

WEBVTT

NOTE duration:"01:16:40.3200000"

NOTE language:en-us

NOTE Confidence: 0.804954

00:00:00.000 --> 00:00:01.828 And undergoing mastectomy with

NOTE Confidence: 0.804954

00:00:01.828 --> 00:00:04.113 Reconstruction and and cancer treatment.

NOTE Confidence: 0.804954

00:00:04.120 --> 00:00:07.424 Then, doctor Andrew saying one of our

NOTE Confidence: 0.804954

00:00:07.424 --> 00:00:09.664 senior radiation oncologists will be

NOTE Confidence: 0.804954

00:00:09.664 --> 00:00:12.268 speaking on some of the advances and

NOTE Confidence: 0.804954

00:00:12.268 --> 00:00:14.721 changes in radiation oncology and

NOTE Confidence: 0.804954

00:00:14.721 --> 00:00:17.226 radiation treatment of breast cancer.

NOTE Confidence: 0.804954

00:00:17.230 --> 00:00:19.490 And finally doctor Neil Fishback,

NOTE Confidence: 0.804954

00:00:19.490 --> 00:00:22.437 who is well known to the community

NOTE Confidence: 0.804954

00:00:22.437 --> 00:00:24.685 senior breast medical oncologist will

NOTE Confidence: 0.804954

00:00:24.685 --> 00:00:27.391 be discussing many of the advances

NOTE Confidence: 0.804954

00:00:27.391 --> 00:00:30.360 in Agimat therapy, so things like.

NOTE Confidence: 0.804954

00:00:30.360 --> 00:00:31.740 Chemotherapy targeted therapy,

NOTE Confidence: 0.804954

00:00:31.740 --> 00:00:34.564 and he may even have a few moments

NOTE Confidence: 0.804954
00:00:34.564 --> 00:00:37.039 to talk about immunotherapy.
NOTE Confidence: 0.804954
00:00:37.040 --> 00:00:39.250 So with no further ado,
NOTE Confidence: 0.804954
00:00:39.250 --> 00:00:41.460 please welcome doctor Melissa Mastriani.
NOTE Confidence: 0.8743501
00:00:45.810 --> 00:00:48.870 Thanks everybody, give me one second.
NOTE Confidence: 0.8743501
00:00:48.870 --> 00:00:53.320 Alright can everybody hear me?
NOTE Confidence: 0.8743501
00:00:53.320 --> 00:00:54.890 Great so I'm Melissa Mastriani.
NOTE Confidence: 0.8743501
00:00:54.890 --> 00:00:56.774 I'm one of the new plastic
NOTE Confidence: 0.8743501
00:00:56.774 --> 00:00:57.716 and Reconstructive Surgeons,
NOTE Confidence: 0.8743501
00:00:57.720 --> 00:00:59.580 but I actually am fully boarded
NOTE Confidence: 0.8743501
00:00:59.580 --> 00:01:01.170 and general surgery as well,
NOTE Confidence: 0.8743501
00:01:01.170 --> 00:01:03.054 so I've learned the techniques of
NOTE Confidence: 0.8743501
00:01:03.054 --> 00:01:04.620 lumpectomy and Mastectomy as well.
NOTE Confidence: 0.8743501
00:01:04.620 --> 00:01:06.426 And I actually had the opportunity
NOTE Confidence: 0.8743501
00:01:06.426 --> 00:01:08.339 to train under Doctor Gulshan during
NOTE Confidence: 0.8743501
00:01:08.339 --> 00:01:10.277 my training years at the Brigham.
NOTE Confidence: 0.8743501

00:01:10.280 --> 00:01:12.236 So I'm really excited to join
NOTE Confidence: 0.8743501

00:01:12.236 --> 00:01:14.863 Yale and I'm so excited to bring
NOTE Confidence: 0.8743501

00:01:14.863 --> 00:01:16.943 my visions to everybody here.
NOTE Confidence: 0.8743501

00:01:16.950 --> 00:01:20.244 So I want to start out with with just
NOTE Confidence: 0.8743501

00:01:20.244 --> 00:01:22.436 discussing breasts as as an organ.
NOTE Confidence: 0.8743501

00:01:22.440 --> 00:01:24.270 It's not just in organ,
NOTE Confidence: 0.8743501

00:01:24.270 --> 00:01:26.095 it's not a Gallbladder that
NOTE Confidence: 0.8743501

00:01:26.095 --> 00:01:27.555 you can just remove.
NOTE Confidence: 0.8743501

00:01:27.560 --> 00:01:29.708 It's really important part of female
NOTE Confidence: 0.8743501

00:01:29.708 --> 00:01:32.191 sexuality and the feminine image as we
NOTE Confidence: 0.8743501

00:01:32.191 --> 00:01:34.171 can see dating back into Renaissance
NOTE Confidence: 0.8743501

00:01:34.171 --> 00:01:35.980 paintings and French impressionism.
NOTE Confidence: 0.8743501

00:01:35.980 --> 00:01:38.224 Beyond that it the breasts make
NOTE Confidence: 0.8743501

00:01:38.224 --> 00:01:40.487 milk to nourish babies and they
NOTE Confidence: 0.8743501

00:01:40.487 --> 00:01:42.563 grow and change with the woman.
NOTE Confidence: 0.8743501

00:01:42.570 --> 00:01:45.132 So as you can see in all

NOTE Confidence: 0.8743501

00:01:45.132 --> 00:01:46.230 these artists portrayals,

NOTE Confidence: 0.8743501

00:01:46.230 --> 00:01:48.060 these are very youthful breasts.

NOTE Confidence: 0.8743501

00:01:48.060 --> 00:01:50.436 They are lifted and their happy.

NOTE Confidence: 0.8743501

00:01:50.440 --> 00:01:53.136 There were, they should be on the chest,

NOTE Confidence: 0.8743501

00:01:53.140 --> 00:01:54.488 but as we age,

NOTE Confidence: 0.8743501

00:01:54.488 --> 00:01:56.510 that's not always how they appear.

NOTE Confidence: 0.8743501

00:01:56.510 --> 00:01:57.164 In addition,

NOTE Confidence: 0.8743501

00:01:57.164 --> 00:01:59.126 you any woman may have noticed

NOTE Confidence: 0.8743501

00:01:59.126 --> 00:02:00.549 that breasts are sisters,

NOTE Confidence: 0.8743501

00:02:00.550 --> 00:02:01.546 but not Twins.

NOTE Confidence: 0.8743501

00:02:01.546 --> 00:02:03.538 There are always some anatomic asymmetry's

NOTE Confidence: 0.8743501

00:02:03.538 --> 00:02:06.098 in breasts that we always like to point out

NOTE Confidence: 0.8743501

00:02:06.098 --> 00:02:08.637 to women before they undergo reconstruction,

NOTE Confidence: 0.8743501

00:02:08.640 --> 00:02:10.325 because it's important to know

NOTE Confidence: 0.8743501

00:02:10.325 --> 00:02:12.010 the differences in your breasts.

NOTE Confidence: 0.8743501

00:02:12.010 --> 00:02:14.383 And it's also important to know that
NOTE Confidence: 0.8743501

00:02:14.383 --> 00:02:16.389 everybody has differences in their breasts.
NOTE Confidence: 0.8743501

00:02:16.390 --> 00:02:18.075 They're not going to be
NOTE Confidence: 0.8743501

00:02:18.075 --> 00:02:19.760 mirror images of each other,
NOTE Confidence: 0.8743501

00:02:19.760 --> 00:02:21.062 so nor can.
NOTE Confidence: 0.8743501

00:02:21.062 --> 00:02:23.666 We expect that in our reconstruction.
NOTE Confidence: 0.8743501

00:02:23.670 --> 00:02:25.686 So if you're looking at your
NOTE Confidence: 0.8743501

00:02:25.686 --> 00:02:27.030 breasts in the mirror,
NOTE Confidence: 0.8743501

00:02:27.030 --> 00:02:28.950 you should know that they shouldn't
NOTE Confidence: 0.8743501

00:02:28.950 --> 00:02:30.230 change significantly after puberty
NOTE Confidence: 0.8743501

00:02:30.283 --> 00:02:32.068 except during pregnancy and postpartum,
NOTE Confidence: 0.8743501

00:02:32.070 --> 00:02:33.918 and were lack tating and feeding
NOTE Confidence: 0.8743501

00:02:33.918 --> 00:02:35.954 babies and serving one of the
NOTE Confidence: 0.8743501

00:02:35.954 --> 00:02:37.446 physiologic purposes for breasts.
NOTE Confidence: 0.8743501

00:02:37.450 --> 00:02:39.802 But ultimately you should not notice
NOTE Confidence: 0.8743501

00:02:39.802 --> 00:02:42.308 major changes in your breasts after

NOTE Confidence: 0.8743501

00:02:42.308 --> 00:02:44.894 you undergo puberty and develop them.

NOTE Confidence: 0.8743501

00:02:44.900 --> 00:02:47.740 I I saw this on Facebook and one of my

NOTE Confidence: 0.8743501

00:02:47.816 --> 00:02:50.192 colleagues website San it's you know

NOTE Confidence: 0.8743501

00:02:50.192 --> 00:02:53.198 how to know what cancer feels like.

NOTE Confidence: 0.8743501

00:02:53.200 --> 00:02:55.010 But this isn't just cancer.

NOTE Confidence: 0.8743501

00:02:55.010 --> 00:02:57.170 This is also banite breast disease.

NOTE Confidence: 0.8743501

00:02:57.170 --> 00:03:00.058 You may have a Mass in your breast,

NOTE Confidence: 0.8743501

00:03:00.060 --> 00:03:02.948 but it could still be round an normal.

NOTE Confidence: 0.8743501

00:03:02.950 --> 00:03:05.014 It could be a fiber adenoma

NOTE Confidence: 0.8743501

00:03:05.014 --> 00:03:06.920 which could be completely benign.

NOTE Confidence: 0.8743501

00:03:06.920 --> 00:03:09.808 But if you know your breasts at baseline,

NOTE Confidence: 0.8743501

00:03:09.810 --> 00:03:11.615 you can understand when something

NOTE Confidence: 0.8743501

00:03:11.615 --> 00:03:13.059 like this is changing.

NOTE Confidence: 0.8743501

00:03:13.060 --> 00:03:15.316 So if you identify an indentation.

NOTE Confidence: 0.8743501

00:03:15.320 --> 00:03:16.238 Or in Errosion,

NOTE Confidence: 0.8743501

00:03:16.238 --> 00:03:18.380 or a change in your breast appearance.
NOTE Confidence: 0.8743501

00:03:18.380 --> 00:03:20.590 This is really important to
NOTE Confidence: 0.8743501

00:03:20.590 --> 00:03:22.800 talk to your doctor about.
NOTE Confidence: 0.8743501

00:03:22.800 --> 00:03:25.201 Breast cancer is one of the most
NOTE Confidence: 0.8743501

00:03:25.201 --> 00:03:26.661 common cancer affecting American
NOTE Confidence: 0.8743501

00:03:26.661 --> 00:03:28.496 women in the United States.
NOTE Confidence: 0.8743501

00:03:28.500 --> 00:03:30.985 One in eight women in their lifetime,
NOTE Confidence: 0.8743501

00:03:30.990 --> 00:03:33.120 that's 13% will get breast cancer.
NOTE Confidence: 0.8743501

00:03:33.120 --> 00:03:35.148 So chances are that you know
NOTE Confidence: 0.8743501

00:03:35.148 --> 00:03:37.318 somebody who has breast cancer or
NOTE Confidence: 0.8743501

00:03:37.318 --> 00:03:39.178 who may develop breast cancer.
NOTE Confidence: 0.8743501

00:03:39.180 --> 00:03:42.138 'cause This is a lifetime risk.
NOTE Confidence: 0.8743501

00:03:42.140 --> 00:03:42.971 Signs of cancer,
NOTE Confidence: 0.8743501

00:03:42.971 --> 00:03:45.600 meaning you may notice a lump in the breast.
NOTE Confidence: 0.8743501

00:03:45.600 --> 00:03:46.780 It's usually not painful,
NOTE Confidence: 0.8743501

00:03:46.780 --> 00:03:48.550 but it's going to feel like

NOTE Confidence: 0.864731
00:03:48.614 --> 00:03:50.780 a lemon seed. It's going to be firm.
NOTE Confidence: 0.864731
00:03:50.780 --> 00:03:52.664 It's going to have irregular edges
NOTE Confidence: 0.864731
00:03:52.664 --> 00:03:54.601 and it's not going to be nice
NOTE Confidence: 0.864731
00:03:54.601 --> 00:03:56.258 and well and rounded and soft.
NOTE Confidence: 0.864731
00:03:56.258 --> 00:03:58.344 You may notice some swelling or skin
NOTE Confidence: 0.864731
00:03:58.344 --> 00:04:00.475 texture change or a change in your nipple
NOTE Confidence: 0.864731
00:04:00.475 --> 00:04:02.300 that made instead of poking outward.
NOTE Confidence: 0.864731
00:04:02.300 --> 00:04:03.480 It may poke inward.
NOTE Confidence: 0.864731
00:04:03.480 --> 00:04:04.955 You may notice some drainage
NOTE Confidence: 0.864731
00:04:04.955 --> 00:04:06.618 and all that is not normal.
NOTE Confidence: 0.864731
00:04:06.620 --> 00:04:08.174 If you know your breasts then
NOTE Confidence: 0.864731
00:04:08.174 --> 00:04:09.790 then if something is different,
NOTE Confidence: 0.864731
00:04:09.790 --> 00:04:11.561 bring it up to your doctor and
NOTE Confidence: 0.864731
00:04:11.561 --> 00:04:12.960 we also recommend mammograms.
NOTE Confidence: 0.864731
00:04:12.960 --> 00:04:15.616 Everyone to two years starting at age 40.
NOTE Confidence: 0.864731

00:04:15.620 --> 00:04:18.035 If you have a strong family history,
NOTE Confidence: 0.864731

00:04:18.040 --> 00:04:20.204 usually we recommend those
NOTE Confidence: 0.864731

00:04:20.204 --> 00:04:22.368 mammograms starting even earlier.
NOTE Confidence: 0.864731

00:04:22.370 --> 00:04:23.922 To reduce your risk,
NOTE Confidence: 0.864731

00:04:23.922 --> 00:04:25.474 just basic broad strokes.
NOTE Confidence: 0.864731

00:04:25.480 --> 00:04:28.238 Women are recommended to drink less than
NOTE Confidence: 0.864731

00:04:28.238 --> 00:04:31.320 one or less than two drinks per day.
NOTE Confidence: 0.864731

00:04:31.320 --> 00:04:33.654 If we are drinking more than
NOTE Confidence: 0.864731

00:04:33.654 --> 00:04:35.210 two drinks per day,
NOTE Confidence: 0.864731

00:04:35.210 --> 00:04:37.538 that increases our risk more than
NOTE Confidence: 0.864731

00:04:37.538 --> 00:04:39.880 20% for not just breast cancer,
NOTE Confidence: 0.864731

00:04:39.880 --> 00:04:41.443 but any cancers.
NOTE Confidence: 0.864731

00:04:41.443 --> 00:04:44.569 It's important to maintain a healthy
NOTE Confidence: 0.864731

00:04:44.569 --> 00:04:47.615 weight and also be active and have.
NOTE Confidence: 0.864731

00:04:47.620 --> 00:04:49.636 Good activity levels in a day.
NOTE Confidence: 0.864731

00:04:49.640 --> 00:04:51.985 Getting our heart rates up very important.

NOTE Confidence: 0.864731

00:04:51.990 --> 00:04:54.390 The other things that we talk about are

NOTE Confidence: 0.864731

00:04:54.390 --> 00:04:56.688 birth control and even hormone replacement,

NOTE Confidence: 0.864731

00:04:56.690 --> 00:04:58.608 but this is not all birth control

NOTE Confidence: 0.864731

00:04:58.608 --> 00:05:00.719 and not all hormone replacement.

NOTE Confidence: 0.864731

00:05:00.720 --> 00:05:03.042 And it's important to determine the

NOTE Confidence: 0.864731

00:05:03.042 --> 00:05:05.757 length that you're going to be on them in.

NOTE Confidence: 0.864731

00:05:05.760 --> 00:05:07.776 Finally I found this very interesting,

NOTE Confidence: 0.864731

00:05:07.780 --> 00:05:10.230 but apparently there are some myths out

NOTE Confidence: 0.864731

00:05:10.230 --> 00:05:12.286 there that deodorants in certain bras

NOTE Confidence: 0.864731

00:05:12.286 --> 00:05:14.491 have been linked to breast cancer risk.

NOTE Confidence: 0.864731

00:05:14.500 --> 00:05:16.845 So all of those have been debunked.

NOTE Confidence: 0.864731

00:05:16.850 --> 00:05:18.054 You can wear deodorant.

NOTE Confidence: 0.864731

00:05:18.054 --> 00:05:20.240 You can wear your bras like normal

NOTE Confidence: 0.864731

00:05:20.240 --> 00:05:22.744 and then that is going to increase or

NOTE Confidence: 0.864731

00:05:22.744 --> 00:05:24.717 decrease your risk of breast cancer.

NOTE Confidence: 0.864731

00:05:24.720 --> 00:05:27.656 So if you are unfortunate to develop breast
NOTE Confidence: 0.864731

00:05:27.656 --> 00:05:30.466 cancer or even a benign breast disease,
NOTE Confidence: 0.864731

00:05:30.470 --> 00:05:33.526 we often treat this with a team approach.
NOTE Confidence: 0.864731

00:05:33.530 --> 00:05:35.038 This involves surgical teams,
NOTE Confidence: 0.864731

00:05:35.038 --> 00:05:38.557 which is not only me as a plastic surgeon
NOTE Confidence: 0.864731

00:05:38.557 --> 00:05:41.301 but also an oncology surgeon who will
NOTE Confidence: 0.864731

00:05:41.374 --> 00:05:43.866 be in charge of removing the lumps,
NOTE Confidence: 0.864731

00:05:43.870 --> 00:05:46.369 making sure that your lymph nodes are
NOTE Confidence: 0.864731

00:05:46.369 --> 00:05:48.722 clear and that everything is removed
NOTE Confidence: 0.864731

00:05:48.722 --> 00:05:51.146 that might be cancerous to you.
NOTE Confidence: 0.864731

00:05:51.150 --> 00:05:53.065 Sometimes that involves chemotherapy and
NOTE Confidence: 0.864731

00:05:53.065 --> 00:05:56.527 radiation, so we all like to talk about this.
NOTE Confidence: 0.864731

00:05:56.527 --> 00:05:56.924 Together.
NOTE Confidence: 0.864731

00:05:56.924 --> 00:05:58.909 We have a basic team.
NOTE Confidence: 0.864731

00:05:58.910 --> 00:05:59.289 Approaching,
NOTE Confidence: 0.864731

00:05:59.289 --> 00:06:01.563 we actually talk about very complicated

NOTE Confidence: 0.864731

00:06:01.563 --> 00:06:04.051 caitians on a weekly basis to find out

NOTE Confidence: 0.864731

00:06:04.051 --> 00:06:06.440 what the best way to treat patients is.

