0.8320103

 $00:19:03.915 \longrightarrow 00:19:06.140$  a lot more neoadjuvant therapies.

NOTE Confidence: 0.8320103

 $00:19:06.140 \longrightarrow 00:19:07.432$  Now for our patients,

NOTE Confidence: 0.8320103

 $00:19:07.432 \longrightarrow 00:19:09.370$  targeted therapies for the her two

NOTE Confidence: 0.8320103

 $00{:}19{:}09.436 \dashrightarrow 00{:}19{:}11.486$  positive patients were thinking more

NOTE Confidence: 0.8320103

00:19:11.486 --> 00:19:13.536 about immunotherapy for the triple

NOTE Confidence: 0.8320103

 $00{:}19{:}13.600 \dashrightarrow 00{:}19{:}15.448$  negative breast cancer patients.

NOTE Confidence: 0.8320103

 $00:19:15.450 \longrightarrow 00:19:18.218$  So what we know is that in looking

NOTE Confidence: 0.8320103

00:19:18.218 --> 00:19:20.489 at Sentinel lymph node biopsy's,

NOTE Confidence: 0.8320103

 $00:19:20.490 \longrightarrow 00:19:22.812$  there are two ways to localize

NOTE Confidence: 0.8320103

 $00:19:22.812 \longrightarrow 00:19:23.973$  Sentinel lymph nodes.

NOTE Confidence: 0.8320103

 $00:19:23.980 \longrightarrow 00:19:24.648$  Blue dye.

 $00:19:24.648 \longrightarrow 00:19:26.318$  Whether it's methylene blue or

NOTE Confidence: 0.8320103

 $00{:}19{:}26.318 {\:\dashrightarrow\:} > 00{:}19{:}28.871$  I so flooring blue and then are

NOTE Confidence: 0.8320103

00:19:28.871 --> 00:19:30.355 usually a radioactive isotope,

NOTE Confidence: 0.8320103

 $00:19:30.360 \longrightarrow 00:19:33.560$  technetium is one of them.

NOTE Confidence: 0.8320103

 $00:19:33.560 \longrightarrow 00:19:34.912$  Some surgeons use both.

NOTE Confidence: 0.8320103

 $00:19:34.912 \longrightarrow 00:19:36.602$  Some surgeons just use one.

NOTE Confidence: 0.8320103

 $00:19:36.610 \longrightarrow 00:19:39.025$  We do know that in the upfront

NOTE Confidence: 0.8320103

 $00:19:39.025 \longrightarrow 00:19:40.800$  surgical setting the we find

NOTE Confidence: 0.8320103

 $00:19:40.800 \longrightarrow 00:19:42.792$  that the false negative rate of

NOTE Confidence: 0.8320103

 $00{:}19{:}42.792 --> 00{:}19{:}44.406$  less than 10% is inappropriate.

NOTE Confidence: 0.8320103

 $00{:}19{:}44.406 \dashrightarrow 00{:}19{:}46.096$  False negative rate for Sentinel,

NOTE Confidence: 0.8320103

 $00:19:46.100 \longrightarrow 00:19:48.038$  lymph node biopsy's and that single

NOTE Confidence: 0.8320103

 $00:19:48.038 \longrightarrow 00:19:49.740$  tracer is appropriate in the

NOTE Confidence: 0.8320103

 $00{:}19{:}49.740 \dashrightarrow 00{:}19{:}51.490$  up front surgical setting for that

NOTE Confidence: 0.8320103

 $00:19:51.490 \longrightarrow 00:19:53.220$  principle of false negative rate.

 $00:19:53.220 \longrightarrow 00:19:55.392$  I only show these pictures because

NOTE Confidence: 0.8320103

 $00:19:55.392 \longrightarrow 00:19:57.802$  I think it's helpful to really see

NOTE Confidence: 0.8320103

 $00:19:57.802 \longrightarrow 00:20:00.293$  what the gamma probe is that we use

NOTE Confidence: 0.8320103

 $00{:}20{:}00.293 \dashrightarrow 00{:}20{:}03.045$  to find that radioactive isotope in the XR.

NOTE Confidence: 0.8320103

 $00:20:03.050 \longrightarrow 00:20:05.090$  The blue dye really does work.

NOTE Confidence: 0.8320103

 $00:20:05.090 \longrightarrow 00:20:06.482$  We find blue nodes.

NOTE Confidence: 0.8320103

 $00{:}20{:}06.482 \dashrightarrow 00{:}20{:}08.222$  That are are representative of

NOTE Confidence: 0.8320103

 $00:20:08.222 \longrightarrow 00:20:09.814$  Sentinel lymph node and just

NOTE Confidence: 0.8320103

00:20:09.814 --> 00:20:11.584 the principle of the level one

NOTE Confidence: 0.8320103

 $00:20:11.647 \longrightarrow 00:20:13.712$  Level 2 and then going back to

NOTE Confidence: 0.8320103

 $00:20:13.712 \longrightarrow 00:20:15.506$  the beginning slide of the whole.

NOTE Confidence: 0.8320103

 $00:20:15.506 \longrightarrow 00:20:16.110$  So mastectomy.

NOTE Confidence: 0.8320103

00:20:16.110 --> 00:20:18.511 Really the Level 3 lymph nodes that

NOTE Confidence: 0.8320103

 $00:20:18.511 \longrightarrow 00:20:21.078$  are medial to the PEC minor muscle.

NOTE Confidence: 0.8320103

 $00:20:21.080 \longrightarrow 00:20:24.300$  So in the upfront setting.

NOTE Confidence: 0.8320103

00:20:24.300 --> 00:20:26.848 If we have clinically node negative patients,

 $00:20:26.850 \longrightarrow 00:20:29.394$  we can offer them a central lymph node

NOTE Confidence: 0.8320103

 $00:20:29.394 \longrightarrow 00:20:31.730$  biopsy if they have any clinically

NOTE Confidence: 0.8320103

 $00:20:31.730 \longrightarrow 00:20:33.760$  palpable adenopathy in the XR.

NOTE Confidence: 0.8320103

 $00:20:33.760 \longrightarrow 00:20:36.136$  Right now the the right answer is to

NOTE Confidence: 0.8320103

 $00:20:36.136 \longrightarrow 00:20:38.858$  do an actual lymph node dissection.

NOTE Confidence: 0.8320103

 $00{:}20{:}38.860 \longrightarrow 00{:}20{:}42.000$  If we're doing upfront surgery.

NOTE Confidence: 0.8320103

00:20:42.000 --> 00:20:44.004 Keeping in mind that if they're

NOTE Confidence: 0.8320103

 $00:20:44.004 \longrightarrow 00:20:45.006$  clinically node negative,

NOTE Confidence: 0.8320103

00:20:45.010 --> 00:20:47.683 the Z 11 trial and there was the ammo

NOTE Confidence: 0.8320103

 $00{:}20{:}47.683 \rightarrow 00{:}20{:}50.234$  amaros trial and there was a lot of

NOTE Confidence: 0.8320103

 $00{:}20{:}50.234 \dashrightarrow 00{:}20{:}51.997$  other good trials actually happening

NOTE Confidence: 0.8320103

 $00{:}20{:}51.997 \dashrightarrow 00{:}20{:}55.029$  around the same time as the 11 trial.

NOTE Confidence: 0.8320103

 $00:20:55.030 \longrightarrow 00:20:56.362$  This just happened to

NOTE Confidence: 0.8320103

00:20:56.362 --> 00:20:58.027 occur in the United States,

NOTE Confidence: 0.8320103

 $00:20:58.030 \longrightarrow 00:21:00.179$  so we do tend to talk about

 $00:21:00.179 \longrightarrow 00:21:02.039$  it a lot more here.

NOTE Confidence: 0.8320103

 $00:21:02.040 \longrightarrow 00:21:04.044$  But what we found was that

NOTE Confidence: 0.8320103

 $00:21:04.044 \longrightarrow 00:21:05.380$  in the upfront setting,

NOTE Confidence: 0.8320103

 $00:21:05.380 \longrightarrow 00:21:07.276$  if there was no clinically couple

NOTE Confidence: 0.8320103

00:21:07.276 --> 00:21:09.599 adenopathy in the XR that we could

NOTE Confidence: 0.8320103

 $00:21:09.599 \longrightarrow 00:21:11.264$  leave some maxillary disease behind

NOTE Confidence: 0.8320103

00:21:11.264 --> 00:21:13.460 with no sacrifice of Uncle Logic.

NOTE Confidence: 0.8320103

 $00:21:13.460 \longrightarrow 00:21:15.460$  Outcomes so these 900 women,

NOTE Confidence: 0.8320103

 $00{:}21{:}15.460 \dashrightarrow 00{:}21{:}17.530$  about 850 patients were randomized

NOTE Confidence: 0.8320103

00:21:17.530 --> 00:21:19.600 to either axillary lymph node

NOTE Confidence: 0.8320103

 $00:21:19.666 \longrightarrow 00:21:21.606$  dissection or no additional axillary

NOTE Confidence: 0.8320103

00:21:21.606 --> 00:21:24.375 surgery if they had one or two

NOTE Confidence: 0.8320103

 $00:21:24.375 \longrightarrow 00:21:26.280$  positive Sentinel lymph nodes on

NOTE Confidence: 0.8320103

 $00{:}21{:}26.280 \dashrightarrow 00{:}21{:}28.182$  their central lymph node biopsy.

NOTE Confidence: 0.8320103

00:21:28.182 --> 00:21:28.934 And Interestingly,

NOTE Confidence: 0.8320103

00:21:28.934 --> 00:21:32.210 in the patients who want to access section,

 $00:21:32.210 \longrightarrow 00:21:34.604$  28% of them had additional additional

NOTE Confidence: 0.8320103

 $00{:}21{:}34.604 \dashrightarrow 00{:}21{:}36.200$  positive axillary lymph nodes.

NOTE Confidence: 0.8320103

00:21:36.200 --> 00:21:38.600 However, thinking that it was randomized,

NOTE Confidence: 0.8320103

 $00:21:38.600 \longrightarrow 00:21:41.688$  the patients who did not go on to

NOTE Confidence: 0.8320103

 $00:21:41.688 \longrightarrow 00:21:43.499$  additional surgery probably had.

NOTE Confidence: 0.8320103

 $00:21:43.500 \longrightarrow 00:21:44.484$  Additional axillary disease

NOTE Confidence: 0.8320103

 $00:21:44.484 \longrightarrow 00:21:45.796$  that was left behind,

NOTE Confidence: 0.8320103

 $00:21:45.800 \longrightarrow 00:21:47.823$  and we found that there was no

NOTE Confidence: 0.8320103

 $00{:}21{:}47.823 \longrightarrow 00{:}21{:}49.400$  difference in axillary recurrences,

NOTE Confidence: 0.8320103

00:21:49.400 --> 00:21:51.040 survival, or disease free survival,

NOTE Confidence: 0.8320103

 $00:21:51.040 \longrightarrow 00:21:53.273$  so we feel comfortable now that if

NOTE Confidence: 0.8320103

 $00:21:53.273 \longrightarrow 00:21:55.652$  patients who have one or two positive

NOTE Confidence: 0.8320103

 $00{:}21{:}55.652 \dashrightarrow 00{:}21{:}57.680$ lymph nodes on settling down biopsy

NOTE Confidence: 0.791849429999999

00:21:57.744 --> 00:21:59.309 in the upfront surgical setting

NOTE Confidence: 0.791849429999999

 $00:21:59.309 \longrightarrow 00:22:02.416$  that we do not need to go on

 $00:22:02.416 \longrightarrow 00:22:04.976$  to perform the access section.

NOTE Confidence: 0.791849429999999

 $00:22:04.980 \longrightarrow 00:22:07.584$  However, I think that

NOTE Confidence: 0.791849429999999

 $00:22:07.584 \longrightarrow 00:22:10.839$  principle is going to become.

NOTE Confidence: 0.791849429999999

 $00:22:10.840 \longrightarrow 00:22:13.710$  More challenge maybe if you will with

NOTE Confidence: 0.791849429999999

 $00:22:13.710 \longrightarrow 00:22:16.809$  these new results of the RX Ponder trials.

NOTE Confidence: 0.791849429999999

00:22:16.810 --> 00:22:19.568 So in ER positive disease the tailor

NOTE Confidence: 0.791849429999999

 $00{:}22{:}19.568 \dashrightarrow 00{:}22{:}23.053$  X trial as I showed you a few slides

NOTE Confidence: 0.791849429999999

 $00:22:23.053 \longrightarrow 00:22:25.958$  ago looked back in the early 2000s.

NOTE Confidence: 0.791849429999999

 $00{:}22{:}25.960 \dashrightarrow 00{:}22{:}27.950$  Looked at ER positive disease

NOTE Confidence: 0.791849429999999

00:22:27.950 --> 00:22:29.144 node negative patients,

NOTE Confidence: 0.791849429999999

 $00{:}22{:}29.150 \dashrightarrow 00{:}22{:}31.929$  and who benefited from chemotherapy or not.

NOTE Confidence: 0.791849429999999

 $00:22:31.930 \longrightarrow 00:22:34.318$  The Oncotype score is a genomic.

NOTE Confidence: 0.791849429999999

 $00:22:34.320 \longrightarrow 00:22:36.228$  The genomic testing on

NOTE Confidence: 0.791849429999999

 $00:22:36.228 \longrightarrow 00:22:38.136$  the actual tumor itself.

NOTE Confidence: 0.791849429999999

 $00:22:38.140 \longrightarrow 00:22:40.276$  And it gives us a score from zero

NOTE Confidence: 0.791849429999999

 $00:22:40.276 \longrightarrow 00:22:42.849$  to 50 and it was a non inferior

 $00:22:42.849 \longrightarrow 00:22:45.046$  trial looking at women who either

NOTE Confidence: 0.791849429999999

 $00:22:45.046 \longrightarrow 00:22:47.470$  got hormone therapy or loan or

NOTE Confidence: 0.791849429999999

 $00{:}22{:}47.470 \dashrightarrow 00{:}22{:}49.312$  chemotherapy plus hormone therapy and

NOTE Confidence: 0.791849429999999

 $00:22:49.312 \longrightarrow 00:22:52.000$  an if their score was less than 25,

NOTE Confidence: 0.791849429999999

 $00:22:52.000 \longrightarrow 00:22:54.520$  we felt that we found that they did

NOTE Confidence: 0.791849429999999

00:22:54.520 --> 00:22:56.746 not benefit from chemotherapy and

NOTE Confidence: 0.791849429999999

00:22:56.746 --> 00:22:58.778 hormone therapy was sufficient.

NOTE Confidence: 0.791849429999999

 $00:22:58.780 \longrightarrow 00:23:00.740$  That was in the node.

NOTE Confidence: 0.791849429999999

00:23:00.740 --> 00:23:01.520 Negative patients,

NOTE Confidence: 0.791849429999999

00:23:01.520 --> 00:23:03.470 however the RX Ponder trial,

NOTE Confidence: 0.791849429999999

 $00:23:03.470 \longrightarrow 00:23:04.994$  which is still ongoing,

NOTE Confidence: 0.791849429999999

00:23:04.994 --> 00:23:06.899 but we got preliminary results

NOTE Confidence: 0.791849429999999

 $00{:}23{:}06.899 \dashrightarrow 00{:}23{:}09.317$  just about four months ago at

NOTE Confidence: 0.791849429999999

 $00{:}23{:}09.317 \dashrightarrow 00{:}23{:}10.893$ San Antonio Breast Conference.

NOTE Confidence: 0.791849429999999

 $00:23:10.900 \longrightarrow 00:23:12.855$  Looked at the same question

00:23:12.855 --> 00:23:14.810 in now node positive patients,

NOTE Confidence: 0.791849429999999

00:23:14.810 --> 00:23:17.156 one to three node positive patients,

NOTE Confidence: 0.791849429999999

 $00:23:17.160 \longrightarrow 00:23:21.336$  one one or two or three positive lymph nodes.

NOTE Confidence: 0.791849429999999

 $00:23:21.340 \longrightarrow 00:23:23.587$  And what we think is their finding

NOTE Confidence: 0.791849429999999

 $00:23:23.587 \longrightarrow 00:23:25.448$  the same things that women who

NOTE Confidence: 0.791849429999999

 $00{:}23{:}25.448 \dashrightarrow 00{:}23{:}27.380$  have a score of less than 25

NOTE Confidence: 0.791849429999999

 $00:23:27.450 \longrightarrow 00:23:29.378$  hormone therapy is sufficient.

NOTE Confidence: 0.791849429999999

 $00:23:29.380 \longrightarrow 00:23:30.568$  Keeping in mind, though,

NOTE Confidence: 0.791849429999999

 $00:23:30.568 \longrightarrow 00:23:32.834$  that this is in the in the

NOTE Confidence: 0.791849429999999

 $00:23:32.834 \longrightarrow 00:23:34.070$  post menopausal women,

NOTE Confidence: 0.791849429999999

 $00{:}23{:}34.070 \dashrightarrow 00{:}23{:}36.090$  we still think that chemotherapy

NOTE Confidence: 0.791849429999999

00:23:36.090 --> 00:23:37.706 benefits pre menopausal women.

NOTE Confidence: 0.791849429999999

 $00:23:37.710 \longrightarrow 00:23:40.950$  So what does that mean for us as surgeons?

NOTE Confidence: 0.791849429999999

 $00:23:40.950 \longrightarrow 00:23:42.034$  What it means is,

NOTE Confidence: 0.791849429999999

 $00:23:42.034 \longrightarrow 00:23:45.058$  is that if a woman has a clinically palpable

NOTE Confidence: 0.791849429999999

 $00:23:45.058 \longrightarrow 00:23:48.145$  lymph node and wants to avoid chemotherapy,

 $00:23:48.150 \longrightarrow 00:23:50.112$  then it could be possible where

NOTE Confidence: 0.791849429999999

 $00:23:50.112 \longrightarrow 00:23:52.469$  we take them to surgery first,

NOTE Confidence: 0.791849429999999

 $00:23:52.470 \longrightarrow 00:23:55.062$  we do an access section to find exactly

NOTE Confidence: 0.791849429999999

00:23:55.062 --> 00:23:57.868 how many positive lymph nodes they have,

NOTE Confidence: 0.791849429999999

 $00:23:57.870 \longrightarrow 00:24:00.550$  and then we could potentially

NOTE Confidence: 0.791849429999999

 $00:24:00.550 \longrightarrow 00:24:02.694$  avoid giving them chemotherapy.

NOTE Confidence: 0.791849429999999 00:24:02.700 --> 00:24:03.053 Alright, NOTE Confidence: 0.791849429999999

 $00:24:03.053 \longrightarrow 00:24:05.171$  So what about if we give

NOTE Confidence: 0.791849429999999

00:24:05.171 --> 00:24:06.230 patients neoadjuvant therapy?

NOTE Confidence: 0.791849429999999 00:24:06.230 --> 00:24:06.594 Historically, NOTE Confidence: 0.791849429999999

 $00:24:06.594 \longrightarrow 00:24:08.778$  the standard of care for clinically

NOTE Confidence: 0.791849429999999

 $00:24:08.778 \longrightarrow 00:24:10.587$  no positive patients even after

NOTE Confidence: 0.791849429999999

 $00{:}24{:}10.587 \dashrightarrow 00{:}24{:}12.573$  neoadjuvant was still an access section,

NOTE Confidence: 0.791849429999999

 $00:24:12.580 \longrightarrow 00:24:14.794$  but some of these trials found

NOTE Confidence: 0.791849429999999

00:24:14.794 --> 00:24:16.819 that actually are nodal PC RAR,

00:24:16.820 --> 00:24:17.879 pathologic complete response

NOTE Confidence: 0.791849429999999

00:24:17.879 --> 00:24:20.350 rate in the XR was quite high,

NOTE Confidence: 0.791849429999999

 $00:24:20.350 \longrightarrow 00:24:22.468$  and so we felt that maybe

NOTE Confidence: 0.791849429999999

 $00:24:22.468 \longrightarrow 00:24:23.880$  we could avoid giving.

NOTE Confidence: 0.791849429999999

 $00:24:23.880 \longrightarrow 00:24:25.992$  Avoid doing an access

NOTE Confidence: 0.791849429999999

 $00:24:25.992 \longrightarrow 00:24:27.576$  section after neoadjuvant.

NOTE Confidence: 0.791849429999999

 $00:24:27.580 \longrightarrow 00:24:29.390$  But the scary thing is,

NOTE Confidence: 0.791849429999999

 $00{:}24{:}29.390 \dashrightarrow 00{:}24{:}31.756$  is may be this would decrease our or

NOTE Confidence: 0.791849429999999

 $00{:}24{:}31.756 \dashrightarrow 00{:}24{:}33.719$  increase our false negative rate,

NOTE Confidence: 0.791849429999999

 $00:24:33.720 \longrightarrow 00:24:34.848$  lower identification rate,

NOTE Confidence: 0.791849429999999

 $00{:}24{:}34.848 \dashrightarrow 00{:}24{:}36.728$  or higher false negative rate

NOTE Confidence: 0.791849429999999

 $00:24:36.728 \longrightarrow 00:24:38.972$  because of the non uniform effective

NOTE Confidence: 0.791849429999999

 $00:24:38.972 \longrightarrow 00:24:40.767$  chemotherapy for well done trials

NOTE Confidence: 0.791849429999999

00:24:40.767 --> 00:24:42.527 were performed around the same

NOTE Confidence: 0.791849429999999

00:24:42.527 --> 00:24:44.207 time that demonstrated that if

NOTE Confidence: 0.791849429999999

00:24:44.207 --> 00:24:46.400 you use dual tracer that blue

 $00:24:46.400 \longrightarrow 00:24:48.652$  dye and radioactive isotope as I

NOTE Confidence: 0.791849429999999

 $00{:}24{:}48.652 \dashrightarrow 00{:}24{:}50.962$  showed and you were moved at least

NOTE Confidence: 0.791849429999999

 $00:24:50.962 \longrightarrow 00:24:52.490$  three central lymph nodes,

NOTE Confidence: 0.791849429999999

 $00:24:52.490 \longrightarrow 00:24:54.295$  the false negative rate was

NOTE Confidence: 0.791849429999999

 $00:24:54.295 \longrightarrow 00:24:55.739$  inappropriate less than 10%.

NOTE Confidence: 0.791849429999999 00:24:55.740 --> 00:24:56.113 However, NOTE Confidence: 0.791849429999999

 $00:24:56.113 \longrightarrow 00:24:57.978$  we do know that if.

NOTE Confidence: 0.791849429999999

 $00{:}24{:}57.980 \dashrightarrow 00{:}24{:}59.790$  Any lymph nodes remain positive

NOTE Confidence: 0.791849429999999

 $00:24:59.790 \longrightarrow 00:25:01.238$  after new agent chemotherapy.

NOTE Confidence: 0.791849429999999

 $00:25:01.240 \longrightarrow 00:25:03.406$  We still go on tax dissection,

NOTE Confidence: 0.791849429999999

 $00:25:03.410 \longrightarrow 00:25:05.783$  but that is also getting looked at

NOTE Confidence: 0.791849429999999

 $00:25:05.783 \longrightarrow 00:25:07.983$  in an ongoing alliance trial where

NOTE Confidence: 0.791849429999999

00:25:07.983 --> 00:25:10.559 maybe like the Z 11 trial where

NOTE Confidence: 0.8172174

00:25:10.631 --> 00:25:13.179 we know we left some disease behind,

NOTE Confidence: 0.8172174

 $00:25:13.180 \longrightarrow 00:25:15.964$  maybe actually radiation is going to

 $00:25:15.964 \longrightarrow 00:25:19.303$  be sufficient enough and we can still

NOTE Confidence: 0.8172174

 $00:25:19.303 \longrightarrow 00:25:21.633$  leave some ancillary disease behind.

NOTE Confidence: 0.8172174

 $00:25:21.640 \longrightarrow 00:25:23.722$  We are using a lot more

NOTE Confidence: 0.8172174

 $00:25:23.722 \longrightarrow 00:25:24.763$  neoadjuvant endocrine therapy.

NOTE Confidence: 0.8172174

00:25:24.770 --> 00:25:26.540 Ferrari are positive patients, especially

NOTE Confidence: 0.8172174

 $00:25:26.540 \longrightarrow 00:25:29.298$  in the light of the RX Ponder trial.

NOTE Confidence: 0.8172174

00:25:29.300 --> 00:25:30.684 An especially during kovid,

NOTE Confidence: 0.8172174

 $00:25:30.684 \longrightarrow 00:25:33.468$  for instance, and So what is the data?

NOTE Confidence: 0.8172174

 $00:25:33.470 \longrightarrow 00:25:35.210$  What are the data with

NOTE Confidence: 0.8172174

00:25:35.210 --> 00:25:36.254 neoadjuvant androgen therapy?

NOTE Confidence: 0.8172174

 $00:25:36.260 \longrightarrow 00:25:40.308$  We know that the PCR rates are low.

NOTE Confidence: 0.8172174

00:25:40.310 --> 00:25:42.548 They it does help with breast

NOTE Confidence: 0.8172174

00:25:42.548 --> 00:25:43.294 conservation eligibility.

NOTE Confidence: 0.8172174

 $00:25:43.300 \longrightarrow 00:25:45.550$  We think for neoadjuvant enterkin therapy,

NOTE Confidence: 0.8172174

 $00:25:45.550 \longrightarrow 00:25:48.168$  they do need a lot of new

NOTE Confidence: 0.8172174

 $00:25:48.168 \longrightarrow 00:25:49.290$  management and therapy.

00:25:49.290 --> 00:25:50.766 About six months, however,

NOTE Confidence: 0.8172174

 $00:25:50.766 \longrightarrow 00:25:54.105$  we do think this was a nicely done child

NOTE Confidence: 0.8172174

00:25:54.105 --> 00:25:57.140 out of data are done at Dana Farber.

NOTE Confidence: 0.8172174

 $00:25:57.140 \longrightarrow 00:25:59.156$  We do think that in the

NOTE Confidence: 0.8172174

00:25:59.156 --> 00:26:01.250 clinically T1 or T2N0 patients,

NOTE Confidence: 0.8172174

 $00:26:01.250 \longrightarrow 00:26:03.777$  they had a low residual nodal burden

NOTE Confidence: 0.8172174

 $00:26:03.777 \longrightarrow 00:26:05.370$  after neoadjuvant endocrine therapy.

NOTE Confidence: 0.8172174

 $00:26:05.370 \longrightarrow 00:26:10.010$  So maybe we can extrapolate that and say.

NOTE Confidence: 0.8172174

 $00:26:10.010 \longrightarrow 00:26:12.071$  If they only have one or two positive lymph

NOTE Confidence: 0.8172174

00:26:12.071 --> 00:26:14.027 nodes after neoadjuvant endocrine therapy,

NOTE Confidence: 0.8172174

 $00:26:14.030 \longrightarrow 00:26:16.095$  we actually don't have to

NOTE Confidence: 0.8172174

 $00:26:16.095 \longrightarrow 00:26:18.160$  go on to access section.

NOTE Confidence: 0.8172174

 $00{:}26{:}18.160 --> 00{:}26{:}18.515 \ Alright,$ 

NOTE Confidence: 0.8172174

 $00{:}26{:}18.515 \dashrightarrow 00{:}26{:}21.000$  I brief update on stage four disease.

NOTE Confidence: 0.8172174

00:26:21.000 --> 00:26:24.195 So why do we operate on stage four disease?

 $00:26:24.200 \longrightarrow 00:26:24.555$  Oftentimes,

NOTE Confidence: 0.8172174

 $00:26:24.555 \longrightarrow 00:26:26.330$  it's pallative wound control bleeding.

NOTE Confidence: 0.8172174

 $00:26:26.330 \longrightarrow 00:26:30.020$  If there's an aquatic tumor.

NOTE Confidence: 0.8172174

00:26:30.020 --> 00:26:31.145 And oftentimes, unfortunately,

NOTE Confidence: 0.8172174

 $00:26:31.145 \longrightarrow 00:26:33.395$  our patients present with operable disease,

NOTE Confidence: 0.8172174

 $00:26:33.400 \longrightarrow 00:26:35.280$  even if their stage four,

NOTE Confidence: 0.8172174

 $00:26:35.280 \longrightarrow 00:26:37.160$  they tend to be healthy.

NOTE Confidence: 0.8172174

 $00:26:37.160 \longrightarrow 00:26:40.024$  We are finding a lot more stage four

NOTE Confidence: 0.8172174

 $00:26:40.024 \longrightarrow 00:26:42.049$  disease because of better imaging,

NOTE Confidence: 0.8172174

 $00:26:42.050 \longrightarrow 00:26:44.306$  and there's been a lot of

NOTE Confidence: 0.8172174

 $00{:}26{:}44.306 \dashrightarrow 00{:}26{:}45.434$  mixed retrospective reviews.

NOTE Confidence: 0.8172174

 $00:26:45.440 \longrightarrow 00:26:48.176$  Looking at this question of whether

NOTE Confidence: 0.8172174

 $00:26:48.176 \longrightarrow 00:26:51.069$  surgery helps with stage four disease.

NOTE Confidence: 0.8172174

00:26:51.070 --> 00:26:53.170 Doctor Khan out of northwestern

NOTE Confidence: 0.8172174

 $00:26:53.170 \longrightarrow 00:26:54.850$  just essentially finished a

NOTE Confidence: 0.8172174

 $00:26:54.850 \longrightarrow 00:26:56.360$  randomized controlled trial.

 $00{:}26{:}56.360 \dashrightarrow 00{:}26{:}58.164$  Looking at this various,

NOTE Confidence: 0.8172174

 $00{:}26{:}58.164 {\:{\circ}{\circ}{\circ}}>00{:}27{:}00.419$  this very question on whether

NOTE Confidence: 0.8172174

00:27:00.419 --> 00:27:02.635 surgery help stage four disease

NOTE Confidence: 0.8172174

00:27:02.635 --> 00:27:04.740 and the really final result.

NOTE Confidence: 0.8172174

 $00{:}27{:}04.740 \longrightarrow 00{:}27{:}06.850$  Final conclusion was that surgery

NOTE Confidence: 0.8172174

 $00:27:06.850 \longrightarrow 00:27:08.960$  and radiation did not extend

NOTE Confidence: 0.8172174

 $00:27:09.032 \longrightarrow 00:27:11.756$  survival in these de Novo metastatic

NOTE Confidence: 0.8172174

 $00:27:11.756 \longrightarrow 00:27:13.118$  breast cancer patients.

NOTE Confidence: 0.8172174

 $00:27:13.120 \longrightarrow 00:27:15.436$  The big question behind it is

NOTE Confidence: 0.8172174

 $00{:}27{:}15.436 \dashrightarrow 00{:}27{:}17.970$  the idea of oligo metastatic.

NOTE Confidence: 0.8172174

 $00:27:17.970 \longrightarrow 00:27:20.646$  So if there's one small little

NOTE Confidence: 0.8172174

 $00:27:20.646 \longrightarrow 00:27:21.984$  lesion somewhere else.

NOTE Confidence: 0.8172174

00:27:21.990 --> 00:27:23.550 Maybe it will help because

NOTE Confidence: 0.8172174

 $00:27:23.550 \longrightarrow 00:27:25.110$  we're not the data is.

NOTE Confidence: 0.8172174

 $00:27:25.110 \longrightarrow 00:27:27.278$  This is so new that we don't have

 $00:27:27.278 \longrightarrow 00:27:29.869$  all the data in terms of all the

NOTE Confidence: 0.8172174

00:27:29.869 --> 00:27:31.660 patients involved in this study,

NOTE Confidence: 0.8172174

 $00:27:31.660 \longrightarrow 00:27:33.490$  but we still don't think that

NOTE Confidence: 0.8172174

 $00:27:33.490 \longrightarrow 00:27:35.090$  surgery is going to help.

NOTE Confidence: 0.8172174

00:27:35.090 --> 00:27:37.260 It is helping stage for de Novo

NOTE Confidence: 0.8172174

00:27:37.260 --> 00:27:39.150 patients and last but not least,

NOTE Confidence: 0.8172174

00:27:39.150 --> 00:27:41.646 so high risk lesions can be very complex,

NOTE Confidence: 0.8172174

00:27:41.650 --> 00:27:44.560 complicated, very scary for women.

NOTE Confidence: 0.8172174

00:27:44.560 --> 00:27:46.864 So based upon a lot of you know

NOTE Confidence: 0.8172174

 $00:27:46.864 \longrightarrow 00:27:48.825$  various data from across the country

NOTE Confidence: 0.8172174

00:27:48.825 --> 00:27:51.532 in terms of when we excite some of

NOTE Confidence: 0.8172174

00:27:51.532 --> 00:27:53.548 these high res high risk lesions,

NOTE Confidence: 0.8172174

 $00:27:53.550 \longrightarrow 00:27:54.870$  and when we don't,

NOTE Confidence: 0.8172174

 $00:27:54.870 \longrightarrow 00:27:56.520$  the thought is is thinking

NOTE Confidence: 0.8172174

 $00:27:56.520 \longrightarrow 00:27:58.475$  about the upgrade rate and what

NOTE Confidence: 0.8172174

 $00:27:58.475 \longrightarrow 00:28:00.290$  I mean by upgrade rate is.

 $00{:}28{:}00.290 \dashrightarrow 00{:}28{:}03.179$  If you biopsy something and then take it out,

NOTE Confidence: 0.8172174

 $00{:}28{:}03.180 \dashrightarrow 00{:}28{:}05.539$  what is the chance that you're going

NOTE Confidence: 0.8172174

00:28:05.539 --> 00:28:07.732 to find something more than what it

NOTE Confidence: 0.8172174

 $00:28:07.732 \longrightarrow 00:28:09.920$  was just on the core needle biopsy?

NOTE Confidence: 0.8172174

 $00:28:09.920 \longrightarrow 00:28:11.526$  And so the thought is,

NOTE Confidence: 0.8172174

 $00:28:11.526 \longrightarrow 00:28:13.242$  is Ath DCIS obviously comes

NOTE Confidence: 0.8172174

00:28:13.242 --> 00:28:15.330 out a LH and classic LCS.

NOTE Confidence: 0.8172174

 $00:28:15.330 \longrightarrow 00:28:17.850$  Stays in because the low upgrade rate,

NOTE Confidence: 0.8172174

 $00{:}28{:}17.850 \dashrightarrow 00{:}28{:}19.650$  but plea Amorphic and Florida

NOTE Confidence: 0.8172174

00:28:19.650 --> 00:28:21.450 else I should come out.

NOTE Confidence: 0.7380038

 $00:28:21.450 \longrightarrow 00:28:23.448$  Also keeping in mind that all

NOTE Confidence: 0.7380038

 $00:28:23.448 \longrightarrow 00:28:25.410$  of these high risk lesions,

NOTE Confidence: 0.7380038

00:28:25.410 --> 00:28:27.797 the ADH in the LH LCS increased

NOTE Confidence: 0.7380038

 $00:28:27.797 \longrightarrow 00:28:29.911$  your risk of developing breast

NOTE Confidence: 0.7380038

00:28:29.911 --> 00:28:32.935 above breast cancer later in life.

 $00:28:32.940 \longrightarrow 00:28:34.276$  That's all I have.

NOTE Confidence: 0.7380038

 $00:28:34.276 \longrightarrow 00:28:35.946$  I think I went overtime,

NOTE Confidence: 0.7380038

 $00:28:35.950 \longrightarrow 00:28:36.949$  so I apologize.

NOTE Confidence: 0.8521019

00:28:38.460 --> 00:28:40.878 Doctor Berger that you know to

NOTE Confidence: 0.8521019

00:28:40.878 --> 00:28:43.267 cover all these advances in breast

NOTE Confidence: 0.8521019

 $00{:}28{:}43.267 \dashrightarrow 00{:}28{:}45.717$  surgery over the last year or so.

NOTE Confidence: 0.8521019

 $00{:}28{:}45.720 \dashrightarrow 00{:}28{:}47.630$  That's really impressive. Thank you.

NOTE Confidence: 0.8521019

00:28:47.630 --> 00:28:49.916 Next, we have doctor Melanie Lynch,

NOTE Confidence: 0.8521019

 $00{:}28{:}49{.}920 \dashrightarrow 00{:}28{:}52{.}587$  an expert in Aqua plastic breast surgery,

NOTE Confidence: 0.8521019

 $00:28:52.590 \longrightarrow 00:28:54.888$  giving us some of the latest.

NOTE Confidence: 0.80811054

 $00{:}28{:}59.860 \dashrightarrow 00{:}29{:}01.240$  Oh, you're you're on mute.

NOTE Confidence: 0.8389549

 $00:29:04.300 \longrightarrow 00:29:10.830$  I mute myself and share my screen. Anne.

NOTE Confidence: 0.8389549

 $00:29:10.830 \longrightarrow 00:29:13.485$  Well, that was a fellowship in half an hour.

NOTE Confidence: 0.8389549

 $00:29:13.490 \longrightarrow 00:29:14.970$  That was a wonderful talk.

NOTE Confidence: 0.8389549

 $00:29:14.970 \longrightarrow 00:29:19.155$  Thank you so much for that overview that was.

NOTE Confidence: 0.8389549

 $00:29:19.160 \longrightarrow 00:29:20.985$  Wonderful way to cover everything

 $00:29:20.985 \longrightarrow 00:29:23.970$  and I'm going to focus on one small

NOTE Confidence: 0.8389549

 $00{:}29{:}23.970 \dashrightarrow 00{:}29{:}26.160$ area on Uncle plastic breast breast

NOTE Confidence: 0.8389549

 $00{:}29{:}26.160 \dashrightarrow 00{:}29{:}28.350$  surgery and current advances there.

NOTE Confidence: 0.8389549

 $00:29:28.350 \longrightarrow 00:29:30.702$  And really the mandate to consider

NOTE Confidence: 0.8389549

 $00:29:30.702 \longrightarrow 00:29:32.270$  on coplastic breast surgery is

NOTE Confidence: 0.8389549

 $00:29:32.335 \longrightarrow 00:29:34.477$  really the burden of breast cancer.

NOTE Confidence: 0.8389549

 $00:29:34.480 \longrightarrow 00:29:36.305$  Over 300,000 women are affected

NOTE Confidence: 0.8389549

 $00:29:36.305 \longrightarrow 00:29:38.939$  every year and most of these women

NOTE Confidence: 0.8389549

 $00:29:38.939 \longrightarrow 00:29:41.165$  will have a surgical procedure and

NOTE Confidence: 0.8389549

 $00:29:41.165 \longrightarrow 00:29:43.972$  so given the number of breast cancer

NOTE Confidence: 0.8389549

00:29:43.972 --> 00:29:45.962 survivors in the United States,

NOTE Confidence: 0.8389549

 $00{:}29{:}45.970 \dashrightarrow 00{:}29{:}48.532$ it's incumbent upon us as breast

NOTE Confidence: 0.8389549

 $00{:}29{:}48.532 \dashrightarrow 00{:}29{:}51.269$  surgeons to make sure that we are.

NOTE Confidence: 0.8389549

 $00:29:51.270 \longrightarrow 00:29:53.664$  Providing the best operations for patients

NOTE Confidence: 0.8389549

 $00:29:53.664 \longrightarrow 00:29:56.688$  not only to cure their breast cancer,

 $00:29:56.690 \longrightarrow 00:29:59.674$  but to make sure that they have the

NOTE Confidence: 0.8389549

 $00{:}29{:}59.674 \dashrightarrow 00{:}30{:}02.110$  best functional and cosmetic outcomes.

NOTE Confidence: 0.8565617

 $00:30:04.550 \longrightarrow 00:30:07.046$  So when we think about breast cancer surgery,

NOTE Confidence: 0.8565617

 $00:30:07.050 \longrightarrow 00:30:08.294$  we think about mastectomies

NOTE Confidence: 0.8565617

 $00:30:08.294 \longrightarrow 00:30:09.538$  and then breast conservation,

NOTE Confidence: 0.8565617

 $00:30:09.540 \longrightarrow 00:30:11.440$  with a lumpectomy and followed

NOTE Confidence: 0.8565617

 $00:30:11.440 \longrightarrow 00:30:12.960$  by whole breast radiotherapy.

NOTE Confidence: 0.8565617

 $00:30:12.960 \longrightarrow 00:30:15.090$  But the lived consequences of

NOTE Confidence: 0.8565617

 $00{:}30{:}15.090 \dashrightarrow 00{:}30{:}17.220$  these operations for our patients

NOTE Confidence: 0.8565617

 $00:30:17.290 \longrightarrow 00:30:19.320$  and for their bodies overtime,

NOTE Confidence: 0.8565617

 $00:30:19.320 \longrightarrow 00:30:22.393$  whether it's a mastectomy or whether a

NOTE Confidence: 0.8565617

 $00:30:22.393 \longrightarrow 00:30:24.469$  lumpectomy with radiation can affect

NOTE Confidence: 0.8565617

 $00{:}30{:}24.469 \to 00{:}30{:}26.870$  their sense of self and can also

NOTE Confidence: 0.8565617

 $00:30:26.870 \longrightarrow 00:30:29.070$  affect their functional outcomes.

NOTE Confidence: 0.8565617

 $00:30:29.070 \longrightarrow 00:30:31.614$  So as we think about Uncle

NOTE Confidence: 0.8565617

00:30:31.614 --> 00:30:32.886 plastic breast surgery,

00:30:32.890 --> 00:30:35.428 there's a lot of different definitions,

NOTE Confidence: 0.8565617

 $00{:}30{:}35.430 \dashrightarrow 00{:}30{:}36.699$  consensus statements about

NOTE Confidence: 0.8565617

 $00:30:36.699 \longrightarrow 00:30:38.814$  what Uncle plastic surgery is.

NOTE Confidence: 0.8565617

00:30:38.820 --> 00:30:42.627 But I I really like this description of Uncle

NOTE Confidence: 0.8565617

 $00:30:42.627 \longrightarrow 00:30:45.609$  plastic breast surgery as a philosophy.

NOTE Confidence: 0.8565617

00:30:45.610 --> 00:30:47.806 That we should be treating breast

NOTE Confidence: 0.8565617

 $00:30:47.806 \longrightarrow 00:30:50.027$  cancer surgically to cure the cancer

NOTE Confidence: 0.8565617

 $00{:}30{:}50.027 \dashrightarrow 00{:}30{:}52.456$  and then to maintain and improve the

NOTE Confidence: 0.8565617

 $00{:}30{:}52.456 \dashrightarrow 00{:}30{:}54.417$  cosmetic appearance of the breast.

NOTE Confidence: 0.8565617

 $00:30:54.420 \longrightarrow 00:30:56.664$  And that this requires a comprehensive

NOTE Confidence: 0.8565617

 $00{:}30{:}56.664 \dashrightarrow 00{:}30{:}58.929$  consideration not only of the patient's

NOTE Confidence: 0.8565617

00:30:58.929 --> 00:31:01.386 anatomy and the anatomy of their cancer,

NOTE Confidence: 0.8565617

 $00{:}31{:}01.390 \dashrightarrow 00{:}31{:}03.220$  but with the patient's own

NOTE Confidence: 0.8565617

 $00:31:03.220 \longrightarrow 00:31:04.684$  satisfaction with their breasts.

NOTE Confidence: 0.8565617

 $00:31:04.690 \longrightarrow 00:31:07.469$  The size and shape of their breast

 $00:31:07.469 \longrightarrow 00:31:09.774$  manage in their overall lifetime

NOTE Confidence: 0.8565617

 $00:31:09.774 \longrightarrow 00:31:11.838$  risk of breast cancer.

NOTE Confidence: 0.8565617

00:31:11.840 --> 00:31:13.856 And what the patient's goals are,

NOTE Confidence: 0.8565617

 $00:31:13.860 \longrightarrow 00:31:16.290$  and so it's a more comprehensive

NOTE Confidence: 0.8565617

 $00:31:16.290 \longrightarrow 00:31:18.775$  and complex consideration as we plan

NOTE Confidence: 0.8565617

 $00{:}31{:}18.775 \dashrightarrow 00{:}31{:}20.765$  these operations for our patients.

NOTE Confidence: 0.8565617

 $00:31:20.770 \longrightarrow 00:31:23.466$  And so we can talk about all sorts

NOTE Confidence: 0.8565617

 $00:31:23.466 \longrightarrow 00:31:25.479$  of incisions and approaches to

NOTE Confidence: 0.8565617

00:31:25.479 --> 00:31:27.584 every quadrant of the breast.

NOTE Confidence: 0.8565617

00:31:27.590 --> 00:31:30.286 And this is a summary from the Krishna

NOTE Confidence: 0.8565617

 $00{:}31{:}30.286 \dashrightarrow 00{:}31{:}32.330$  Cloth paper that has really become

NOTE Confidence: 0.8565617

 $00:31:32.330 \longrightarrow 00:31:34.860$  kind of the Bible for our consideration

NOTE Confidence: 0.8565617

 $00:31:34.860 \longrightarrow 00:31:37.445$  of Uncle plastic breast surgery.

NOTE Confidence: 0.8565617

00:31:37.450 --> 00:31:40.474 But I'm just going to focus on a

NOTE Confidence: 0.8565617

 $00:31:40.474 \longrightarrow 00:31:44.020$  couple of key areas and an techniques

NOTE Confidence: 0.8565617

 $00{:}31{:}44.020 \dashrightarrow 00{:}31{:}47.170$  and uncle plastic breath surgery too.

 $00:31:47.170 \longrightarrow 00:31:49.440$  Created an opportunity for conversation

NOTE Confidence: 0.8565617

 $00:31:49.440 \longrightarrow 00:31:51.256$  so within breast conservation,

NOTE Confidence: 0.8565617

 $00:31:51.260 \longrightarrow 00:31:54.170$  starting with the most basic operation

NOTE Confidence: 0.8565617

 $00:31:54.170 \longrightarrow 00:31:57.607$  that we do every day of the week.

NOTE Confidence: 0.8565617

 $00:31:57.610 \longrightarrow 00:32:00.660$  Asimple partial mastectomy are scar

NOTE Confidence: 0.8565617

 $00:32:00.660 \longrightarrow 00:32:03.100$  placement should be considered.

NOTE Confidence: 0.8565617

 $00:32:03.100 \longrightarrow 00:32:05.053$  Fundamental in this and we can place

NOTE Confidence: 0.8565617

 $00:32:05.053 \longrightarrow 00:32:07.297$  our scars in places where the patients

NOTE Confidence: 0.8565617

 $00:32:07.297 \longrightarrow 00:32:09.313$  don't have to see them regularly.

NOTE Confidence: 0.8565617

 $00:32:09.320 \longrightarrow 00:32:12.047$  It can either be at the edge of the

NOTE Confidence: 0.8565617

 $00:32:12.047 \longrightarrow 00:32:14.295$  areola or the edge of the breast,

NOTE Confidence: 0.8565617

 $00:32:14.300 \longrightarrow 00:32:16.477$  and when we start to think of

NOTE Confidence: 0.8565617

00:32:16.477 --> 00:32:17.410 separating the substance,

NOTE Confidence: 0.8565617

 $00:32:17.410 \longrightarrow 00:32:19.181$  the parenchyma of the breast from the

NOTE Confidence: 0.8565617

00:32:19.181 --> 00:32:21.123 skin of the breast and organizing

00:32:21.123 --> 00:32:22.998 our operation around that principle,

NOTE Confidence: 0.8565617

 $00:32:23.000 \longrightarrow 00:32:25.192$  we find we have lots of ways we

NOTE Confidence: 0.8565617

00:32:25.192 --> 00:32:26.739 can approach this operation.

NOTE Confidence: 0.8565617

 $00:32:26.740 \longrightarrow 00:32:29.412$  To put our scar in a cosmetic location

NOTE Confidence: 0.8565617

 $00:32:29.412 \longrightarrow 00:32:32.236$  and still have a good oncologic outcome.

NOTE Confidence: 0.8565617

00:32:32.240 --> 00:32:33.890 For the simple partial mastectomy,

NOTE Confidence: 0.8565617

 $00{:}32{:}33.890 \dashrightarrow 00{:}32{:}35.870$  the critical thing is to maintain

NOTE Confidence: 0.8565617

 $00:32:35.870 \longrightarrow 00:32:37.829$  the central location of the \*\*\*\*\*\*

NOTE Confidence: 0.8565617

 $00:32:37.830 \longrightarrow 00:32:38.374$  areolar complex,

NOTE Confidence: 0.8565617

 $00:32:38.374 \longrightarrow 00:32:40.550$  and in order to do that when we

NOTE Confidence: 0.8565617

 $00{:}32{:}40.609 \dashrightarrow 00{:}32{:}42.509$  close the breast parenchyma after

NOTE Confidence: 0.8565617

 $00:32:42.509 \longrightarrow 00:32:44.409$  we have completed our lumpectomy,

NOTE Confidence: 0.8565617

 $00:32:44.410 \longrightarrow 00:32:46.378$  that needs to be oriented in

NOTE Confidence: 0.8565617

 $00:32:46.378 \longrightarrow 00:32:47.362$  a radial direction.

NOTE Confidence: 0.8565617

 $00:32:47.370 \longrightarrow 00:32:49.757$  So we're always going to close up

NOTE Confidence: 0.8565617

 $00:32:49.757 \longrightarrow 00:32:52.532$  and down on the sides of the breast

 $00:32:52.532 \longrightarrow 00:32:55.463$  or from side to side or the top on

NOTE Confidence: 0.8565617

 $00{:}32{:}55.463 \dashrightarrow 00{:}32{:}57.900$  the top and bottom of the breast in

NOTE Confidence: 0.8565617

00:32:57.900 --> 00:32:59.878 order to maintain the \*\*\*\*\* areolar

NOTE Confidence: 0.8565617

 $00:32:59.878 \longrightarrow 00:33:02.174$  complex in the middle of the breast.

NOTE Confidence: 0.83024573

 $00{:}33{:}04.430 \dashrightarrow 00{:}33{:}06.932$  If we find we can't get to the tumor

NOTE Confidence: 0.83024573

00:33:06.932 --> 00:33:09.317 from one of those simple incisions,

NOTE Confidence: 0.83024573

 $00:33:09.320 \longrightarrow 00:33:11.072$  we can start to use other

NOTE Confidence: 0.83024573

 $00:33:11.072 \longrightarrow 00:33:12.675$  techniques that have been developed

NOTE Confidence: 0.83024573

 $00{:}33{:}12.675 \dashrightarrow 00{:}33{:}14.535$  and used by plastic surgeons,

NOTE Confidence: 0.83024573

 $00{:}33{:}14.540 \dashrightarrow 00{:}33{:}16.570$  but allow us to have more access

NOTE Confidence: 0.83024573

 $00{:}33{:}16.570 \dashrightarrow 00{:}33{:}18.450$  to the breast parenchyma way.

NOTE Confidence: 0.83024573

 $00{:}33{:}18.450 \dashrightarrow 00{:}33{:}20.514$  Still having a good cosmetic incision

NOTE Confidence: 0.83024573

 $00{:}33{:}20.514 \dashrightarrow 00{:}33{:}23.378$  and a good choice here is always a

NOTE Confidence: 0.83024573

 $00{:}33{:}23.378 \dashrightarrow 00{:}33{:}25.514$  Crescent or around block McMaster Pixie.

NOTE Confidence: 0.83024573

 $00:33:25.520 \longrightarrow 00:33:27.275$  Because by creating that larger

 $00:33:27.275 \longrightarrow 00:33:29.791$  incision at the center of the breast

NOTE Confidence: 0.83024573

 $00:33:29.791 \longrightarrow 00:33:31.546$  around the \*\*\*\*\* areolar complex,

NOTE Confidence: 0.83024573

 $00:33:31.546 \longrightarrow 00:33:33.694$  and then again thinking about the

NOTE Confidence: 0.83024573

00:33:33.694 --> 00:33:35.757 skin of the breast separate and

NOTE Confidence: 0.83024573

00:33:35.757 --> 00:33:38.115 apart from the parent of the breast

NOTE Confidence: 0.83024573

 $00:33:38.115 \longrightarrow 00:33:40.335$  that allows us to create broader

NOTE Confidence: 0.83024573

 $00:33:40.335 \longrightarrow 00:33:42.158$  planes of dissection and access

NOTE Confidence: 0.83024573

00:33:42.158 --> 00:33:43.928 tumors in more distal locations

NOTE Confidence: 0.83024573

 $00:33:43.928 \longrightarrow 00:33:45.700$  from the \*\*\*\*\* areolar complex.

NOTE Confidence: 0.85058796

 $00:33:49.190 \longrightarrow 00:33:51.054$  Another another consideration is

NOTE Confidence: 0.85058796

 $00:33:51.054 \longrightarrow 00:33:53.850$  avoiding some of the common deformities

NOTE Confidence: 0.85058796

00:33:53.917 --> 00:33:56.089 that can come after we've respected

NOTE Confidence: 0.85058796

 $00{:}33{:}56.089 \dashrightarrow 00{:}33{:}58.450$  volume in the breast or radiation.

NOTE Confidence: 0.85058796

 $00{:}33{:}58.450 \dashrightarrow 00{:}34{:}00.892$  This picture here from the original

NOTE Confidence: 0.85058796

 $00:34:00.892 \longrightarrow 00:34:03.458$  Cluff paper shows that kind of

NOTE Confidence: 0.85058796

 $00:34:03.458 \longrightarrow 00:34:05.190$  classic birds beak deformity.

 $00:34:05.190 \longrightarrow 00:34:08.442$  When we remove tissue from the 6:00

NOTE Confidence: 0.85058796

 $00{:}34{:}08.442 \dashrightarrow 00{:}34{:}10.932$  o'clock position of the breast.