NOTE Confidence: 0.864731

00:06:06.440 --> 00:06:07.520 So the surgical treatments,

NOTE Confidence: 0.864731

00:06:07.520 --> 00:06:08.600 because I'm a surgeon,

NOTE Confidence: 0.864731

00:06:08.600 --> 00:06:10.427 would involve taking the lump or the

NOTE Confidence: 0.864731

00:06:10.427 --> 00:06:12.649 mass out and we call that a lumpectomy.

NOTE Confidence: 0.864731

00:06:12.650 --> 00:06:13.190 And literally,

NOTE Confidence: 0.864731

00:06:13.190 --> 00:06:14.540 we scoop out the lump.

NOTE Confidence: 0.864731

00:06:14.540 --> 00:06:16.871 But it has to have a rim of normal

NOTE Confidence: 0.864731

00:06:16.871 --> 00:06:18.712 tissues that we can make sure that

NOTE Confidence: 0.864731

00:06:18.712 --> 00:06:21.018 we get all the cancer cells out in.

NOTE Confidence: 0.864731

00:06:21.020 --> 00:06:23.180 This involves the little roots that may grow,

NOTE Confidence: 0.864731

00:06:23.180 --> 00:06:25.497 and it's important to have that normal

NOTE Confidence: 0.864731

00:06:25.497 --> 00:06:27.924 rim of tissues to make sure that we

NOTE Confidence: 0.864731

00:06:27.924 --> 00:06:29.989 get all of those cancer cells out.

NOTE Confidence: 0.864731

00:06:29.990 --> 00:06:32.438 If this is not an option for you,
NOTE Confidence: 0.864731

00:06:32.440 --> 00:06:34.246 you may require a mastectomy ning
NOTE Confidence: 0.864731

00:06:34.246 --> 00:06:36.122 meaning you have to remove the
NOTE Confidence: 0.864731

00:06:36.122 --> 00:06:38.243 entire breast gland in and of itself,
NOTE Confidence: 0.8647223

00:06:38.250 --> 00:06:40.938 and both of those are fine if you
NOTE Confidence: 0.8647223

00:06:40.938 --> 00:06:43.340 need that for cancer resection.
NOTE Confidence: 0.8647223

00:06:43.340 --> 00:06:45.923 Here is a huge diagram of all of the
NOTE Confidence: 0.8647223

00:06:45.923 --> 00:06:47.782 possible iterations of breast surgery
NOTE Confidence: 0.8647223

00:06:47.782 --> 00:06:50.749 that you can undergo to remove your mass.
NOTE Confidence: 0.8647223

00:06:50.750 --> 00:06:52.435 If you need a lumpectomy
NOTE Confidence: 0.8647223

00:06:52.435 --> 00:06:54.120 and you have large breasts,
NOTE Confidence: 0.8647223

00:06:54.120 --> 00:06:56.570 we have lots of different ways to
NOTE Confidence: 0.8647223

00:06:56.570 --> 00:06:58.943 conceal the lumpectomy and to even have
NOTE Confidence: 0.8647223

00:06:58.943 --> 00:07:01.200 a matching procedure on the other side.
NOTE Confidence: 0.8647223

00:07:01.200 --> 00:07:03.126 So that doesn't mean that you
NOTE Confidence: 0.8647223

00:07:03.126 --> 00:07:05.250 necessarily have to have a mastectomy.

NOTE Confidence: 0.8647223

00:07:05.250 --> 00:07:08.274 And then on the right side of your screen,

NOTE Confidence: 0.8647223

00:07:08.280 --> 00:07:10.513 there's a number of different ways that

NOTE Confidence: 0.8647223

00:07:10.513 --> 00:07:13.030 we can perform the mastectomies such that

NOTE Confidence: 0.8647223

00:07:13.030 --> 00:07:15.268 you would have a reasonable outcome.

NOTE Confidence: 0.8647223

00:07:15.270 --> 00:07:16.725 In a reasonable reconstruction to

NOTE Confidence: 0.8647223

00:07:16.725 --> 00:07:18.570 give you a normal appearing breast,

NOTE Confidence: 0.8647223

00:07:18.570 --> 00:07:21.270 you notice a lot of these involve the nipple.

NOTE Confidence: 0.8647223

00:07:21.270 --> 00:07:23.167 Sometimes we have to remove the nipple

NOTE Confidence: 0.8647223

00:07:23.167 --> 00:07:25.370 to be safe as far as respecting

NOTE Confidence: 0.8647223

00:07:25.370 --> 00:07:26.366 enough cancer tissue,

NOTE Confidence: 0.8647223

00:07:26.370 --> 00:07:28.358 we don't want you to have to

NOTE Confidence: 0.8647223

00:07:28.358 --> 00:07:29.670 worry about recurrent cancer,

NOTE Confidence: 0.8647223

00:07:29.670 --> 00:07:31.116 especially after undergoing

NOTE Confidence: 0.8647223

00:07:31.116 --> 00:07:33.044 what you're going through.

NOTE Confidence: 0.8647223

00:07:33.050 --> 00:07:34.460 So the basic tenants of

NOTE Confidence: 0.8647223

00:07:34.460 --> 00:07:35.024 breast reconstruction,
NOTE Confidence: 0.8647223

00:07:35.030 --> 00:07:36.575 we can either reconstruct with
NOTE Confidence: 0.8647223

00:07:36.575 --> 00:07:37.811 an implant meaning something
NOTE Confidence: 0.8647223

00:07:37.811 --> 00:07:39.279 that is foreign to the body,
NOTE Confidence: 0.8647223

00:07:39.280 --> 00:07:41.254 but we put it in the body,
NOTE Confidence: 0.8647223

00:07:41.260 --> 00:07:43.380 so we need to make sure that everything
NOTE Confidence: 0.8647223

00:07:43.380 --> 00:07:45.219 is nice and clean and sterile,
NOTE Confidence: 0.8647223

00:07:45.220 --> 00:07:47.117 and it gives a very nice result
NOTE Confidence: 0.8647223

00:07:47.117 --> 00:07:48.899 at the top of the screen.
NOTE Confidence: 0.8647223

00:07:48.900 --> 00:07:50.874 That's an example of a tissue expander,
NOTE Confidence: 0.8647223

00:07:50.880 --> 00:07:52.686 so if you have small breasts and
NOTE Confidence: 0.8647223

00:07:52.686 --> 00:07:54.725 need to undergo a mastectomy when you
NOTE Confidence: 0.8647223

00:07:54.725 --> 00:07:56.531 would like to have bigger breasts,
NOTE Confidence: 0.8647223

00:07:56.540 --> 00:07:58.238 or maybe need to undergo radiation,
NOTE Confidence: 0.8647223

00:07:58.240 --> 00:07:59.938 this is a good temporary measure,
NOTE Confidence: 0.8647223

00:07:59.940 --> 00:08:01.823 and then we can exchange it down

NOTE Confidence: 0.8647223

00:08:01.823 --> 00:08:03.588 the road for a permanent implant

NOTE Confidence: 0.8647223

00:08:03.588 --> 00:08:06.040 which you can see at the lower ends.

NOTE Confidence: 0.8647223

00:08:06.040 --> 00:08:07.116 Of the screen here,

NOTE Confidence: 0.8647223

00:08:07.116 --> 00:08:09.476 the one in the middle is a shaped

NOTE Confidence: 0.8647223

00:08:09.476 --> 00:08:11.528 implant and it has texture because

NOTE Confidence: 0.8647223

00:08:11.528 --> 00:08:13.250 you wouldn't really want that

NOTE Confidence: 0.8647223

00:08:13.250 --> 00:08:15.518 flipping around and you need to have

NOTE Confidence: 0.8647223

00:08:15.520 --> 00:08:17.774 that texture like a Velcro so that

NOTE Confidence: 0.8647223

00:08:17.774 --> 00:08:20.164 the implant stays in its place and

NOTE Confidence: 0.8647223

00:08:20.164 --> 00:08:21.864 assumes in just basically becomes

NOTE Confidence: 0.8647223

00:08:21.864 --> 00:08:24.178 part of your body so that you didn't

NOTE Confidence: 0.8647223

00:08:24.178 --> 00:08:26.172 want to wake up one morning and

NOTE Confidence: 0.8647223

00:08:26.172 --> 00:08:28.789 have the top end up at the bottom.

NOTE Confidence: 0.8647223

00:08:28.790 --> 00:08:30.542 It would be very disfiguring for

NOTE Confidence: 0.8647223

00:08:30.542 --> 00:08:32.722 you and then the bottom implant is

NOTE Confidence: 0.8647223

00:08:32.722 --> 00:08:34.618 a smooth round gel implant which
NOTE Confidence: 0.8647223

00:08:34.618 --> 00:08:36.190 is very very versatyle.
NOTE Confidence: 0.8647223

00:08:36.190 --> 00:08:37.700 It can spin around, it,
NOTE Confidence: 0.8647223

00:08:37.700 --> 00:08:39.730 can flip around and you really not
NOTE Confidence: 0.8647223

00:08:39.730 --> 00:08:41.929 going to know much of a difference.
NOTE Confidence: 0.8647223

00:08:41.930 --> 00:08:43.440 The other option in reconstruction,
NOTE Confidence: 0.8647223

00:08:43.440 --> 00:08:44.044 which is,
NOTE Confidence: 0.8647223

00:08:44.044 --> 00:08:46.460 I guess new word but not entirely new,
NOTE Confidence: 0.8647223

00:08:46.460 --> 00:08:49.547 is using your own tissue in reconstruction.
NOTE Confidence: 0.8647223

00:08:49.550 --> 00:08:51.590 So I wanted to show you basically if
NOTE Confidence: 0.8647223

00:08:51.590 --> 00:08:53.782 you think about breast implants you
NOTE Confidence: 0.8647223

00:08:53.782 --> 00:08:55.812 think about people getting augmentation.
NOTE Confidence: 0.8647223

00:08:55.820 --> 00:08:57.560 You know getting breast implants
NOTE Confidence: 0.8647223

00:08:57.560 --> 00:08:59.649 for being more voluptuous and in
NOTE Confidence: 0.8647223

00:08:59.649 --> 00:09:01.099 more of an aesthetic appeal,
NOTE Confidence: 0.8647223

00:09:01.100 --> 00:09:04.007 and on the right diagram you can see that

NOTE Confidence: 0.8647223

00:09:04.007 --> 00:09:06.710 usually we put them under the gland tissue,

NOTE Confidence: 0.8647223

00:09:06.710 --> 00:09:08.440 but in reconstruction it's more

NOTE Confidence: 0.8647223

00:09:08.440 --> 00:09:10.670 difficult because we don't have a gland.

NOTE Confidence: 0.8647223

00:09:10.670 --> 00:09:12.763 The breast gland to really hide those

NOTE Confidence: 0.8647223

00:09:12.763 --> 00:09:14.629 contours of the breast implants,

NOTE Confidence: 0.8647223

00:09:14.630 --> 00:09:16.793 we have to have a Fuller implant

NOTE Confidence: 0.8647223

00:09:16.793 --> 00:09:17.720 to fill in

NOTE Confidence: 0.8320942

00:09:17.798 --> 00:09:20.630 the tissue, and in this skin flaps.

NOTE Confidence: 0.8320942

00:09:20.630 --> 00:09:22.210 To make a good,

NOTE Confidence: 0.8320942

00:09:22.210 --> 00:09:23.395 reasonable appearing breast,

NOTE Confidence: 0.8320942

00:09:23.400 --> 00:09:25.734 so here's a brief example of

NOTE Confidence: 0.8320942

00:09:25.734 --> 00:09:28.604 what a really good breast implant

NOTE Confidence: 0.8320942

00:09:28.604 --> 00:09:31.679 reconstruction outcome can look like.

NOTE Confidence: 0.8320942

00:09:31.680 --> 00:09:33.962 But despite the many types of shapes

NOTE Confidence: 0.8320942

00:09:33.962 --> 00:09:36.640 and sizes and fills of breast implants,

NOTE Confidence: 0.8320942

00:09:36.640 --> 00:09:37.699 there really isn't.
NOTE Confidence: 0.8320942

00:09:37.699 --> 00:09:39.817 A1 size fits all for everybody.
NOTE Confidence: 0.8320942

00:09:39.820 --> 00:09:42.709 You know we can go all the way to
NOTE Confidence: 0.8320942

00:09:42.709 --> 00:09:45.129 shaped implants and do our best,
NOTE Confidence: 0.8320942

00:09:45.130 --> 00:09:47.010 but ultimately it's really hard
NOTE Confidence: 0.8320942

00:09:47.010 --> 00:09:48.890 to imagine natural looking breast
NOTE Confidence: 0.8320942

00:09:48.950 --> 00:09:51.148 despite all of the technology we have,
NOTE Confidence: 0.8320942

00:09:51.150 --> 00:09:53.628 we still can't always get it right.
NOTE Confidence: 0.8320942

00:09:53.630 --> 00:09:56.171 So for patients who are not candidates
NOTE Confidence: 0.8320942

00:09:56.171 --> 00:09:58.230 for breast reconstruction with an implant,
NOTE Confidence: 0.8320942

00:09:58.230 --> 00:10:00.120 or maybe have been radiated.
NOTE Confidence: 0.8320942

00:10:00.120 --> 00:10:01.860 And who have limited options,
NOTE Confidence: 0.8320942

00:10:01.860 --> 00:10:03.244 I oftentimes offer patients
NOTE Confidence: 0.8320942

00:10:03.244 --> 00:10:04.628 using their own tissue,
NOTE Confidence: 0.8320942

00:10:04.630 --> 00:10:06.681 and these are a number of different
NOTE Confidence: 0.8320942

00:10:06.681 --> 00:10:09.591 areas that we can harvest tissue from to

NOTE Confidence: 0.8320942

00:10:09.591 --> 00:10:11.561 reconstruct a realistic feeling breast.

NOTE Confidence: 0.8320942

00:10:11.570 --> 00:10:13.310 This is your own tissue.

NOTE Confidence: 0.8320942

00:10:13.310 --> 00:10:15.386 You don't have to take immunosuppression.

NOTE Confidence: 0.8320942

00:10:15.390 --> 00:10:17.316 The most common area that we

NOTE Confidence: 0.8320942

00:10:17.316 --> 00:10:19.210 harvest from is the abdomen,

NOTE Confidence: 0.8320942

00:10:19.210 --> 00:10:21.310 so you essentially get a tummy

NOTE Confidence: 0.8320942

00:10:21.310 --> 00:10:23.370 tuck for free out of this,

NOTE Confidence: 0.8320942

00:10:23.370 --> 00:10:25.100 but it's really great tissue.

NOTE Confidence: 0.8320942

00:10:25.100 --> 00:10:26.942 It feels completely natural and we

NOTE Confidence: 0.8320942

00:10:26.942 --> 00:10:29.619 can give you a very realistic result.

NOTE Confidence: 0.8320942

00:10:29.620 --> 00:10:31.460 If that's not an option.

NOTE Confidence: 0.8320942

00:10:31.460 --> 00:10:33.399 Sometimes we can use the inner thigh,

NOTE Confidence: 0.8320942

00:10:33.400 --> 00:10:36.494 the upper buttock, or even the back.

NOTE Confidence: 0.8320942

00:10:36.500 --> 00:10:38.564 And this is an example of a unilateral

NOTE Confidence: 0.8320942

00:10:38.564 --> 00:10:40.108 reconstruction with that abdominal tissue,

NOTE Confidence: 0.8320942

00:10:40.110 --> 00:10:42.110 and you can see we do a pretty
NOTE Confidence: 0.8320942

00:10:42.110 --> 00:10:43.449 good job of matching,
NOTE Confidence: 0.8320942

00:10:43.450 --> 00:10:45.112 but you still are lacking in
NOTE Confidence: 0.8320942

00:10:45.112 --> 00:10:45.943 that nipple reconstruction.
NOTE Confidence: 0.8320942

00:10:45.950 --> 00:10:47.618 So for a lot of women,
NOTE Confidence: 0.8320942

00:10:47.620 --> 00:10:49.576 having a nipple really makes the
NOTE Confidence: 0.8320942

00:10:49.576 --> 00:10:51.384 reconstructions that they don't have to
NOTE Confidence: 0.8320942

00:10:51.384 --> 00:10:53.176 wake up and look at scars every day.
NOTE Confidence: 0.8320942

00:10:53.180 --> 00:10:54.752 And that's very important for a
NOTE Confidence: 0.8320942

00:10:54.752 --> 00:10:56.519 lot of people in their image.
NOTE Confidence: 0.8320942

00:10:56.520 --> 00:10:57.910 But as you can see,
NOTE Confidence: 0.8320942

00:10:57.910 --> 00:10:59.828 we can give a very natural looking
NOTE Confidence: 0.8320942

00:10:59.828 --> 00:11:01.239 appearance with their own tissue.
NOTE Confidence: 0.8320942

00:11:01.240 --> 00:11:02.860 You never have to worry about
NOTE Confidence: 0.8320942

00:11:02.860 --> 00:11:04.682 having an implant you don't have
NOTE Confidence: 0.8320942

00:11:04.682 --> 00:11:06.058 to worry about surveillance.

NOTE Confidence: 0.8320942

00:11:06.060 --> 00:11:09.420 And you can see the scars are actually

NOTE Confidence: 0.8320942

00:11:09.420 --> 00:11:11.798 pretty tolerable for this operation.