NOTE Confidence: 0.85058796

 $00{:}34{:}10.940 \dashrightarrow 00{:}34{:}13.238$  It creates scar radiation contracts the

NOTE Confidence: 0.85058796

 $00:34:13.238 \longrightarrow 00:34:15.840$  breast further and it pulls the \*\*\*\*\*\*

NOTE Confidence: 0.85058796

 $00:34:15.840 \longrightarrow 00:34:18.856$  down and creates that kind of a deformity.

NOTE Confidence: 0.85058796

 $00:34:18.860 \longrightarrow 00:34:21.588$  We have multiple ways we can approach those

NOTE Confidence: 0.85058796

00:34:21.588 --> 00:34:24.139 tumors that would prevent that deformity,

NOTE Confidence: 0.85058796

00:34:24.140 --> 00:34:28.058 particularly by using a mastopexy approach.

NOTE Confidence: 0.85058796

 $00:34:28.060 \longrightarrow 00:34:30.684$  To allow us to excise skin over tumor

NOTE Confidence: 0.85058796

 $00:34:30.684 \longrightarrow 00:34:33.152$  to reshape the breast to refill the

NOTE Confidence: 0.85058796

 $00:34:33.152 \longrightarrow 00:34:36.232$  volume at the 6:00 o'clock pole and then

NOTE Confidence: 0.85058796

 $00:34:36.232 \dashrightarrow 00:34:38.220$  recentralise the \*\*\*\*\* areolar complex.

NOTE Confidence: 0.901231169999999

 $00{:}34{:}42.310 --> 00{:}34{:}44.277$  And then we can also work in

NOTE Confidence: 0.901231169999999

 $00:34:44.277 \longrightarrow 00:34:45.950$  partnership with our plastic surgery

NOTE Confidence: 0.901231169999999

00:34:45.950 --> 00:34:47.870 colleagues on several level 2

 $00:34:47.870 \longrightarrow 00:34:49.950$  techniques for breast reconstruction.

NOTE Confidence: 0.901231169999999

 $00{:}34{:}49.950 \dashrightarrow 00{:}34{:}53.826$  And this is a recent case.

NOTE Confidence: 0.901231169999999

 $00:34:53.830 \longrightarrow 00:34:56.469$  That I did with my plastic surgery

NOTE Confidence: 0.901231169999999

 $00:34:56.469 \longrightarrow 00:34:59.384$  colleague here of a patient who had a

NOTE Confidence: 0.901231169999999

 $00:34:59.384 \longrightarrow 00:35:01.536$  2 centimeter tumor that was involving

NOTE Confidence: 0.901231169999999

 $00:35:01.536 \longrightarrow 00:35:04.496$  the muscle of the chest wall in the

NOTE Confidence: 0.9012311699999999

 $00:35:04.496 \longrightarrow 00:35:07.078$  upper inner quadrant of her left breast.

NOTE Confidence: 0.901231169999999

 $00:35:07.080 \longrightarrow 00:35:10.072$  We chose to do a wise pattern mastopexy

NOTE Confidence: 0.901231169999999

 $00:35:10.072 \longrightarrow 00:35:12.694$  approach which gave us wide exposure of

NOTE Confidence: 0.901231169999999

 $00:35:12.694 \longrightarrow 00:35:15.538$  that area to allow excision of that tumor,

NOTE Confidence: 0.901231169999999

 $00{:}35{:}15.540 \dashrightarrow 00{:}35{:}16.638$  including underlying muscle,

NOTE Confidence: 0.901231169999999

00:35:16.638 --> 00:35:19.200 and then to reshape the breast using

NOTE Confidence: 0.901231169999999

 $00:35:19.258 \longrightarrow 00:35:21.058$  a classic wise pattern approach.

NOTE Confidence: 0.901231169999999

 $00:35:21.060 \longrightarrow 00:35:24.660$  We were also able to do our axillary lymph.

NOTE Confidence: 0.901231169999999

00:35:24.660 --> 00:35:25.992 Axillary lymph node sampling.

NOTE Confidence: 0.901231169999999

 $00:35:25.992 \longrightarrow 00:35:27.657$  Through this same incision again

00:35:27.657 --> 00:35:29.422 through this principle that the breast

NOTE Confidence: 0.901231169999999

 $00:35:29.422 \dashrightarrow 00:35:31.534$  parenchyma and the skin can be treated

NOTE Confidence: 0.901231169999999

 $00{:}35{:}31.534 \dashrightarrow 00{:}35{:}32.898$  differently in these operations,

NOTE Confidence: 0.901231169999999

 $00:35:32.900 \longrightarrow 00:35:35.220$  we had wide enough exposure to the axle

NOTE Confidence: 0.901231169999999

 $00:35:35.220 \longrightarrow 00:35:37.049$  through this wise pattern incision that

NOTE Confidence: 0.901231169999999

 $00:35:37.049 \longrightarrow 00:35:39.620$  we were able to remove our lymph node

NOTE Confidence: 0.901231169999999

 $00:35:39.620 \longrightarrow 00:35:41.455$  without making a separate incision.

NOTE Confidence: 0.901231169999999

 $00:35:41.460 \longrightarrow 00:35:44.950$  And this is a patient at at one week post up.

NOTE Confidence: 0.8913484

 $00{:}35{:}48.540 \dashrightarrow 00{:}35{:}50.580$  Another approach for consideration is

NOTE Confidence: 0.8913484

 $00:35:50.580 \longrightarrow 00:35:52.620$  volume replacement for patients whose

NOTE Confidence: 0.8913484

 $00:35:52.678 \dashrightarrow 00:35:55.016$  partial mastectomy volume is more than 20%,

NOTE Confidence: 0.8913484

 $00:35:55.020 \longrightarrow 00:35:57.687$  and sometimes it can be up to

NOTE Confidence: 0.8913484

 $00:35:57.687 \longrightarrow 00:36:00.120 30\%$  of their breast when they

NOTE Confidence: 0.8913484

 $00:36:00.120 \longrightarrow 00:36:02.820$  don't have a large breast volume.

NOTE Confidence: 0.8913484

 $00:36:02.820 \longrightarrow 00:36:05.130$  This is a patient who had a

 $00:36:05.130 \longrightarrow 00:36:06.527$  invasive lobular cancer that

NOTE Confidence: 0.8913484

 $00{:}36{:}06.527 \dashrightarrow 00{:}36{:}08.579$  was rather extensive on the MRI.

NOTE Confidence: 0.8913484

 $00{:}36{:}08.580 \dashrightarrow 00{:}36{:}11.577$  You can see that the cancer in the left

NOTE Confidence: 0.8913484

00:36:11.577 --> 00:36:14.005 breast you can see the biopsy clip.

NOTE Confidence: 0.8913484

00:36:14.010 --> 00:36:16.038 You can also see the cancer

NOTE Confidence: 0.8913484

00:36:16.038 --> 00:36:17.052 involving Cooper's ligaments.

NOTE Confidence: 0.8913484

 $00:36:17.060 \longrightarrow 00:36:19.356$  So even though she had a significant

NOTE Confidence: 0.8913484

00:36:19.356 --> 00:36:20.790 amount of subcutaneous tissue,

NOTE Confidence: 0.8913484

 $00{:}36{:}20.790 \dashrightarrow 00{:}36{:}23.094$  the skin overlying skin was tethered

NOTE Confidence: 0.8913484

 $00:36:23.094 \longrightarrow 00:36:25.922$  to the tumor and that skin had to

NOTE Confidence: 0.8913484

 $00{:}36{:}25.922 \dashrightarrow 00{:}36{:}28.550$  be removed as part of her reception.

NOTE Confidence: 0.8913484

 $00:36:28.550 \longrightarrow 00:36:30.917$  And we knew we were going to have to

NOTE Confidence: 0.8913484

00:36:30.917 --> 00:36:33.448 remove about 25% of her breast volume

NOTE Confidence: 0.8913484

 $00{:}36{:}33.448 \dashrightarrow 00{:}36{:}35.920$  in order to fully encompass this.

NOTE Confidence: 0.8913484

 $00:36:35.920 \longrightarrow 00:36:38.454$  And this also kind of attest to

NOTE Confidence: 0.8913484

 $00:36:38.454 \longrightarrow 00:36:40.822$  the importance of MRI in some

00:36:40.822 --> 00:36:42.426 of this surgical planning,

NOTE Confidence: 0.8913484

 $00:36:42.430 \longrightarrow 00:36:45.104$  which I know is area of controversy.

NOTE Confidence: 0.8913484

00:36:45.110 --> 00:36:48.557 So for this patient we used AT DAP flap,

NOTE Confidence: 0.8913484

 $00:36:48.560 \longrightarrow 00:36:51.248$  which was a rotational flap from the

NOTE Confidence: 0.8913484

 $00{:}36{:}51.248 \dashrightarrow 00{:}36{:}53.815$  lateral chest wall to fill that volume

NOTE Confidence: 0.8913484

 $00:36:53.815 \longrightarrow 00:36:56.600$  to allow for a complete wide resection,

NOTE Confidence: 0.8913484

 $00:36:56.600 \longrightarrow 00:36:58.535$  including overlying skin with an

NOTE Confidence: 0.8913484

 $00{:}36{:}58.535 \dashrightarrow 00{:}37{:}00.470$  acceptable cosmetic result to allow

NOTE Confidence: 0.8913484

 $00:37:00.528 \longrightarrow 00:37:02.348$  her to have breast conservation.

NOTE Confidence: 0.8435561

 $00{:}37{:}05.400 \dashrightarrow 00{:}37{:}08.202$  And so the outcomes of oncoplastic

NOTE Confidence: 0.8435561

00:37:08.202 --> 00:37:10.070 partial mastectomy are mostly

NOTE Confidence: 0.8435561

 $00:37:10.147 \longrightarrow 00:37:11.899$  reported in case series.

NOTE Confidence: 0.8435561

 $00{:}37{:}11.900 \dashrightarrow 00{:}37{:}14.618$  There have been two large meta

NOTE Confidence: 0.8435561

00:37:14.618 --> 00:37:17.000 analysis looking at Uncle Logic,

NOTE Confidence: 0.8435561

 $00:37:17.000 \longrightarrow 00:37:19.778$  safety and outcomes in these cases,

 $00:37:19.780 \longrightarrow 00:37:22.100$  including the rates of positive

NOTE Confidence: 0.8435561

 $00{:}37{:}22.100 \dashrightarrow 00{:}37{:}24.420$  margins or rates of reexcision,

NOTE Confidence: 0.8435561

 $00:37:24.420 \longrightarrow 00:37:26.280$  the conversion to mastectomy,

NOTE Confidence: 0.8435561

 $00:37:26.280 \longrightarrow 00:37:27.210$  overall survival,

NOTE Confidence: 0.8435561

00:37:27.210 --> 00:37:28.641 disease, free survival,

NOTE Confidence: 0.8435561

00:37:28.641 --> 00:37:31.026 and all of the expected

NOTE Confidence: 0.8435561

 $00{:}37{:}31.026 \to 00{:}37{:}32.507$  surgical complications and

NOTE Confidence: 0.8435561

 $00:37:32.507 \longrightarrow 00:37:34.307$  our uncle plastic techniques.

NOTE Confidence: 0.8435561

 $00{:}37{:}34.310 \dashrightarrow 00{:}37{:}38.158$  Are comparable to standard.

NOTE Confidence: 0.8435561

00:37:38.160 --> 00:37:38.982 Lumpectomy techniques,

NOTE Confidence: 0.8435561

 $00:37:38.982 \longrightarrow 00:37:43.070$  so we know that we know that these are Uncle,

NOTE Confidence: 0.8435561

 $00:37:43.070 \longrightarrow 00:37:43.478$  logically,

NOTE Confidence: 0.8435561

 $00:37:43.478 \longrightarrow 00:37:45.110$  in surgically safe operations.

NOTE Confidence: 0.83196354

 $00:37:47.850 \longrightarrow 00:37:51.458$  All this is a series from MD Anderson

NOTE Confidence: 0.83196354

00:37:51.458 --> 00:37:54.430 looking at Uncle Logic outcomes,

NOTE Confidence: 0.83196354

 $00:37:54.430 \longrightarrow 00:37:57.460$  including survival and disease free survival,

 $00:37:57.460 \longrightarrow 00:38:00.496$  and it's always important to consider

NOTE Confidence: 0.83196354

 $00:38:00.496 \longrightarrow 00:38:02.520$  breast conservation versus mastectomy,

NOTE Confidence: 0.83196354

 $00:38:02.520 \longrightarrow 00:38:05.446$  but this trial again proves the point

NOTE Confidence: 0.83196354

 $00:38:05.446 \longrightarrow 00:38:07.694$  that surgeons know their patients

NOTE Confidence: 0.83196354

 $00:38:07.694 \longrightarrow 00:38:10.430$  very well because our patients who

NOTE Confidence: 0.83196354

 $00:38:10.430 \longrightarrow 00:38:12.675$  have simple mastectomy without

NOTE Confidence: 0.83196354

 $00:38:12.675 \longrightarrow 00:38:15.815$  reconstruction are usually patients who

NOTE Confidence: 0.83196354

 $00:38:15.815 \dashrightarrow 00:38:18.482$  either have comorbidities or disease.

NOTE Confidence: 0.83196354

 $00:38:18.482 \longrightarrow 00:38:21.219$  Well, we know that these techniques are

NOTE Confidence: 0.83196354

 $00:38:21.219 \longrightarrow 00:38:23.754$  probably not going to be helpful to them.

NOTE Confidence: 0.83196354

 $00:38:23.760 \longrightarrow 00:38:25.740$  You can see in the red and the blue

NOTE Confidence: 0.83196354

 $00{:}38{:}25.740 \dashrightarrow 00{:}38{:}27.839$  lines in these graphs that breast

NOTE Confidence: 0.83196354

 $00{:}38{:}27.839 \dashrightarrow 00{:}38{:}29.664$  conserving surgery and breast conserving

NOTE Confidence: 0.83196354

 $00:38:29.718 \longrightarrow 00:38:31.703$  surgery with reconstruction have similar

NOTE Confidence: 0.83196354

 $00:38:31.703 \longrightarrow 00:38:34.020$  disease free and overall survival rates.

00:38:37.010 --> 00:38:38.490 So what about patient reported

NOTE Confidence: 0.8404576

 $00:38:38.490 \longrightarrow 00:38:39.674$  outcomes in these operations?

NOTE Confidence: 0.8404576

 $00:38:39.680 \longrightarrow 00:38:41.396$  There are. This state is hard

NOTE Confidence: 0.8404576

00:38:41.396 --> 00:38:43.250 to collect and hard to analyze,

NOTE Confidence: 0.8404576

 $00:38:43.250 \longrightarrow 00:38:44.735$  and there are several trials

NOTE Confidence: 0.8404576

 $00:38:44.735 \longrightarrow 00:38:46.220$  that have looked at different.

NOTE Confidence: 0.85889584

 $00:38:49.060 \longrightarrow 00:38:51.240$  Types of uncle plastic procedures.

NOTE Confidence: 0.85889584

00:38:51.240 --> 00:38:54.256 This was a larger study that looked at

NOTE Confidence: 0.85889584

 $00{:}38{:}54.256 \dashrightarrow 00{:}38{:}56.581$  multiple types of oncoplastic procedures

NOTE Confidence: 0.85889584

00:38:56.581 --> 00:38:59.071 with regards to patient reported

NOTE Confidence: 0.85889584

 $00:38:59.071 \longrightarrow 00:39:02.140$  outcomes as reported using the breast Q,

NOTE Confidence: 0.85889584

 $00:39:02.140 \longrightarrow 00:39:04.372$  which is one of the most

NOTE Confidence: 0.85889584

 $00{:}39{:}04.372 \dashrightarrow 00{:}39{:}05.860$  comprehensive and best studied

NOTE Confidence: 0.85889584

 $00{:}39{:}05.936 \dashrightarrow 00{:}39{:}08.240$  patient reported outcome measures.

NOTE Confidence: 0.85889584

 $00:39:08.240 \longrightarrow 00:39:10.380$  There are multiple components to

NOTE Confidence: 0.85889584

 $00:39:10.380 \longrightarrow 00:39:13.040$  the breast Q that include \*\*\*\*\*

00:39:13.040 --> 00:39:14.780 well being breast appearance,

NOTE Confidence: 0.85889584

 $00:39:14.780 \longrightarrow 00:39:16.085$  emotional well being,

NOTE Confidence: 0.85889584

 $00:39:16.090 \longrightarrow 00:39:17.562$  and physical well being.

NOTE Confidence: 0.85889584

 $00:39:17.562 \longrightarrow 00:39:20.320$  This is kind of a busy slide,

NOTE Confidence: 0.85889584

 $00:39:20.320 \longrightarrow 00:39:23.120$  but it looks at the comparison of simple

NOTE Confidence: 0.85889584

 $00:39:23.120 \longrightarrow 00:39:24.780$  mastectomy without reconstruction.

NOTE Confidence: 0.85889584

 $00:39:24.780 \longrightarrow 00:39:26.752$  To implant based reconstruction

NOTE Confidence: 0.85889584

 $00:39:26.752 \longrightarrow 00:39:28.724$  to rotational flap reconstruction

NOTE Confidence: 0.85889584

 $00{:}39{:}28.724 \dashrightarrow 00{:}39{:}31.166$  with an implant with and without

NOTE Confidence: 0.85889584

 $00:39:31.166 \longrightarrow 00:39:33.899$  an implant as well as free flap

NOTE Confidence: 0.85889584

 $00:39:33.899 \longrightarrow 00:39:36.279$  reconstruction and breast conservation.

NOTE Confidence: 0.85889584

 $00:39:36.280 \longrightarrow 00:39:38.644$  So as you move across the

NOTE Confidence: 0.85889584

 $00:39:38.644 \longrightarrow 00:39:40.850$  chart from left to right,

NOTE Confidence: 0.85889584

 $00:39:40.850 \longrightarrow 00:39:42.935$  the uncle plastic breast conservation

NOTE Confidence: 0.85889584

 $00:39:42.935 \longrightarrow 00:39:45.410$  procedures are at the right side.

00:39:45.410 --> 00:39:48.049 We know women have higher overall patient

NOTE Confidence: 0.85889584

 $00{:}39{:}48.049 \dashrightarrow 00{:}39{:}49.980$  satisfaction with breast conservation,

NOTE Confidence: 0.85889584

 $00{:}39{:}49.980 \dashrightarrow 00{:}39{:}52.055$  and if that breast conservation

NOTE Confidence: 0.85889584

00:39:52.055 --> 00:39:54.130 includes an uncle plastic approach,

NOTE Confidence: 0.85889584

00:39:54.130 --> 00:39:56.200 a mammaplasty approach or even

NOTE Confidence: 0.85889584

00:39:56.200 --> 00:39:57.856 a volume replacement approach,

NOTE Confidence: 0.85889584

 $00:39:57.860 \longrightarrow 00:40:01.168$  we know that there.

NOTE Confidence: 0.85889584

00:40:01.170 --> 00:40:04.020 Overall patient reported outcomes to improve.

NOTE Confidence: 0.832663

 $00{:}40{:}07.310 --> 00{:}40{:}09.280$  So just briefly about Uncle

NOTE Confidence: 0.832663

00:40:09.280 --> 00:40:10.856 Plastic approaches to mastectomy.

NOTE Confidence: 0.832663

 $00{:}40{:}10.860 \dashrightarrow 00{:}40{:}13.302$  Now that we've moved towards immediate

NOTE Confidence: 0.832663

 $00{:}40{:}13.302 \dashrightarrow 00{:}40{:}15.285$  reconstruction using both skin and

NOTE Confidence: 0.832663

00:40:15.285 --> 00:40:16.771 \*\*\*\*\*\* sparing mastectomy techniques,

NOTE Confidence: 0.832663

 $00:40:16.771 \longrightarrow 00:40:19.920$  this is allowed us to preserve the skin.

NOTE Confidence: 0.832663

 $00:40:19.920 \longrightarrow 00:40:24.105$  The skin pocket which may have some

NOTE Confidence: 0.832663

 $00:40:24.105 \longrightarrow 00:40:26.730$  concerns with regards to Uncle logic safety.

00:40:26.730 --> 00:40:29.355 Doctor Berger, did present some data there.

NOTE Confidence: 0.832663

 $00{:}40{:}29.360 \dashrightarrow 00{:}40{:}31.747$  I'm going to just repeat briefly a

NOTE Confidence: 0.832663

 $00{:}40{:}31.747 \dashrightarrow 00{:}40{:}34.461$  little bit of the data about Uncle

NOTE Confidence: 0.832663

00:40:34.461 --> 00:40:36.476 Plastic or Uncle logic safety,

NOTE Confidence: 0.832663

 $00:40:36.480 \longrightarrow 00:40:38.730$  but we now have newer techniques

NOTE Confidence: 0.832663

00:40:38.730 --> 00:40:40.593 in \*\*\*\*\*\* sparing mastectomy that

NOTE Confidence: 0.832663

 $00:40:40.593 \longrightarrow 00:40:43.190$  allow us to change the size and

NOTE Confidence: 0.832663

00:40:43.267 --> 00:40:45.675 shape of the skin pocket to allow

NOTE Confidence: 0.832663

 $00{:}40{:}45.675 \dashrightarrow 00{:}40{:}47.729$  for other options in mastectomy.

NOTE Confidence: 0.8164319

00:40:49.840 --> 00:40:53.290 So with regards to \*\*\*\*\*\* sparing mastectomy,

NOTE Confidence: 0.8164319

 $00{:}40{:}53.290 \dashrightarrow 00{:}40{:}56.115$  I really appreciate this picture

NOTE Confidence: 0.8164319

00:40:56.115 --> 00:40:59.840 because it really shows both the value

NOTE Confidence: 0.8164319

 $00{:}40{:}59.840 \dashrightarrow 00{:}41{:}02.265$  of our inframammary incision which

NOTE Confidence: 0.8164319

 $00:41:02.265 \longrightarrow 00:41:05.496$  most surgeons have adopted now as the.

NOTE Confidence: 0.8164319

 $00:41:05.500 \longrightarrow 00:41:08.630$  Safest incision with the best

 $00:41:08.630 \longrightarrow 00:41:12.709$  outcomes as well as the use of.

NOTE Confidence: 0.8164319

 $00{:}41{:}12.710 \dashrightarrow 00{:}41{:}16.148$  ATM's and other matrices to help

NOTE Confidence: 0.8164319

00:41:16.148 --> 00:41:18.440 us do prepectoral reconstruction,

NOTE Confidence: 0.8164319

 $00:41:18.440 \longrightarrow 00:41:21.872$  which also has improved outcomes for

NOTE Confidence: 0.8164319

 $00:41:21.872 \longrightarrow 00:41:24.738$  patients, both functional and cosmetic.

NOTE Confidence: 0.83157367

 $00:41:26.770 \longrightarrow 00:41:28.665$  Anne, as Doctor Berger described

NOTE Confidence: 0.83157367

00:41:28.665 --> 00:41:30.560 our patient selection for this

NOTE Confidence: 0.83157367

 $00:41:30.624 \longrightarrow 00:41:32.308$  operation is very important.

NOTE Confidence: 0.83157367

 $00:41:32.310 \longrightarrow 00:41:36.496$  The size and shape of the breast.

NOTE Confidence: 0.83157367

 $00:41:36.500 \longrightarrow 00:41:39.230$  As well as patient risk factors,

NOTE Confidence: 0.83157367

 $00:41:39.230 \longrightarrow 00:41:40.974$  including diabetes and smoking,

NOTE Confidence: 0.83157367

 $00:41:40.974 \longrightarrow 00:41:43.590$  are important to make sure we've

NOTE Confidence: 0.83157367

00:41:43.666 --> 00:41:46.510 assessed those, so we have optimal

NOTE Confidence: 0.83157367

 $00:41:46.510 \longrightarrow 00:41:48.330$  outcomes using this incision.

NOTE Confidence: 0.8144027

 $00:41:50.770 \longrightarrow 00:41:53.372$  So the outcomes of \*\*\*\*\* sparing

NOTE Confidence: 0.8144027

 $00:41:53.372 \longrightarrow 00:41:55.964$  mastectomy have shown that it's both

 $00:41:55.964 \longrightarrow 00:41:58.672$  Uncle logically safe and that our

NOTE Confidence: 0.8144027

 $00{:}41{:}58.672 \dashrightarrow 00{:}42{:}00.456$  patient satisfaction and overall

NOTE Confidence: 0.8144027

 $00{:}42{:}00.456 \dashrightarrow 00{:}42{:}02.459$  cosmetic outcomes are are good.

NOTE Confidence: 0.8144027

00:42:02.460 --> 00:42:05.058 The American Society of Breast Surgeons,

NOTE Confidence: 0.8144027

00:42:05.060 --> 00:42:06.832 \*\*\*\*\*\* sparing mastectomy rest

NOTE Confidence: 0.8144027

 $00{:}42{:}06.832 \to 00{:}42{:}09.047$  Registry reported a recurrence rate

NOTE Confidence: 0.8144027

 $00:42:09.047 \longrightarrow 00:42:11.985$  of 1.4% with none of the recurrences

NOTE Confidence: 0.8144027

00:42:11.985 --> 00:42:14.214 at the \*\*\*\*\* are olar complex.

NOTE Confidence: 0.8144027

 $00:42:14.214 \longrightarrow 00:42:16.524$  A Cochrane review that included

NOTE Confidence: 0.8144027

 $00:42:16.524 \longrightarrow 00:42:19.391$  over 11 studies with over 6000

NOTE Confidence: 0.8144027

00:42:19.391 --> 00:42:20.798 participants found very.

NOTE Confidence: 0.8144027

 $00:42:20.800 \longrightarrow 00:42:22.690$  Compareable outcomes for \*\*\*\*\* sparing.

NOTE Confidence: 0.8144027

00:42:22.690 --> 00:42:24.600 Skin sparing an complete mastectomy

NOTE Confidence: 0.8144027

 $00:42:24.600 \longrightarrow 00:42:26.943$  with a trend towards improved aesthetic

NOTE Confidence: 0.8144027

 $00:42:26.943 \longrightarrow 00:42:29.498$  outcomes and quality of life for women

 $00:42:29.498 \longrightarrow 00:42:30.980$  having \*\*\*\*\* sparing mastectomy.

NOTE Confidence: 0.81972986

 $00:42:35.960 \longrightarrow 00:42:38.802$  And this is a study from Sloan

NOTE Confidence: 0.81972986

 $00:42:38.802 \longrightarrow 00:42:41.859$  Kettering using the breast Q an looking

NOTE Confidence: 0.81972986

00:42:41.859 --> 00:42:44.036 at outcomes with \*\*\*\*\* sparing

NOTE Confidence: 0.81972986

 $00:42:44.036 \longrightarrow 00:42:45.740$  mastectomy versus total mastectomy.