NOTE Confidence: 0.8320942

00:11:11.800 --> 00:11:13.893 So then we follow on to nipple

NOTE Confidence: 0.8320942

00:11:13.893 --> 00:11:15.941 reconstruction and on the left we see

NOTE Confidence: 0.8320942

00:11:15.941 --> 00:11:18.057 a couple of different ways that I

NOTE Confidence: 0.8320942

00:11:18.057 --> 00:11:20.217 can actually reconstruct projecting nipple.

NOTE Confidence: 0.8320942

00:11:20.220 --> 00:11:21.845 But this doesn't always include

NOTE Confidence: 0.8320942

00:11:21.845 --> 00:11:22.820 the pigment changes,

NOTE Confidence: 0.8320942

00:11:22.820 --> 00:11:25.205 so I wanted to include on the far right

NOTE Confidence: 0.8320942

00:11:25.205 --> 00:11:27.110 of the slide is actually somebody

NOTE Confidence: 0.8320942

00:11:27.110 --> 00:11:30.270 I just met who does 3 dimensional tattooing,

NOTE Confidence: 0.8320942

00:11:30.270 --> 00:11:32.208 so that is not 3 dimensional.

NOTE Confidence: 0.8320942

00:11:32.210 --> 00:11:33.570 That is completely flat.

NOTE Confidence: 0.8320942

00:11:33.570 --> 00:11:35.610 She can tattoo these results so

NOTE Confidence: 0.8320942

00:11:35.673 --> 00:11:38.097 even if you don't want to have a

NOTE Confidence: 0.8320942

00:11:38.097 --> 00:11:40.031 projecting nipple you can have a
NOTE Confidence: 0.8320942

00:11:40.031 --> 00:11:41.606 very realistic appearance of a
NOTE Confidence: 0.8320942

00:11:41.606 --> 00:11:43.940 nipple in a nipple areola complex without.
NOTE Confidence: 0.8320942

00:11:43.940 --> 00:11:45.320 Necessarily undergoing additional procedures,
NOTE Confidence: 0.8320942

00:11:45.320 --> 00:11:47.045 and it will completely natural.
NOTE Confidence: 0.8320942

00:11:47.050 --> 00:11:49.164 You can feel more whole and it
NOTE Confidence: 0.8320942

00:11:49.164 --> 00:11:51.210 will conceal your mastectomy scars.
NOTE Confidence: 0.8320942

00:11:51.210 --> 00:11:54.746 So I wanted to share these options as.
NOTE Confidence: 0.8320942

00:11:54.750 --> 00:11:59.316 Newer things on the on the.
NOTE Confidence: 0.8320942

00:11:59.320 --> 00:12:00.319 On the pipeline,
NOTE Confidence: 0.8320942

00:12:00.319 --> 00:12:02.317 kind of coming up for reconstruction,
NOTE Confidence: 0.8320942

00:12:02.320 --> 00:12:04.312 but also to consider some older
NOTE Confidence: 0.8320942

00:12:04.312 --> 00:12:05.308 techniques like tattooing.
NOTE Confidence: 0.8320942

00:12:05.310 --> 00:12:06.730 Even that would be certainly
NOTE Confidence: 0.8320942

00:12:06.730 --> 00:12:08.150 appropriate and reasonable to offer
NOTE Confidence: 0.8320942

00:12:08.197 --> 00:12:09.825 anybody who's undergone mastectomies

NOTE Confidence: 0.8320942

00:12:09.825 --> 00:12:10.639 or reconstruction,

NOTE Confidence: 0.8579269

00:12:10.640 --> 00:12:13.104 and they can make people feel whole

NOTE Confidence: 0.8579269

00:12:13.104 --> 00:12:15.638 again at the end of all of this.

NOTE Confidence: 0.8579269

00:12:15.640 --> 00:12:16.968 All their cancer treatments.

NOTE Confidence: 0.8579269

00:12:16.968 --> 00:12:18.966 And once there, once they are

NOTE Confidence: 0.8579269

00:12:18.966 --> 00:12:20.626 beyond the worry about survival.

NOTE Confidence: 0.8579269

00:12:20.630 --> 00:12:23.294 So I really enjoy helping people feel whole.

NOTE Confidence: 0.8579269

00:12:23.300 --> 00:12:25.956 I talked to people through the whole journey.

NOTE Confidence: 0.8579269

00:12:25.960 --> 00:12:27.694 I see them very frequently through

NOTE Confidence: 0.8579269

00:12:27.694 --> 00:12:29.750 the first year of reconstruction.

NOTE Confidence: 0.8579269

00:12:29.750 --> 00:12:31.731 And I always let them know that

NOTE Confidence: 0.8579269

00:12:31.731 --> 00:12:33.613 this is not necessarily a one

NOTE Confidence: 0.8579269

00:12:33.613 --> 00:12:35.867 stop shop and I can't take care

NOTE Confidence: 0.8579269

00:12:35.939 --> 00:12:37.979 of everything in one operation,

NOTE Confidence: 0.8579269

00:12:37.980 --> 00:12:39.898 even though I would love to have

NOTE Confidence: 0.8579269

00:12:39.898 --> 00:12:41.954 them wake up and feel completely
NOTE Confidence: 0.8579269

00:12:41.954 --> 00:12:43.899 whole again with their breasts.
NOTE Confidence: 0.8579269

00:12:43.900 --> 00:12:46.212 But I really try to get to know
NOTE Confidence: 0.8579269

00:12:46.212 --> 00:12:48.255 my patients and help them through
NOTE Confidence: 0.8579269

00:12:48.255 --> 00:12:50.349 that first year journey to get
NOTE Confidence: 0.8579269

00:12:50.423 --> 00:12:52.439 to their final reconstruction.
NOTE Confidence: 0.8579269

00:12:52.440 --> 00:12:55.070 So I'd be happy to take questions at the end,
NOTE Confidence: 0.8579269

00:12:55.070 --> 00:12:56.904 but I just wanted to give a
NOTE Confidence: 0.89040923

00:12:56.910 --> 00:12:57.958 brief overview of what
NOTE Confidence: 0.89040923

00:12:57.960 --> 00:12:59.794 I can offer. This is really fantastic.
NOTE Confidence: 0.89040923

00:12:59.800 --> 00:13:01.822 Doctor Mastriani and I know this
NOTE Confidence: 0.89040923

00:13:01.822 --> 00:13:05.048 is going to lead to a lot of great
NOTE Confidence: 0.89040923

00:13:05.048 --> 00:13:06.488 questions later this evening.
NOTE Confidence: 0.89040923

00:13:06.490 --> 00:13:09.098 I see Doctor Fishback has joined us,
NOTE Confidence: 0.89040923

00:13:09.100 --> 00:13:12.083 but since I've changed the order now three
NOTE Confidence: 0.89040923

00:13:12.083 --> 00:13:14.590 times and maybe will have doctor Zang

NOTE Confidence: 0.89040923

00:13:14.590 --> 00:13:17.679 go next and then the cleanup batter is

NOTE Confidence: 0.7790084

00:13:17.680 --> 00:13:19.168 doctor Fishback, right on?

NOTE Confidence: 0.7790084

00:13:19.170 --> 00:13:21.040 Thanks Mara, thanks. I Melissa,

NOTE Confidence: 0.7790084

00:13:21.040 --> 00:13:23.278 let me share my screen here.

NOTE Confidence: 0.37896022

00:13:28.940 --> 00:13:30.170 Go front.

NOTE Confidence: 0.8466654

00:13:34.740 --> 00:13:36.679 OK, my name is Andrew saying I'm

NOTE Confidence: 0.8466654

00:13:36.679 --> 00:13:38.930 one of the radiation oncologist.

NOTE Confidence: 0.8466654

00:13:38.930 --> 00:13:41.531 It's a true pleasure to be here and share

NOTE Confidence: 0.8466654

00:13:41.531 --> 00:13:44.510 a little bit about tremble Cancer Center,

NOTE Confidence: 0.8466654

00:13:44.510 --> 00:13:46.604 which is one of seven cancer

NOTE Confidence: 0.8466654

00:13:46.604 --> 00:13:48.000 centers here and yeah.

NOTE Confidence: 0.8466654

00:13:48.000 --> 00:13:50.656 So without further due this year on the

NOTE Confidence: 0.8466654

00:13:50.656 --> 00:13:52.890 topics will hit them quite briefly.

NOTE Confidence: 0.8466654

00:13:52.890 --> 00:13:54.182 But there's five topics.

NOTE Confidence: 0.8466654

00:13:54.182 --> 00:13:56.730 First is just a general site overview.

NOTE Confidence: 0.8466654

00:13:56.730 --> 00:13:58.122 What does art rumble?
NOTE Confidence: 0.8466654

00:13:58.122 --> 00:13:59.166 Cancer Center have?
NOTE Confidence: 0.8466654

00:13:59.170 --> 00:14:01.120 An #2 is general breast treatment
NOTE Confidence: 0.8466654

00:14:01.120 --> 00:14:02.855 options for radiation therapy actually
NOTE Confidence: 0.8466654

00:14:02.855 --> 00:14:04.745 follows Melissa's talk very nicely,
NOTE Confidence: 0.8466654

00:14:04.750 --> 00:14:06.578 because radiation is usually
NOTE Confidence: 0.8466654

00:14:06.578 --> 00:14:07.949 given after surgery.
NOTE Confidence: 0.8466654

00:14:07.950 --> 00:14:10.098 And #3, how does radiation work?
NOTE Confidence: 0.8466654

00:14:10.100 --> 00:14:13.680 I hope it does because we give it a lot.
NOTE Confidence: 0.8466654

00:14:13.680 --> 00:14:15.540 #4 is advances in our radiation
NOTE Confidence: 0.8466654

00:14:15.540 --> 00:14:18.116 delivery and #5 is advances in the
NOTE Confidence: 0.8466654

00:14:18.116 --> 00:14:20.226 treatment techniques which is really
NOTE Confidence: 0.8466654

00:14:20.226 --> 00:14:22.628 interesting and can't wait to get there.
NOTE Confidence: 0.8466654

00:14:22.630 --> 00:14:25.540 So let's let's start by #1.
NOTE Confidence: 0.8466654

00:14:25.540 --> 00:14:27.515 So our Cancer Center has
NOTE Confidence: 0.8466654

00:14:27.515 --> 00:14:28.700 the technical aspect.

NOTE Confidence: 0.8466654

00:14:28.700 --> 00:14:29.502 Our machines.

NOTE Confidence: 0.8466654

00:14:29.502 --> 00:14:31.908 We have two linear accelerators that

NOTE Confidence: 0.8466654

00:14:31.908 --> 00:14:34.339 called Linux the machines on the for

NOTE Confidence: 0.8466654

00:14:34.339 --> 00:14:36.489 example on the right that produced

NOTE Confidence: 0.8466654

00:14:36.489 --> 00:14:38.577 the radiation treatment photons.

NOTE Confidence: 0.8466654

00:14:38.580 --> 00:14:40.660 Electrons are all options from

NOTE Confidence: 0.8466654

00:14:40.660 --> 00:14:43.478 these machines and then we have a

NOTE Confidence: 0.8466654

00:14:43.478 --> 00:14:45.781 dedicated CT machine we call the see

NOTE Confidence: 0.8466654

00:14:45.781 --> 00:14:48.449 T simulator to help identify the.

NOTE Confidence: 0.8466654

00:14:48.450 --> 00:14:50.430 For example, the tumor cavity,

NOTE Confidence: 0.8466654

00:14:50.430 --> 00:14:52.010 the brass, the heart,

NOTE Confidence: 0.8466654

00:14:52.010 --> 00:14:54.380 lungs and treat to millimeter accuracy.

NOTE Confidence: 0.8466654

00:14:54.380 --> 00:14:56.550 So that allows us to.

NOTE Confidence: 0.8466654

00:14:56.550 --> 00:14:59.875 Plan our radiation according to your anatomy.

NOTE Confidence: 0.8466654

00:14:59.880 --> 00:15:01.083 Where patients anatomy.

NOTE Confidence: 0.8466654

00:15:01.083 --> 00:15:02.687 So we have Staffs.
NOTE Confidence: 0.8466654

00:15:02.690 --> 00:15:04.690 Two radiation colleges hunt side.
NOTE Confidence: 0.8466654

00:15:04.690 --> 00:15:07.497 We have a whole team of dosimetry,
NOTE Confidence: 0.8466654

00:15:07.500 --> 00:15:08.956 physics therapists nursing PA.
NOTE Confidence: 0.8466654

00:15:08.956 --> 00:15:11.627 So radiation is just not one physician
NOTE Confidence: 0.8466654

00:15:11.627 --> 00:15:13.752 ministering the treatment but actually
NOTE Confidence: 0.8466654

00:15:13.752 --> 00:15:16.724 takes entire team to deliver a safe
NOTE Confidence: 0.8466654

00:15:16.724 --> 00:15:18.729 and effective radiation therapy plan.
NOTE Confidence: 0.82216173

00:15:20.750 --> 00:15:22.470 So surgery systemic therapy,
NOTE Confidence: 0.82216173

00:15:22.470 --> 00:15:25.050 which Neil will talk about radiation,
NOTE Confidence: 0.82216173

00:15:25.050 --> 00:15:27.200 we all work in conjunction
NOTE Confidence: 0.82216173

00:15:27.200 --> 00:15:28.920 after a surgical procedure.
NOTE Confidence: 0.82216173

00:15:28.920 --> 00:15:31.070 Whether it's a lumpectomy, may,
NOTE Confidence: 0.82216173

00:15:31.070 --> 00:15:33.650 or whether it's miss activate their
NOTE Confidence: 0.82216173

00:15:33.650 --> 00:15:35.370 options for radiation treatment,
NOTE Confidence: 0.82216173

00:15:35.370 --> 00:15:37.023 after a lumpectomy.

NOTE Confidence: 0.82216173

00:15:37.023 --> 00:15:39.778 Usually we get whole breast

NOTE Confidence: 0.82216173

00:15:39.778 --> 00:15:41.361 radiation treatment. BRT.

NOTE Confidence: 0.82216173

00:15:41.361 --> 00:15:43.285 After masectomy it's postmastectomy

NOTE Confidence: 0.82216173

00:15:43.285 --> 00:15:45.970 radiation and each one of those

NOTE Confidence: 0.82216173

00:15:45.970 --> 00:15:48.238 we can add in regional notes.

NOTE Confidence: 0.82216173

00:15:48.240 --> 00:15:50.520 If a patient is high risks,

NOTE Confidence: 0.82216173

00:15:50.520 --> 00:15:52.395 for example with very large

NOTE Confidence: 0.82216173

00:15:52.395 --> 00:15:53.520 aggressive invasive cancers

NOTE Confidence: 0.82216173

00:15:53.520 --> 00:15:55.448 or their nodes are positive.

NOTE Confidence: 0.8458714

00:15:58.770 --> 00:16:01.014 The treatment given with radiation has

NOTE Confidence: 0.8458714

00:16:01.014 --> 00:16:03.330 changed over the past few decades.

NOTE Confidence: 0.8458714

00:16:03.330 --> 00:16:05.175 Traditionally, all patients have gone

NOTE Confidence: 0.8458714

00:16:05.175 --> 00:16:07.468 50 Gray in 25 fractions radiations

NOTE Confidence: 0.8458714

00:16:07.468 --> 00:16:10.163 given Monday to Friday every single day.

NOTE Confidence: 0.8458714

00:16:10.170 --> 00:16:12.450 So that's five days a week,

NOTE Confidence: 0.8458714

00:16:12.450 --> 00:16:13.970 leading to five weeks.
NOTE Confidence: 0.8458714

00:16:13.970 --> 00:16:16.250 So over the past few years,
NOTE Confidence: 0.8458714

00:16:16.250 --> 00:16:17.738 we've been uniformly throughout
NOTE Confidence: 0.8458714

00:16:17.738 --> 00:16:19.598 the country and actually pretty
NOTE Confidence: 0.8458714

00:16:19.598 --> 00:16:21.570 much throughout the entire world,
NOTE Confidence: 0.8458714

00:16:21.570 --> 00:16:23.470 going to hypo fractionated course.
NOTE Confidence: 0.8458714

00:16:23.470 --> 00:16:25.545 That basically means we take
NOTE Confidence: 0.8458714

00:16:25.545 --> 00:16:27.620 that 15 to 5 week.
NOTE Confidence: 0.8458714

00:16:27.620 --> 00:16:30.245 50 Gray treatment, and we condense it.
NOTE Confidence: 0.8458714

00:16:30.250 --> 00:16:32.500 So instead of two great day,
NOTE Confidence: 0.8458714

00:16:32.500 --> 00:16:34.702 we actually increase it a little
NOTE Confidence: 0.8458714

00:16:34.702 --> 00:16:37.000 bit to maybe 2.6 great day.
NOTE Confidence: 0.8458714

00:16:37.000 --> 00:16:39.250 And that only takes 15 treatments.
NOTE Confidence: 0.8458714

00:16:39.250 --> 00:16:41.868 Three weeks after the whole breast radiation.
NOTE Confidence: 0.8458714

00:16:41.870 --> 00:16:43.745 These are more than conventional
NOTE Confidence: 0.8458714

00:16:43.745 --> 00:16:45.245 approaches we can boost,

NOTE Confidence: 0.8458714

00:16:45.250 --> 00:16:47.632 and the boost is basically the

NOTE Confidence: 0.8458714

00:16:47.632 --> 00:16:49.637 last week of treatment added

NOTE Confidence: 0.8458714

00:16:49.637 --> 00:16:51.996 on to the five or three weeks,

NOTE Confidence: 0.8458714

00:16:52.000 --> 00:16:53.875 and we either target the

NOTE Confidence: 0.8458714

00:16:53.875 --> 00:16:55.000 lumpectomy cavity itself,

NOTE Confidence: 0.8458714

00:16:55.000 --> 00:16:57.618 which is the higher this re occurrence,

NOTE Confidence: 0.8458714

00:16:57.620 --> 00:16:58.330 or retire.

NOTE Confidence: 0.8458714

00:16:58.330 --> 00:17:00.105 Get the postmastectomy scar line

NOTE Confidence: 0.8458714

00:17:00.105 --> 00:17:02.161 that is usually given over a

NOTE Confidence: 0.8458714

00:17:02.161 --> 00:17:04.009 course of four or five fractions,

NOTE Confidence: 0.8458714

00:17:04.010 --> 00:17:06.278 and that's added on to the five

NOTE Confidence: 0.8458714

00:17:06.278 --> 00:17:07.250 or three weeks.

NOTE Confidence: 0.8424894

00:17:10.610 --> 00:17:12.626 So what is whole breast radiation?

NOTE Confidence: 0.8424894

00:17:12.630 --> 00:17:14.926 Well, as you can see in the diagram

NOTE Confidence: 0.8424894

00:17:14.926 --> 00:17:17.347 on the right patients lie supine,

NOTE Confidence: 0.8424894

00:17:17.350 --> 00:17:19.960 belly up with their arms up and our machine

NOTE Confidence: 0.8424894

00:17:19.960 --> 00:17:22.552 is able to deliver these tangent beams

NOTE Confidence: 0.8424894

00:17:22.552 --> 00:17:25.113 that only really target the breasts in

NOTE Confidence: 0.8424894

00:17:25.113 --> 00:17:27.451 this case and spare the normal tissue.

NOTE Confidence: 0.8424894

00:17:27.460 --> 00:17:30.156 So if you can see my mouse here,

NOTE Confidence: 0.8424894

00:17:30.160 --> 00:17:32.176 I'm going to point out the

NOTE Confidence: 0.8424894

00:17:32.176 --> 00:17:33.184 radiation treatment field.

NOTE Confidence: 0.8424894

00:17:33.190 --> 00:17:36.214 So let's say this machine head is over here.

NOTE Confidence: 0.8424894

00:17:36.220 --> 00:17:39.036 It's giving a medial treatment tangent so it.

NOTE Confidence: 0.8424894

00:17:39.040 --> 00:17:41.175 It's the breast and avoids normal tissue

NOTE Confidence: 0.8424894

00:17:41.175 --> 00:17:43.920 like the lung, so this black is the lung.

NOTE Confidence: 0.8424894

00:17:43.920 --> 00:17:45.705 This is the heart and the dose

NOTE Confidence: 0.8424894

00:17:45.705 --> 00:17:47.484 here in this multi colored region

NOTE Confidence: 0.8424894

00:17:47.484 --> 00:17:49.689 is the vast majority of the dose

NOTE Confidence: 0.8424894

00:17:49.752 --> 00:17:51.240 which targets the breast.

NOTE Confidence: 0.8327312

00:17:55.160 --> 00:17:57.074 This can also be given either

NOTE Confidence: 0.8327312

00:17:57.074 --> 00:17:58.959 supine like I described or prone,

NOTE Confidence: 0.8327312

00:17:58.960 --> 00:18:00.550 belly douse, Owens belly down.

NOTE Confidence: 0.8327312

00:18:00.550 --> 00:18:03.086 There is a board that looks like this,

NOTE Confidence: 0.8327312

00:18:03.090 --> 00:18:04.902 and a patient lies with belly

NOTE Confidence: 0.8327312

00:18:04.902 --> 00:18:06.890 down and a breast hangs down.

NOTE Confidence: 0.8327312

00:18:06.890 --> 00:18:08.154 This technique is really

NOTE Confidence: 0.8327312

00:18:08.154 --> 00:18:09.734 good for women with large,

NOTE Confidence: 0.8327312

00:18:09.740 --> 00:18:11.325 pendulous breasts because as you

NOTE Confidence: 0.8327312

00:18:11.325 --> 00:18:13.566 can see it separates the breast from

NOTE Confidence: 0.8327312

00:18:13.566 --> 00:18:15.366 the chest wall and by definition

NOTE Confidence: 0.8327312

00:18:15.366 --> 00:18:17.312 also from the internal organs like

NOTE Confidence: 0.8327312

00:18:17.312 --> 00:18:19.244 the heart here circled in purple.

NOTE Confidence: 0.8327312

00:18:19.250 --> 00:18:21.497 So when the breast falls into this

NOTE Confidence: 0.8327312

00:18:21.497 --> 00:18:24.097 cavity here we can target it with very.

NOTE Confidence: 0.8327312

00:18:24.100 --> 00:18:26.070 Similar arrangement of things and

NOTE Confidence: 0.8327312

00:18:26.070 --> 00:18:28.530 spare the heart and the lungs.
NOTE Confidence: 0.8327312

00:18:28.530 --> 00:18:31.730 Which are these black spots
NOTE Confidence: 0.8327312

00:18:31.730 --> 00:18:33.650 from radiation treatment?
NOTE Confidence: 0.8327312

00:18:33.650 --> 00:18:34.676 As I mentioned,
NOTE Confidence: 0.8327312

00:18:34.676 --> 00:18:36.044 whole breast radiation or
NOTE Confidence: 0.8327312

00:18:36.044 --> 00:18:37.451 postmastectomy radiation can also
NOTE Confidence: 0.8327312

00:18:37.451 --> 00:18:38.779 include regional lymph nodes.
NOTE Confidence: 0.8327312

00:18:38.780 --> 00:18:41.167 So what are these regional lymph nodes?
NOTE Confidence: 0.8327312

00:18:41.170 --> 00:18:43.084 Well they exist kind of in
NOTE Confidence: 0.8327312

00:18:43.084 --> 00:18:44.940 the border of the breast.
NOTE Confidence: 0.8327312

00:18:44.940 --> 00:18:46.986 So here we have the breast.
NOTE Confidence: 0.8327312

00:18:46.990 --> 00:18:48.695 Here we have the internal
NOTE Confidence: 0.8327312

00:18:48.695 --> 00:18:49.718 mammary lymph nodes.
NOTE Confidence: 0.8327312

00:18:49.720 --> 00:18:51.430 We have axillary lymph nodes.
NOTE Confidence: 0.8327312

00:18:51.430 --> 00:18:53.488 We have super clavicular lymph nodes.
NOTE Confidence: 0.8327312

00:18:53.490 --> 00:18:55.440 All these lymph nodes kind of

NOTE Confidence: 0.8327312

00:18:55.440 --> 00:18:57.250 drained fluid from the breast.

NOTE Confidence: 0.8327312

00:18:57.250 --> 00:18:59.260 And if the primary tumor unfortunately

NOTE Confidence: 0.8327312

00:18:59.260 --> 00:19:01.370 goes when the lymph nodes, well,

NOTE Confidence: 0.8327312

00:19:01.370 --> 00:19:03.530 it generally it's one of these.

NOTE Confidence: 0.8327312

00:19:03.530 --> 00:19:06.266 So how do we treat that with radiation?

NOTE Confidence: 0.8327312

00:19:06.270 --> 00:19:06.588 Well,

NOTE Confidence: 0.8327312

00:19:06.588 --> 00:19:08.814 here we have a patient that is

NOTE Confidence: 0.8327312

00:19:08.814 --> 00:19:10.050 getting postmastectomy radiation.

NOTE Confidence: 0.8327312

00:19:10.050 --> 00:19:11.760 So they had mastectomy and

NOTE Confidence: 0.8327312

00:19:11.760 --> 00:19:12.786 actually an implant.

NOTE Confidence: 0.8327312

00:19:12.790 --> 00:19:15.044 Here you can see this nice circular

NOTE Confidence: 0.8327312

00:19:15.044 --> 00:19:17.590 over feature we treat with similar beam.

NOTE Confidence: 0.8327312

00:19:17.590 --> 00:19:19.718 So the red beam is that medial

NOTE Confidence: 0.8327312

00:19:19.718 --> 00:19:21.370 tangent I described previously.

NOTE Confidence: 0.8327312

00:19:21.370 --> 00:19:23.414 The blue comes from the other side

NOTE Confidence: 0.8327312

00:19:23.414 --> 00:19:25.830 to give a very homogeneous dose,
NOTE Confidence: 0.8327312

00:19:25.830 --> 00:19:29.246 and the orange being is from the top.
NOTE Confidence: 0.8327312

00:19:29.250 --> 00:19:30.770 Which treats the Super clavicular
NOTE Confidence: 0.8327312

00:19:30.770 --> 00:19:33.114 look Jones up here if you can see
NOTE Confidence: 0.8327312

00:19:33.114 --> 00:19:34.643 this little purple circle here,
NOTE Confidence: 0.8327312

00:19:34.643 --> 00:19:36.198 that's the internal mammary lymph
NOTE Confidence: 0.8327312

00:19:36.198 --> 00:19:37.695 nodes that actually is treated
NOTE Confidence: 0.8327312

00:19:37.695 --> 00:19:39.345 with the tangent beams as well.
NOTE Confidence: 0.8327312

00:19:39.350 --> 00:19:41.310 So not only do we treat the
NOTE Confidence: 0.8327312

00:19:41.310 --> 00:19:42.909 chest wall in this case,
NOTE Confidence: 0.8327312

00:19:42.910 --> 00:19:45.286 but we also treat the regional lymph nodes,
NOTE Confidence: 0.8327312

00:19:45.290 --> 00:19:48.686 which is very important many patients.
NOTE Confidence: 0.8327312

00:19:48.690 --> 00:19:51.090 So the next topic is does radiation work?
NOTE Confidence: 0.8327312

00:19:51.090 --> 00:19:52.890 Now there's many, many different studies.
NOTE Confidence: 0.8327312

00:19:52.890 --> 00:19:55.590 If I just want to bring this one study,
NOTE Confidence: 0.8327312

00:19:55.590 --> 00:19:57.606 I suppose is a meta analysis with

NOTE Confidence: 0.8327312

00:19:57.606 --> 00:19:59.189 the largest number of patients.

NOTE Confidence: 0.8327312

00:19:59.190 --> 00:20:00.288 So let's kind.

NOTE Confidence: 0.8327312

00:20:00.288 --> 00:20:02.850 Just look at this one graph here.

NOTE Confidence: 0.8327312

00:20:02.850 --> 00:20:04.370 So over 10,000 patients,

NOTE Confidence: 0.8327312

00:20:04.370 --> 00:20:05.130 17 trials,

NOTE Confidence: 0.8327312

00:20:05.130 --> 00:20:07.632 all of these patients had lumpectomy's

NOTE Confidence: 0.8327312

00:20:07.632 --> 00:20:09.300 breast conservation surgery and

NOTE Confidence: 0.8327312

00:20:09.369 --> 00:20:10.949 whole breast radiation an all

NOTE Confidence: 0.8327312

00:20:10.949 --> 00:20:13.130 comes at the five year interval.

NOTE Confidence: 0.8327312

00:20:13.130 --> 00:20:13.892 Without radiation,

NOTE Confidence: 0.8327312

00:20:13.892 --> 00:20:15.416 the re occurrence rate,

NOTE Confidence: 0.8327312

00:20:15.420 --> 00:20:17.706 any first re occurrence is 25%

NOTE Confidence: 0.8327312

00:20:17.710 --> 00:20:19.610 which is decreased by half.

NOTE Confidence: 0.8327312

00:20:19.610 --> 00:20:23.039 So this is kind of an with other studies.

NOTE Confidence: 0.8327312

00:20:23.040 --> 00:20:26.127 This is kind of where we get the I

NOTE Confidence: 0.8327312

00:20:26.127 --> 00:20:29.110 supposed mantra that radiation decreases.

NOTE Confidence: 0.8327312

00:20:29.110 --> 00:20:31.637 Local regional recurrence by at least 50%.

NOTE Confidence: 0.8528848

00:20:36.070 --> 00:20:37.973 Here we have patience with

NOTE Confidence: 0.8528848

00:20:37.973 --> 00:20:39.116 node negative disease.

NOTE Confidence: 0.8528848

00:20:39.120 --> 00:20:41.836 In here we have patients with node

NOTE Confidence: 0.8528848

00:20:41.836 --> 00:20:44.492 positive disease and it makes a very

NOTE Confidence: 0.8528848

00:20:44.492 --> 00:20:46.610 big difference whether or not they

NOTE Confidence: 0.8528848

00:20:46.686 --> 00:20:49.020 had node positive or no negative,

NOTE Confidence: 0.8528848

00:20:49.020 --> 00:20:51.306 and this study kind of concluded.

NOTE Confidence: 0.8528848

00:20:51.310 --> 00:20:53.536 Another thing that we often think

NOTE Confidence: 0.8528848

00:20:53.536 --> 00:20:55.499 about is how many reoccurrences

NOTE Confidence: 0.8528848

00:20:55.499 --> 00:20:58.699 can we avoid in order to prevent 1

NOTE Confidence: 0.8528848

00:20:58.699 --> 00:21:01.220 deaths and based on this one study,

NOTE Confidence: 0.8528848

00:21:01.220 --> 00:21:03.165 it's every four reoccurrences avoided

NOTE Confidence: 0.8528848

00:21:03.165 --> 00:21:05.110 equals one breast cancer death.

NOTE Confidence: 0.8528848

00:21:05.110 --> 00:21:07.576 Avoid it so a four to one ratio is

NOTE Confidence: 0.8528848

00:21:07.576 --> 00:21:09.938 kind of the name of the game in

NOTE Confidence: 0.8528848

00:21:09.938 --> 00:21:11.975 terms of whole breast radiation

NOTE Confidence: 0.8528848

00:21:11.975 --> 00:21:14.175 and preventing these outcomes.

NOTE Confidence: 0.79877037

00:21:16.520 --> 00:21:18.280 And as postmastectomy radiation works,

NOTE Confidence: 0.79877037

00:21:18.280 --> 00:21:21.096 you bet and lymph nodes also matter here.

NOTE Confidence: 0.79877037

00:21:21.100 --> 00:21:23.206 So this is actually really interesting

NOTE Confidence: 0.79877037

00:21:23.206 --> 00:21:26.050 because the lymph nodes matter a lot more

NOTE Confidence: 0.79877037

00:21:26.050 --> 00:21:27.780 in terms of postmastectomy radiation.

NOTE Confidence: 0.79877037

00:21:27.780 --> 00:21:29.898 If you are lymph node negative,

NOTE Confidence: 0.79877037

00:21:29.900 --> 00:21:31.680 these 700 patients radiation really

NOTE Confidence: 0.79877037

00:21:31.680 --> 00:21:34.195 doesn't make a difference and we often

NOTE Confidence: 0.79877037

00:21:34.195 --> 00:21:35.880 don't do post secondary radiation.

NOTE Confidence: 0.79877037

00:21:35.880 --> 00:21:37.196 These very small cancers,

NOTE Confidence: 0.79877037

00:21:37.196 --> 00:21:39.750 for example there are linked to negative.

NOTE Confidence: 0.79877037

00:21:39.750 --> 00:21:41.871 But if your lymph node positive then

NOTE Confidence: 0.79877037

00:21:41.871 --> 00:21:44.330 it does make a tremendous difference.
NOTE Confidence: 0.79877037

00:21:44.330 --> 00:21:46.436 Here at 10 years without radiation,
NOTE Confidence: 0.79877037

00:21:46.440 --> 00:21:48.270 26% of local regional reoccurrences.
NOTE Confidence: 0.79877037

00:21:48.270 --> 00:21:49.870 And with radiation it's 8%,
NOTE Confidence: 0.79877037

00:21:49.870 --> 00:21:52.430 so it is a pretty big significant difference.
NOTE Confidence: 0.8758764

00:21:57.280 --> 00:21:59.548 We have some advances in radiation.
NOTE Confidence: 0.8758764

00:21:59.550 --> 00:22:01.895 One of the advances in order to
NOTE Confidence: 0.8758764

00:22:01.895 --> 00:22:03.854 decrease side effect is this
NOTE Confidence: 0.8758764

00:22:03.854 --> 00:22:05.618 advancement called surface image.
NOTE Confidence: 0.8758764

00:22:05.620 --> 00:22:07.930 It's a technique where using different
NOTE Confidence: 0.8758764

00:22:07.930 --> 00:22:10.628 light fields were able to construct a
NOTE Confidence: 0.8758764

00:22:10.628 --> 00:22:12.812 3D representation of your chest wall.
NOTE Confidence: 0.8758764

00:22:12.820 --> 00:22:15.284 So here on the right you can kind
NOTE Confidence: 0.8758764

00:22:15.284 --> 00:22:17.748 of see this 3D representation.
NOTE Confidence: 0.8758764

00:22:17.750 --> 00:22:20.078 This is important because it measures
NOTE Confidence: 0.8758764

00:22:20.078 --> 00:22:23.047 the rise and fall of your chest wall,

NOTE Confidence: 0.8758764

00:22:23.050 --> 00:22:25.378 so these are continuous during treatment.

NOTE Confidence: 0.8758764

00:22:25.380 --> 00:22:27.190 The radiation treatment itself is

NOTE Confidence: 0.8758764

00:22:27.190 --> 00:22:29.335 in the matter of seconds, actually,

NOTE Confidence: 0.8758764

00:22:29.335 --> 00:22:31.345 that is when the radiation beam

NOTE Confidence: 0.8758764

00:22:31.345 --> 00:22:32.980 is actually being delivered.

NOTE Confidence: 0.8758764

00:22:32.980 --> 00:22:35.920 So a lot of times what happens

NOTE Confidence: 0.8758764

00:22:35.920 --> 00:22:37.180 is during radiation.

NOTE Confidence: 0.8758764

00:22:37.180 --> 00:22:39.490 We want to do two things who want to check

NOTE Confidence: 0.8758764

00:22:39.545 --> 00:22:41.687 the accuracy of the patients treatment.

NOTE Confidence: 0.8758764

00:22:41.690 --> 00:22:43.734 So you can imagine since radiation is

NOTE Confidence: 0.8758764

00:22:43.734 --> 00:22:45.917 either three weeks long or five weeks long,

NOTE Confidence: 0.8758764

00:22:45.920 --> 00:22:47.928 we want to make sure that patients in

NOTE Confidence: 0.8758764

00:22:47.928 --> 00:22:50.150 the exact same position every single day.

NOTE Confidence: 0.8758764

00:22:50.150 --> 00:22:52.285 The worst thing that could happen is

NOTE Confidence: 0.8758764

00:22:52.285 --> 00:22:54.558 one data positions off in here and then

NOTE Confidence: 0.8758764

00:22:54.558 --> 00:22:56.917 we missed the whole breast with a chest wall.

NOTE Confidence: 0.8758764

00:22:56.920 --> 00:22:59.128 In order to avoid that we have different

NOTE Confidence: 0.8758764

00:22:59.128 --> 00:23:00.734 techniques like this in order to

NOTE Confidence: 0.8758764

00:23:00.734 --> 00:23:02.240 measure the patient chest wall and

NOTE Confidence: 0.8758764

00:23:02.294 --> 00:23:03.969 position the patient correctly #2.

NOTE Confidence: 0.8758764

00:23:03.970 --> 00:23:05.930 Not only do we want the patient

NOTE Confidence: 0.8758764

00:23:05.930 --> 00:23:07.190 to be the same.