NOTE Confidence: 0.81972986

 $00:42:45.740 \longrightarrow 00:42:48.218$  And there was a trend towards

NOTE Confidence: 0.81972986

 $00:42:48.218 \longrightarrow 00:42:49.457$  significance for psychosocial

NOTE Confidence: 0.81972986

 $00:42:49.457 \longrightarrow 00:42:51.688$  well being among those patients.

NOTE Confidence: 0.7949045

 $00:42:54.180 \longrightarrow 00:42:55.419$  So newer mastectomy,

NOTE Confidence: 0.7949045

 $00:42:55.419 \longrightarrow 00:42:57.484$  newer mastectomy techniques that can

NOTE Confidence: 0.7949045

 $00{:}42{:}57.484 \dashrightarrow 00{:}43{:}00.775$  be used for women who are not optimal

NOTE Confidence: 0.7949045

00:43:00.775 --> 00:43:02.892 candidates for traditional \*\*\*\*\* sparing,

NOTE Confidence: 0.7949045

 $00:43:02.892 \longrightarrow 00:43:04.940$  mastectomy with the inframammary

NOTE Confidence: 0.7949045

 $00:43:04.940 \longrightarrow 00:43:06.988$  incision include techniques that

NOTE Confidence: 0.7949045

 $00:43:06.988 \longrightarrow 00:43:09.411$  allow us to reshape and resize the

NOTE Confidence: 0.7949045

 $00{:}43{:}09.411 \dashrightarrow 00{:}43{:}11.476$ skin pocket using a wise pattern

00:43:11.476 --> 00:43:14.058 using free \*\*\*\*\* grafts to make a

NOTE Confidence: 0.7949045

 $00:43:14.058 \longrightarrow 00:43:16.200$  better size pocket for either implant

NOTE Confidence: 0.7949045

 $00{:}43{:}16.273 \dashrightarrow 00{:}43{:}18.613$  based reconstruction or to use the

NOTE Confidence: 0.7949045

 $00:43:18.613 \longrightarrow 00:43:21.240$  patient's own tissue for reconstruction.

NOTE Confidence: 0.7949045

 $00:43:21.240 \longrightarrow 00:43:23.748$  Whether that's using a skin pedicle.

NOTE Confidence: 0.7949045

 $00:43:23.750 \longrightarrow 00:43:27.120$  Or using a rotational flap.

NOTE Confidence: 0.7949045

00:43:27.120 --> 00:43:29.688 And this includes the Goldilocks operation,

NOTE Confidence: 0.7949045

 $00:43:29.690 \longrightarrow 00:43:32.270$  which uses a local skin flap

NOTE Confidence: 0.7949045

 $00:43:32.270 \longrightarrow 00:43:33.560$  for that reconstruction.

NOTE Confidence: 0.880195

 $00:43:36.950 \longrightarrow 00:43:39.174$  So it's up to us to always consider

NOTE Confidence: 0.880195

 $00:43:39.174 \longrightarrow 00:43:41.358$  what the best functional and cosmetic

NOTE Confidence: 0.880195

 $00:43:41.358 \longrightarrow 00:43:44.127$  outcomes of our operations can be as

NOTE Confidence: 0.880195

 $00{:}43{:}44.127 \dashrightarrow 00{:}43{:}46.239$  we treat patients for breast cancer.

NOTE Confidence: 0.880195

00:43:46.240 --> 00:43:48.776 Again, the priority always needs to be to

NOTE Confidence: 0.880195

 $00:43:48.776 \longrightarrow 00:43:51.398$  make sure that we're doing the operation.

 $00:43:51.400 \longrightarrow 00:43:53.362$  That's going to help achieve a

NOTE Confidence: 0.880195

00:43:53.362 --> 00:43:55.180 cure for our patients cancer,

NOTE Confidence: 0.880195

 $00:43:55.180 \longrightarrow 00:43:57.322$  but then to consider how how we

NOTE Confidence: 0.880195

 $00:43:57.322 \longrightarrow 00:43:59.060$  can offer more patients breast

NOTE Confidence: 0.880195

 $00{:}43{:}59.060 \dashrightarrow 00{:}44{:}01.298$  conservation and how we can make

NOTE Confidence: 0.880195

 $00:44:01.298 \longrightarrow 00:44:04.410$  sure to ensure the best cosmetic and

NOTE Confidence: 0.880195

 $00:44:04.410 \longrightarrow 00:44:06.246$  functional outcomes for patients.

NOTE Confidence: 0.880195

 $00:44:06.250 \longrightarrow 00:44:06.850$  Thank you.

NOTE Confidence: 0.84878045

 $00{:}44{:}08.330 \dashrightarrow 00{:}44{:}10.262$  Thank you so much Doctor Lynch

NOTE Confidence: 0.84878045

 $00:44:10.262 \longrightarrow 00:44:12.210$  that is just absolutely fantastic.

NOTE Confidence: 0.84878045

 $00{:}44{:}12.210 \dashrightarrow 00{:}44{:}14.448$  What a wonderful addition to our

NOTE Confidence: 0.84878045

 $00{:}44{:}14.448 \dashrightarrow 00{:}44{:}16.798$  breast program and you know skills

NOTE Confidence: 0.84878045

 $00{:}44{:}16.798 \dashrightarrow 00{:}44{:}19.156$  and techniques that I certainly can

NOTE Confidence: 0.84878045

 $00{:}44{:}19.156 \dashrightarrow 00{:}44{:}21.407$  learn from you and so many others

NOTE Confidence: 0.84878045

00:44:21.407 --> 00:44:23.859 as well to an last but not least

NOTE Confidence: 0.84878045

 $00{:}44{:}23.859 \dashrightarrow 00{:}44{:}25.624$  obviously is Doctor Rachel Green,

 $00:44:25.630 \longrightarrow 00:44:27.038$  Upper section chief in

NOTE Confidence: 0.84878045

00:44:27.038 --> 00:44:28.094 Breast Surgical oncology,

NOTE Confidence: 0.84878045

00:44:28.100 --> 00:44:29.464 really discussing and focusing

NOTE Confidence: 0.84878045

 $00:44:29.464 \longrightarrow 00:44:31.169$  on the young woman's perspective

NOTE Confidence: 0.84878045

00:44:31.169 --> 00:44:32.690 and breast cancer surgery.

NOTE Confidence: 0.86008126

00:44:34.990 --> 00:44:36.880 And Doctor Lynch, you have a bunch

NOTE Confidence: 0.86008126

 $00:44:36.880 \longrightarrow 00:44:40.170$  of questions in the chat box and.

NOTE Confidence: 0.86008126

00:44:40.170 --> 00:44:42.066 Into the answer and will will

NOTE Confidence: 0.86008126

 $00:44:42.066 \longrightarrow 00:44:44.159$  have a some time at the end.

NOTE Confidence: 0.86008126

 $00:44:44.160 \longrightarrow 00:44:46.616$  Also to open it up to the larger

NOTE Confidence: 0.85978884

00:44:46.620 --> 00:44:47.538 audience. Thank you.

NOTE Confidence: 0.89070404

 $00:44:49.360 \longrightarrow 00:44:53.469$  I'm just going to unmute myself and.

NOTE Confidence: 0.89070404

 $00{:}44{:}53.470 \dashrightarrow 00{:}44{:}55.630$  Get my slides connected al right,

NOTE Confidence: 0.89070404

00:44:55.630 --> 00:44:57.789 well thank you everyone for

NOTE Confidence: 0.89070404

 $00:44:57.790 \longrightarrow 00:44:59.514$  joining us this afternoon.

00:44:59.514 --> 00:45:02.538 As mentioned, my name is Rachel Greenup,

NOTE Confidence: 0.89070404

 $00{:}45{:}02.540 \dashrightarrow 00{:}45{:}05.804$  I just joined Yale in February and I'm

NOTE Confidence: 0.89070404

 $00:45:05.804 \longrightarrow 00:45:09.198$  thrilled to be here and I'll be talking

NOTE Confidence: 0.89070404

 $00:45:09.198 \longrightarrow 00:45:12.039$  today about young women with breast

NOTE Confidence: 0.89070404

 $00:45:12.039 \longrightarrow 00:45:14.774$  cancer perspectives from a surgeon.

NOTE Confidence: 0.89070404

00:45:14.780 --> 00:45:16.958 I have no relevant just disclosures,

NOTE Confidence: 0.89070404

 $00:45:16.960 \longrightarrow 00:45:19.060$  except that I became really interested

NOTE Confidence: 0.89070404

 $00:45:19.060 \longrightarrow 00:45:21.645$  in this topic from a clinical perspective

NOTE Confidence: 0.89070404

 $00{:}45{:}21.645 {\:\dashrightarrow\:} 00{:}45{:}24.263$  when my dear friend was diagnosed with

NOTE Confidence: 0.89070404

00:45:24.333 --> 00:45:26.790 triple negative breast cancer at age 32,

NOTE Confidence: 0.89070404

00:45:26.790 --> 00:45:28.246 she's doing well practicing

NOTE Confidence: 0.89070404

 $00:45:28.246 \longrightarrow 00:45:30.430$  as a surgeon in the Midwest,

NOTE Confidence: 0.89070404

 $00:45:30.430 \longrightarrow 00:45:34.069$  but I had the privilege of being part of her

NOTE Confidence: 0.89070404

 $00:45:34.070 \longrightarrow 00:45:38.700$  journey and learning a lot along the way.

NOTE Confidence: 0.89070404

 $00:45:38.700 \longrightarrow 00:45:39.648$  So, as mentioned,

NOTE Confidence: 0.89070404

00:45:39.648 --> 00:45:42.275 we know that breast cancer is a really

00:45:42.275 --> 00:45:44.711 common disease in the United States with

NOTE Confidence: 0.89070404

 $00:45:44.711 \longrightarrow 00:45:47.636$  one in eight women over their lifetime

NOTE Confidence: 0.89070404

 $00:45:47.636 \longrightarrow 00:45:49.796$  being diagnosed with breast cancer.

NOTE Confidence: 0.89070404

 $00:45:49.800 \longrightarrow 00:45:51.565$  And this assumes that women

NOTE Confidence: 0.89070404

 $00:45:51.565 \longrightarrow 00:45:54.240$  live to be in their 8th decade.

NOTE Confidence: 0.89070404

 $00:45:54.240 \longrightarrow 00:45:57.570$  But we, when we look at women under 40,

NOTE Confidence: 0.89070404

 $00:45:57.570 \longrightarrow 00:46:00.978$  there's only about 4% of new breast cancer

NOTE Confidence: 0.89070404

 $00:46:00.978 \longrightarrow 00:46:03.670$  cases affecting this younger population.

NOTE Confidence: 0.89070404

00:46:03.670 --> 00:46:06.991 I'm gonna be talking about a kind of popery

NOTE Confidence: 0.89070404

00:46:06.991 --> 00:46:10.339 of topics related to this young cohort,

NOTE Confidence: 0.89070404

00:46:10.340 --> 00:46:12.004 including breast cancer screening,

NOTE Confidence: 0.89070404

00:46:12.004 --> 00:46:13.264 the incidence, prevalence,

NOTE Confidence: 0.89070404

 $00:46:13.264 \longrightarrow 00:46:14.536$  biology, and prognosis.

NOTE Confidence: 0.89070404

00:46:14.536 --> 00:46:16.232 Thinking a bit about

NOTE Confidence: 0.89070404

 $00:46:16.232 \longrightarrow 00:46:17.849$  surgical issues and options,

00:46:17.850 --> 00:46:18.682 discussing pregnancy,

NOTE Confidence: 0.89070404

00:46:18.682 --> 00:46:19.930 associated breast cancer,

NOTE Confidence: 0.89070404

 $00:46:19.930 \longrightarrow 00:46:22.015$  and then unique issues within

NOTE Confidence: 0.89070404

 $00:46:22.015 \longrightarrow 00:46:22.849$  survivorship care.

NOTE Confidence: 0.89070404

 $00:46:22.850 \longrightarrow 00:46:25.991$  So there's been a lot of controversy in the

NOTE Confidence: 0.89070404

 $00:46:25.991 \longrightarrow 00:46:29.107$  last decade about breast cancer screening.

NOTE Confidence: 0.89070404

 $00:46:29.110 \longrightarrow 00:46:31.490$  the US Preventive Taskforce originally

NOTE Confidence: 0.89070404

 $00:46:31.490 \longrightarrow 00:46:34.728$  recommended that women should wait to have

NOTE Confidence: 0.89070404

 $00{:}46{:}34.728 \to 00{:}46{:}37.080$  breast cancer screen until they reached.

NOTE Confidence: 0.89070404

00:46:37.080 --> 00:46:39.756 Age 50 the American Cancer Society

NOTE Confidence: 0.89070404

 $00{:}46{:}39.756 \dashrightarrow 00{:}46{:}41.540$  has recommended that younger

NOTE Confidence: 0.89070404

00:46:41.618 --> 00:46:44.282 patients ages 40 to 44 should have a

NOTE Confidence: 0.89070404

 $00:46:44.282 \longrightarrow 00:46:46.898$  choice and that risk and potential

NOTE Confidence: 0.89070404

00:46:46.898 --> 00:46:48.774 benefit should be considered,

NOTE Confidence: 0.89070404

 $00:46:48.780 \longrightarrow 00:46:50.452$  including women who have

NOTE Confidence: 0.89070404

 $00:46:50.452 \longrightarrow 00:46:52.124$  a higher lifetime risk,

 $00:46:52.130 \longrightarrow 00:46:56.295$  who should start at 40 years old.

NOTE Confidence: 0.89070404

 $00{:}46{:}56.300 \dashrightarrow 00{:}46{:}58.255$  The American Society of Breast

NOTE Confidence: 0.89070404

00:46:58.255 --> 00:47:00.683 Surgeons more recently came up with

NOTE Confidence: 0.89070404

 $00{:}47{:}00.683 \dashrightarrow 00{:}47{:}02.703$  guidelines specific to our surgical

NOTE Confidence: 0.89070404

 $00{:}47{:}02.703 \dashrightarrow 00{:}47{:}05.559$  community and that all women ages 25

NOTE Confidence: 0.89070404

 $00:47:05.559 \longrightarrow 00:47:07.905$  and older should undergo formal risk

NOTE Confidence: 0.89070404

 $00:47:07.905 \longrightarrow 00:47:09.768$  assessment for breast cancer that

NOTE Confidence: 0.89070404

 $00{:}47{:}09.768 \dashrightarrow 00{:}47{:}11.970$  women with an average risk should

NOTE Confidence: 0.89070404

 $00{:}47{:}12.038 \dashrightarrow 00{:}47{:}13.873$  begin yearly screening starting at

NOTE Confidence: 0.89070404

 $00:47:13.873 \longrightarrow 00:47:17.131$  age 40 and women with a higher risk

NOTE Confidence: 0.89070404

 $00:47:17.131 \longrightarrow 00:47:18.939$  should include screening mammography

NOTE Confidence: 0.89070404

 $00:47:18.939 \longrightarrow 00:47:21.270$  with the potential for supplemental

NOTE Confidence: 0.89070404

 $00{:}47{:}21.270 \dashrightarrow 00{:}47{:}24.180$  imaging including ultrasound and or MRI.

NOTE Confidence: 0.89070404

 $00:47:24.180 \longrightarrow 00:47:26.820$  An they also included a really

NOTE Confidence: 0.89070404

00:47:26.820 --> 00:47:28.580 valuable component within their

00:47:28.654 --> 00:47:30.500 screening recommendations,

NOTE Confidence: 0.89070404

 $00{:}47{:}30.500 \dashrightarrow 00{:}47{:}32.708$  which included guidelines around

NOTE Confidence: 0.89070404

 $00{:}47{:}32.708 \dashrightarrow 00{:}47{:}36.678$  breast density and that in the US

NOTE Confidence: 0.89070404

 $00:47:36.678 \longrightarrow 00:47:38.938$  means tomosynthesis imaging and

NOTE Confidence: 0.89070404

 $00:47:38.938 \longrightarrow 00:47:41.198$  or MRI with ultrasound.

NOTE Confidence: 0.89070404

00:47:41.200 --> 00:47:42.328 So in our world,

NOTE Confidence: 0.89070404

 $00:47:42.328 \longrightarrow 00:47:44.731$  many women do come in with this green

NOTE Confidence: 0.89070404

 $00:47:44.731 \longrightarrow 00:47:46.978$  detected cancer and you can see on

NOTE Confidence: 0.89070404

 $00{:}47{:}46.978 \to 00{:}47{:}49.502$  the mammogram here highlighted in my

NOTE Confidence: 0.89070404

 $00:47:49.502 \longrightarrow 00:47:52.194$  circle that there's a spiculated mass,

NOTE Confidence: 0.89070404

 $00:47:52.194 \longrightarrow 00:47:55.518$  but in a heterogeneously dense breast.

NOTE Confidence: 0.89070404

00:47:55.520 --> 00:47:58.054 Most women then go on have ultrasound

NOTE Confidence: 0.89070404

 $00:47:58.054 \longrightarrow 00:48:01.004$  and a biopsy showing cancer and they

NOTE Confidence: 0.89070404

 $00{:}48{:}01.004 \dashrightarrow 00{:}48{:}03.244$  meet their surgical team either

NOTE Confidence: 0.89070404

 $00:48:03.244 \longrightarrow 00:48:05.509$  before or after this diagnosis.

NOTE Confidence: 0.89070404

 $00{:}48{:}05.510 \dashrightarrow 00{:}48{:}07.946$  We know there are risk factors

00:48:07.946 --> 00:48:09.986 for breast cancer, summer nature,

NOTE Confidence: 0.89070404

 $00{:}48{:}09.986 \dashrightarrow 00{:}48{:}11.618$  summer nurture being female.

NOTE Confidence: 0.89070404

00:48:11.620 --> 00:48:14.056 Certainly as age increases over time,

NOTE Confidence: 0.89070404

00:48:14.060 --> 00:48:16.496 having a genetic mutation or a

NOTE Confidence: 0.89070404

00:48:16.496 --> 00:48:17.714 personal family history,

NOTE Confidence: 0.89070404

 $00:48:17.720 \longrightarrow 00:48:20.156$  we know that any prior biopsy,

NOTE Confidence: 0.89070404

00:48:20.160 --> 00:48:22.200 whether it's benign or malignant,

NOTE Confidence: 0.83137494

 $00:48:22.200 \longrightarrow 00:48:25.049$  is associated with a higher lifetime risk.

NOTE Confidence: 0.83137494

00:48:25.050 --> 00:48:25.864 Menstrual history.

NOTE Confidence: 0.83137494

 $00:48:25.864 \longrightarrow 00:48:27.899$  There's some data around race,

NOTE Confidence: 0.83137494

00:48:27.900 --> 00:48:29.348 and certainly breast density.

NOTE Confidence: 0.83137494

 $00:48:29.348 \longrightarrow 00:48:31.520$  The nurture piece we look at

NOTE Confidence: 0.83137494

 $00{:}48{:}31.591 \dashrightarrow 00{:}48{:}33.592$  delayed childbirth, alcohol intake,

NOTE Confidence: 0.83137494

 $00:48:33.592 \longrightarrow 00:48:35.285$  high fat diet, smoking.

NOTE Confidence: 0.83137494

 $00:48:35.285 \longrightarrow 00:48:37.660$  There's a lot of data.

00:48:37.660 --> 00:48:38.314 Coming out,

NOTE Confidence: 0.83137494

 $00:48:38.314 \longrightarrow 00:48:40.603$  some of which has been driven by

NOTE Confidence: 0.83137494

 $00{:}48{:}40.603 \dashrightarrow 00{:}48{:}42.820$  Melinda Irwin and terracing after it.

NOTE Confidence: 0.83137494

00:48:42.820 --> 00:48:44.540 Yeah looking at body weight,

NOTE Confidence: 0.83137494

 $00:48:44.540 \longrightarrow 00:48:46.260$  an exercise history of childhood

NOTE Confidence: 0.83137494

00:48:46.260 --> 00:48:47.636 or young adult radiation,

NOTE Confidence: 0.83137494

 $00:48:47.640 \longrightarrow 00:48:49.698$  an long term hormone replacement use.

NOTE Confidence: 0.871685

 $00:48:51.750 \longrightarrow 00:48:54.590$  So we know that risk of breast

NOTE Confidence: 0.871685

 $00{:}48{:}54.590 \dashrightarrow 00{:}48{:}56.210$  cancer increases with age.

NOTE Confidence: 0.871685

 $00:48:56.210 \longrightarrow 00:48:58.235$  These are data from the

NOTE Confidence: 0.871685

00:48:58.235 --> 00:48:59.450 American Cancer Society,

NOTE Confidence: 0.871685

 $00:48:59.450 \longrightarrow 00:49:02.173$  facts and figures from 2019 showing that

NOTE Confidence: 0.871685

 $00:49:02.173 \longrightarrow 00:49:05.222$  risk of breast cancer peaks in the 7th

NOTE Confidence: 0.871685

00:49:05.222 --> 00:49:07.950 decade across all races and ethnicities,

NOTE Confidence: 0.871685

 $00:49:07.950 \longrightarrow 00:49:10.782$  and so you can see that in our

NOTE Confidence: 0.871685

00:49:10.782 --> 00:49:13.216 younger patient population which is

 $00:49:13.216 \longrightarrow 00:49:15.113$  diagnosed typically under age 45.

NOTE Confidence: 0.871685

 $00:49:15.113 \longrightarrow 00:49:16.557$  But that definition also

NOTE Confidence: 0.871685

 $00:49:16.557 \longrightarrow 00:49:18.480$  varies in the literature.

NOTE Confidence: 0.871685

 $00:49:18.480 \longrightarrow 00:49:20.590$  Breast cancer risk is less.

NOTE Confidence: 0.871685

 $00:49:20.590 \longrightarrow 00:49:22.930$  Comment it occurs in about

NOTE Confidence: 0.871685

 $00:49:22.930 \longrightarrow 00:49:25.148 \ 10\%$  of women under 40.

NOTE Confidence: 0.871685

00:49:25.148 --> 00:49:27.770 There has been some speculation in

NOTE Confidence: 0.871685

 $00:49:27.860 \longrightarrow 00:49:30.625$  the literature that young women's

NOTE Confidence: 0.871685

00:49:30.625 --> 00:49:33.390 breast cancer has been increasing

NOTE Confidence: 0.871685

 $00{:}49{:}33.476 \dashrightarrow 00{:}49{:}35.852$  over time in patients will often

NOTE Confidence: 0.871685

 $00:49:35.852 \longrightarrow 00:49:38.844$  come in and ask us about that,

NOTE Confidence: 0.871685

 $00:49:38.844 \longrightarrow 00:49:41.184$  but the data suggests that

NOTE Confidence: 0.871685

00:49:41.184 --> 00:49:43.049 the prevalence is stable.

NOTE Confidence: 0.871685

 $00:49:43.050 \longrightarrow 00:49:46.039$  We know that 50% of cancers in

NOTE Confidence: 0.871685

 $00:49:46.039 \longrightarrow 00:49:48.670$  younger patients are breast cancers,

 $00:49:48.670 \longrightarrow 00:49:50.906$  an unfortunately the survival.

NOTE Confidence: 0.871685

 $00:49:50.906 \longrightarrow 00:49:54.260$  Is typically lower in young women.

NOTE Confidence: 0.871685

 $00:49:54.260 \longrightarrow 00:49:55.890$  All of that being said,

NOTE Confidence: 0.871685

 $00{:}49{:}55.890 \dashrightarrow 00{:}49{:}58.410$  when you look at the risk of breast

NOTE Confidence: 0.871685

 $00:49:58.410 \longrightarrow 00:50:00.438$  cancer in women in their 20s,

NOTE Confidence: 0.871685

 $00:50:00.440 \longrightarrow 00:50:01.724$  thirties and 40s,

NOTE Confidence: 0.871685

 $00:50:01.724 \longrightarrow 00:50:04.292$  it does remain relatively low and

NOTE Confidence: 0.871685

 $00:50:04.292 \longrightarrow 00:50:06.760$  their risk of death is very low.

NOTE Confidence: 0.871685

00:50:06.760 --> 00:50:09.649 In this population.

NOTE Confidence: 0.871685

 $00{:}50{:}09.650 \dashrightarrow 00{:}50{:}12.014$  When we look at tumor Biology

NOTE Confidence: 0.871685

00:50:12.014 --> 00:50:13.196 among young women,

NOTE Confidence: 0.871685

 $00:50:13.200 \longrightarrow 00:50:15.560$  so on the right that figure again is

NOTE Confidence: 0.871685

 $00{:}50{:}15.560 \dashrightarrow 00{:}50{:}18.057$  from the American Cancer Society data

NOTE Confidence: 0.871685

 $00:50:18.057 \longrightarrow 00:50:20.352$  showing that the overwhelming majority

NOTE Confidence: 0.871685

 $00:50:20.352 \longrightarrow 00:50:22.948$  of all breast cancer patients tend

NOTE Confidence: 0.871685

 $00{:}50{:}22.948 \to 00{:}50{:}25.413$  to be hormone receptor positive and

00:50:25.413 --> 00:50:28.164 her two negative in our younger patients,

NOTE Confidence: 0.871685

 $00:50:28.170 \longrightarrow 00:50:30.767$  they are more likely to have unfavorable

NOTE Confidence: 0.871685

00:50:30.767 --> 00:50:32.900 or higher risk tumor biology,

NOTE Confidence: 0.871685

00:50:32.900 --> 00:50:35.258 including higher risk of ER PR,

NOTE Confidence: 0.871685

 $00:50:35.260 \longrightarrow 00:50:36.048$  negative tumors,

NOTE Confidence: 0.871685

00:50:36.048 --> 00:50:37.637 higher Ki 67, expression,

NOTE Confidence: 0.871685

 $00:50:37.637 \longrightarrow 00:50:40.079$  more likely to have lymphovascular invasion.

NOTE Confidence: 0.871685

 $00:50:40.080 \longrightarrow 00:50:43.680$  And Grade 3 tumors.

NOTE Confidence: 0.871685

00:50:43.680 --> 00:50:46.390 I'm sorry my slides are jumping.

NOTE Confidence: 0.871685

 $00:50:46.390 \longrightarrow 00:50:48.146$  These data are older.

NOTE Confidence: 0.871685

 $00:50:48.146 \longrightarrow 00:50:50.780$  They were published in 1994 in

NOTE Confidence: 0.871685

00:50:50.870 --> 00:50:53.150 the Journal of Clinical Oncology,

NOTE Confidence: 0.871685

 $00{:}50{:}53.150 \dashrightarrow 00{:}50{:}55.922$  but they were important in first

NOTE Confidence: 0.871685

 $00:50:55.922 \longrightarrow 00:50:58.707$  demonstrating that age alone young age

NOTE Confidence: 0.871685

 $00:50:58.707 \longrightarrow 00:51:01.263$  alone was a poor prognostic factor,

 $00:51:01.270 \longrightarrow 00:51:03.944$  so we know that women less than

NOTE Confidence: 0.871685

 $00:51:03.944 \longrightarrow 00:51:06.604$  35 represented on the graphs by

NOTE Confidence: 0.871685

00:51:06.604 --> 00:51:08.984 the solid line had significantly

NOTE Confidence: 0.871685

 $00:51:08.984 \longrightarrow 00:51:11.190$  worse outcomes across disease.