NOTE Confidence: 0.8758764

00:23:07.190 --> 00:23:07.750 Every day,

NOTE Confidence: 0.8758764

00:23:07.750 --> 00:23:09.430 but during the treatment itself we

NOTE Confidence: 0.8758764

00:23:09.430 --> 00:23:11.471 have to monitor the patient just in

NOTE Confidence: 0.8758764

00:23:11.471 --> 00:23:13.430 case there is some unknown movement.

NOTE Confidence: 0.8758764

00:23:13.430 --> 00:23:14.082 For example,

NOTE Confidence: 0.8758764

00:23:14.082 --> 00:23:16.690 the patient has a terrible see is who

NOTE Confidence: 0.8758764

00:23:16.756 --> 00:23:19.430 they cough or they move during treatment.

NOTE Confidence: 0.8758764

00:23:19.430 --> 00:23:21.446 So this is called gated treatment.

NOTE Confidence: 0.8758764

00:23:21.450 --> 00:23:23.430 Attracts changes in position and location

NOTE Confidence: 0.8758764

00:23:23.430 --> 00:23:25.140 during the actual treatment itself.

NOTE Confidence: 0.8549116

00:23:28.130 --> 00:23:29.093 With that technique,

NOTE Confidence: 0.8549116

00:23:29.093 --> 00:23:31.019 were able to monitor the patient

NOTE Confidence: 0.8549116

00:23:31.019 --> 00:23:33.198 breath and the technique that we use

NOTE Confidence: 0.8549116

00:23:33.198 --> 00:23:34.985 is called deep inspiration breath hold

NOTE Confidence: 0.8549116

00:23:34.985 --> 00:23:36.854 so this technique can be best shown

NOTE Confidence: 0.8549116

00:23:36.854 --> 00:23:39.160 in these two images here on the left

NOTE Confidence: 0.8549116

00:23:39.160 --> 00:23:41.327 and the right is the same patient,

NOTE Confidence: 0.8549116

00:23:41.330 --> 00:23:43.493 but here on the left the patient

NOTE Confidence: 0.8549116

00:23:43.493 --> 00:23:45.337 is just breathing normally we have

NOTE Confidence: 0.8549116

00:23:45.337 --> 00:23:47.325 a chest CT scan of the chest.

NOTE Confidence: 0.8549116

00:23:47.330 --> 00:23:48.830 Here's a breast up here.

NOTE Confidence: 0.8549116

00:23:48.830 --> 00:23:50.330 Here's a heart and pink,

NOTE Confidence: 0.8549116

00:23:50.330 --> 00:23:52.241 but if the patient takes a breath

NOTE Confidence: 0.8549116

00:23:52.241 --> 00:23:54.530 you can see the lungs are expanded.

NOTE Confidence: 0.8549116

00:23:54.530 --> 00:23:57.018 The heart is moved away from the breast.

NOTE Confidence: 0.8549116

00:23:57.020 --> 00:23:59.044 And therefore the heart will get less dose,

NOTE Confidence: 0.8549116

00:23:59.050 --> 00:24:00.574 which is exactly what we want

NOTE Confidence: 0.8549116

00:24:00.574 --> 00:24:01.336 in these plants.

NOTE Confidence: 0.8210117

00:24:04.410 --> 00:24:06.391 I drew a red line here to

NOTE Confidence: 0.8210117

00:24:06.391 --> 00:24:08.230 show the beams of radiation.

NOTE Confidence: 0.8210117

00:24:08.230 --> 00:24:10.126 The posterior border of the beams.

NOTE Confidence: 0.8210117

00:24:10.130 --> 00:24:11.402 As you can remember,

NOTE Confidence: 0.8210117

00:24:11.402 --> 00:24:12.674 there's a medial tangent.

NOTE Confidence: 0.8210117

00:24:12.680 --> 00:24:14.340 There's a lateral tangent and

NOTE Confidence: 0.8210117

00:24:14.340 --> 00:24:16.000 that theme edge is represented

NOTE Confidence: 0.8210117

00:24:16.055 --> 00:24:17.765 by the red without breath hold.

NOTE Confidence: 0.8210117

00:24:17.770 --> 00:24:19.355 Sometimes it's very difficult to

NOTE Confidence: 0.8210117

00:24:19.355 --> 00:24:21.900 avoid a heart, as you can see here,

NOTE Confidence: 0.8210117

00:24:21.900 --> 00:24:23.168 there's some little overlap

NOTE Confidence: 0.8210117

00:24:23.168 --> 00:24:24.436 which we don't want,

NOTE Confidence: 0.8210117

00:24:24.440 --> 00:24:25.712 but with Breathhold were

NOTE Confidence: 0.8210117

00:24:25.712 --> 00:24:27.302 able to avoid the hard,

NOTE Confidence: 0.8210117

00:24:27.310 --> 00:24:27.966 sometimes entirely,

NOTE Confidence: 0.8210117

00:24:27.966 --> 00:24:29.606 and that decreases our long-term

NOTE Confidence: 0.8210117

00:24:29.606 --> 00:24:31.120 side effects for the heart.

NOTE Confidence: 0.863368

00:24:35.420 --> 00:24:37.075 So this is another representation

NOTE Confidence: 0.863368

00:24:37.075 --> 00:24:39.162 of how the heart moves with

NOTE Confidence: 0.863368

00:24:39.162 --> 00:24:40.630 the breath hold technique.

NOTE Confidence: 0.863368

00:24:40.630 --> 00:24:42.706 The Red is the heart here.

NOTE Confidence: 0.863368

00:24:42.710 --> 00:24:44.440 The Green is the diaphragm.

NOTE Confidence: 0.863368

00:24:44.440 --> 00:24:47.248 So if you take a breath in the heart

NOTE Confidence: 0.863368

00:24:47.248 --> 00:24:49.650 moves it down an moves backwards,

NOTE Confidence: 0.863368

00:24:49.650 --> 00:24:51.756 so those two movements really help

NOTE Confidence: 0.863368

00:24:51.756 --> 00:24:53.810 prevent radiation dose to the heart.

NOTE Confidence: 0.8542935

00:24:57.600 --> 00:24:59.756 This is what the patient sees actually,

NOTE Confidence: 0.8542935

00:24:59.760 --> 00:25:01.452 so the patient wears these funky
NOTE Confidence: 0.8542935

00:25:01.452 --> 00:25:03.319 goggles and on the goggles there's
NOTE Confidence: 0.8542935

00:25:03.319 --> 00:25:05.019 this little bar thing here.
NOTE Confidence: 0.8542935

00:25:05.020 --> 00:25:07.873 This orange bar moves up and down to the
NOTE Confidence: 0.8542935

00:25:07.873 --> 00:25:10.270 patients breath and this is what we see.
NOTE Confidence: 0.8542935

00:25:10.270 --> 00:25:12.124 So when the patient just breathe
NOTE Confidence: 0.8542935

00:25:12.124 --> 00:25:14.173 normally up and down, up and down,
NOTE Confidence: 0.8542935

00:25:14.173 --> 00:25:16.469 up and down until we take tell the
NOTE Confidence: 0.8542935

00:25:16.469 --> 00:25:18.807 patient to please hold your breath into
NOTE Confidence: 0.8542935

00:25:18.807 --> 00:25:21.394 the green line and so they hold their
NOTE Confidence: 0.8542935

00:25:21.394 --> 00:25:23.578 breath into the Green Line and hold
NOTE Confidence: 0.8542935

00:25:23.578 --> 00:25:25.474 it during the duration of treatment.
NOTE Confidence: 0.8542935

00:25:25.480 --> 00:25:27.545 Which is usually in the order of.
NOTE Confidence: 0.8542935

00:25:27.550 --> 00:25:29.608 I would say 15 seconds or so.
NOTE Confidence: 0.8542935

00:25:29.610 --> 00:25:31.090 The patients green lines hear
NOTE Confidence: 0.8542935

00:25:31.090 --> 00:25:32.860 what they see is this bar,

NOTE Confidence: 0.8542935

00:25:32.860 --> 00:25:35.173 so all they do is that they make sure

NOTE Confidence: 0.8542935

00:25:35.173 --> 00:25:37.578 they hold their breath within the line.

NOTE Confidence: 0.8542935

00:25:37.580 --> 00:25:38.170 15 seconds.

NOTE Confidence: 0.8542935

00:25:38.170 --> 00:25:39.940 Usually most patients can do this

NOTE Confidence: 0.8542935

00:25:39.940 --> 00:25:41.410 without any problems at all.

NOTE Confidence: 0.87876415

00:25:43.530 --> 00:25:45.080 So there are new treatment

NOTE Confidence: 0.87876415

00:25:45.080 --> 00:25:46.630 techniques that we have been

NOTE Confidence: 0.87876415

00:25:46.695 --> 00:25:48.729 following and adapting here at Yale,

NOTE Confidence: 0.87876415

00:25:48.730 --> 00:25:50.030 and they're actually really,

NOTE Confidence: 0.87876415

00:25:50.030 --> 00:25:50.680 really interesting.

NOTE Confidence: 0.87876415

00:25:50.680 --> 00:25:54.260 So I want to share a few of them with you.

NOTE Confidence: 0.87876415

00:25:54.260 --> 00:25:55.580 So as you know,

NOTE Confidence: 0.87876415

00:25:55.580 --> 00:25:57.230 the traditional treatment like I

NOTE Confidence: 0.87876415

00:25:57.230 --> 00:25:59.130 mentioned was five weeks, 25 treatments.

NOTE Confidence: 0.87876415

00:25:59.130 --> 00:26:01.405 It's very long and the question is,

NOTE Confidence: 0.87876415

00:26:01.410 --> 00:26:03.678 what if we can always shrink it?
NOTE Confidence: 0.87876415

00:26:03.680 --> 00:26:06.605 So over the course of the past few decades,
NOTE Confidence: 0.87876415

00:26:06.610 --> 00:26:08.560 we've shrunk it from 5 weeks.
NOTE Confidence: 0.87876415

00:26:08.560 --> 00:26:10.695 That three weeks there's a lot of
NOTE Confidence: 0.87876415

00:26:10.695 --> 00:26:12.878 data here in Europe or whatnot.
NOTE Confidence: 0.87876415

00:26:12.880 --> 00:26:14.450 That is, further shrinking that,
NOTE Confidence: 0.87876415

00:26:14.450 --> 00:26:16.634 so this is called the fast regimen.
NOTE Confidence: 0.87876415

00:26:16.640 --> 00:26:18.824 What if we can do breast radiation,
NOTE Confidence: 0.87876415

00:26:18.830 --> 00:26:20.708 whole breast radiation in five treatments,
NOTE Confidence: 0.87876415

00:26:20.710 --> 00:26:21.604 not five weeks?
NOTE Confidence: 0.87876415

00:26:21.604 --> 00:26:23.392 And when that be amazing to
NOTE Confidence: 0.87876415

00:26:23.392 --> 00:26:25.089 the patient to save time,
NOTE Confidence: 0.87876415

00:26:25.090 --> 00:26:26.968 and if it has the same
NOTE Confidence: 0.87876415

00:26:26.968 --> 00:26:28.220 efficacy and side effects,
NOTE Confidence: 0.87876415

00:26:28.220 --> 00:26:30.656 and that would be a very good
NOTE Confidence: 0.87876415

00:26:30.656 --> 00:26:32.420 alternative to some patients.

NOTE Confidence: 0.87876415

00:26:32.420 --> 00:26:35.462 So it turns out that based on data that

NOTE Confidence: 0.87876415

00:26:35.462 --> 00:26:38.351 that has become a reality in the past

NOTE Confidence: 0.87876415

00:26:38.351 --> 00:26:41.570 few years and now in most of our centers,

NOTE Confidence: 0.87876415

00:26:41.570 --> 00:26:43.330 we're offering this fast regimen,

NOTE Confidence: 0.87876415

00:26:43.330 --> 00:26:45.528 which is a five treatment course once

NOTE Confidence: 0.87876415

00:26:45.528 --> 00:26:47.910 a week for early stage patients.

NOTE Confidence: 0.87876415

00:26:47.910 --> 00:26:50.101 These are not the node positive patients

NOTE Confidence: 0.87876415

00:26:50.101 --> 00:26:52.480 that require the regional nodal radiation,

NOTE Confidence: 0.87876415

00:26:52.480 --> 00:26:54.424 but they just require whole breast

NOTE Confidence: 0.87876415

00:26:54.424 --> 00:26:56.710 radiation after a simple lumpectomy swear,

NOTE Confidence: 0.87876415

00:26:56.710 --> 00:26:58.078 something small like a,

NOTE Confidence: 0.87876415

00:26:58.078 --> 00:27:00.580 for example 1 centimeter small breast cancer.

NOTE Confidence: 0.87876415

00:27:00.580 --> 00:27:01.988 So right early stage,

NOTE Confidence: 0.87876415

00:27:01.988 --> 00:27:03.396 no negative after lumpectomy.

NOTE Confidence: 0.87876415

00:27:03.400 --> 00:27:05.610 These are generally the patients

NOTE Confidence: 0.87876415

00:27:05.610 --> 00:27:07.378 that we want to.
NOTE Confidence: 0.87876415

00:27:07.380 --> 00:27:09.040 Treat with this regiment.
NOTE Confidence: 0.87876415

00:27:09.040 --> 00:27:11.938 Now another regiment that we have been
NOTE Confidence: 0.87876415

00:27:11.938 --> 00:27:14.297 discussing is you can imagine well now
NOTE Confidence: 0.87876415

00:27:14.297 --> 00:27:17.299 if a cancer is 1 centimeters in size.
NOTE Confidence: 0.87876415

00:27:17.300 --> 00:27:20.140 Do you have to treat the entire breast?
NOTE Confidence: 0.87876415

00:27:20.140 --> 00:27:22.222 A lot of patients asked me
NOTE Confidence: 0.87876415

00:27:22.222 --> 00:27:24.400 that and I always say that,
NOTE Confidence: 0.87876415

00:27:24.400 --> 00:27:24.730 well,
NOTE Confidence: 0.87876415

00:27:24.730 --> 00:27:26.710 maybe not so this is called
NOTE Confidence: 0.87876415

00:27:26.710 --> 00:27:28.310 accelerated partial breast radiation.
NOTE Confidence: 0.87876415

00:27:28.310 --> 00:27:31.150 Truly actually has been around for a very,
NOTE Confidence: 0.87876415

00:27:31.150 --> 00:27:32.212 very long time,
NOTE Confidence: 0.87876415

00:27:32.212 --> 00:27:34.336 but the techniques have been changing.
NOTE Confidence: 0.87876415

00:27:34.340 --> 00:27:36.860 This one technique is actually from a
NOTE Confidence: 0.87876415

00:27:36.860 --> 00:27:39.637 center in Italy that reported the study.

NOTE Confidence: 0.87876415

00:27:39.640 --> 00:27:42.125 Showing a also a 5 fraction treatment

NOTE Confidence: 0.87876415

00:27:42.125 --> 00:27:44.727 every other day to part of the breast,

NOTE Confidence: 0.87876415

00:27:44.730 --> 00:27:46.194 hence accelerated partial breast.

NOTE Confidence: 0.87876415

00:27:46.194 --> 00:27:48.024 This currently is our operating

NOTE Confidence: 0.87876415

00:27:48.024 --> 00:27:49.333 procedure and our safety

NOTE Confidence: 0.87876415

00:27:49.333 --> 00:27:50.823 procedures currently in the works.

NOTE Confidence: 0.87876415

00:27:50.830 --> 00:27:53.660 So maybe if you were to ask me in a

NOTE Confidence: 0.87876415

00:27:53.751 --> 00:27:56.586 month or two or maybe three months,

NOTE Confidence: 0.87876415

00:27:56.590 --> 00:27:59.980 we'll see if we can get this up and running.

NOTE Confidence: 0.87876415

00:27:59.980 --> 00:28:02.395 So this is something in the future

NOTE Confidence: 0.87876415

00:28:02.395 --> 00:28:04.780 that we're looking forward to as well

NOTE Confidence: 0.87876415

00:28:04.780 --> 00:28:07.115 so we have all these different new

NOTE Confidence: 0.87876415

00:28:07.115 --> 00:28:09.899 options in order to help the patients offer.

NOTE Confidence: 0.87876415

00:28:09.900 --> 00:28:11.016 Different treatments according

NOTE Confidence: 0.87876415

00:28:11.016 --> 00:28:12.876 to the patient's busy schedules

NOTE Confidence: 0.87876415

00:28:12.876 --> 00:28:14.920 and to deliver safe radiation.
NOTE Confidence: 0.8676893

00:28:19.690 --> 00:28:22.007 Not only do we have new treatments,
NOTE Confidence: 0.8676893

00:28:22.010 --> 00:28:24.554 but we are a center that really believes
NOTE Confidence: 0.8676893

00:28:24.554 --> 00:28:26.667 in pushing medicine to the cutting edge
NOTE Confidence: 0.8676893

00:28:26.667 --> 00:28:29.305 and a lot of the cutting edge treatments
NOTE Confidence: 0.8676893

00:28:29.305 --> 00:28:31.639 have to do with clinical trials.
NOTE Confidence: 0.8676893

00:28:31.640 --> 00:28:33.225 These are large, randomized, often
NOTE Confidence: 0.8676893

00:28:33.225 --> 00:28:35.290 randomized trials that asked the question.
NOTE Confidence: 0.8676893

00:28:35.290 --> 00:28:36.950 While we have this standard
NOTE Confidence: 0.8676893

00:28:36.950 --> 00:28:38.592 treatment that's very, very good,
NOTE Confidence: 0.8676893

00:28:38.592 --> 00:28:41.160 but we have data showing that you know
NOTE Confidence: 0.8676893

00:28:41.229 --> 00:28:43.588 other treatment can be just as good,
NOTE Confidence: 0.8676893

00:28:43.590 --> 00:28:44.661 maybe even better.
NOTE Confidence: 0.8676893

00:28:44.661 --> 00:28:47.160 Why don't we do a study randomizing
NOTE Confidence: 0.8676893

00:28:47.231 --> 00:28:49.349 patient between one or two arms?
NOTE Confidence: 0.8676893

00:28:49.350 --> 00:28:51.816 And see what the outcomes are.