NOTE Confidence: 0.871685

00:51:11.190 --> 00:51:12.994 Specific survival overall survival,

NOTE Confidence: 0.871685

00:51:12.994 --> 00:51:14.798 an risk of recurrence.

NOTE Confidence: 0.88419867

 $00:51:16.850 \longrightarrow 00:51:19.517$  More recently, we can see that the

NOTE Confidence: 0.88419867

 $00{:}51{:}19.517 \dashrightarrow 00{:}51{:}22.438$  Boston Group here looked at risk of

NOTE Confidence: 0.88419867

 $00{:}51{:}22.438 \dashrightarrow 00{:}51{:}24.558$  local recurrence in younger women.

NOTE Confidence: 0.88419867

00:51:24.560 --> 00:51:27.808 If you look at the breast cancer cohort,

NOTE Confidence: 0.88419867

 $00:51:27.810 \longrightarrow 00:51:30.897$  overall, the overall risk of local recurrence

NOTE Confidence: 0.88419867

00:51:30.897 --> 00:51:33.089 after breast conservation was about 2\%,

NOTE Confidence: 0.88419867

 $00:51:33.090 \longrightarrow 00:51:35.706$  but in the younger cohort defined

NOTE Confidence: 0.88419867

 $00:51:35.706 \longrightarrow 00:51:38.767$  in this study as ages 26 to 45,

NOTE Confidence: 0.88419867

 $00:51:38.770 \longrightarrow 00:51:43.216$  there was a five year cumulative risk of 5%.

NOTE Confidence: 0.88419867

 $00:51:43.220 \longrightarrow 00:51:46.484$  The figure on the left shows that this

00:51:46.484 --> 00:51:48.638 certainly varied by tumor subtype.

NOTE Confidence: 0.88419867

 $00{:}51{:}48.640 \dashrightarrow 00{:}51{:}51.412$  With her two positive and triple negative

NOTE Confidence: 0.88419867

00:51:51.412 --> 00:51:53.978 breast cancers being more likely to

NOTE Confidence: 0.88419867

00:51:53.978 --> 00:51:56.081 demonstrate in breast recurrence, overtime,

NOTE Confidence: 0.88419867

 $00{:}51{:}56.081 \dashrightarrow 00{:}51{:}58.187$  an overall age was an independent

NOTE Confidence: 0.88419867

 $00:51:58.187 \longrightarrow 00:52:00.779$  risk for local recurrence after breast

NOTE Confidence: 0.88419867

 $00:52:00.779 \longrightarrow 00:52:03.239$  conservation but remained acceptably low.

NOTE Confidence: 0.8556857

 $00:52:05.680 \longrightarrow 00:52:07.108$  These data were published

NOTE Confidence: 0.8556857

00:52:07.108 --> 00:52:08.893 by a colleague and friend,

NOTE Confidence: 0.8556857

 $00:52:08.900 \longrightarrow 00:52:10.690$  Carrie Anders, again in 2008,

NOTE Confidence: 0.8556857

 $00:52:10.690 \longrightarrow 00:52:12.480$  but this was a collaborative

NOTE Confidence: 0.8556857

 $00:52:12.480 \longrightarrow 00:52:14.270$  effort between Duke and UNC,

NOTE Confidence: 0.8556857

 $00{:}52{:}14.270 \dashrightarrow 00{:}52{:}16.286$  where they looked at tissue samples

NOTE Confidence: 0.8556857

 $00:52:16.286 \longrightarrow 00:52:18.210$  in younger versus older patients.

NOTE Confidence: 0.8556857

 $00:52:18.210 \longrightarrow 00:52:19.920$  Defined in this study as

 $00:52:19.920 \longrightarrow 00:52:22.510$  less than 45 or 65 and older,

NOTE Confidence: 0.8556857

 $00:52:22.510 \longrightarrow 00:52:23.995$  they did find that younger

NOTE Confidence: 0.8556857

00:52:23.995 --> 00:52:26.012 women had lower rates of hormone

NOTE Confidence: 0.8556857

 $00:52:26.012 \longrightarrow 00:52:27.880$  receptor positive breast cancer.

NOTE Confidence: 0.8556857

 $00:52:27.880 \longrightarrow 00:52:30.351$  Higher rates of her two positive cancer

NOTE Confidence: 0.8556857

 $00{:}52{:}30.351 \dashrightarrow 00{:}52{:}32.170$  presented with larger tumor sizes,

NOTE Confidence: 0.8556857

 $00:52:32.170 \longrightarrow 00:52:33.277$  an higher grades,

NOTE Confidence: 0.8556857

 $00:52:33.277 \longrightarrow 00:52:35.491$  an again younger age was an

NOTE Confidence: 0.8556857

 $00{:}52{:}35.491 \dashrightarrow 00{:}52{:}37.478$  independent risk factor for disease.

NOTE Confidence: 0.8556857

 $00:52:37.480 \longrightarrow 00:52:40.440$  Free survival.

NOTE Confidence: 0.8556857

 $00:52:40.440 \longrightarrow 00:52:42.938$  And during my time at Boston,

NOTE Confidence: 0.8556857

 $00:52:42.938 \longrightarrow 00:52:44.968$  we pursued evaluation of younger

NOTE Confidence: 0.8556857

 $00:52:44.968 \longrightarrow 00:52:47.263$  patients and the predicted value

NOTE Confidence: 0.8556857

 $00:52:47.263 \longrightarrow 00:52:49.623$  of pathologic complete response on

NOTE Confidence: 0.8556857

 $00:52:49.623 \longrightarrow 00:52:51.967$  overall survival in this rare cohort.

NOTE Confidence: 0.8556857

 $00{:}52{:}51.970 \dashrightarrow 00{:}52{:}54.526$  So we know that across our

00:52:54.526 --> 00:52:55.804 breast cancer patients,

NOTE Confidence: 0.8556857

 $00:52:55.810 \longrightarrow 00:52:57.118$  regardless of age,

NOTE Confidence: 0.8556857

00:52:57.118 --> 00:52:58.862 having neoadjuvant chemo with

NOTE Confidence: 0.8556857

 $00:52:58.862 \longrightarrow 00:53:00.649$  a pathologic complete response

NOTE Confidence: 0.8556857

 $00:53:00.649 \longrightarrow 00:53:02.293$  correlate's with excellent survival

NOTE Confidence: 0.8556857

 $00:53:02.293 \longrightarrow 00:53:04.831$  and the data from the original

NOTE Confidence: 0.8556857

00:53:04.831 --> 00:53:06.906 neoadjuvant studies at the NSC,

NOTE Confidence: 0.8556857

 $00:53:06.910 \longrightarrow 00:53:07.290$  BP.

NOTE Confidence: 0.8556857

 $00{:}53{:}07.290 \dashrightarrow 00{:}53{:}09.570$  19 and 27 suggested that perhaps

NOTE Confidence: 0.8556857

00:53:09.570 --> 00:53:11.610 in younger patient populations,

NOTE Confidence: 0.8556857

 $00{:}53{:}11.610 \dashrightarrow 00{:}53{:}12.894$  preoperative chemo was.

NOTE Confidence: 0.8556857

 $00:53:12.894 \longrightarrow 00:53:15.034$  Correlated with not only improved

NOTE Confidence: 0.8556857

 $00:53:15.034 \longrightarrow 00:53:17.130$  eligibility for breast conservation,

NOTE Confidence: 0.8556857

00:53:17.130 --> 00:53:19.380 but also improved overall survival,

NOTE Confidence: 0.8556857

 $00:53:19.380 \longrightarrow 00:53:21.635$  but it was not statistically

00:53:21.635 --> 00:53:23.439 significant in those studies,

NOTE Confidence: 0.8556857

 $00{:}53{:}23.440 \to 00{:}53{:}26.528$  and so we wanted to get a better

NOTE Confidence: 0.8556857

 $00:53:26.528 \longrightarrow 00:53:29.758$  sense of in a contemporary cohort.

NOTE Confidence: 0.8556857

00:53:29.760 --> 00:53:32.358 How did on neoadjuvant chemo and

NOTE Confidence: 0.8556857

 $00:53:32.358 \longrightarrow 00:53:34.090$  pathologic response impact cancer

NOTE Confidence: 0.8556857

00:53:34.164 --> 00:53:36.068 outcomes in younger patients?

NOTE Confidence: 0.8556857

 $00{:}53{:}36.070 \dashrightarrow 00{:}53{:}39.318$  And you can see here women under 40

NOTE Confidence: 0.8556857

 $00{:}53{:}39.318 \dashrightarrow 00{:}53{:}41.815$  at diagnosis who received neoadjuvant

NOTE Confidence: 0.8556857

 $00{:}53{:}41.815 \dashrightarrow 00{:}53{:}45.013$  chemo for stage two and three

NOTE Confidence: 0.8556857

 $00:53:45.013 \longrightarrow 00:53:48.167$  invasive cancers between 1998 and 2014.

NOTE Confidence: 0.8556857

 $00:53:48.170 \longrightarrow 00:53:50.486$  At mass General Hospital were evaluated.

NOTE Confidence: 0.8556857

 $00:53:50.490 \longrightarrow 00:53:52.854$  Overall there were only 170 young

NOTE Confidence: 0.8556857

 $00:53:52.854 \longrightarrow 00:53:55.140$  women in this analytic data set.

NOTE Confidence: 0.8556857

00:53:55.140 --> 00:53:58.060 About 30% received a path CR and this

NOTE Confidence: 0.8556857

00:53:58.060 --> 00:54:00.939 was more likely in Grade 3 disease.

NOTE Confidence: 0.8556857

 $00:54:00.940 \longrightarrow 00:54:04.025$  Her two positive and triple

 $00{:}54{:}04.025 \dashrightarrow 00{:}54{:}05.876$  negative breast cancers.

NOTE Confidence: 0.8556857

 $00{:}54{:}05.880 --> 00{:}54{:}08.140$  Age alone was not predicted

NOTE Confidence: 0.8556857

00:54:08.140 --> 00:54:09.496 for pathologic response,

NOTE Confidence: 0.8556857

00:54:09.500 --> 00:54:13.124 but when you look at a younger cohort,

NOTE Confidence: 0.8556857

00:54:13.130 --> 00:54:14.100 pathologic response,

NOTE Confidence: 0.8556857

00:54:14.100 --> 00:54:15.070 not surprisingly,

NOTE Confidence: 0.8556857

 $00:54:15.070 \longrightarrow 00:54:17.495$  was correlated with improved disease

NOTE Confidence: 0.8556857

 $00:54:17.495 \longrightarrow 00:54:19.685$  free and overall survival compared

NOTE Confidence: 0.8556857

 $00{:}54{:}19.685 \dashrightarrow 00{:}54{:}21.740$  to women with residual disease.

NOTE Confidence: 0.8556857

 $00:54:21.740 \longrightarrow 00:54:24.701$  And this was based on tumor subtype

NOTE Confidence: 0.8556857

 $00{:}54{:}24.701 \dashrightarrow 00{:}54{:}26.720$  with hormone receptor positive.

NOTE Confidence: 0.8556857

 $00:54:26.720 \longrightarrow 00:54:30.031$  Her two negative past CR responders having

NOTE Confidence: 0.8556857

 $00{:}54{:}30.031 \dashrightarrow 00{:}54{:}32.888$  the best survival followed by triple

NOTE Confidence: 0.8556857

00:54:32.888 --> 00:54:36.038 Negative and her two positive past CR.

NOTE Confidence: 0.8556857

 $00:54:36.040 \longrightarrow 00:54:37.970$  Patients.

 $00:54:37.970 \longrightarrow 00:54:40.205$  Moving on to decisions for

NOTE Confidence: 0.8556857

 $00{:}54{:}40.205 \dashrightarrow 00{:}54{:}42.770$  breast cancer surgery in the US,

NOTE Confidence: 0.8556857

 $00:54:42.770 \longrightarrow 00:54:45.308$  we face young and older women

NOTE Confidence: 0.8556857

00:54:45.308 --> 00:54:47.516 with early stage breast cancer

NOTE Confidence: 0.8556857

 $00:54:47.516 \longrightarrow 00:54:50.533$  an we offer them a choice for

NOTE Confidence: 0.8556857

 $00:54:50.533 \longrightarrow 00:54:52.359$  decisions related to surgery.

NOTE Confidence: 0.8556857

 $00:54:52.360 \longrightarrow 00:54:54.976$  We have very good and long

NOTE Confidence: 0.8556857

 $00:54:54.976 \longrightarrow 00:54:56.720$  term and contemporary data,

NOTE Confidence: 0.8556857

 $00:54:56.720 \longrightarrow 00:54:59.495$  both clinical trials and observational

NOTE Confidence: 0.8556857

 $00:54:59.495 \longrightarrow 00:55:01.715$  studies suggesting that these

NOTE Confidence: 0.8556857

00:55:01.715 --> 00:55:03.639 outcomes are not different.

NOTE Confidence: 0.8556857

 $00{:}55{:}03.640 \dashrightarrow 00{:}55{:}07.536$  When our young patients come talk to us,

NOTE Confidence: 0.8556857

 $00:55:07.540 \longrightarrow 00:55:10.956$  they meet the larger multi disciplinary team.

NOTE Confidence: 0.8556857

 $00:55:10.960 \longrightarrow 00:55:12.912$  This often includes surgeons,

NOTE Confidence: 0.8556857

 $00:55:12.912 \longrightarrow 00:55:13.888$  medical oncologists,

NOTE Confidence: 0.8556857

00:55:13.890 --> 00:55:15.108 radiation oncologist,

00:55:15.108 --> 00:55:16.326 plastic surgeons,

NOTE Confidence: 0.8556857

 $00{:}55{:}16.326 \dashrightarrow 00{:}55{:}18.762$  genetic counselors and sometimes

NOTE Confidence: 0.8556857

00:55:18.762 --> 00:55:19.980 oncofertility specialists

NOTE Confidence: 0.8556857

 $00:55:20.048 \longrightarrow 00:55:21.788$  which I'll touch on briefly.

NOTE Confidence: 0.8556857

 $00:55:21.790 \longrightarrow 00:55:24.667$  But we discussed with them recovery time,

NOTE Confidence: 0.8556857

00:55:24.670 --> 00:55:25.909 risk of recurrence,

NOTE Confidence: 0.8556857

 $00:55:25.909 \longrightarrow 00:55:27.148$  Peace of Mind,

NOTE Confidence: 0.8556857

 $00:55:27.150 \longrightarrow 00:55:28.794$  side effects and complications

NOTE Confidence: 0.8556857

00:55:28.794 --> 00:55:30.438 need for future surveillance,

NOTE Confidence: 0.8556857

 $00:55:30.440 \longrightarrow 00:55:33.295$  appearance and how this really

NOTE Confidence: 0.8556857

 $00:55:33.295 \longrightarrow 00:55:35.008$  impacts their lives.

NOTE Confidence: 0.8556857

 $00:55:35.010 \longrightarrow 00:55:37.195$  And the international consensus guidelines

NOTE Confidence: 0.8556857

00:55:37.195 --> 00:55:38.943 from 2019 strongly recommended,

NOTE Confidence: 0.8556857

 $00:55:38.950 \longrightarrow 00:55:42.454$  and these were experts from across the globe.

NOTE Confidence: 0.8556857

00:55:42.460 --> 00:55:44.512 Really recommended that local

 $00:55:44.512 \longrightarrow 00:55:46.564$  regional treatment in younger

NOTE Confidence: 0.8556857

00:55:46.564 --> 00:55:48.726 patients should not really differ

NOTE Confidence: 0.8556857

 $00:55:48.726 \longrightarrow 00:55:51.211$  from what we offer to older women.

NOTE Confidence: 0.87017626

 $00:55:51.220 \longrightarrow 00:55:53.250$  We should think strongly about

NOTE Confidence: 0.87017626

 $00:55:53.250 \longrightarrow 00:55:55.280$  breast conserving surgery as the

NOTE Confidence: 0.87017626

 $00:55:55.350 \longrightarrow 00:55:57.350$  first option whenever possible.

NOTE Confidence: 0.87017626

 $00:55:57.350 \longrightarrow 00:55:59.560$  I'm knowing that their survival

NOTE Confidence: 0.87017626

 $00:55:59.560 \longrightarrow 00:56:03.144$  overall is the same and that we should

NOTE Confidence: 0.87017626

 $00{:}56{:}03.144 \dashrightarrow 00{:}56{:}05.718$  think as Doctor Lynch touched on.

NOTE Confidence: 0.87017626

00:56:05.720 --> 00:56:07.380 About uncle plastic repairs

NOTE Confidence: 0.87017626

 $00{:}56{:}07.380 \dashrightarrow 00{:}56{:}08.210$  and reconstruction.

NOTE Confidence: 0.87017626

 $00:56:08.210 \longrightarrow 00:56:10.310$  An that false negative rates

NOTE Confidence: 0.87017626

 $00{:}56{:}10.310 \dashrightarrow 00{:}56{:}12.410$  are worse outcomes related to

NOTE Confidence: 0.87017626

 $00{:}56{:}12.485 \dashrightarrow 00{:}56{:}14.915$  central node biopsy use in this

NOTE Confidence: 0.87017626

00:56:14.915 --> 00:56:17.339 population should not be a concern,

NOTE Confidence: 0.87017626

 $00:56:17.340 \longrightarrow 00:56:19.758$  and I encourage anyone interested in

 $00{:}56{:}19.758 \longrightarrow 00{:}56{:}22.319$  this population to read this article.

NOTE Confidence: 0.87017626

 $00:56:22.320 \longrightarrow 00:56:24.400$  It touches on both local,

NOTE Confidence: 0.87017626

00:56:24.400 --> 00:56:27.055 regional systemic treatment guidelines and

NOTE Confidence: 0.87017626

 $00:56:27.055 \longrightarrow 00:56:29.179$  then recommendations for survivorship.

NOTE Confidence: 0.87017626

 $00:56:29.180 \longrightarrow 00:56:30.030$  As mentioned,

NOTE Confidence: 0.87017626

 $00:56:30.030 \longrightarrow 00:56:32.155$  when we perform a mastectomy,

NOTE Confidence: 0.87017626

 $00{:}56{:}32.160 \dashrightarrow 00{:}56{:}35.362$  we can often perform \*\*\*\*\* sparing with

NOTE Confidence: 0.87017626

 $00:56:35.362 \longrightarrow 00:56:37.506$  wonderful options for reconstruction.

NOTE Confidence: 0.87017626

 $00:56:37.510 \longrightarrow 00:56:40.387$  And there is some data coming out.

NOTE Confidence: 0.87017626

 $00:56:40.390 \longrightarrow 00:56:43.190$  This is from my colleague and friend

NOTE Confidence: 0.87017626

 $00{:}56{:}43.190 \dashrightarrow 00{:}56{:}45.543$  Catherine Patches at the University

NOTE Confidence: 0.87017626

 $00{:}56{:}45.543 \dashrightarrow 00{:}56{:}47.695$  of Chicago Northshore practice.

NOTE Confidence: 0.87017626

 $00{:}56{:}47.700 \dashrightarrow 00{:}56{:}50.493$  That in a prospective study of women

NOTE Confidence: 0.87017626

 $00:56:50.493 \longrightarrow 00:56:52.410$  undergoing breast cancer treatment,

NOTE Confidence: 0.87017626

 $00:56:52.410 \longrightarrow 00:56:54.550$  either breast conservation or mastectomy,

 $00:56:54.550 \longrightarrow 00:56:57.004$  the quality of life does not

NOTE Confidence: 0.87017626

00:56:57.004 --> 00:56:59.260 differ based on surgical choice,

NOTE Confidence: 0.87017626

 $00:56:59.260 \longrightarrow 00:57:02.292$  and so I think we can rest assured

NOTE Confidence: 0.87017626

 $00:57:02.292 \longrightarrow 00:57:05.487$  that even for our younger patients

NOTE Confidence: 0.87017626

 $00{:}57{:}05.487 \dashrightarrow 00{:}57{:}07.831$  lumpectomy with radiation or

NOTE Confidence: 0.87017626

 $00{:}57{:}07.831 \dashrightarrow 00{:}57{:}10.220$  mastectomy are safe options.

NOTE Confidence: 0.87017626

 $00:57:10.220 \longrightarrow 00:57:12.358$  Moving on to pregnancy associated

NOTE Confidence: 0.87017626

 $00:57:12.358 \longrightarrow 00:57:13.636$  breast cancer again,

NOTE Confidence: 0.87017626

 $00:57:13.640 \longrightarrow 00:57:15.780$  even more rare than breast

NOTE Confidence: 0.87017626

 $00:57:15.780 \longrightarrow 00:57:17.920$  cancer in our younger patients.

NOTE Confidence: 0.87017626

 $00:57:17.920 \longrightarrow 00:57:20.916$  We know this can occur in women,

NOTE Confidence: 0.87017626

 $00:57:20.920 \longrightarrow 00:57:22.213$  typically under 30.

NOTE Confidence: 0.87017626

 $00:57:22.213 \longrightarrow 00:57:24.368$  This is during the Peripartum

NOTE Confidence: 0.87017626

 $00:57:24.368 \longrightarrow 00:57:26.907$  period or within the first year.

NOTE Confidence: 0.87017626

 $00:57:26.910 \longrightarrow 00:57:29.668$  It's very rare that one in three

NOTE Confidence: 0.87017626

00:57:29.668 --> 00:57:32.480 1.3 cases per 10,000 live birds.

 $00:57:32.480 \longrightarrow 00:57:35.098$  We do find that the limited literature

NOTE Confidence: 0.87017626

 $00:57:35.098 \longrightarrow 00:57:37.764$  published on this topic suggests that

NOTE Confidence: 0.87017626

 $00:57:37.764 \longrightarrow 00:57:40.224$  larger locally advanced breast cancers.

NOTE Confidence: 0.87017626

00:57:40.230 --> 00:57:41.096 More likely,

NOTE Confidence: 0.87017626

 $00:57:41.096 \longrightarrow 00:57:41.962$  triple negative,

NOTE Confidence: 0.87017626

 $00:57:41.962 \longrightarrow 00:57:45.113$  an higher rate of death when diagnosis

NOTE Confidence: 0.87017626

 $00:57:45.113 \longrightarrow 00:57:47.478$  is in the peripartum period.

NOTE Confidence: 0.87017626

 $00{:}57{:}47.480 \dashrightarrow 00{:}57{:}49.450$  Recommendations if you meet a

NOTE Confidence: 0.87017626

 $00:57:49.450 \longrightarrow 00:57:51.965$  woman with a breast mass who's

NOTE Confidence: 0.87017626

 $00:57:51.965 \longrightarrow 00:57:54.280$  pregnant two evaluated on women,

NOTE Confidence: 0.87017626

00:57:54.280 --> 00:57:55.816 can undergo mammogram,

NOTE Confidence: 0.87017626

 $00{:}57{:}55.816 \dashrightarrow 00{:}57{:}57.864$  a shielding and ultrasound.

NOTE Confidence: 0.87017626

00:57:57.870 --> 00:58:00.140 They should undergo a core

NOTE Confidence: 0.87017626

00:58:00.140 --> 00:58:02.410 needle biopsy of a mass,

NOTE Confidence: 0.87017626

 $00:58:02.410 \longrightarrow 00:58:03.772$  unless it's concretely

00:58:03.772 --> 00:58:04.680 radiographically benign.

NOTE Confidence: 0.87017626

 $00{:}58{:}04.680 \dashrightarrow 00{:}58{:}07.836$  Cornedo biopsy is better than FNA

NOTE Confidence: 0.87017626

 $00:58:07.836 \longrightarrow 00:58:10.770$  for evaluation of these lesions.

NOTE Confidence: 0.87017626

 $00:58:10.770 \longrightarrow 00:58:13.626$  When we think about a staging,

NOTE Confidence: 0.87017626

 $00:58:13.630 \longrightarrow 00:58:16.969$  in the cases where breast cancer exists,

NOTE Confidence: 0.87017626

 $00:58:16.970 \longrightarrow 00:58:17.922$  chest xray,

NOTE Confidence: 0.87017626

 $00:58:17.922 \longrightarrow 00:58:21.254$  liver ultrasound labs and non contrast MRI.

NOTE Confidence: 0.87017626

 $00:58:21.260 \longrightarrow 00:58:23.425$  Although we have had circumstances

NOTE Confidence: 0.87017626

 $00{:}58{:}23.425 \dashrightarrow 00{:}58{:}26.183$  in which working with OBGYN team

NOTE Confidence: 0.87017626

00:58:26.183 --> 00:58:28.275 to discuss alternative staging

NOTE Confidence: 0.87017626

00:58:28.275 --> 00:58:29.844 evaluation is necessary,

NOTE Confidence: 0.87017626

 $00:58:29.850 \longrightarrow 00:58:31.758$  many of these patients,

NOTE Confidence: 0.87017626

00:58:31.758 --> 00:58:33.189 young young women,

NOTE Confidence: 0.87017626

 $00.58:33.190 \longrightarrow 00.58:34.618$  pregnant or not,

NOTE Confidence: 0.87017626

00:58:34.618 --> 00:58:37.474 should be considered for genetic counseling.

NOTE Confidence: 0.87017626

 $00:58:37.480 \longrightarrow 00:58:40.336$  We know that pregnancy is not protective

 $00:58:40.336 \longrightarrow 00:58:43.279$  in these younger patients unfortunately.

NOTE Confidence: 0.87017626

 $00{:}58{:}43.280 \dashrightarrow 00{:}58{:}45.656$  Although over your lifetime and the

NOTE Confidence: 0.87017626

00:58:45.656 --> 00:58:48.030 number of pregnancies and childbirth.

NOTE Confidence: 0.87017626

00:58:48.030 --> 00:58:50.240 Does provide some benefit against

NOTE Confidence: 0.87017626

00:58:50.240 --> 00:58:52.950 breast cancer risk in younger women?

NOTE Confidence: 0.87017626

 $00:58:52.950 \longrightarrow 00:58:55.180$  This is a high risk,

NOTE Confidence: 0.87017626

00:58:55.180 --> 00:58:56.684 relatively higher risk time.

NOTE Confidence: 0.87017626

 $00{:}58{:}56.684 \dashrightarrow 00{:}58{:}59.582$  Women who are pregnant can also undergo

NOTE Confidence: 0.87017626

 $00{:}58{:}59.582 \dashrightarrow 00{:}59{:}01.890$  mastectomy versus breast conservation,

NOTE Confidence: 0.87017626

 $00{:}59{:}01.890 \dashrightarrow 00{:}59{:}05.328$  as long as the radiation occurs

NOTE Confidence: 0.87017626

 $00{:}59{:}05.328 \dashrightarrow 00{:}59{:}07.620$  after delivery and chemotherapy

NOTE Confidence: 0.87017626

00:59:07.719 --> 00:59:09.957 has been proven to be safe

NOTE Confidence: 0.87017626

 $00:59:09.957 \longrightarrow 00:59:12.819$  in the 2nd and 3rd trimester.