NOTE Confidence: 0.8676893

00:28:51.820 --> 00:28:54.548 So based on earlier studies like I mentioned,

NOTE Confidence: 0.8676893

00:28:54.550 --> 00:28:57.278 this one study is called the fabric trial,

NOTE Confidence: 0.8676893

00:28:57.280 --> 00:28:58.640 which is fractionation after

NOTE Confidence: 0.8676893

00:28:58.640 --> 00:28:59.320 breast reconstruction.

NOTE Confidence: 0.8676893

00:28:59.320 --> 00:29:01.904 So if you remember the picture I showed

NOTE Confidence: 0.8676893

00:29:01.904 --> 00:29:04.440 before with implantation to 1, not there,

NOTE Confidence: 0.8676893

00:29:04.440 --> 00:29:06.140 then anatomy of the implantation,

NOTE Confidence: 0.8676893

00:29:06.140 --> 00:29:08.527 it's a little different than normal tissue,

NOTE Confidence: 0.8676893

00:29:08.530 --> 00:29:09.802 but not by much.

NOTE Confidence: 0.8676893

00:29:09.802 --> 00:29:12.958 But we want to make sure that it's safe,

NOTE Confidence: 0.8676893

00:29:12.960 --> 00:29:15.570 so this is a really good trial in order

NOTE Confidence: 0.8676893

00:29:15.570 --> 00:29:18.080 to show if the standard treatment,

NOTE Confidence: 0.8676893

00:29:18.080 --> 00:29:20.656 which is the 25 fractions to 50 Gray

NOTE Confidence: 0.8676893

00:29:20.656 --> 00:29:23.247 is the same as the 16 fractions.

NOTE Confidence: 0.8676893

00:29:23.250 --> 00:29:26.071 242 Gray some centers do 15 fractions

NOTE Confidence: 0.8676893

00:29:26.071 --> 00:29:27.686 some centers, 216 fractions,
NOTE Confidence: 0.8676893

00:29:27.686 --> 00:29:30.910 but this one trial does the 16 fractions.
NOTE Confidence: 0.8676893

00:29:30.910 --> 00:29:33.322 Now what is the outcome that
NOTE Confidence: 0.8676893

00:29:33.322 --> 00:29:34.528 we're looking at?
NOTE Confidence: 0.8676893

00:29:34.530 --> 00:29:36.948 It is the patient report outcomes.
NOTE Confidence: 0.8676893

00:29:36.950 --> 00:29:40.350 Basically that's caused me sis.
NOTE Confidence: 0.8676893

00:29:40.350 --> 00:29:41.720 Radiation, as you might know,
NOTE Confidence: 0.8676893

00:29:41.720 --> 00:29:43.638 is like kind of like the sun.
NOTE Confidence: 0.8676893

00:29:43.640 --> 00:29:45.558 You get the sunburn on the breast,
NOTE Confidence: 0.8676893

00:29:45.560 --> 00:29:47.198 and that's a major side effect,
NOTE Confidence: 0.8676893

00:29:47.200 --> 00:29:48.292 so it's little red,
NOTE Confidence: 0.8676893

00:29:48.292 --> 00:29:49.384 itchy peely they'll tan,
NOTE Confidence: 0.8676893

00:29:49.390 --> 00:29:51.126 and that is what we are looking
NOTE Confidence: 0.8676893

00:29:51.126 --> 00:29:53.025 at to see if these two fractions
NOTE Confidence: 0.8676893

00:29:53.025 --> 00:29:55.150 are the same or one is better.
NOTE Confidence: 0.8580389

00:29:57.680 --> 00:30:00.250 The final the final study.

NOTE Confidence: 0.8580389

00:30:00.250 --> 00:30:02.539 I want to bring to light is

NOTE Confidence: 0.8580389

00:30:02.539 --> 00:30:03.520 something called Deescalation?

NOTE Confidence: 0.8580389

00:30:03.520 --> 00:30:05.560 What if we're giving too much

NOTE Confidence: 0.8580389

00:30:05.560 --> 00:30:07.925 radiation or to such a large area

NOTE Confidence: 0.8580389

00:30:07.925 --> 00:30:10.390 that a lot of patients don't need it?

NOTE Confidence: 0.8580389

00:30:10.390 --> 00:30:12.190 Surely there are grey zones and

NOTE Confidence: 0.8580389

00:30:12.190 --> 00:30:13.980 radiation like any other specialty.

NOTE Confidence: 0.8580389

00:30:13.980 --> 00:30:15.288 Sometimes these grey zones

NOTE Confidence: 0.8580389

00:30:15.288 --> 00:30:17.250 have to do with lymph nodes.

NOTE Confidence: 0.8580389

00:30:17.250 --> 00:30:18.506 In this particular case,

NOTE Confidence: 0.8580389

00:30:18.506 --> 00:30:20.759 the patient had low volume lymph nodes

NOTE Confidence: 0.8580389

00:30:20.759 --> 00:30:22.613 and I mentioned that before lymph

NOTE Confidence: 0.8580389

00:30:22.613 --> 00:30:24.298 nodes are almost always indicator

NOTE Confidence: 0.8580389

00:30:24.298 --> 00:30:26.404 to treat the regional lymph nodes.

NOTE Confidence: 0.8580389

00:30:26.410 --> 00:30:27.718 Well, not necessarily because

NOTE Confidence: 0.8580389

00:30:27.718 --> 00:30:29.680 certain times there are Gray area.
NOTE Confidence: 0.8580389

00:30:29.680 --> 00:30:31.570 So we want to see.
NOTE Confidence: 0.8580389

00:30:31.570 --> 00:30:32.974 In patients with lumpectomy,
NOTE Confidence: 0.8580389

00:30:32.974 --> 00:30:34.729 if they can randomize him,
NOTE Confidence: 0.8580389

00:30:34.730 --> 00:30:36.782 the whole breast radiation or radiation
NOTE Confidence: 0.8580389

00:30:36.782 --> 00:30:39.290 and regional locales in the second patients,
NOTE Confidence: 0.8580389

00:30:39.290 --> 00:30:41.586 we don't have to do post inspecting
NOTE Confidence: 0.8580389

00:30:41.586 --> 00:30:43.150 radiation or postmastectomy radiation.
NOTE Confidence: 0.8580389

00:30:43.150 --> 00:30:43.852 11 notes.
NOTE Confidence: 0.8580389

00:30:43.852 --> 00:30:44.203 Basically,
NOTE Confidence: 0.8580389

00:30:44.203 --> 00:30:46.309 this is just to show that,
NOTE Confidence: 0.8580389

00:30:46.310 --> 00:30:46.686 again,
NOTE Confidence: 0.8580389

00:30:46.686 --> 00:30:48.942 we're trying to push the boundaries
NOTE Confidence: 0.8580389

00:30:48.942 --> 00:30:50.510 and understand these Gray
NOTE Confidence: 0.8580389

00:30:50.510 --> 00:30:52.736 areas better so we can tailor
NOTE Confidence: 0.8580389

00:30:52.736 --> 00:30:54.201 deliver radiation treatment to

NOTE Confidence: 0.8580389

00:30:54.201 --> 00:30:55.959 the patients that we deem that

NOTE Confidence: 0.8580389

00:30:55.959 --> 00:30:57.176 they need extra treatments.

NOTE Confidence: 0.8580389

00:30:57.176 --> 00:30:57.848 For example,

NOTE Confidence: 0.8580389

00:30:57.848 --> 00:30:59.528 it actually treatment would be

NOTE Confidence: 0.8580389

00:30:59.528 --> 00:31:01.050 the regional nodal radiation.

NOTE Confidence: 0.832601

00:31:03.670 --> 00:31:06.446 So in summary, radiation is an essential part

NOTE Confidence: 0.832601

00:31:06.446 --> 00:31:09.339 of multi daldy treatment of breast cancer.

NOTE Confidence: 0.832601

00:31:09.340 --> 00:31:11.446 It is very important and works

NOTE Confidence: 0.832601

00:31:11.446 --> 00:31:13.880 just hand in hand with surgery,

NOTE Confidence: 0.832601

00:31:13.880 --> 00:31:16.025 systemic therapies and radiation clearly

NOTE Confidence: 0.832601

00:31:16.025 --> 00:31:18.865 does work and it decreases the risk

NOTE Confidence: 0.832601

00:31:18.865 --> 00:31:21.437 of tumor recurrence by at least 50% in

NOTE Confidence: 0.832601

00:31:21.437 --> 00:31:23.699 most cases of whole breast radiation,

NOTE Confidence: 0.832601

00:31:23.700 --> 00:31:25.312 radiation can increase patient

NOTE Confidence: 0.832601

00:31:25.312 --> 00:31:27.327 survival and select subsets and

NOTE Confidence: 0.832601

00:31:27.327 --> 00:31:29.746 a lot of these are node positive,
NOTE Confidence: 0.832601

00:31:29.750 --> 00:31:32.096 patient that we treat with posting
NOTE Confidence: 0.832601

00:31:32.096 --> 00:31:33.660 secondary radiation to prevent.
NOTE Confidence: 0.832601

00:31:33.660 --> 00:31:35.590 Reoccurrences and advances in radiation
NOTE Confidence: 0.832601

00:31:35.590 --> 00:31:37.520 have improved side effect profile.
NOTE Confidence: 0.832601

00:31:37.520 --> 00:31:39.450 That is, the deep inspiration,
NOTE Confidence: 0.832601

00:31:39.450 --> 00:31:42.852 breath hold and the techniques to protect
NOTE Confidence: 0.832601

00:31:42.852 --> 00:31:46.658 the patient from dose to the lung and heart.
NOTE Confidence: 0.832601

00:31:46.660 --> 00:31:48.400 Finally, clinical trials and new
NOTE Confidence: 0.832601

00:31:48.400 --> 00:31:50.140 treatment options are available on
NOTE Confidence: 0.832601

00:31:50.196 --> 00:31:52.116 most of our radiation oncology sites,
NOTE Confidence: 0.832601

00:31:52.120 --> 00:31:54.166 and that's great because you want
NOTE Confidence: 0.832601

00:31:54.166 --> 00:31:56.246 to push the boundaries and also
NOTE Confidence: 0.832601

00:31:56.246 --> 00:31:57.861 deliver tailor make ready issue
NOTE Confidence: 0.832601

00:31:57.861 --> 00:32:00.280 now here are all the centers that
NOTE Confidence: 0.832601

00:32:00.280 --> 00:32:02.010 we are currently operating in.

NOTE Confidence: 0.832601

00:32:02.010 --> 00:32:04.730 We span from Greenwich here to New London.

NOTE Confidence: 0.832601

00:32:04.730 --> 00:32:06.018 Here our main satellites.

NOTE Confidence: 0.832601

00:32:06.018 --> 00:32:08.829 The One I work at here is Trumbull,

NOTE Confidence: 0.832601

00:32:08.830 --> 00:32:11.210 but the main salads are all here.

NOTE Confidence: 0.832601

00:32:11.210 --> 00:32:12.574 Listed below are smile,

NOTE Confidence: 0.832601

00:32:12.574 --> 00:32:13.256 Cancer Center,

NOTE Confidence: 0.832601

00:32:13.260 --> 00:32:16.764 New Haven of course is the mother ship.

NOTE Confidence: 0.832601

00:32:16.770 --> 00:32:19.110 And whatever you get radiation treatments,

NOTE Confidence: 0.832601

00:32:19.110 --> 00:32:21.840 we all have chart rounds on Wednesday,

NOTE Confidence: 0.832601

00:32:21.840 --> 00:32:24.766 so all the breast radiation colleges get

NOTE Confidence: 0.832601

00:32:24.766 --> 00:32:27.686 together and kind of look at this plant.

NOTE Confidence: 0.832601

00:32:27.690 --> 00:32:30.126 So the treatment from any of the

NOTE Confidence: 0.832601

00:32:30.126 --> 00:32:31.994 centers is pretty much pretty

NOTE Confidence: 0.832601

00:32:31.994 --> 00:32:34.626 identical because we all look at the

NOTE Confidence: 0.832601

00:32:34.626 --> 00:32:37.658 plans in order to deliver the best

NOTE Confidence: 0.832601

00:32:37.658 --> 00:32:39.382 radiation treatment for patients.

NOTE Confidence: 0.832601

00:32:39.390 --> 00:32:41.340 And I think that's it.

NOTE Confidence: 0.832601

00:32:41.340 --> 00:32:43.290 In like most of said,

NOTE Confidence: 0.832601

00:32:43.290 --> 00:32:45.630 will answer questions at the end.

NOTE Confidence: 0.85459566

00:32:46.470 --> 00:32:48.432 Andrew, that was terrific and that

NOTE Confidence: 0.85459566

00:32:48.432 --> 00:32:50.014 last slide, even though those

NOTE Confidence: 0.85459566

00:32:50.014 --> 00:32:51.862 circles were sitting over the Long

NOTE Confidence: 0.85459566

00:32:51.862 --> 00:32:53.340 Island Sound radiation stuff.

NOTE Confidence: 0.8383305

00:32:58.160 --> 00:32:59.572 And finally, we're going

NOTE Confidence: 0.8383305

00:32:59.572 --> 00:33:01.337 to move to doctor Fishback.

NOTE Confidence: 0.8383305

00:33:01.340 --> 00:33:02.652 Last but not least,

NOTE Confidence: 0.8383305

00:33:02.652 --> 00:33:05.220 to talk about some of it really.

NOTE Confidence: 0.8383305

00:33:05.220 --> 00:33:07.272 Some fantastic changes in the world

NOTE Confidence: 0.8383305

00:33:07.272 --> 00:33:09.459 of medical oncology and drug therapy.

NOTE Confidence: 0.8383305

00:33:09.460 --> 00:33:11.265 And again, I'm encouraging those

NOTE Confidence: 0.8383305

00:33:11.265 --> 00:33:13.779 that are listening in to put in

NOTE Confidence: 0.8383305

00:33:13.779 --> 00:33:15.394 through the question and answer

NOTE Confidence: 0.8383305

00:33:15.394 --> 00:33:17.519 and and chat any questions so

NOTE Confidence: 0.8383305

00:33:17.519 --> 00:33:19.339 we can start preparing those.

NOTE Confidence: 0.8383305

00:33:19.340 --> 00:33:20.050 Thanks Neil.

NOTE Confidence: 0.8383305

00:33:20.050 --> 00:33:21.382 Alright, thanks for.

NOTE Confidence: 0.8383305

00:33:21.382 --> 00:33:24.046 Let me see if I can.

NOTE Confidence: 0.8383305

00:33:24.050 --> 00:33:25.590 Share my screen here.

NOTE Confidence: 0.83726865

00:33:38.090 --> 00:33:39.819 How am I doing? Am I can

NOTE Confidence: 0.83726865

00:33:39.819 --> 00:33:41.090 people see my screen?

NOTE Confidence: 0.86134666

00:33:44.170 --> 00:33:46.150 Mirror Yep, Yep you did.

NOTE Confidence: 0.86134666

00:33:46.150 --> 00:33:49.696 It was so you were able to see it.

NOTE Confidence: 0.86134666

00:33:49.700 --> 00:33:52.500 OK cool alright so two things I have

NOTE Confidence: 0.86134666

00:33:52.500 --> 00:33:55.423 learned from doing events similar to this

NOTE Confidence: 0.86134666

00:33:55.423 --> 00:33:58.000 one from Project Runway fashion show.

NOTE Confidence: 0.86134666

00:33:58.000 --> 00:34:00.496 Never walk down a runway after a fireman

NOTE Confidence: 0.86134666

00:34:00.496 --> 00:34:02.750 and the second from these informational

NOTE Confidence: 0.86134666

00:34:02.750 --> 00:34:05.630 sessions is never go after a plastic

NOTE Confidence: 0.86134666

00:34:05.630 --> 00:34:07.970 surgeon or radiation oncologist 'cause

NOTE Confidence: 0.86134666

00:34:07.970 --> 00:34:10.638 their pictures are always much cooler

NOTE Confidence: 0.86134666

00:34:10.638 --> 00:34:12.608 than the medical oncology pictures.

NOTE Confidence: 0.86134666

00:34:12.610 --> 00:34:14.830 So I apologize that the photos

NOTE Confidence: 0.86134666

00:34:14.830 --> 00:34:17.160 may not be overly inspiring.

NOTE Confidence: 0.86134666

00:34:17.160 --> 00:34:19.488 But the information is certainly yes,

NOTE Confidence: 0.86134666

00:34:19.490 --> 00:34:22.954 so we're going to talk about the medical

NOTE Confidence: 0.86134666

00:34:22.954 --> 00:34:24.901 oncologists perspective to what's new

NOTE Confidence: 0.86134666

00:34:24.901 --> 00:34:27.267 in breast cancer over the last year.

NOTE Confidence: 0.86134666

00:34:27.270 --> 00:34:29.622 And we're just going to touch on

NOTE Confidence: 0.86134666

00:34:29.622 --> 00:34:32.393 three topics that will cover how are

NOTE Confidence: 0.86134666

00:34:32.393 --> 00:34:34.085 we improving preventing recurrence

NOTE Confidence: 0.86134666

00:34:34.085 --> 00:34:36.193 of breast cancer after tumors

NOTE Confidence: 0.86134666

00:34:36.193 --> 00:34:38.168 been removed from a breast?

NOTE Confidence: 0.86134666

00:34:38.170 --> 00:34:38.948 And specifically,

NOTE Confidence: 0.86134666

00:34:38.948 --> 00:34:42.060 we're going to talk about a drug abemaciclib,

NOTE Confidence: 0.86134666

00:34:42.060 --> 00:34:44.965 which is recently been demonstrated to have

NOTE Confidence: 0.86134666

00:34:44.965 --> 00:34:47.577 a significant impact in reducing risk of.

NOTE Confidence: 0.86134666

00:34:47.580 --> 00:34:49.420 Estrogen dependent breast cancer recurrence.

NOTE Confidence: 0.86134666

00:34:49.420 --> 00:34:51.821 We're going to talk about a tool

NOTE Confidence: 0.86134666

00:34:51.821 --> 00:34:53.820 called the breast cancer index,

NOTE Confidence: 0.86134666

00:34:53.820 --> 00:34:56.106 which is helping us make decisions

NOTE Confidence: 0.86134666

00:34:56.106 --> 00:34:58.742 about what's the best duration of anti

NOTE Confidence: 0.86134666

00:34:58.742 --> 00:35:01.598 estrogen therapy 5 or 10 years and we're

NOTE Confidence: 0.86134666

00:35:01.598 --> 00:35:04.097 going to talk about a newcomer drug,

NOTE Confidence: 0.86134666

00:35:04.100 --> 00:35:05.884 sassy to some app,

NOTE Confidence: 0.86134666

00:35:05.884 --> 00:35:08.114 which recently was FDA approved.

NOTE Confidence: 0.86134666

00:35:08.120 --> 00:35:10.888 To treat women with breast cancer that is,

NOTE Confidence: 0.86134666

00:35:10.890 --> 00:35:13.305 come back or spread a specific subtype.

NOTE Confidence: 0.86134666

00:35:13.310 --> 00:35:14.694 Triple negative breast cancer,
NOTE Confidence: 0.86134666

00:35:14.694 --> 00:35:15.386 but one.
NOTE Confidence: 0.86134666

00:35:15.390 --> 00:35:16.377 We're very excited.
NOTE Confidence: 0.86134666

00:35:16.377 --> 00:35:18.680 May be applicable to the whole spectrum
NOTE Confidence: 0.86134666

00:35:18.742 --> 00:35:20.920 of women with metastatic breast cancer,
NOTE Confidence: 0.86134666

00:35:20.920 --> 00:35:22.996 and as we touch on each
NOTE Confidence: 0.86134666

00:35:22.996 --> 00:35:24.380 of these three topics,
NOTE Confidence: 0.86134666

00:35:24.380 --> 00:35:27.054 we'll also highlight how we're trying to
NOTE Confidence: 0.86134666

00:35:27.054 --> 00:35:29.708 answer the next generation of questions
NOTE Confidence: 0.86134666

00:35:29.708 --> 00:35:32.098 at Yale through clinical trials.
NOTE Confidence: 0.86134666

00:35:32.100 --> 00:35:33.950 So first some nomenclature things,
NOTE Confidence: 0.86134666

00:35:33.950 --> 00:35:34.716 your definitions,
NOTE Confidence: 0.86134666

00:35:34.716 --> 00:35:37.397 things your breast team may be saying
NOTE Confidence: 0.86134666

00:35:37.397 --> 00:35:40.219 that may sound sort of familiar by choice.
NOTE Confidence: 0.86134666

00:35:40.220 --> 00:35:41.540 Wonder what they meant.
NOTE Confidence: 0.86134666

00:35:41.540 --> 00:35:44.649 So when we use the term ajibon therapy,

NOTE Confidence: 0.86134666

00:35:44.650 --> 00:35:46.580 we're really talking about treatments

NOTE Confidence: 0.86134666

00:35:46.580 --> 00:35:49.270 that are given after a primary tumor

NOTE Confidence: 0.86134666

00:35:49.270 --> 00:35:51.699 is removed from the breast with the

NOTE Confidence: 0.86134666

00:35:51.699 --> 00:35:53.556 goal of preventing recurrence in

NOTE Confidence: 0.86134666

00:35:53.556 --> 00:35:56.052 both the breast in a distant site.

NOTE Confidence: 0.86134666

00:35:56.052 --> 00:35:58.376 So very much like after you might

NOTE Confidence: 0.86134666

00:35:58.376 --> 00:36:00.877 pluck a dandelion from your yard.

NOTE Confidence: 0.86134666

00:36:00.880 --> 00:36:02.428 If you don't like.

NOTE Confidence: 0.86134666

00:36:02.428 --> 00:36:04.363 Dandelions and don't want any

NOTE Confidence: 0.86134666

00:36:04.363 --> 00:36:06.497 to crop up anywhere else.

NOTE Confidence: 0.86134666

00:36:06.500 --> 00:36:08.520 You may apply dandelion control

NOTE Confidence: 0.86134666

00:36:08.520 --> 00:36:10.136 to the entire lawn,

NOTE Confidence: 0.86134666

00:36:10.140 --> 00:36:12.926 not just for the Dandelion was that's

NOTE Confidence: 0.86134666

00:36:12.926 --> 00:36:15.003 the idea behind agement therapy

NOTE Confidence: 0.86134666

00:36:15.003 --> 00:36:17.810 and that can come in many forms.

NOTE Confidence: 0.86134666

00:36:17.810 --> 00:36:18.311 Chemotherapy,
NOTE Confidence: 0.86134666

00:36:18.311 --> 00:36:20.816 anti estrogen treatments or increasingly
NOTE Confidence: 0.86134666

00:36:20.816 --> 00:36:23.788 targeted therapies and when we get to
NOTE Confidence: 0.86134666

00:36:23.788 --> 00:36:25.881 talk about abama cycling been a second.
NOTE Confidence: 0.86134666

00:36:25.890 --> 00:36:28.320 That is a relatively new pathway.
NOTE Confidence: 0.86134666

00:36:28.320 --> 00:36:30.930 Acd K46 Pathway which we'll delve
NOTE Confidence: 0.86134666

00:36:30.930 --> 00:36:33.834 into in a moment. Add more and more.
NOTE Confidence: 0.86134666

00:36:33.834 --> 00:36:35.580 Now we are doing what's called
NOTE Confidence: 0.86134666

00:36:35.641 --> 00:36:36.829 neoadjuvant therapy,
NOTE Confidence: 0.86134666

00:36:36.830 --> 00:36:38.565 and that's treatment which is
NOTE Confidence: 0.86134666

00:36:38.565 --> 00:36:39.953 actually given before surgery.
NOTE Confidence: 0.86134666

00:36:39.960 --> 00:36:42.036 So even before you have your
NOTE Confidence: 0.86134666

00:36:42.036 --> 00:36:43.074 breast tumor removed,
NOTE Confidence: 0.86134666

00:36:43.080 --> 00:36:45.132 treatments that go all through the
NOTE Confidence: 0.86134666

00:36:45.132 --> 00:36:47.239 body that both shrink the cancer,
NOTE Confidence: 0.86134666

00:36:47.240 --> 00:36:49.460 and more importantly.

NOTE Confidence: 0.86134666

00:36:49.460 --> 00:36:52.004 Eliminate if there were any any

NOTE Confidence: 0.86134666

00:36:52.004 --> 00:36:54.600 microscopic deposits of cancer in the body.

NOTE Confidence: 0.86134666

00:36:54.600 --> 00:36:56.480 And while we're not specifically

NOTE Confidence: 0.86134666

00:36:56.480 --> 00:36:58.360 going to talk about it

NOTE Confidence: 0.8796453

00:36:58.430 --> 00:37:01.170 in my presentation, be delighted to talk

NOTE Confidence: 0.8796453

00:37:01.170 --> 00:37:03.330 about some exciting innovations in anti

NOTE Confidence: 0.8796453

00:37:03.399 --> 00:37:05.444 estrogen therapy given before surgery

NOTE Confidence: 0.8796453

00:37:05.444 --> 00:37:08.030 or immune therapy given before surgery.

NOTE Confidence: 0.86875397

00:37:11.170 --> 00:37:13.792 I'll just version of the really

NOTE Confidence: 0.86875397

00:37:13.792 --> 00:37:16.257 cool before and after reconstruction

NOTE Confidence: 0.86875397

00:37:16.257 --> 00:37:19.417 picture or the radiation count.

NOTE Confidence: 0.86875397

00:37:19.420 --> 00:37:22.188 Quite live up to this the same level,

NOTE Confidence: 0.86875397

00:37:22.190 --> 00:37:25.190 but this is a cartoon of the cell cycle so

NOTE Confidence: 0.86875397

00:37:25.269 --> 00:37:28.413 when a cell divides including a cancer cell,

NOTE Confidence: 0.86875397

00:37:28.420 --> 00:37:32.260 it does so in an orderly process and you can

NOTE Confidence: 0.86875397

00:37:32.350 --> 00:37:36.274 think of it kind of like a circular assembly.
NOTE Confidence: 0.86875397

00:37:36.280 --> 00:37:39.920 Sembly line there are assembly line workers.
NOTE Confidence: 0.86875397

00:37:39.920 --> 00:37:42.920 Who sit at certain checkpoints and they can
NOTE Confidence: 0.86875397

00:37:42.920 --> 00:37:46.346 halt the assembly line if there is a problem.
NOTE Confidence: 0.86875397

00:37:46.350 --> 00:37:48.606 Now when you look at this,
NOTE Confidence: 0.86875397

00:37:48.610 --> 00:37:50.500 cut out the yellow box.
NOTE Confidence: 0.86875397

00:37:50.500 --> 00:37:53.506 This is a small window into a phase of
NOTE Confidence: 0.86875397

00:37:53.506 --> 00:37:56.599 the cell cycle where a cell is just
NOTE Confidence: 0.86875397

00:37:56.599 --> 00:37:59.580 getting ready to replicate all its DNA,
NOTE Confidence: 0.86875397

00:37:59.580 --> 00:38:01.722 and there's a lot going on
NOTE Confidence: 0.86875397

00:38:01.722 --> 00:38:04.109 in the cell at that time.
NOTE Confidence: 0.86875397

00:38:04.110 --> 00:38:06.609 So sort of in the middle you
NOTE Confidence: 0.86875397

00:38:06.609 --> 00:38:08.578 see that estrogen diffuses into
NOTE Confidence: 0.86875397

00:38:08.578 --> 00:38:10.628 cells and binds to its.
NOTE Confidence: 0.86875397

00:38:10.630 --> 00:38:11.534 Estrogen receptor,
NOTE Confidence: 0.86875397

00:38:11.534 --> 00:38:14.246 called the ER an that complex

NOTE Confidence: 0.86875397

00:38:14.246 --> 00:38:17.130 can go across the dotted line,

NOTE Confidence: 0.86875397

00:38:17.130 --> 00:38:20.364 which is the border of the nucleus.

NOTE Confidence: 0.86875397

00:38:20.370 --> 00:38:24.303 Bind to DNA and cause changes in genes that

NOTE Confidence: 0.86875397

00:38:24.303 --> 00:38:28.028 move the cell along towards replication.

NOTE Confidence: 0.86875397

00:38:28.030 --> 00:38:30.774 And so for a long time we've been

NOTE Confidence: 0.86875397

00:38:30.774 --> 00:38:33.016 using anti estrogen treatments to

NOTE Confidence: 0.86875397

00:38:33.016 --> 00:38:35.962 block this critical pathway in the

NOTE Confidence: 0.86875397

00:38:35.962 --> 00:38:38.960 cells going through their cell cycle.

NOTE Confidence: 0.86875397

00:38:38.960 --> 00:38:41.474 But there's a parallel pathway that

NOTE Confidence: 0.86875397

00:38:41.474 --> 00:38:43.760 involves these cycling and kinases,

NOTE Confidence: 0.86875397

00:38:43.760 --> 00:38:45.137 particularly CD K46,

NOTE Confidence: 0.86875397

00:38:45.137 --> 00:38:47.891 which is also critical in moving

NOTE Confidence: 0.86875397

00:38:47.891 --> 00:38:50.890 a cell into through this G1 phase

NOTE Confidence: 0.86875397

00:38:50.890 --> 00:38:53.886 of the cell cycle to where it's

NOTE Confidence: 0.86875397

00:38:53.886 --> 00:38:56.011 getting ready to replicate DNA

NOTE Confidence: 0.86875397

00:38:56.011 --> 00:38:58.670 and in exactly analogous manner 2.
NOTE Confidence: 0.86875397

00:38:58.670 --> 00:39:01.370 For a really bad bacterial infection,
NOTE Confidence: 0.86875397

00:39:01.370 --> 00:39:03.455 we may use two antibiotics
NOTE Confidence: 0.86875397

00:39:03.455 --> 00:39:05.540 to treat the same infection,
NOTE Confidence: 0.86875397

00:39:05.540 --> 00:39:07.982 or for HIV were using multiple
NOTE Confidence: 0.86875397

00:39:07.982 --> 00:39:10.589 antiviral drugs to halt the replication
NOTE Confidence: 0.86875397

00:39:10.589 --> 00:39:13.301 of HIV cancers no different than
NOTE Confidence: 0.86875397

00:39:13.301 --> 00:39:16.162 the concept that if you attack two
NOTE Confidence: 0.86875397

00:39:16.162 --> 00:39:18.466 growth pathways at the same time,
NOTE Confidence: 0.86875397

00:39:18.466 --> 00:39:20.546 you may have better results,
NOTE Confidence: 0.86875397

00:39:20.550 --> 00:39:23.094 has been a successful strategy in
NOTE Confidence: 0.86875397

00:39:23.094 --> 00:39:26.090 treating breast cancer so we can inhibit
NOTE Confidence: 0.86875397

00:39:26.090 --> 00:39:28.953 this cyclin dependent kinase 46 and block.
NOTE Confidence: 0.86875397

00:39:28.960 --> 00:39:31.410 Two pathways important in the cell cycle
NOTE Confidence: 0.86875397

00:39:31.410 --> 00:39:34.342 and that has proven to be remarkably
NOTE Confidence: 0.86875397

00:39:34.342 --> 00:39:36.612 effective in metastatic breast cancer.

NOTE Confidence: 0.86875397

00:39:36.620 --> 00:39:38.535 Breast cancer that has come

NOTE Confidence: 0.86875397

00:39:38.535 --> 00:39:41.050 back and spread to other places,

NOTE Confidence: 0.86875397

00:39:41.050 --> 00:39:43.468 doubling the amount of time that.

NOTE Confidence: 0.8612645

00:39:45.690 --> 00:39:47.530 Successful treatment with anti

NOTE Confidence: 0.8612645

00:39:47.530 --> 00:39:49.830 estrogen therapy last and among

NOTE Confidence: 0.8612645

00:39:49.830 --> 00:39:52.379 the really good things we're doing

NOTE Confidence: 0.8612645

00:39:52.379 --> 00:39:54.680 when we are inhibiting this CD.

NOTE Confidence: 0.8612645

00:39:54.680 --> 00:39:57.669 46 pathway along with the estrogen pathway.

NOTE Confidence: 0.8612645

00:39:57.670 --> 00:40:00.328 As we're causing a process called.

NOTE Confidence: 0.8612645

00:40:00.330 --> 00:40:03.195 Cellular senescence, a senescence is

NOTE Confidence: 0.8612645

00:40:03.195 --> 00:40:07.477 just the definition of a term where

NOTE Confidence: 0.8612645

00:40:07.477 --> 00:40:10.767 cells have outlived their replicative.

NOTE Confidence: 0.8612645

00:40:10.770 --> 00:40:13.128 Cannot divide anymore and when cells

NOTE Confidence: 0.8612645

00:40:13.128 --> 00:40:16.226 reach that point they do a lot of things

NOTE Confidence: 0.8612645

00:40:16.226 --> 00:40:18.839 that are really good for treating cancer.

NOTE Confidence: 0.8612645

00:40:18.840 --> 00:40:20.665 They release substances that turn
NOTE Confidence: 0.8612645

00:40:20.665 --> 00:40:23.279 on the immune system and help the
NOTE Confidence: 0.8612645

00:40:23.279 --> 00:40:25.079 immune system react to cancers.
NOTE Confidence: 0.8612645

00:40:25.080 --> 00:40:27.726 They also cause remodeling of the
NOTE Confidence: 0.8612645

00:40:27.726 --> 00:40:29.490 vasculature around tumors and
NOTE Confidence: 0.8612645

00:40:29.567 --> 00:40:31.877 help your own body fight cancers.
NOTE Confidence: 0.8612645

00:40:31.880 --> 00:40:35.360 So more to the point.
NOTE Confidence: 0.8612645

00:40:35.360 --> 00:40:37.525 At this year's European Society
NOTE Confidence: 0.8612645

00:40:37.525 --> 00:40:39.690 of medical oncology meeting big
NOTE Confidence: 0.8612645

00:40:39.762 --> 00:40:42.097 do meeting for medical Oncologist,
NOTE Confidence: 0.8612645

00:40:42.100 --> 00:40:44.340 this monarchy trial was presented.
NOTE Confidence: 0.8612645

00:40:44.340 --> 00:40:46.908 Really big study involved about 5600
NOTE Confidence: 0.8612645

00:40:46.908 --> 00:40:50.180 women who had high risk breast cancer.
NOTE Confidence: 0.8612645

00:40:50.180 --> 00:40:53.295 These are women who had four or
NOTE Confidence: 0.8612645

00:40:53.295 --> 00:40:55.976 more involved armpit lymph nodes or
NOTE Confidence: 0.8612645

00:40:55.976 --> 00:40:58.909 they could have one to three lymph

NOTE Confidence: 0.8612645

00:40:59.002 --> 00:41:01.397 nodes and really big tumors.

NOTE Confidence: 0.8612645

00:41:01.400 --> 00:41:03.878 These are women who were really

NOTE Confidence: 0.8612645

00:41:03.878 --> 00:41:06.440 concerned about risk of recurrence.

NOTE Confidence: 0.8612645

00:41:06.440 --> 00:41:08.715 Despite optimal local therapy and

NOTE Confidence: 0.8612645

00:41:08.715 --> 00:41:11.571 they were assigned the Standard anti

NOTE Confidence: 0.8612645

00:41:11.571 --> 00:41:14.126 estrogen therapy at their oncologist

NOTE Confidence: 0.8612645

00:41:14.126 --> 00:41:16.170 discretion or standard therapy.

NOTE Confidence: 0.8612645

00:41:16.170 --> 00:41:16.706 Chemists,

NOTE Confidence: 0.8612645

00:41:16.706 --> 00:41:21.530 I clip in a CD for CK46 inhibitor and

NOTE Confidence: 0.8612645

00:41:21.650 --> 00:41:25.759 their results are shown here in the.

NOTE Confidence: 0.8612645

00:41:25.760 --> 00:41:29.168 Or just the one below is magnified and

NOTE Confidence: 0.8612645

00:41:29.168 --> 00:41:31.459 this roughly 3% difference in cancer

NOTE Confidence: 0.8612645

00:41:31.459 --> 00:41:34.800 coming back at a site outside the breast,

NOTE Confidence: 0.8612645

00:41:34.800 --> 00:41:36.860 so lungs liver bones elsewhere,

NOTE Confidence: 0.8612645

00:41:36.860 --> 00:41:40.559 the kind that we are not able to cure.