NOTE Confidence: 0.87017626

00:59:12.820 --> 00:59:13.512 So Lastly,

NOTE Confidence: 0.87017626

 $00{:}59{:}13.512 \dashrightarrow 00{:}59{:}15.588$  I wanted to talk about survivorship

 $00:59:15.588 \longrightarrow 00:59:17.570$  in this younger population.

NOTE Confidence: 0.87017626

 $00:59:17.570 \longrightarrow 00:59:20.434$  In my mind on this quote is really

NOTE Confidence: 0.87017626

 $00:59:20.434 \longrightarrow 00:59:22.118$  representative of what these

NOTE Confidence: 0.87017626

00:59:22.118 --> 00:59:23.910 younger patients go through.

NOTE Confidence: 0.87017626

 $00:59:23.910 \longrightarrow 00:59:25.955$  Elizabeth McKinley was an associate

NOTE Confidence: 0.87017626

 $00:59:25.955 \longrightarrow 00:59:28.825$  Dean of Medicine at Case Western who

NOTE Confidence: 0.87017626

00:59:28.825 --> 00:59:31.825 was diagnosed with breast cancer at age 36,

NOTE Confidence: 0.87017626

 $00:59:31.830 \longrightarrow 00:59:34.110$  and she says after my last

NOTE Confidence: 0.87017626

00:59:34.110 --> 00:59:35.630 radiation treatment for breast

NOTE Confidence: 0.88009125

 $00:59:35.701 \longrightarrow 00:59:37.369$  cancer instead of joyous,

NOTE Confidence: 0.88009125

00:59:37.370 --> 00:59:38.954 I felt lonely, abandoned.

NOTE Confidence: 0.88009125

00:59:38.954 --> 00:59:41.790 Terrified, this was the rocky beginning

NOTE Confidence: 0.88009125

00:59:41.790 --> 00:59:44.230 of cancer survivorship for me.

NOTE Confidence: 0.88009125

 $00{:}59{:}44.230 \dashrightarrow 00{:}59{:}46.967$  So again, many of these young women

NOTE Confidence: 0.88009125

 $00:59:46.967 \longrightarrow 00:59:49.153$  outside of their cancer treatment

NOTE Confidence: 0.88009125

 $00:59:49.153 \longrightarrow 00:59:51.483$  are not interfacing with the

00:59:51.483 --> 00:59:54.168 health system on a regular basis,

NOTE Confidence: 0.88009125

 $00:59:54.170 \longrightarrow 00:59:57.098$  and so we have to be especially sensitive

NOTE Confidence: 0.88009125

 $00:59:57.098 \longrightarrow 01:00:00.209$  to issues that accompany cancer treatment.

NOTE Confidence: 0.88009125

 $01:00:00.210 \longrightarrow 01:00:02.370$  These can include amenorrhea and

NOTE Confidence: 0.88009125

 $01:00:02.370 \longrightarrow 01:00:03.704$  early menopause, osteoporosis,

NOTE Confidence: 0.88009125

01:00:03.704 --> 01:00:04.632 secondary malignancies,

NOTE Confidence: 0.88009125

01:00:04.632 --> 01:00:06.952 fertility is of upmost concern

NOTE Confidence: 0.88009125

 $01:00:06.952 \longrightarrow 01:00:08.848$  for many of these women.

NOTE Confidence: 0.88009125

 $01:00:08.850 \longrightarrow 01:00:11.278$  And then Lastly psychosocial

NOTE Confidence: 0.88009125

01:00:11.278 --> 01:00:14.313 and quality of life issues.

NOTE Confidence: 0.88009125

 $01:00:14.320 \longrightarrow 01:00:16.570$  There are obviously a side effects

NOTE Confidence: 0.88009125

 $01:00:16.570 \longrightarrow 01:00:18.830$  of all breast cancer treatment,

NOTE Confidence: 0.88009125

 $01{:}00{:}18.830 \dashrightarrow 01{:}00{:}20.880$  including those related to surgery,

NOTE Confidence: 0.88009125

 $01:00:20.880 \longrightarrow 01:00:21.942$  chemotherapy, radiation,

NOTE Confidence: 0.88009125

 $01:00:21.942 \longrightarrow 01:00:25.659$  and a current therapy and targeted therapy.

 $01:00:25.660 \longrightarrow 01:00:26.893$  Chemotherapy induced amenorrhea

NOTE Confidence: 0.88009125

 $01:00:26.893 \longrightarrow 01:00:28.126$  is age related.

NOTE Confidence: 0.88009125

 $01:00:28.130 \longrightarrow 01:00:30.190$  I apologize for my slides

NOTE Confidence: 0.88009125

 $01:00:30.190 \longrightarrow 01:00:31.426$  and therapy dependent.

NOTE Confidence: 0.88009125

 $01:00:31.430 \longrightarrow 01:00:34.307$  It is less common at younger ages,

NOTE Confidence: 0.88009125

 $01:00:34.310 \longrightarrow 01:00:36.370$  so are very young patients.

NOTE Confidence: 0.88009125

 $01:00:36.370 \longrightarrow 01:00:39.722$  In their 20s are more likely to regain

NOTE Confidence: 0.88009125

 $01\text{:}00\text{:}39.722 \dashrightarrow 01\text{:}00\text{:}41.435$ menstrual cycles after treatment

NOTE Confidence: 0.88009125

 $01:00:41.435 \longrightarrow 01:00:44.603$  than women in their late 30s or 40s.

NOTE Confidence: 0.88009125

01:00:44.610 --> 01:00:46.465 We know that shorter duration

NOTE Confidence: 0.88009125

01:00:46.465 --> 01:00:48.844 of treatment is less likely to

NOTE Confidence: 0.88009125

 $01:00:48.844 \longrightarrow 01:00:50.640$  be associated with chemotherapy

NOTE Confidence: 0.88009125

 $01:00:50.640 \longrightarrow 01:00:52.436$  induced amenorrhea as well,

NOTE Confidence: 0.88009125

 $01:00:52.440 \longrightarrow 01:00:54.720$  and that there may be

NOTE Confidence: 0.88009125

 $01:00:54.720 \longrightarrow 01:00:56.088$  some protective benefit.

NOTE Confidence: 0.88009125

 $01:00:56.090 \longrightarrow 01:00:57.918$  Two cessation of menses.

 $01{:}00{:}57.918 \dashrightarrow 01{:}01{:}01{:}01{:}374$  And this is a really nice table

NOTE Confidence: 0.88009125

 $01{:}01{:}01{:}01{:}05{:}100$  that goes through the risk of

NOTE Confidence: 0.88009125

 $01:01:05.100 \longrightarrow 01:01:06.963$  chemotherapy induced amenorrhea.

NOTE Confidence: 0.88009125

 $01:01:06.970 \longrightarrow 01:01:08.950$  Based on the treatment that

NOTE Confidence: 0.88009125

 $01:01:08.950 \longrightarrow 01:01:10.930$  women receive with little data

NOTE Confidence: 0.88009125

01:01:11.007 --> 01:01:13.785 at this point known around newer

NOTE Confidence: 0.88009125

01:01:13.785 --> 01:01:15.174 monoclonal antibody therapy.

NOTE Confidence: 0.85646087

 $01{:}01{:}17.510 \dashrightarrow 01{:}01{:}19.952$  Ann Partridge's group at Dana Farber

NOTE Confidence: 0.85646087

 $01{:}01{:}19.952 \dashrightarrow 01{:}01{:}22.615$  did some survey work around these

NOTE Confidence: 0.85646087

 $01:01:22.615 \longrightarrow 01:01:25.010$  younger patients who were diagnosed

NOTE Confidence: 0.85646087

 $01:01:25.010 \dashrightarrow 01:01:27.519$  with breast cancer and fertility.

NOTE Confidence: 0.85646087

 $01:01:27.520 \longrightarrow 01:01:29.750$  Infertility concerns was a concern

NOTE Confidence: 0.85646087

 $01:01:29.750 \longrightarrow 01:01:32.530$  for over half of these women.

NOTE Confidence: 0.85646087

01:01:32.530 --> 01:01:35.104 About a third reported that fertility

NOTE Confidence: 0.85646087

01:01:35.104 --> 01:01:37.530 impact their cancer treatment decisions,

 $01:01:37.530 \longrightarrow 01:01:39.745$  and I think that's critically

NOTE Confidence: 0.85646087

 $01{:}01{:}39.745 \dashrightarrow 01{:}01{:}42.906$  important for our training teams to be

NOTE Confidence: 0.85646087

 $01:01:42.906 \longrightarrow 01:01:45.522$  highly aware of women worried about

NOTE Confidence: 0.85646087

 $01:01:45.522 \longrightarrow 01:01:47.610$  menopausal symptoms after treatment.

NOTE Confidence: 0.85646087

 $01:01:47.610 \longrightarrow 01:01:50.879$  And only about half believe that their

NOTE Confidence: 0.85646087

 $01:01:50.879 \longrightarrow 01:01:53.100$  concerns were adequately addressed.

NOTE Confidence: 0.85646087

 $01{:}01{:}53.100 \dashrightarrow 01{:}01{:}55.092$  There are ASCO guidelines

NOTE Confidence: 0.85646087

01:01:55.092 --> 01:01:56.586 around fertility preservation,

NOTE Confidence: 0.85646087

 $01:01:56.590 \longrightarrow 01:01:59.080$  notably that it should not

NOTE Confidence: 0.85646087

 $01:01:59.080 \longrightarrow 01:02:00.574$  delay cancer treatment.

NOTE Confidence: 0.85646087

 $01{:}02{:}00.580 \to 01{:}02{:}03.821$  That the risk of recurrence with fertility

NOTE Confidence: 0.85646087

01:02:03.821 --> 01:02:06.070 preservation should be considered,

NOTE Confidence: 0.85646087

 $01:02:06.070 \longrightarrow 01:02:08.570$  but is likely very low.

NOTE Confidence: 0.85646087

 $01:02:08.570 \longrightarrow 01:02:11.234$  We're learning an that early referral

NOTE Confidence: 0.85646087

 $01:02:11.234 \longrightarrow 01:02:13.678$  to specialist is critical and

NOTE Confidence: 0.85646087

 $01:02:13.678 \longrightarrow 01:02:16.046$  correlate's with successive pregnancy.

01:02:16.050 --> 01:02:17.050 Long term,

NOTE Confidence: 0.85646087

 $01{:}02{:}17.050 \dashrightarrow 01{:}02{:}20.050$  there are several options for oncofertility,

NOTE Confidence: 0.85646087

 $01:02:20.050 \longrightarrow 01:02:21.592$  including oocyte cryopreservation,

NOTE Confidence: 0.85646087

01:02:21.592 --> 01:02:22.620 embryo cryopreservation.

NOTE Confidence: 0.85646087

 $01:02:22.620 \longrightarrow 01:02:24.600$  An ovarian tissue preservation.

NOTE Confidence: 0.85646087

01:02:24.600 --> 01:02:27.075 An ovarian suppression an again.

NOTE Confidence: 0.85646087

01:02:27.080 --> 01:02:29.276 Partnering with our reproductive

NOTE Confidence: 0.85646087

 $01{:}02{:}29.276 \dashrightarrow 01{:}02{:}31.472$ endocrinologist will give our

NOTE Confidence: 0.85646087

 $01:02:31.472 \longrightarrow 01:02:33.650$  patients their best outcomes.

NOTE Confidence: 0.85646087

 $01:02:33.650 \longrightarrow 01:02:36.946$  The positive trial is a national study led

NOTE Confidence: 0.85646087

 $01:02:36.946 \longrightarrow 01:02:40.146$  by Doctor Partridge out of Dana Farber,

NOTE Confidence: 0.85646087

 $01:02:40.150 \longrightarrow 01:02:43.076$  and this really looks at whether women

NOTE Confidence: 0.85646087

 $01{:}02{:}43.076 \dashrightarrow 01{:}02{:}45.748$  who have completed between 18 and

NOTE Confidence: 0.85646087

 $01:02:45.748 \longrightarrow 01:02:48.430$  30 months of endocrine therapy can

NOTE Confidence: 0.85646087

01:02:48.430 --> 01:02:50.211 temporarily stop endocrine therapy

 $01:02:50.211 \longrightarrow 01:02:53.137$  for pregnancy for up to two years.

NOTE Confidence: 0.85646087

 $01:02:53.140 \longrightarrow 01:02:55.884$  This is all in the context of our

NOTE Confidence: 0.85646087

 $01:02:55.884 \longrightarrow 01:02:57.678$  best available evidence suggesting

NOTE Confidence: 0.85646087

 $01:02:57.678 \longrightarrow 01:03:00.253$  that pregnancy after breast cancer

NOTE Confidence: 0.85646087

 $01:03:00.253 \longrightarrow 01:03:03.160$  does not increase a woman's risk

NOTE Confidence: 0.85646087

01:03:03.160 --> 01:03:04.876 of developing a recurrence.

NOTE Confidence: 0.85646087

 $01:03:04.880 \longrightarrow 01:03:08.090$  Even among women with hormone

NOTE Confidence: 0.85646087

 $01:03:08.090 \longrightarrow 01:03:10.016$  receptor positive disease.

NOTE Confidence: 0.85646087

01:03:10.020 --> 01:03:12.112 Psychosocial stress does impact our

NOTE Confidence: 0.85646087

01:03:12.112 --> 01:03:13.736 younger patients more significantly

NOTE Confidence: 0.85646087

 $01{:}03{:}13.736 \dashrightarrow 01{:}03{:}16.400$  than many of our older patients.

NOTE Confidence: 0.85646087

 $01:03:16.400 \longrightarrow 01:03:18.476$  We know that younger age predicts

NOTE Confidence: 0.85646087

01:03:18.476 --> 01:03:20.807 higher distress at one year that

NOTE Confidence: 0.85646087

 $01:03:20.807 \longrightarrow 01:03:23.002$  treatment related menopause more likely

NOTE Confidence: 0.85646087

 $01:03:23.002 \longrightarrow 01:03:25.750$  correlates with worse psychosocial distress.

NOTE Confidence: 0.85646087

 $01:03:25.750 \longrightarrow 01:03:27.022$  Our younger patients,

 $01:03:27.022 \longrightarrow 01:03:27.870$  about 11%,

NOTE Confidence: 0.85646087

 $01:03:27.870 \longrightarrow 01:03:30.348$  are denied health or life insurance

NOTE Confidence: 0.85646087

 $01:03:30.348 \longrightarrow 01:03:32.460$  after their breast cancer diagnosis

NOTE Confidence: 0.85646087

 $01:03:32.460 \longrightarrow 01:03:34.812$  and they have a higher risk

NOTE Confidence: 0.85646087

 $01:03:34.812 \longrightarrow 01:03:36.672$  of treatment related financial

NOTE Confidence: 0.85646087

 $01:03:36.672 \longrightarrow 01:03:39.108$  hardship and employment disruption.

NOTE Confidence: 0.85646087

 $01:03:39.110 \longrightarrow 01:03:42.512$  Up to 20% report some work related

NOTE Confidence: 0.85646087

 $01:03:42.512 \longrightarrow 01:03:45.487$  problems either needing to take time off,

NOTE Confidence: 0.85646087

 $01:03:45.490 \longrightarrow 01:03:45.946$  work,

NOTE Confidence: 0.85646087

 $01:03:45.946 \longrightarrow 01:03:48.226$  difficulties with promotion or advancement,

NOTE Confidence: 0.85646087

 $01:03:48.230 \longrightarrow 01:03:50.440$  or unemployment and \*\*\*\*\* dysfunction

NOTE Confidence: 0.85646087

 $01:03:50.440 \longrightarrow 01:03:53.250$  tends to start shortly after surgery.

NOTE Confidence: 0.85646087

01:03:53.250 --> 01:03:55.530 An exist for many women,

NOTE Confidence: 0.85646087

 $01:03:55.530 \longrightarrow 01:03:58.660$  at least to one year.

NOTE Confidence: 0.85646087

01:03:58.660 --> 01:04:00.328 Looking at financial hardship,

01:04:00.328 --> 01:04:04.180 which is a topic near and dear to my heart,

NOTE Confidence: 0.85646087

 $01:04:04.180 \longrightarrow 01:04:06.917$  we do know that our younger cancer

NOTE Confidence: 0.85646087

 $01:04:06.917 \longrightarrow 01:04:10.086$  survivors are at the highest risk of this.

NOTE Confidence: 0.85646087

01:04:10.090 --> 01:04:12.060 With 1/3 reporting financial hardship,

NOTE Confidence: 0.85646087

01:04:12.060 --> 01:04:13.632 40% reporting difficulty affording

NOTE Confidence: 0.85646087

 $01:04:13.632 \longrightarrow 01:04:15.204$  their deductibles with young,

NOTE Confidence: 0.85646087

 $01:04:15.210 \longrightarrow 01:04:17.232$  non Medicare covered patients at greatest

NOTE Confidence: 0.85646087

01:04:17.232 --> 01:04:19.508 risk and again are younger patients

NOTE Confidence: 0.85646087

 $01:04:19.508 \longrightarrow 01:04:21.673$  more likely to receive comprehensive

NOTE Confidence: 0.85646087

01:04:21.673 --> 01:04:23.480 treatment or multimodal therapy?

NOTE Confidence: 0.85646087

01:04:23.480 --> 01:04:24.070 Also,

NOTE Confidence: 0.85646087

 $01:04:24.070 \longrightarrow 01:04:26.430$  an independent risk factor.

NOTE Confidence: 0.85646087

 $01:04:26.430 \longrightarrow 01:04:29.638$  There are lots of resources for our young

NOTE Confidence: 0.85646087

01:04:29.638 --> 01:04:32.745 patients and these are some of but not all,

NOTE Confidence: 0.85646087

 $01:04:32.750 \longrightarrow 01:04:36.098$  and so as we learn more about these women,

NOTE Confidence: 0.85646087

 $01{:}04{:}36.100 \dashrightarrow 01{:}04{:}38.254$  we will continue to support them

 $01:04:38.254 \longrightarrow 01:04:40.190$  both during treatment and beyond.

NOTE Confidence: 0.85646087

 $01{:}04{:}40.190 \dashrightarrow 01{:}04{:}42.619$  Thank you so much for having me

NOTE Confidence: 0.85646087

 $01:04:42.619 \longrightarrow 01:04:45.399$  today be happy to take any questions.

NOTE Confidence: 0.846430399999999

01:04:46.870 --> 01:04:49.551 Thank you Doctor Green up that was

NOTE Confidence: 0.846430399999999

01:04:49.551 --> 01:04:51.519 absolutely fantastic and thank you

NOTE Confidence: 0.846430399999999

 $01:04:51.519 \longrightarrow 01:04:54.151$  for all the speakers for really three

NOTE Confidence: 0.846430399999999

 $01:04:54.151 \longrightarrow 01:04:55.825$  phenomenal presentations which really

NOTE Confidence: 0.846430399999999

 $01{:}04{:}55.825 \dashrightarrow 01{:}04{:}58.688$  generated a lot of questions both in

NOTE Confidence: 0.846430399999999

 $01:04:58.690 \longrightarrow 01:05:01.357$  the question and answer in the chat

NOTE Confidence: 0.846430399999999

 $01:05:01.357 \longrightarrow 01:05:04.491$  box and I'll try to ask the panelists

NOTE Confidence: 0.846430399999999

 $01:05:04.491 \longrightarrow 01:05:06.960$  for opinions on some of these.

NOTE Confidence: 0.846430399999999

 $01:05:06.960 \longrightarrow 01:05:09.198$  One is question on margins specific

NOTE Confidence: 0.846430399999999

 $01{:}05{:}09.198 \dashrightarrow 01{:}05{:}11.300$  in the Uncle plastic setting.

NOTE Confidence: 0.846430399999999

 $01:05:11.300 \longrightarrow 01:05:14.036$  Maybe that's best start with Doctor

NOTE Confidence: 0.846430399999999

01:05:14.036 --> 01:05:17.047 Lynch and her thoughts on how do you.

 $01:05:17.050 \longrightarrow 01:05:19.906$  Either guarantee or do best to achieve

NOTE Confidence: 0.846430399999999

 $01:05:19.906 \longrightarrow 01:05:23.107$  clear margins and then if they're not clear,

NOTE Confidence: 0.846430399999999

 $01:05:23.110 \longrightarrow 01:05:25.595$  what are the options for the patient

NOTE Confidence: 0.846430399999999

01:05:25.595 --> 01:05:27.960 and in your experience, right?

NOTE Confidence: 0.8426841

 $01:05:27.960 \longrightarrow 01:05:30.993$  So the the one of the benefits of Uncle

NOTE Confidence: 0.8426841

 $01:05:30.993 \longrightarrow 01:05:33.592$  plastic surgery when you kind of separate

NOTE Confidence: 0.8426841

 $01{:}05{:}33.592 \dashrightarrow 01{:}05{:}36.120$  the skin from the breast parenchyma

NOTE Confidence: 0.8426841

 $01:05:36.120 \longrightarrow 01:05:39.578$  with a little wider exposure for partial

NOTE Confidence: 0.8426841

 $01{:}05{:}39.578 \dashrightarrow 01{:}05{:}43.910$  mastectomy is with a wider exposures.

NOTE Confidence: 0.8426841

01:05:43.910 --> 01:05:45.932 There's a thinking that you might

NOTE Confidence: 0.8426841

 $01{:}05{:}45.932 \dashrightarrow 01{:}05{:}47.280$  have fewer positive margins,

NOTE Confidence: 0.8426841

 $01:05:47.280 \longrightarrow 01:05:49.976$  at least the margin rate is not worse,

NOTE Confidence: 0.8426841

 $01:05:49.980 \longrightarrow 01:05:54.408$  and that's the data that we have so far.

NOTE Confidence: 0.8426841

01:05:54.410 --> 01:05:57.266 So you would like to have your positive

NOTE Confidence: 0.8426841

01:05:57.266 --> 01:05:59.394 margin rate for routine breast surgery

NOTE Confidence: 0.8426841

 $01:05:59.394 \longrightarrow 01:06:02.830$  to be as close to 10% as possible and so

01:06:02.830 --> 01:06:05.360 making sure you have diligent marking of

NOTE Confidence: 0.8426841

 $01{:}06{:}05.360 \dashrightarrow 01{:}06{:}07.712$  your tumor bed after you've removed the

NOTE Confidence: 0.8426841

 $01:06:07.712 \longrightarrow 01:06:10.158$  area where the cancer is is important,

NOTE Confidence: 0.8426841

 $01:06:10.160 \longrightarrow 01:06:12.050$  not only for radiation but also

NOTE Confidence: 0.8426841

 $01{:}06{:}12.050 \dashrightarrow 01{:}06{:}14.164$  for finding that again after you've

NOTE Confidence: 0.8426841

 $01:06:14.164 \longrightarrow 01:06:15.756$  done a tissue rearrangement.

NOTE Confidence: 0.8426841

01:06:15.760 --> 01:06:21.080 If you have to go back and clear your margin.

NOTE Confidence: 0.8426841

01:06:21.080 --> 01:06:23.418 When you're doing a uncle plastic procedure

NOTE Confidence: 0.8426841

01:06:23.418 --> 01:06:25.597 to reduce the size of the breast,

NOTE Confidence: 0.8426841

 $01:06:25.600 \longrightarrow 01:06:27.721$  you can always plan the reduction of

NOTE Confidence: 0.8426841

 $01{:}06{:}27.721 \dashrightarrow 01{:}06{:}29.799$  that tissue around your lumpectomy bed,

NOTE Confidence: 0.8426841

 $01:06:29.800 \longrightarrow 01:06:31.738$  and so you'll remove your tissue.

NOTE Confidence: 0.8426841

 $01{:}06{:}31.740 \dashrightarrow 01{:}06{:}33.994$  You'll do your shave margins and then,

NOTE Confidence: 0.8426841

 $01:06:34.000 \longrightarrow 01:06:36.576$  if any more tissue needs to come out,

NOTE Confidence: 0.8426841

 $01:06:36.580 \longrightarrow 01:06:38.911$  that should also be oriented for the

 $01:06:38.911 \longrightarrow 01:06:40.866$  pathologist to make sure that you're

NOTE Confidence: 0.8426841

 $01:06:40.866 \longrightarrow 01:06:43.370$  aware of all of the margins there again,

NOTE Confidence: 0.8426841

 $01:06:43.370 \longrightarrow 01:06:45.624$  routine use of shave margins will help

NOTE Confidence: 0.8426841

 $01:06:45.624 \longrightarrow 01:06:47.889$  reduce your risk of a positive margin.

NOTE Confidence: 0.8426841

 $01:06:47.890 \longrightarrow 01:06:50.837$  And if you've got to go back, you go back.

NOTE Confidence: 0.8426841

 $01{:}06{:}50.837 \dashrightarrow 01{:}06{:}53.185$  And you try to go back as soon as

NOTE Confidence: 0.8426841

 $01:06:53.185 \longrightarrow 01:06:55.213$  possible when you still have saroma

NOTE Confidence: 0.8426841

01:06:55.213 --> 01:06:57.164 there before the the rotational flap

NOTE Confidence: 0.8426841

 $01{:}06{:}57.164 \dashrightarrow 01{:}06{:}59.818$  is healed in place to make sure that

NOTE Confidence: 0.8426841

01:06:59.818 --> 01:07:02.332 you're removing the tissue that you've

NOTE Confidence: 0.8426841

 $01{:}07{:}02.332 \to 01{:}07{:}04.789$  carefully marked at your first operation.

NOTE Confidence: 0.8426841

01:07:04.790 --> 01:07:06.988 But trying to get your positive margin

NOTE Confidence: 0.8426841

 $01:07:06.988 \longrightarrow 01:07:09.338$  rate to as close to or less than

NOTE Confidence: 0.8426841

 $01:07:09.338 \longrightarrow 01:07:10.510 \ 10\%$  is is important.

NOTE Confidence: 0.80142105

 $01:07:11.980 \longrightarrow 01:07:14.955$  Thank you doctor Lynn shot doctor Berger.

NOTE Confidence: 0.80142105

 $01:07:14.960 \longrightarrow 01:07:17.510$  There were some questions about \*\*\*\*\*\*

01:07:17.510 --> 01:07:19.755 margins and \*\*\*\*\* sparing mastectomy

NOTE Confidence: 0.80142105

 $01:07:19.755 \longrightarrow 01:07:22.856$  and should we consider a certain distance

NOTE Confidence: 0.80142105

 $01:07:22.856 \longrightarrow 01:07:25.984$  on pathology or an indoor image Ng to

NOTE Confidence: 0.80142105

 $01:07:26.058 \longrightarrow 01:07:28.998$  consider it clear we should that be

NOTE Confidence: 0.80142105

 $01{:}07{:}28.998 \dashrightarrow 01{:}07{:}32.864$  treated different than say margin in a

NOTE Confidence: 0.80142105

 $01{:}07{:}32.864 \dashrightarrow 01{:}07{:}35.140$  patient undergoing lumpectomy. Yeah,

NOTE Confidence: 0.80382687

 $01:07:35.140 \longrightarrow 01:07:37.048$  I think that's a great question.

NOTE Confidence: 0.80382687

01:07:37.050 --> 01:07:39.610 I mean, I think the conservative answer is,

NOTE Confidence: 0.80382687

01:07:39.610 --> 01:07:41.864 you know if there's any pathology on

NOTE Confidence: 0.80382687

 $01:07:41.864 \longrightarrow 01:07:43.489$  imaging that's within 2 centimeters

NOTE Confidence: 0.80382687

01:07:43.489 --> 01:07:45.026 of the \*\*\*\*\* areola complex.

NOTE Confidence: 0.80382687

 $01:07:45.026 \longrightarrow 01:07:46.619$  We do tend to, or.

NOTE Confidence: 0.80382687

 $01{:}07{:}46.619 \dashrightarrow 01{:}07{:}49.490$  You know, I would argue we tend to avoid.

NOTE Confidence: 0.80382687

01:07:49.490 --> 01:07:50.450 However, you know,

NOTE Confidence: 0.80382687

01:07:50.450 --> 01:07:53.007 if you take a \*\*\*\*\* margin an it's

 $01:07:53.007 \longrightarrow 01:07:55.240$  negative at the time of your operation,

NOTE Confidence: 0.80382687

01:07:55.240 --> 01:07:56.830 then you know I think.

NOTE Confidence: 0.80382687

 $01:07:56.830 \longrightarrow 01:07:59.056$  Regardless of how close that cancer is,

NOTE Confidence: 0.80382687

 $01:07:59.060 \longrightarrow 01:08:00.388$  the \*\*\*\*\* areola complex

NOTE Confidence: 0.80382687

 $01:08:00.388 \longrightarrow 01:08:01.716$  we'd feel comfortable leaving

NOTE Confidence: 0.80382687

01:08:01.716 --> 01:08:03.209 the rest of that tissue,

NOTE Confidence: 0.80382687

 $01:08:03.210 \longrightarrow 01:08:06.514$  but I would defer to my more

NOTE Confidence: 0.80382687

 $01:08:06.514 \longrightarrow 01:08:07.458$  senior colleagues.

NOTE Confidence: 0.80382687

01:08:07.460 --> 01:08:09.340 I think you know

NOTE Confidence: 0.8354927

 $01:08:09.340 \longrightarrow 01:08:12.462$  there's a nice a nice editorial written

NOTE Confidence: 0.8354927

 $01{:}08{:}12.462 \dashrightarrow 01{:}08{:}15.917$  by Doctor Susie Coopey and Barbara Smith,

NOTE Confidence: 0.8354927

 $01:08:15.920 \longrightarrow 01:08:18.740$  arguing that the \*\*\*\*\* is just

NOTE Confidence: 0.8354927

 $01:08:18.740 \longrightarrow 01:08:20.870$  another margin. I've historically.

NOTE Confidence: 0.8354927

01:08:20.870 --> 01:08:23.250 Having done these operations

NOTE Confidence: 0.8354927

 $01:08:23.250 \longrightarrow 01:08:25.630$  for almost a decade,

NOTE Confidence: 0.8354927

 $01:08:25.630 \longrightarrow 01:08:29.130$  that one type of patient I've become

01:08:29.130 --> 01:08:31.294 increasingly cautious about offering

NOTE Confidence: 0.8354927

01:08:31.294 --> 01:08:34.488 \*\*\*\*\* sparing mastectomy to is

NOTE Confidence: 0.8354927

 $01:08:34.488 \longrightarrow 01:08:38.400$  women with large areas of DCIS.

NOTE Confidence: 0.8354927

01:08:38.400 --> 01:08:40.625 Yeah, anecdotally had one patient

NOTE Confidence: 0.8354927

01:08:40.625 --> 01:08:42.850 with a negative margin who

NOTE Confidence: 0.8354927

01:08:42.929 --> 01:08:45.227 recurred in a short time frame,

NOTE Confidence: 0.8354927

 $01:08:45.230 \longrightarrow 01:08:48.135$  and thankfully she had a insight to

NOTE Confidence: 0.8354927

01:08:48.135 --> 01:08:50.784 recurrence in her \*\*\*\*\* that was

NOTE Confidence: 0.8354927

 $01:08:50.784 \longrightarrow 01:08:53.379$  salvageable with a central \*\*\*\*\* resection.

NOTE Confidence: 0.8354927

 $01{:}08{:}53.379 \dashrightarrow 01{:}08{:}56.133$  But I think that disease with

NOTE Confidence: 0.8354927

 $01:08:56.133 \longrightarrow 01:08:58.879$  the skip pattern should probably.

NOTE Confidence: 0.8354927

 $01:08:58.880 \longrightarrow 01:09:01.340$  Be taken seriously in terms of

NOTE Confidence: 0.8354927

01:09:01.340 --> 01:09:03.026 offering \*\*\*\*\*\* sparing mastectomy

NOTE Confidence: 0.8354927

 $01:09:03.026 \longrightarrow 01:09:05.624$  or to follow these women very

NOTE Confidence: 0.8354927

 $01:09:05.624 \longrightarrow 01:09:08.069$  closely in your own practice for

01:09:08.069 --> 01:09:11.310 any signs or symptoms of recurrence.

NOTE Confidence: 0.8354927

01:09:11.310 --> 01:09:12.670 Yes.

NOTE Confidence: 0.8354927

01:09:12.670 --> 01:09:13.040 And

NOTE Confidence: 0.82117325

 $01:09:13.040 \longrightarrow 01:09:14.504$  there's a question from

NOTE Confidence: 0.82117325

 $01:09:14.504 \longrightarrow 01:09:15.968$  Doctor Moran asking both.

NOTE Confidence: 0.82117325

 $01:09:15.970 \longrightarrow 01:09:17.810$  You know, Melanie Rachel Elizabeth.

NOTE Confidence: 0.82117325

 $01:09:17.810 \longrightarrow 01:09:19.718$  What are your thoughts on the

NOTE Confidence: 0.82117325

 $01:09:19.718 \longrightarrow 01:09:21.431$  recent buzz on going flat

NOTE Confidence: 0.82117325

 $01{:}09{:}21.431 \dashrightarrow 01{:}09{:}23.681$  movement from the patients and the

NOTE Confidence: 0.82117325

01:09:23.681 --> 01:09:25.662 possibility of some perceived lack

NOTE Confidence: 0.82117325

01:09:25.662 --> 01:09:27.632 of support from surgeons around

NOTE Confidence: 0.82117325

 $01:09:27.632 \longrightarrow 01:09:29.918$  the country and around the world?

NOTE Confidence: 0.86746573

 $01:09:34.330 \longrightarrow 01:09:36.628$  I'll jump in on that one.

NOTE Confidence: 0.86746573

 $01:09:36.630 \longrightarrow 01:09:38.934$  I think you know that's all

NOTE Confidence: 0.86746573

01:09:38.934 --> 01:09:40.470 part of shared decision-making,

NOTE Confidence: 0.86746573

 $01:09:40.470 \longrightarrow 01:09:43.095$  and with you know kind of carefully

 $01:09:43.095 \longrightarrow 01:09:45.118$  chosen words and to clearly

NOTE Confidence: 0.86746573

 $01:09:45.118 \longrightarrow 01:09:47.995$  represent that the first goal of our

NOTE Confidence: 0.86746573

 $01:09:47.995 \longrightarrow 01:09:50.067$  operation is to cure the cancer,

NOTE Confidence: 0.86746573

 $01:09:50.070 \longrightarrow 01:09:52.464$  and our second operation is to

NOTE Confidence: 0.86746573

 $01:09:52.464 \longrightarrow 01:09:54.859$  make sure the patient has an

NOTE Confidence: 0.86746573

 $01:09:54.859 \longrightarrow 01:09:57.365$  outcome that she she can live with.

NOTE Confidence: 0.86746573

 $01:09:57.370 \longrightarrow 01:09:59.668$  Because when we do these operations,

NOTE Confidence: 0.86746573

 $01:09:59.670 \longrightarrow 01:10:01.750$  we change our patients bodies

NOTE Confidence: 0.86746573

 $01:10:01.750 \longrightarrow 01:10:04.410$  for the rest of their lives.

NOTE Confidence: 0.86746573

 $01:10:04.410 \longrightarrow 01:10:06.937$  And trying to be as respectful an

NOTE Confidence: 0.86746573

 $01:10:06.937 \longrightarrow 01:10:08.935$  as inclusive in that conversation

NOTE Confidence: 0.86746573

 $01:10:08.935 \longrightarrow 01:10:11.040$  as we can possibly be.

NOTE Confidence: 0.86746573

 $01:10:11.040 \longrightarrow 01:10:12.210$  And there's patients.

NOTE Confidence: 0.86746573

 $01:10:12.210 \longrightarrow 01:10:13.380$  There's their partner,

NOTE Confidence: 0.86746573

01:10:13.380 --> 01:10:14.304 their family.

 $01:10:14.304 \longrightarrow 01:10:17.538$  There's a lot of people who have

NOTE Confidence: 0.86746573

 $01:10:17.538 \longrightarrow 01:10:20.859$  opinions about what women should be doing.

NOTE Confidence: 0.86746573

01:10:20.860 --> 01:10:22.385 When they make choices about

NOTE Confidence: 0.86746573

 $01:10:22.385 \longrightarrow 01:10:22.995$  these operations,

NOTE Confidence: 0.86746573

 $01:10:23.000 \longrightarrow 01:10:25.000$  and I think we have as many patients

NOTE Confidence: 0.86746573

01:10:25.000 --> 01:10:26.891 who come into our offices where

NOTE Confidence: 0.86746573

01:10:26.891 --> 01:10:28.556 they have family members telling

NOTE Confidence: 0.86746573

 $01:10:28.556 \longrightarrow 01:10:30.563$  them that they should be having

NOTE Confidence: 0.86746573

 $01{:}10{:}30.563 \dashrightarrow 01{:}10{:}32.486$  bilateral mast ectomies is as we have.

NOTE Confidence: 0.86746573

 $01:10:32.486 \longrightarrow 01:10:34.628$  You know, other concerns that come forward.

NOTE Confidence: 0.86746573

 $01:10:34.630 \longrightarrow 01:10:37.010$  So it's important that.

NOTE Confidence: 0.86746573

 $01:10:37.010 \longrightarrow 01:10:38.415$  We're all as respectful and

NOTE Confidence: 0.86746573

 $01:10:38.415 \longrightarrow 01:10:39.820$  inclusive as we can be,

NOTE Confidence: 0.86746573

 $01:10:39.820 \longrightarrow 01:10:41.722$  and that we're ready for these

NOTE Confidence: 0.86746573

 $01:10:41.722 \longrightarrow 01:10:43.524$  conversations that we're ready to talk

NOTE Confidence: 0.86746573

 $01:10:43.524 \longrightarrow 01:10:45.436$  about how our bodies change as we age.

 $01:10:45.440 \longrightarrow 01:10:47.312$  How an implant might feel when

NOTE Confidence: 0.86746573

 $01{:}10{:}47.312 \dashrightarrow 01{:}10{:}50.167$  you're 40 and how it's going to feel

NOTE Confidence: 0.86746573

01:10:50.167 --> 01:10:52.082 really differently when you're 70?

NOTE Confidence: 0.86746573

01:10:52.090 --> 01:10:55.645 So that's all got to be addressed up front,

NOTE Confidence: 0.86746573

 $01:10:55.650 \longrightarrow 01:10:58.989$  so I have not had that experience

NOTE Confidence: 0.86746573

 $01:10:58.989 \longrightarrow 01:11:02.119$  where I had a patient felt.

NOTE Confidence: 0.86746573

01:11:02.120 --> 01:11:04.064 Like they I was talking to them too

NOTE Confidence: 0.86746573

 $01:11:04.064 \longrightarrow 01:11:05.332$  much about reconstruction without

NOTE Confidence: 0.86746573

01:11:05.332 --> 01:11:07.880 respecting that they wanted to be flat,

NOTE Confidence: 0.86746573

 $01{:}11{:}07.880 \dashrightarrow 01{:}11{:}10.598$  but I have read a lot of that literature.

NOTE Confidence: 0.86746573

 $01:11:10.600 \longrightarrow 01:11:13.024 I did read the book flat as well.$ 

NOTE Confidence: 0.8903975

01:11:16.050 --> 01:11:18.410 Yeah, I agree. I think it's

NOTE Confidence: 0.8903975

 $01{:}11{:}18.410 \dashrightarrow 01{:}11{:}19.982$  a really personal decision.

NOTE Confidence: 0.8903975

 $01:11:19.982 \longrightarrow 01:11:22.794$  I also remind women that it it

NOTE Confidence: 0.8903975

01:11:22.794 --> 01:11:24.699 can be an ongoing discussion,

 $01:11:24.700 \longrightarrow 01:11:27.276$  so I have had women who could not

NOTE Confidence: 0.8903975

 $01{:}11{:}27.276 \dashrightarrow 01{:}11{:}30.043$  manage the thought of embarking on

NOTE Confidence: 0.8903975

 $01:11:30.043 \longrightarrow 01:11:32.603$  reconstruction around diagnosis and they

NOTE Confidence: 0.8903975

01:11:32.603 --> 01:11:35.498 ended up a few years later wanting to

NOTE Confidence: 0.8903975

 $01:11:35.498 \longrightarrow 01:11:37.304$  meet with the reconstructive surgeon.

NOTE Confidence: 0.8903975

 $01:11:37.304 \longrightarrow 01:11:39.746$  So for many women there are

NOTE Confidence: 0.8903975

 $01:11:39.746 \longrightarrow 01:11:41.199$  options down the road.

NOTE Confidence: 0.8903975

01:11:41.200 --> 01:11:43.867 They might be limited compared to the

NOTE Confidence: 0.8903975

 $01{:}11{:}43.867 \dashrightarrow 01{:}11{:}46.301$  options they have a diagnosis, but.

NOTE Confidence: 0.8903975

01:11:46.301 --> 01:11:48.206 The door should never feel

NOTE Confidence: 0.8903975

01:11:48.206 --> 01:11:49.730 entirely closed for them.

NOTE Confidence: 0.78874946

01:11:51.390 --> 01:11:53.959 I have a question from my colleague

NOTE Confidence: 0.78874946

 $01:11:53.959 \longrightarrow 01:11:56.146$  Doctor Fatty Ottawan from Turkey for

NOTE Confidence: 0.78874946

01:11:56.146 --> 01:11:58.526 Doctor Green up wanting to know what

NOTE Confidence: 0.78874946

01:11:58.600 --> 01:12:00.958 your thoughts are looming in Turkey.

NOTE Confidence: 0.78874946

 $01:12:00.960 \longrightarrow 01:12:03.417$  The average age of breast cancer is

01:12:03.417 --> 01:12:05.739 much younger than the United States.

NOTE Confidence: 0.78874946

01:12:05.740 --> 01:12:07.575 What are your thoughts on

NOTE Confidence: 0.78874946

 $01:12:07.575 \longrightarrow 01:12:09.043$  luminal a breast cancer?

NOTE Confidence: 0.78874946

01:12:09.050 --> 01:12:10.582 Zan, whether neoadjuvant chemotherapy

NOTE Confidence: 0.78874946

 $01:12:10.582 \longrightarrow 01:12:13.274$  potentially could be an option or or

NOTE Confidence: 0.78874946

 $01:12:13.274 \longrightarrow 01:12:14.939$  other thoughts on this population.

NOTE Confidence: 0.8671083

01:12:16.240 --> 01:12:19.420 Yeah, so we you know we talk

NOTE Confidence: 0.8671083

 $01:12:19.420 \longrightarrow 01:12:22.920$  about this in the context of multi

NOTE Confidence: 0.8671083

 $01:12:22.920 \longrightarrow 01:12:26.420$  disciplinary discussion and I think.

NOTE Confidence: 0.8671083

01:12:26.420 --> 01:12:28.630 In the US, at least,

NOTE Confidence: 0.8671083

01:12:28.630 --> 01:12:30.835 we're heavy utilizers of genomic

NOTE Confidence: 0.8671083

 $01:12:30.835 \longrightarrow 01:12:33.040$  assays and the abdomen setting.

NOTE Confidence: 0.8671083

 $01:12:33.040 \longrightarrow 01:12:35.100$  Occasionally we discuss using them

NOTE Confidence: 0.8671083

01:12:35.100 --> 01:12:37.690 in the neoadjuvant setting to help

NOTE Confidence: 0.8671083

 $01:12:37.690 \longrightarrow 01:12:39.550$  inform decisions around whether

01:12:39.550 --> 01:12:41.410 chemotherapy should be used,

NOTE Confidence: 0.8671083

01:12:41.410 --> 01:12:43.174 and certainly thinking about

NOTE Confidence: 0.8671083

 $01:12:43.174 \longrightarrow 01:12:45.820$  the size of the breast cancer.

NOTE Confidence: 0.8671083

 $01:12:45.820 \longrightarrow 01:12:49.310$  The status of the axilla.

NOTE Confidence: 0.8671083

 $01:12:49.310 \longrightarrow 01:12:52.490$  And all of those the patients

NOTE Confidence: 0.8671083

01:12:52.490 --> 01:12:54.610 preference for breast conservation

NOTE Confidence: 0.8671083

 $01:12:54.694 \longrightarrow 01:12:57.869$  versus mastectomy all contribute to

NOTE Confidence: 0.8671083

 $01:12:57.869 \longrightarrow 01:13:00.409$  decisions for preoperative chemo.

NOTE Confidence: 0.87652194

 $01{:}13{:}02.860 \to 01{:}13{:}05.086$  There is a question from our colleagues

NOTE Confidence: 0.87652194

 $01:13:05.086 \longrightarrow 01:13:06.953$  from China where the breast tissue

NOTE Confidence: 0.87652194

 $01{:}13{:}06.953 \dashrightarrow 01{:}13{:}09.343$  density tends to be a lot higher on

NOTE Confidence: 0.87652194

 $01{:}13{:}09.343 \to 01{:}13{:}11.389$  our thoughts on a screening ultrasound.

NOTE Confidence: 0.87652194

 $01:13:11.390 \longrightarrow 01:13:13.025$  And obviously here in Connecticut

NOTE Confidence: 0.87652194

 $01{:}13{:}13.025 \dashrightarrow 01{:}13{:}15.776$  we can may be give a little bit of

NOTE Confidence: 0.87652194

01:13:15.776 --> 01:13:17.531 a different perspective than maybe

NOTE Confidence: 0.87652194

 $01:13:17.531 \longrightarrow 01:13:19.600$  the rest of the United States.

 $01:13:19.600 \longrightarrow 01:13:21.848$  After lunch you want it or burger or.

NOTE Confidence: 0.8473732

 $01{:}13{:}23.840 \to 01{:}13{:}26.054$  So I hope you're screening ultrasound

NOTE Confidence: 0.8473732

 $01:13:26.054 \longrightarrow 01:13:28.316$  and I'm becoming more and more

NOTE Confidence: 0.8473732

 $01:13:28.316 \longrightarrow 01:13:30.488$  familiar with it because it's used

NOTE Confidence: 0.8473732

 $01:13:30.488 \longrightarrow 01:13:32.220$  routinely here in Connecticut.

NOTE Confidence: 0.8473732

01:13:32.220 --> 01:13:34.125 I have recently moved from

NOTE Confidence: 0.8473732

01:13:34.125 --> 01:13:36.030 Ohio to Connecticut in Ohio.

NOTE Confidence: 0.8473732

 $01:13:36.030 \longrightarrow 01:13:38.544$  We didn't routinely do whole breast

NOTE Confidence: 0.8473732

 $01:13:38.544 \longrightarrow 01:13:40.617$  screening ultrasound and it seems

NOTE Confidence: 0.8473732

 $01:13:40.617 \longrightarrow 01:13:42.885$  to be a very very effective test.

NOTE Confidence: 0.8473732

 $01:13:42.890 \longrightarrow 01:13:44.594$  We know it hasn't.

NOTE Confidence: 0.8473732

 $01:13:44.594 \longrightarrow 01:13:47.728$  It picks up additional cancers at a rate

NOTE Confidence: 0.8473732

 $01{:}13{:}47.728 \dashrightarrow 01{:}13{:}50.032$  of 8% more than mammography screening.

NOTE Confidence: 0.8473732

01:13:50.032 --> 01:13:52.297 MRI for dense breasts picks

NOTE Confidence: 0.8473732

 $01:13:52.297 \longrightarrow 01:13:54.046$  up at a rate of 14%.

01:13:54.050 --> 01:13:55.976 I think in Connecticut because of

NOTE Confidence: 0.8473732

 $01{:}13{:}55.976 \dashrightarrow 01{:}13{:}58.247$  ultrasound is so routinely used and it's

NOTE Confidence: 0.8473732

 $01:13:58.247 \longrightarrow 01:14:00.107$  a user dependent technology that their

NOTE Confidence: 0.8473732

01:14:00.107 --> 01:14:01.901 rates are actually much higher than

NOTE Confidence: 0.8473732

 $01:14:01.901 \dashrightarrow 01:14:04.068$  8% which is reported in the literature.

NOTE Confidence: 0.8473732

 $01:14:04.070 \longrightarrow 01:14:06.107$  So it can be a very effective

NOTE Confidence: 0.8473732

 $01:14:06.107 \longrightarrow 01:14:07.710$  adjunct to mammography for dense

NOTE Confidence: 0.8473732

 $01:14:07.710 \longrightarrow 01:14:09.390$  breasts and it's user dependent.

NOTE Confidence: 0.8473732

01:14:09.390 --> 01:14:10.950 So the more you do,

NOTE Confidence: 0.8473732

01:14:10.950 --> 01:14:12.062 the better you get,

NOTE Confidence: 0.8473732

 $01{:}14{:}12.062 \dashrightarrow 01{:}14{:}14.132$  and I think that's why the rates

NOTE Confidence: 0.8473732

 $01:14:14.132 \longrightarrow 01:14:15.822$  here in Connecticut look look

NOTE Confidence: 0.8473732

 $01:14:15.822 \longrightarrow 01:14:18.148$  better than the rest of the country.

NOTE Confidence: 0.8008846

 $01:14:20.530 \longrightarrow 01:14:23.533$  There was a question from a doctor

NOTE Confidence: 0.8008846

01:14:23.533 --> 01:14:25.409 lustberg our incoming breast

NOTE Confidence: 0.8008846

 $01:14:25.409 \longrightarrow 01:14:27.939$  program director to touch base

 $01:14:27.939 \longrightarrow 01:14:30.350$  upon shared decision makings for.

NOTE Confidence: 0.8008846

 $01:14:30.350 \longrightarrow 01:14:32.246$  Doctor Lynch just because of your

NOTE Confidence: 0.8008846

01:14:32.246 --> 01:14:34.284 you know wide array of surgical

NOTE Confidence: 0.8008846

01:14:34.284 --> 01:14:36.426 options that you can provide patients

NOTE Confidence: 0.8008846

 $01:14:36.426 \longrightarrow 01:14:38.638$  that maybe some of us don't have

NOTE Confidence: 0.8008846

 $01:14:38.638 \longrightarrow 01:14:40.393$  the that background or you know

NOTE Confidence: 0.8008846

 $01:14:40.393 \longrightarrow 01:14:42.008$  those techniques that you discuss.

NOTE Confidence: 0.8008846

01:14:42.010 --> 01:14:43.960 What are your thoughts on that?

NOTE Confidence: 0.7936137

01:14:45.220 --> 01:14:48.966 It's yeah, it's. You know,

NOTE Confidence: 0.7936137

 $01:14:48.966 \longrightarrow 01:14:51.264$  we always worry about informed consent.

NOTE Confidence: 0.7936137

 $01:14:51.270 \longrightarrow 01:14:53.580$  Can we really explain to patients

NOTE Confidence: 0.7936137

 $01:14:53.580 \longrightarrow 01:14:56.242$  how this is going to look and

NOTE Confidence: 0.7936137

 $01:14:56.242 \longrightarrow 01:14:58.324$  feel to them after we're done

NOTE Confidence: 0.7936137

01:14:58.324 --> 01:15:00.868 with our operation and and we've,

NOTE Confidence: 0.7936137

01:15:00.870 --> 01:15:03.558 in my experience so far in using

01:15:03.558 --> 01:15:04.717 Oncoplastic operations, well,

NOTE Confidence: 0.7936137

 $01{:}15{:}04.717 \dashrightarrow 01{:}15{:}07.039$ an doctor Krishna Clef recently published

NOTE Confidence: 0.7936137

 $01:15:07.039 \longrightarrow 01:15:09.447$  an editorial in Annals of Surgical

NOTE Confidence: 0.7936137

01:15:09.447 --> 01:15:11.805 Oncology about how we're using this

NOTE Confidence: 0.7936137

01:15:11.805 --> 01:15:13.928 technique too much for some patients,

NOTE Confidence: 0.7936137

 $01:15:13.930 \longrightarrow 01:15:16.982$  and we have to be really careful

NOTE Confidence: 0.7936137

 $01:15:16.982 \longrightarrow 01:15:19.459$  about how we apply this.

NOTE Confidence: 0.7936137

 $01:15:19.460 \longrightarrow 01:15:22.176$  But we need to be able to.

NOTE Confidence: 0.7936137

 $01{:}15{:}22.180 \dashrightarrow 01{:}15{:}23.865$  Describe to patients exactly how

NOTE Confidence: 0.7936137

 $01:15:23.865 \longrightarrow 01:15:26.248$  we do the operation and how it

NOTE Confidence: 0.7936137

 $01:15:26.248 \longrightarrow 01:15:27.838$  might feel to them afterwards.

NOTE Confidence: 0.7936137

 $01:15:27.840 \longrightarrow 01:15:29.905$  One of the issues that we're now

NOTE Confidence: 0.7936137

 $01:15:29.905 \longrightarrow 01:15:31.556$  beginning to really understand is

NOTE Confidence: 0.7936137

 $01:15:31.556 \longrightarrow 01:15:33.668$  how distressing it is for patients

NOTE Confidence: 0.7936137

 $01:15:33.668 \longrightarrow 01:15:35.169$  to experience fat necrosis.

NOTE Confidence: 0.7936137

 $01:15:35.170 \longrightarrow 01:15:37.162$  The more we separate the skin

 $01:15:37.162 \longrightarrow 01:15:38.158$  from the breast,

NOTE Confidence: 0.7936137

 $01:15:38.160 \longrightarrow 01:15:40.158$  the and then radiate that tissue,

NOTE Confidence: 0.7936137

 $01:15:40.160 \longrightarrow 01:15:41.550$  the more patients are likely

NOTE Confidence: 0.7936137

 $01:15:41.550 \longrightarrow 01:15:43.833$  to feel a mass in their breast

NOTE Confidence: 0.7936137

01:15:43.833 --> 01:15:45.485 after they've had treatment,

NOTE Confidence: 0.7936137

 $01{:}15{:}45{.}490 \dashrightarrow 01{:}15{:}47{.}488$  and that is actually fat necros is

NOTE Confidence: 0.7936137

01:15:47.488 --> 01:15:48.820 and not recurrent cancer.

NOTE Confidence: 0.7936137

 $01:15:48.820 \longrightarrow 01:15:51.817$  And to be able to prepare patients for that,

NOTE Confidence: 0.7936137

01:15:51.820 --> 01:15:53.818 the older the patient is with,

NOTE Confidence: 0.7936137

 $01{:}15{:}53.820 \dashrightarrow 01{:}15{:}55.740$  the more fat replaced breast.

NOTE Confidence: 0.7936137

 $01:15:55.740 \longrightarrow 01:15:57.357$  We know that they are more likely

NOTE Confidence: 0.7936137

 $01{:}15{:}57.357 \dashrightarrow 01{:}15{:}58.741$  to develop fat necrosis and we

NOTE Confidence: 0.7936137

 $01:15:58.741 \longrightarrow 01:16:00.225$  need to be able to have that

NOTE Confidence: 0.7936137

 $01:16:00.277 \longrightarrow 01:16:01.579$  conversation with patients,

NOTE Confidence: 0.7936137

 $01:16:01.580 \longrightarrow 01:16:03.404$  and so if and when that mask comes

 $01:16:03.404 \longrightarrow 01:16:05.280$  up that they're not as distressed by

NOTE Confidence: 0.7936137

01:16:05.280 --> 01:16:07.446 it and that they they know that they

NOTE Confidence: 0.7936137

01:16:07.446 --> 01:16:09.526 can come in and we can evaluate it

NOTE Confidence: 0.7936137

 $01:16:09.526 \longrightarrow 01:16:11.808$  and help help help sort that out.

NOTE Confidence: 0.7936137

 $01:16:11.810 \longrightarrow 01:16:13.622$  But the shared decision making is

NOTE Confidence: 0.7936137

 $01{:}16{:}13.622 \dashrightarrow 01{:}16{:}16.073$  a process and it can include the

NOTE Confidence: 0.7936137

 $01:16:16.073 \longrightarrow 01:16:18.038$  whole of the multidisciplinary team

NOTE Confidence: 0.7936137

 $01:16:18.038 \longrightarrow 01:16:20.638$  including the radiation oncologist as well.

NOTE Confidence: 0.7936137

 $01{:}16{:}20.640 \dashrightarrow 01{:}16{:}22.943$  Because of the they can talk to

NOTE Confidence: 0.7936137

 $01:16:22.943 \longrightarrow 01:16:25.257$  patients so they understand fully what

NOTE Confidence: 0.7936137

 $01{:}16{:}25.257 \dashrightarrow 01{:}16{:}27.765$  radiation might feel to the breast

NOTE Confidence: 0.7936137

 $01:16:27.765 \longrightarrow 01:16:30.729$  when they're they're done with treatment.

NOTE Confidence: 0.7936137

 $01:16:30.730 \longrightarrow 01:16:31.678$  But that's it.

NOTE Confidence: 0.7936137

01:16:31.678 --> 01:16:32.940 That's a, that's a.

NOTE Confidence: 0.7936137

 $01:16:32.940 \longrightarrow 01:16:34.830$  That's a whole conference in itself.

NOTE Confidence: 0.7936137

01:16:34.830 --> 01:16:35.143 Yeah,

 $01:16:35.143 \longrightarrow 01:16:35.456$  well,

NOTE Confidence: 0.7936137

 $01:16:35.456 \longrightarrow 01:16:35.769$  we'll

NOTE Confidence: 0.8196324

 $01:16:35.770 \longrightarrow 01:16:39.196$  have the next session on that.

NOTE Confidence: 0.8196324

 $01:16:39.200 \longrightarrow 01:16:40.910$  Doctor Berger or what are your

NOTE Confidence: 0.8196324

 $01{:}16{:}40.910 \dashrightarrow 01{:}16{:}42.451$  thoughts on intra op margin

NOTE Confidence: 0.8196324

 $01:16:42.451 \longrightarrow 01:16:44.467$  assessments are or is that something

NOTE Confidence: 0.8196324

01:16:44.467 --> 01:16:46.149 that's ready for prime time?

NOTE Confidence: 0.8196324

 $01:16:46.150 \longrightarrow 01:16:47.860$  Or you know something that's still

NOTE Confidence: 0.8196324

01:16:47.860 --> 01:16:49.939 kind of in the research realm?

NOTE Confidence: 0.8196324

01:16:49.940 --> 01:16:51.204 And obviously Doctor Green

NOTE Confidence: 0.8196324

01:16:51.204 --> 01:16:53.100 up at lunch as well too?

NOTE Confidence: 0.8195092

01:16:54.450 --> 01:16:56.370 Yeah, I know I'm up at

NOTE Confidence: 0.8195092

 $01:16:56.370 \longrightarrow 01:16:57.330$  your previous institution.

NOTE Confidence: 0.8195092

01:16:57.330 --> 01:16:58.930 There's been some looking at,

NOTE Confidence: 0.8195092

01:16:58.930 --> 01:17:01.396 you know, looking at Inter operative

 $01:17:01.396 \longrightarrow 01:17:03.727$  margin assessment and whether we can

NOTE Confidence: 0.8195092

 $01{:}17{:}03.727 \dashrightarrow 01{:}17{:}05.593$  lower the chance of positive margins

NOTE Confidence: 0.8195092

 $01:17:05.593 \longrightarrow 01:17:07.839$  on the final pathology specimen.

NOTE Confidence: 0.8195092

 $01:17:07.840 \longrightarrow 01:17:09.380$  There's been different feasibility trials.

NOTE Confidence: 0.8195092

01:17:09.380 --> 01:17:10.301 Looking at that,

NOTE Confidence: 0.8195092

 $01:17:10.301 \longrightarrow 01:17:12.143$  there's been different even outcome trials.

NOTE Confidence: 0.8195092

01:17:12.150 --> 01:17:13.074 Looking at that,

NOTE Confidence: 0.8195092

01:17:13.074 --> 01:17:15.230 I'm not sure we're quite there yet,

NOTE Confidence: 0.8195092

01:17:15.230 --> 01:17:16.795 just based upon the limited

NOTE Confidence: 0.8195092

 $01:17:16.795 \longrightarrow 01:17:18.930$  amount of data that we do have.

NOTE Confidence: 0.8195092

01:17:18.930 --> 01:17:19.857 But you know,

NOTE Confidence: 0.8195092

 $01:17:19.857 \longrightarrow 01:17:21.711$  definitely something in the future that

NOTE Confidence: 0.8195092

01:17:21.711 --> 01:17:23.550 might be a possibility to prevent,

NOTE Confidence: 0.8195092

 $01:17:23.550 \longrightarrow 01:17:25.200$  you know, return to the OR

NOTE Confidence: 0.8195092

 $01:17:25.200 \longrightarrow 01:17:26.940$  on some of these patients.

NOTE Confidence: 0.8859664

01:17:29.100 --> 01:17:31.044 Yeah, I think nationally

 $01:17:31.044 \longrightarrow 01:17:33.000$  we've continued to have

NOTE Confidence: 0.8859664

 $01:17:33.000 \longrightarrow 01:17:36.409$  to balance the extra operating room time.

NOTE Confidence: 0.8859664

01:17:36.410 --> 01:17:39.608 The logistics around having a workforce

NOTE Confidence: 0.8859664

 $01:17:39.608 \longrightarrow 01:17:42.293$  of pathologists available to evaluate

NOTE Confidence: 0.8859664

 $01:17:42.293 \longrightarrow 01:17:45.583$  margin in real time and then the

NOTE Confidence: 0.8859664

01:17:45.583 --> 01:17:48.348 accuracy obviously of the data that's

NOTE Confidence: 0.8859664

 $01:17:48.348 \longrightarrow 01:17:50.523$  received in the operating room,

NOTE Confidence: 0.8859664

 $01:17:50.530 \longrightarrow 01:17:52.960$  certainly from the technology side.

NOTE Confidence: 0.8859664

 $01:17:52.960 \longrightarrow 01:17:57.419$  There's a lot of independent companies and.

NOTE Confidence: 0.8859664

 $01:17:57.420 \longrightarrow 01:18:03.188$  NIH funded study is in partnership with.

NOTE Confidence: 0.8859664

 $01:18:03.190 \longrightarrow 01:18:06.046$  Industry looking at real time Inter

NOTE Confidence: 0.8859664

 $01:18:06.046 \longrightarrow 01:18:08.412$  operative margin assessment and certainly

NOTE Confidence: 0.8859664

 $01{:}18{:}08.412 \dashrightarrow 01{:}18{:}11.086$  breast is a great place to start,

NOTE Confidence: 0.8859664

01:18:11.090 --> 01:18:13.897 but I would argue it will be

NOTE Confidence: 0.8859664

 $01:18:13.897 \longrightarrow 01:18:15.920$  really wonderful for patients.

 $01{:}18{:}15.920 \dashrightarrow 01{:}18{:}18.130$  For example that have pancreas

NOTE Confidence: 0.8859664

 $01:18:18.130 \longrightarrow 01:18:20.801$  cancers or liver tumors where the

NOTE Confidence: 0.8859664

 $01:18:20.801 \longrightarrow 01:18:23.099$  return trip to the operating room

NOTE Confidence: 0.8859664

01:18:23.099 --> 01:18:25.580 carries a much higher morbidity.

NOTE Confidence: 0.8534587

 $01:18:27.970 \longrightarrow 01:18:30.040$  There is a question from Professor

NOTE Confidence: 0.8534587

01:18:30.040 --> 01:18:32.770 Dong in China about a 65 year old

NOTE Confidence: 0.8534587

 $01:18:32.770 \longrightarrow 01:18:34.370$  with early stage breast cancer.

NOTE Confidence: 0.8534587

01:18:34.370 --> 01:18:36.398 For example, a very tiny tumor,

NOTE Confidence: 0.8534587

 $01:18:36.400 \longrightarrow 01:18:38.422$  less than a 0.5 millimeters and

NOTE Confidence: 0.8534587

 $01:18:38.422 \longrightarrow 01:18:39.770$  they undergo breast conservation.

NOTE Confidence: 0.8534587

 $01:18:39.770 \longrightarrow 01:18:42.050$  You know we have data on what you

NOTE Confidence: 0.8534587

01:18:42.050 --> 01:18:44.747 know women over 70 and maybe the ER

NOTE Confidence: 0.8534587

 $01:18:44.747 \longrightarrow 01:18:46.840$  positive setting on avoiding radiation.

NOTE Confidence: 0.8534587

01:18:46.840 --> 01:18:48.862 How about on a slightly younger

NOTE Confidence: 0.8534587

01:18:48.862 --> 01:18:50.508 patient you know, do we?

NOTE Confidence: 0.8534587

01:18:50.508 --> 01:18:53.020 Can we drop that cut off and you

 $01:18:53.103 \longrightarrow 01:18:55.595$  know where do we go from there?

NOTE Confidence: 0.8390911

 $01:18:56.760 \longrightarrow 01:18:58.896$  Yeah, so we have good data from the

NOTE Confidence: 0.8390911

01:18:58.896 --> 01:19:00.734 prime two study looking at patients

NOTE Confidence: 0.8390911

 $01:19:00.734 \longrightarrow 01:19:03.108$  over 65 and ER PR positive cancers

NOTE Confidence: 0.8390911

 $01:19:03.108 \longrightarrow 01:19:05.388$  and deescalation of radiation therapy.

NOTE Confidence: 0.8390911

 $01:19:05.390 \longrightarrow 01:19:07.308$  But what I find really important too

NOTE Confidence: 0.8390911

01:19:07.308 --> 01:19:09.567 is you know asking the question can

NOTE Confidence: 0.8390911

 $01:19:09.567 \longrightarrow 01:19:11.625$  we dees calate hormone therapy so you

NOTE Confidence: 0.8390911

01:19:11.687 --> 01:19:13.687 know this principle of monotherapy,

NOTE Confidence: 0.8390911

 $01:19:13.690 \longrightarrow 01:19:15.706$  whether it is radiation or homeless

NOTE Confidence: 0.8390911

01:19:15.706 --> 01:19:17.803 hormone therapy I think is really

NOTE Confidence: 0.8390911

01:19:17.803 --> 01:19:19.538 important and that question is

NOTE Confidence: 0.8390911

 $01{:}19{:}19.538 \dashrightarrow 01{:}19{:}21.533$  actually being asked right now in

NOTE Confidence: 0.8390911

01:19:21.533 --> 01:19:23.315 an ongoing trial because you know,

NOTE Confidence: 0.8390911

 $01:19:23.320 \longrightarrow 01:19:25.483$  a lot of people consider radiation therapy

 $01:19:25.483 \longrightarrow 01:19:28.097$  is the thing we should deescalate because.

NOTE Confidence: 0.8390911

 $01{:}19{:}28.100 \dashrightarrow 01{:}19{:}29.955$  Hormone therapy protects you for the five

NOTE Confidence: 0.8390911

 $01:19:29.955 \longrightarrow 01:19:32.124$  years in the contralateral breast, etc.

NOTE Confidence: 0.8390911

01:19:32.124 --> 01:19:34.476 But that does not come without its own

NOTE Confidence: 0.8390911

01:19:34.476 --> 01:19:36.810 side effects an it's owned, you know,

NOTE Confidence: 0.8390911

01:19:36.810 --> 01:19:38.670 kind of pit bulls and downfalls.

NOTE Confidence: 0.8390911

 $01:19:38.670 \longrightarrow 01:19:40.794$  And so I think if we look at the

NOTE Confidence: 0.8390911

01:19:40.794 --> 01:19:42.720 local regional recurrence rates,

NOTE Confidence: 0.8390911

01:19:42.720 --> 01:19:44.140 which recently I actually just

NOTE Confidence: 0.8390911

 $01:19:44.140 \longrightarrow 01:19:45.560$  did there relatively similar with

NOTE Confidence: 0.8390911

 $01{:}19{:}45.606 \dashrightarrow 01{:}19{:}46.758$  the monotherapy principle.

NOTE Confidence: 0.8390911

01:19:46.760 --> 01:19:48.804 As far as DCIS goes, you know,

NOTE Confidence: 0.8390911

 $01:19:48.804 \longrightarrow 01:19:50.498$  I think there are a lot of

NOTE Confidence: 0.8390911

 $01{:}19{:}50.498 \dashrightarrow 01{:}19{:}52.049$  good predictive nomograms,

NOTE Confidence: 0.8390911

 $01:19:52.050 \longrightarrow 01:19:54.262$  and we know that age obviously lessens

NOTE Confidence: 0.8390911

 $01:19:54.262 \longrightarrow 01:19:56.183$  your chance of recurrence just based

 $01:19:56.183 \longrightarrow 01:19:58.730$  upon the fact that a woman is older.

NOTE Confidence: 0.8390911

01:19:58.730 --> 01:20:00.202 And so yeah, again,

NOTE Confidence: 0.8390911

 $01:20:00.202 \longrightarrow 01:20:02.410$  going back to this whole principle

NOTE Confidence: 0.8390911

01:20:02.478 --> 01:20:04.250 of shared decision making,

NOTE Confidence: 0.8390911

 $01:20:04.250 \longrightarrow 01:20:07.066$  that if you have a an informed decision

NOTE Confidence: 0.8390911

01:20:07.066 --> 01:20:09.751 with your patient and try to predict

NOTE Confidence: 0.8390911

01:20:09.751 --> 01:20:12.520 or recognize their risk of recurrence,

NOTE Confidence: 0.8390911

01:20:12.520 --> 01:20:14.092 understanding that 50% of

NOTE Confidence: 0.8390911

01:20:14.092 --> 01:20:15.664 DCIS recurrences are invasive,

NOTE Confidence: 0.8390911

 $01:20:15.670 \longrightarrow 01:20:17.635$  then omitting both agile and

NOTE Confidence: 0.8390911

 $01:20:17.635 \longrightarrow 01:20:18.814$  treatments for DCIS.

NOTE Confidence: 0.8390911

01:20:18.820 --> 01:20:22.530 I don't think it's unreasonable based upon

NOTE Confidence: 0.8390911

 $01{:}20{:}22.530 \to 01{:}20{:}27.057$  the risk that your patient is willing to us.

NOTE Confidence: 0.8390911

01:20:27.060 --> 01:20:28.306 You know,

NOTE Confidence: 0.8390911

 $01:20:28.306 \longrightarrow 01:20:28.929$  take.

01:20:33.140 --> 01:20:35.242 Maybe the last question from

NOTE Confidence: 0.851897

01:20:35.242 --> 01:20:37.750 Scott Posa for whoever wants to

NOTE Confidence: 0.851897

 $01:20:37.828 \longrightarrow 01:20:41.078$  try to tackle this one in terms of some of

NOTE Confidence: 0.851897

 $01:20:41.158 \longrightarrow 01:20:44.362$  the more complex reconstructions such as

NOTE Confidence: 0.851897

 $01:20:44.362 \longrightarrow 01:20:47.362$  pop reconstructions in terms of ambulation

NOTE Confidence: 0.851897

 $01:20:47.362 \longrightarrow 01:20:49.517$  and limitations associated with that.

NOTE Confidence: 0.7767332

 $01:20:58.020 \longrightarrow 01:21:01.500$  So with early post-op ambulation

NOTE Confidence: 0.7767332

 $01:21:01.500 \longrightarrow 01:21:04.700$  after a tissue transfer. Maybe

NOTE Confidence: 0.7701525

 $01{:}21{:}04.700 \dashrightarrow 01{:}21{:}07.136$  with a more complex free tissue

NOTE Confidence: 0.7701525

01:21:07.136 --> 01:21:08.354 transfer type reconstructions?

NOTE Confidence: 0.86115104

 $01{:}21{:}10.310 \dashrightarrow 01{:}21{:}12.956$  'cause you have to protect both the

NOTE Confidence: 0.86115104

 $01{:}21{:}12.956 \longrightarrow 01{:}21{:}15.880$  do nor site then and the recipient site.

NOTE Confidence: 0.86115104

01:21:15.880 --> 01:21:17.870 And so with microvascular repairs,

NOTE Confidence: 0.86115104

01:21:17.870 --> 01:21:20.366 you know patients will typically be

NOTE Confidence: 0.86115104

01:21:20.366 --> 01:21:23.440 limited in mobility for three to five days,

NOTE Confidence: 0.86115104

 $01:21:23.440 \longrightarrow 01:21:26.653$  and so you know 24 hours to 48 hours

01:21:26.653 --> 01:21:29.805 from bed to chair only for mobility.

NOTE Confidence: 0.86115104

 $01:21:29.810 \longrightarrow 01:21:31.860$  Usually a Foley catheter will

NOTE Confidence: 0.86115104

 $01:21:31.860 \longrightarrow 01:21:35.123$  be in place for that for a day

NOTE Confidence: 0.86115104

 $01:21:35.123 \longrightarrow 01:21:37.367$  or two days for those patients,

NOTE Confidence: 0.86115104

 $01:21:37.370 \longrightarrow 01:21:39.406$  or a bedside commode.

NOTE Confidence: 0.86115104

 $01:21:39.406 \longrightarrow 01:21:43.272$  Because of the need for the to

NOTE Confidence: 0.86115104

 $01:21:43.272 \longrightarrow 01:21:46.096$  protect the microvascular site.

NOTE Confidence: 0.86336815

01:21:48.120 --> 01:21:50.250 And so that can impact early

NOTE Confidence: 0.86336815

 $01:21:50.250 \longrightarrow 01:21:51.672$  mobility, and it's certainly

NOTE Confidence: 0.86336815

 $01:21:51.672 \longrightarrow 01:21:53.088$  shoulder mobility and things.

NOTE Confidence: 0.90225613

01:21:56.740 --> 01:21:58.270 And then afterwards again, it's,

NOTE Confidence: 0.90225613

01:21:58.270 --> 01:22:00.904 you know, gentle range of motion

NOTE Confidence: 0.90225613

 $01{:}22{:}00.904 \dashrightarrow 01{:}22{:}03.710$  exercises after surgery to make sure to.

NOTE Confidence: 0.90225613

 $01:22:03.710 \longrightarrow 01:22:05.478$  Detect shoulder mobility with

NOTE Confidence: 0.90225613

01:22:05.478 --> 01:22:07.691 full range of motion, hopefully

01:22:07.691 --> 01:22:10.337 within two weeks of the operation.

NOTE Confidence: 0.82378626

 $01{:}22{:}11.560 \longrightarrow 01{:}22{:}13.667$  I said that was the last question.

NOTE Confidence: 0.82378626

01:22:13.670 --> 01:22:14.842 Actually there's one more,

NOTE Confidence: 0.82378626

01:22:14.842 --> 01:22:17.000 and it's all the way from Japan,

NOTE Confidence: 0.82378626

 $01:22:17.000 \longrightarrow 01:22:18.505$  so I can't let Doctor

NOTE Confidence: 0.82378626

 $01:22:18.505 \longrightarrow 01:22:19.709$  Sakai get go unanswered.

NOTE Confidence: 0.82378626

 $01:22:19.710 \longrightarrow 01:22:21.369$  What are our thoughts on putting a

NOTE Confidence: 0.82378626

01:22:21.369 --> 01:22:23.339 clip for biopsy proven lymph nodes

NOTE Confidence: 0.82378626

01:22:23.339 --> 01:22:24.548 before neoadjuvant chemotherapy?

NOTE Confidence: 0.7760786

 $01:22:28.460 \longrightarrow 01:22:31.964$  That is a long discussion, I think in.

NOTE Confidence: 0.7760786

 $01{:}22{:}31.964 \dashrightarrow 01{:}22{:}35.028$  I'll try and answer. It's essentially but.

NOTE Confidence: 0.75943375

 $01:22:37.050 \longrightarrow 01:22:39.062$  Many other national trials

NOTE Confidence: 0.75943375

 $01:22:39.062 \longrightarrow 01:22:41.577$  that are looking at potentially

NOTE Confidence: 0.75943375

 $01{:}22{:}41.577 \longrightarrow 01{:}22{:}43.732$  downstaging an axillary disease

NOTE Confidence: 0.75943375

01:22:43.732 --> 01:22:45.832 after neoadjuvant chemotherapy have

NOTE Confidence: 0.75943375

 $01:22:45.832 \longrightarrow 01:22:51.090$  not required clip placement, and so.

01:22:51.090 --> 01:22:53.980 Pending those results, I think.

NOTE Confidence: 0.75943375

 $01:22:53.980 \longrightarrow 01:22:58.650$  Most US institutions are localising.

NOTE Confidence: 0.75943375

01:22:58.650 --> 01:23:00.385 Lymph nodes that are involved

NOTE Confidence: 0.75943375

 $01:23:00.385 \longrightarrow 01:23:02.120$  with tumor with a clip.

NOTE Confidence: 0.75943375

 $01:23:02.120 \longrightarrow 01:23:05.224$  With the intention of marking the spot and

NOTE Confidence: 0.75943375

 $01:23:05.224 \longrightarrow 01:23:08.060$  for future resection of that involved.

NOTE Confidence: 0.75943375

01:23:08.060 --> 01:23:10.765 And node certainly that Abigail

NOTE Confidence: 0.75943375

 $01{:}23{:}10.765 \dashrightarrow 01{:}23{:}14.116$  Coddles data from MD Anderson looking

NOTE Confidence: 0.75943375

 $01{:}23{:}14.116 \dashrightarrow 01{:}23{:}16.866$  at targeted axillary dissection and

NOTE Confidence: 0.75943375

01:23:16.866 --> 01:23:20.545 the 1071 data from Judy Bui both

NOTE Confidence: 0.75943375

 $01{:}23{:}20.545 \dashrightarrow 01{:}23{:}23.311$  include clip placement in the node

NOTE Confidence: 0.75943375

 $01:23:23.311 \longrightarrow 01:23:26.970$  for the purpose of retrieving the.

NOTE Confidence: 0.75943375

 $01{:}23{:}26.970 \dashrightarrow 01{:}23{:}29.634$  They know that was most likely to be

NOTE Confidence: 0.75943375

01:23:29.634 --> 01:23:32.416 effective or have the highest tumor burden,

NOTE Confidence: 0.75943375

 $01:23:32.420 \longrightarrow 01:23:34.230$  but if the Alliance 11202

 $01:23:34.230 \longrightarrow 01:23:35.316$  trial shows otherwise,

NOTE Confidence: 0.75943375

01:23:35.320 --> 01:23:38.587 clip placement may be a thing of the past.

NOTE Confidence: 0.8592542

 $01{:}23{:}41.070 \dashrightarrow 01{:}23{:}43.718$  So with that I would really like to

NOTE Confidence: 0.8592542

01:23:43.718 --> 01:23:45.712 thank Doctor Berger, Doctor Lynch,

NOTE Confidence: 0.8592542

01:23:45.712 --> 01:23:48.028 Doctor Green up for these three

NOTE Confidence: 0.8592542

 $01{:}23{:}48.028 \dashrightarrow 01{:}23{:}49.796$  fantastic presentations and you know

NOTE Confidence: 0.8592542

 $01:23:49.796 \longrightarrow 01:23:51.361$  the thoughtfully answers we've been

NOTE Confidence: 0.8592542

01:23:51.361 --> 01:23:53.387 able to provide to the audience,

NOTE Confidence: 0.8592542

 $01:23:53.390 \longrightarrow 01:23:54.443$  and more importantly,

NOTE Confidence: 0.8592542

 $01:23:54.443 \longrightarrow 01:23:56.572$  to the attendees from, you know,

NOTE Confidence: 0.8592542

01:23:56.572 --> 01:23:58.016 Yale, Connecticut, around the

NOTE Confidence: 0.8592542

 $01:23:58.016 \longrightarrow 01:24:00.080$  United States and around the world.

NOTE Confidence: 0.8592542

 $01:24:00.080 \longrightarrow 01:24:02.600$  We really appreciate the time and the

NOTE Confidence: 0.8592542

 $01:24:02.600 \longrightarrow 01:24:05.782$  you know to listen to us and we look

NOTE Confidence: 0.8592542

01:24:05.782 --> 01:24:08.527 forward to seeing you in person one day,

NOTE Confidence: 0.8592542

 $01:24:08.530 \longrightarrow 01:24:09.583$  and until then,

 $01:24:09.583 \longrightarrow 01:24:11.338$  we will continue these series.

NOTE Confidence: 0.8592542

 $01:24:11.340 \longrightarrow 01:24:13.100$  So thank you very much.