NOTE Confidence: 0.8612645

00:41:40.560 --> 00:41:43.620 While this might not seem like a lot to
NOTE Confidence: 0.8612645

00:41:43.620 --> 00:41:47.127 the average person looking at these curves,
NOTE Confidence: 0.8612645

00:41:47.130 --> 00:41:49.596 this is a big big deal.
NOTE Confidence: 0.8612645

00:41:49.600 --> 00:41:52.060 The medical Oncologist is a 25%
NOTE Confidence: 0.8612645

00:41:52.060 --> 00:41:54.180 relative improvement in cure rate
NOTE Confidence: 0.8612645

00:41:54.180 --> 00:41:57.089 that we're seeing in only two years.
NOTE Confidence: 0.8612645

00:41:57.090 --> 00:41:59.533 And we anticipate that this is only
NOTE Confidence: 0.8612645

00:41:59.533 --> 00:42:02.617 going to get better as more years go by.
NOTE Confidence: 0.8612645

00:42:02.620 --> 00:42:06.030 And it is true that.
NOTE Confidence: 0.8612645

00:42:06.030 --> 00:42:06.698 Because overall,
NOTE Confidence: 0.8612645

00:42:06.698 --> 00:42:09.036 the outcome with breast cancer is good.
NOTE Confidence: 0.8612645

00:42:09.040 --> 00:42:11.794 You still need to treat a lot of women
NOTE Confidence: 0.8612645

00:42:11.794 --> 00:42:14.375 with this medicine to save one life.
NOTE Confidence: 0.8612645

00:42:14.380 --> 00:42:16.384 About 60 people with this medicine
NOTE Confidence: 0.8612645

00:42:16.384 --> 00:42:19.060 and all right. That seems like a lot.
NOTE Confidence: 0.8612645

00:42:19.060 --> 00:42:21.293 But when you think about what are

NOTE Confidence: 0.8612645

00:42:21.293 --> 00:42:23.398 the side effects of this medicine,

NOTE Confidence: 0.8612645

00:42:23.400 --> 00:42:25.398 it was actually quite well tolerated.

NOTE Confidence: 0.8612645

00:42:25.400 --> 00:42:27.404 There was some diarrhea which a

NOTE Confidence: 0.8612645

00:42:27.404 --> 00:42:29.436 curd in about 80% of people.

NOTE Confidence: 0.8612645

00:42:29.436 --> 00:42:31.524 So if you have a problem

NOTE Confidence: 0.8612645

00:42:31.524 --> 00:42:32.750 with Constipation of MSI,

NOTE Confidence: 0.8612645

00:42:32.750 --> 00:42:36.269 clip is the medicine that you want to take.

NOTE Confidence: 0.8612645

00:42:36.270 --> 00:42:38.556 There was some fatigue in about

NOTE Confidence: 0.8612645

00:42:38.556 --> 00:42:39.699 1/3 of people,

NOTE Confidence: 0.8612645

00:42:39.700 --> 00:42:42.748 but rarely was that very severe and similar.

NOTE Confidence: 0.8612645

00:42:42.750 --> 00:42:44.270 There's some GI upset,

NOTE Confidence: 0.8612645

00:42:44.270 --> 00:42:45.030 but overall,

NOTE Confidence: 0.8612645

00:42:45.030 --> 00:42:47.316 in terms of serious or life

NOTE Confidence: 0.8612645

00:42:47.316 --> 00:42:48.459 threatening side effects,

NOTE Confidence: 0.8612645

00:42:48.460 --> 00:42:50.800 they really were not so this

NOTE Confidence: 0.8612645

00:42:50.800 --> 00:42:53.030 is going to become a very,
NOTE Confidence: 0.8612645

00:42:53.030 --> 00:42:55.592 very valuable addition for the treatment of
NOTE Confidence: 0.8612645

00:42:55.592 --> 00:42:58.368 women with high risk of cancer recurrence.
NOTE Confidence: 0.8612645

00:42:58.370 --> 00:43:00.600 Overnight became what I would
NOTE Confidence: 0.8612645

00:43:00.600 --> 00:43:02.830 consider the standard of care.
NOTE Confidence: 0.8612645

00:43:02.830 --> 00:43:04.942 And what we're doing at Yale as we
NOTE Confidence: 0.8612645

00:43:04.942 --> 00:43:06.774 are still we're participating in
NOTE Confidence: 0.8612645

00:43:06.774 --> 00:43:08.839 another trial that's looking at,
NOTE Confidence: 0.8612645

00:43:08.840 --> 00:43:10.989 is the same strategy going to be
NOTE Confidence: 0.8612645

00:43:10.989 --> 00:43:12.727 effective in women with lower
NOTE Confidence: 0.8612645

00:43:12.727 --> 00:43:13.849 risk breast cancers?
NOTE Confidence: 0.8820303

00:43:13.850 --> 00:43:16.146 So we saw from the monarchy trial
NOTE Confidence: 0.8820303

00:43:16.146 --> 00:43:18.198 that you need to treat roughly
NOTE Confidence: 0.8820303

00:43:18.198 --> 00:43:20.196 60 women to save one life,
NOTE Confidence: 0.8820303

00:43:20.200 --> 00:43:23.044 and if we look at a lower risk population
NOTE Confidence: 0.8820303

00:43:23.044 --> 00:43:25.878 is probably going to be more than 60.

NOTE Confidence: 0.8820303

00:43:25.880 --> 00:43:28.465 How much more than 60? We're not sure.

NOTE Confidence: 0.8820303

00:43:28.465 --> 00:43:30.295 Will it even be a statistically

NOTE Confidence: 0.8820303

00:43:30.295 --> 00:43:31.220 significant difference?

NOTE Confidence: 0.8820303

00:43:31.220 --> 00:43:33.649 We're not sure, but it's a critically.

NOTE Confidence: 0.8820303

00:43:33.650 --> 00:43:36.499 Important question for us to answer and

NOTE Confidence: 0.8820303

00:43:36.499 --> 00:43:39.247 available at all of our care centers.

NOTE Confidence: 0.8424452

00:43:41.650 --> 00:43:43.946 So we're going to leave the world

NOTE Confidence: 0.8424452

00:43:43.946 --> 00:43:46.214 of agg event hormone therapy behind

NOTE Confidence: 0.8424452

00:43:46.214 --> 00:43:48.638 for a moment to think about.

NOTE Confidence: 0.8424452

00:43:48.640 --> 00:43:51.048 Alright, we made a decision what the

NOTE Confidence: 0.8424452

00:43:51.048 --> 00:43:53.429 what your anti estrogen should be.

NOTE Confidence: 0.8424452

00:43:53.430 --> 00:43:55.999 If you have extra independent breast cancer,

NOTE Confidence: 0.8424452

00:43:56.000 --> 00:43:58.640 how long do you need to take these

NOTE Confidence: 0.8424452

00:43:58.640 --> 00:44:00.937 pills and in terms of politically

NOTE Confidence: 0.8424452

00:44:00.937 --> 00:44:03.730 moving the goal posts as you will,

NOTE Confidence: 0.8424452

00:44:03.730 --> 00:44:06.299 this is something with the goalpost have

NOTE Confidence: 0.8424452

00:44:06.299 --> 00:44:08.879 moved over the last couple of years.

NOTE Confidence: 0.8424452

00:44:08.880 --> 00:44:09.646 For decades.

NOTE Confidence: 0.8424452

00:44:09.646 --> 00:44:11.178 The standard duration of

NOTE Confidence: 0.8424452

00:44:11.178 --> 00:44:12.327 anti estrogen treatment.

NOTE Confidence: 0.8424452

00:44:12.330 --> 00:44:14.526 Was five years and then done

NOTE Confidence: 0.8424452

00:44:14.526 --> 00:44:16.540 but round about 10 years.

NOTE Confidence: 0.8424452

00:44:16.540 --> 00:44:19.412 We developed a new class of anti estrogen

NOTE Confidence: 0.8424452

00:44:19.412 --> 00:44:21.354 medicines that work via different

NOTE Confidence: 0.8424452

00:44:21.354 --> 00:44:23.664 mechanism and as we integrated those

NOTE Confidence: 0.8424452

00:44:23.664 --> 00:44:25.678 into common treatment many women

NOTE Confidence: 0.8424452

00:44:25.678 --> 00:44:28.024 had already been on tamoxifen for

NOTE Confidence: 0.8424452

00:44:28.030 --> 00:44:30.950 three years or five years and so was

NOTE Confidence: 0.8424452

00:44:30.950 --> 00:44:33.779 natural that the clinical trial said OK,

NOTE Confidence: 0.8424452

00:44:33.780 --> 00:44:36.230 you can add this medicine and we're

NOTE Confidence: 0.8424452

00:44:36.230 --> 00:44:39.518 going to do it for five additional years.

NOTE Confidence: 0.8424452

00:44:39.520 --> 00:44:42.082 In addition to the first three

NOTE Confidence: 0.8424452

00:44:42.082 --> 00:44:44.120 years of tamoxifen ya at.

NOTE Confidence: 0.8424452

00:44:44.120 --> 00:44:46.920 And that led to the natural question.

NOTE Confidence: 0.8424452

00:44:46.920 --> 00:44:49.320 Well, what if you started with

NOTE Confidence: 0.8424452

00:44:49.320 --> 00:44:50.920 Arimidex Femara or aromasin?

NOTE Confidence: 0.8424452

00:44:50.920 --> 00:44:52.520 These Roman taste inhibitors

NOTE Confidence: 0.8424452

00:44:52.520 --> 00:44:54.120 and got five years.

NOTE Confidence: 0.8424452

00:44:54.120 --> 00:44:56.520 Would adding another five years be

NOTE Confidence: 0.8424452

00:44:56.520 --> 00:44:58.120 beneficial and somewhat surprisingly,

NOTE Confidence: 0.8424452

00:44:58.120 --> 00:45:00.466 in 2020 we still don't really

NOTE Confidence: 0.8424452

00:45:00.466 --> 00:45:02.520 know the answer to this.

NOTE Confidence: 0.8424452

00:45:02.520 --> 00:45:04.520 For sure, the is longer,

NOTE Confidence: 0.8424452

00:45:04.520 --> 00:45:05.320 better question,

NOTE Confidence: 0.8424452

00:45:05.320 --> 00:45:07.320 at least for tamoxifen alone.

NOTE Confidence: 0.8424452

00:45:07.320 --> 00:45:10.120 This seems to be the case that

NOTE Confidence: 0.8424452

00:45:10.120 --> 00:45:11.320 longer is better.
NOTE Confidence: 0.8424452

00:45:11.320 --> 00:45:13.625 10 years improves cure rate
NOTE Confidence: 0.8424452

00:45:13.625 --> 00:45:15.008 compared with five.
NOTE Confidence: 0.8424452

00:45:15.010 --> 00:45:16.936 But for women who are starting
NOTE Confidence: 0.8424452

00:45:16.936 --> 00:45:17.899 with aromatase inhibitors,
NOTE Confidence: 0.8424452

00:45:17.900 --> 00:45:20.460 we just don't know and we're still taking
NOTE Confidence: 0.8424452

00:45:20.460 --> 00:45:23.037 a kind of 1 size fits all approach.
NOTE Confidence: 0.8424452

00:45:23.040 --> 00:45:24.480 So this next slide,
NOTE Confidence: 0.8424452

00:45:24.480 --> 00:45:28.370 which no one is going to be able to decipher.
NOTE Confidence: 0.8424452

00:45:28.370 --> 00:45:30.826 Just gives you a sense of the confusion
NOTE Confidence: 0.8424452

00:45:30.826 --> 00:45:33.267 that medical oncologists are confronted by.
NOTE Confidence: 0.8424452

00:45:33.270 --> 00:45:36.070 These are 10 trials in the left column,
NOTE Confidence: 0.8424452

00:45:36.070 --> 00:45:38.242 10 different trials looking at the
NOTE Confidence: 0.8424452

00:45:38.242 --> 00:45:40.097 optimal duration of anti estrogen
NOTE Confidence: 0.8424452

00:45:40.097 --> 00:45:42.498 therapy and the red box are people
NOTE Confidence: 0.8424452

00:45:42.498 --> 00:45:44.578 who received tamoxifen for the first

NOTE Confidence: 0.8424452

00:45:44.578 --> 00:45:46.889 five years and then going over to

NOTE Confidence: 0.8424452

00:45:46.889 --> 00:45:48.803 the right or what they received

NOTE Confidence: 0.8424452

00:45:48.803 --> 00:45:51.338 from the next five was that Aromat

NOTE Confidence: 0.8424452

00:45:51.338 --> 00:45:53.228 ACE inhibitor was another five

NOTE Confidence: 0.8424452

00:45:53.228 --> 00:45:55.709 years of tamoxifen and all of these

NOTE Confidence: 0.8424452

00:45:55.709 --> 00:45:58.198 studies when you look at the two

NOTE Confidence: 0.8424452

00:45:58.198 --> 00:46:00.078 columns over on the right.

NOTE Confidence: 0.8424452

00:46:00.080 --> 00:46:01.800 One is disease free survival.

NOTE Confidence: 0.8424452

00:46:01.800 --> 00:46:03.168 That's just the statistic

NOTE Confidence: 0.8424452

00:46:03.168 --> 00:46:04.878 for did cancer come back,

NOTE Confidence: 0.8424452

00:46:04.880 --> 00:46:07.176 either in breast or distant site and

NOTE Confidence: 0.8424452

00:46:07.176 --> 00:46:09.679 the next column is the critical column.

NOTE Confidence: 0.8424452

00:46:09.680 --> 00:46:11.268 That's the overall survival.

NOTE Confidence: 0.8424452

00:46:11.268 --> 00:46:13.650 Was there a difference in overall

NOTE Confidence: 0.8424452

00:46:13.716 --> 00:46:15.792 survival if you got extra anti

NOTE Confidence: 0.8424452

00:46:15.792 --> 00:46:17.496 estrogen therapy or not and
NOTE Confidence: 0.8424452

00:46:17.496 --> 00:46:19.288 while no one is going to be,
NOTE Confidence: 0.8424452

00:46:19.290 --> 00:46:21.586 I don't expect to be able to
NOTE Confidence: 0.8424452

00:46:21.586 --> 00:46:23.060 decipher these individual trials.
NOTE Confidence: 0.8424452

00:46:23.060 --> 00:46:25.265 The general theme is when you look
NOTE Confidence: 0.8424452

00:46:25.265 --> 00:46:27.314 at that disease free survival column
NOTE Confidence: 0.8424452

00:46:27.314 --> 00:46:29.390 you see that all those numbers
NOTE Confidence: 0.8424452

00:46:29.390 --> 00:46:31.507 are consistently less than one.
NOTE Confidence: 0.8424452

00:46:31.510 --> 00:46:34.270 There all about .8 indicating there
NOTE Confidence: 0.8424452

00:46:34.270 --> 00:46:37.474 appeared to be about 20% less breast
NOTE Confidence: 0.8424452

00:46:37.474 --> 00:46:40.059 cancer recurrence or second breast
NOTE Confidence: 0.8424452

00:46:40.059 --> 00:46:43.554 cancers in women who get more anti
NOTE Confidence: 0.8424452

00:46:43.554 --> 00:46:45.879 estrogen therapy five more years.
NOTE Confidence: 0.8424452

00:46:45.880 --> 00:46:48.648 But when you look at the final column,
NOTE Confidence: 0.8424452

00:46:48.650 --> 00:46:51.418 all of those numbers hover just around one,
NOTE Confidence: 0.8594637

00:46:51.420 --> 00:46:53.376 meaning it's not clear if we're

NOTE Confidence: 0.8594637

00:46:53.376 --> 00:46:55.106 saving lives or potentially simply

NOTE Confidence: 0.8594637

00:46:55.106 --> 00:46:56.946 delaying recurrence a little bit.

NOTE Confidence: 0.8594637

00:46:56.950 --> 00:46:58.680 And the medical oncologist response

NOTE Confidence: 0.8594637

00:46:58.680 --> 00:47:00.756 to all this has been, well,

NOTE Confidence: 0.8594637

00:47:00.756 --> 00:47:02.486 we're still not entirely sure,

NOTE Confidence: 0.8594637

00:47:02.490 --> 00:47:04.849 so for women who either have high

NOTE Confidence: 0.8594637

00:47:04.849 --> 00:47:07.224 risk breast cancer or women who are

NOTE Confidence: 0.8594637

00:47:07.224 --> 00:47:09.168 doing really well with their anti

NOTE Confidence: 0.8594637

00:47:09.237 --> 00:47:11.415 estrogen therapy with no side effects

NOTE Confidence: 0.8594637

00:47:11.415 --> 00:47:13.905 will keep it going for 10 years.

NOTE Confidence: 0.8594637

00:47:13.905 --> 00:47:17.129 And wouldn't it be nice if we had some?

NOTE Confidence: 0.8594637

00:47:17.130 --> 00:47:20.978 Test which could help us in this decision.

NOTE Confidence: 0.8594637

00:47:20.980 --> 00:47:23.212 And that's where we get to

NOTE Confidence: 0.8594637

00:47:23.212 --> 00:47:25.140 this breast cancer index test.

NOTE Confidence: 0.8594637

00:47:25.140 --> 00:47:27.732 And I'm going to pinch out if I

NOTE Confidence: 0.8594637

00:47:27.732 --> 00:47:30.428 can to try and highlight this.
NOTE Confidence: 0.8594637

00:47:30.430 --> 00:47:33.390 The breast cancer index is a test that's
NOTE Confidence: 0.8594637

00:47:33.390 --> 00:47:36.100 a little bit like the Oncotype DX,
NOTE Confidence: 0.8594637

00:47:36.100 --> 00:47:38.668 and some who are listening in may have
NOTE Confidence: 0.8594637

00:47:38.668 --> 00:47:41.388 had it Oncotype DX tests performed.
NOTE Confidence: 0.8594637

00:47:41.390 --> 00:47:43.896 The breast cancer index looks at the
NOTE Confidence: 0.8594637

00:47:43.896 --> 00:47:46.604 gene expression of five genes inside the
NOTE Confidence: 0.8594637

00:47:46.604 --> 00:47:48.950 cancer cells of the individual person,
NOTE Confidence: 0.8594637

00:47:48.950 --> 00:47:52.070 so this is not looking at statistics from.
NOTE Confidence: 0.8594637

00:47:52.070 --> 00:47:54.774 10,000 women this is looking at your cancer.
NOTE Confidence: 0.8594637

00:47:54.780 --> 00:47:55.183 Individually,
NOTE Confidence: 0.8594637

00:47:55.183 --> 00:47:57.601 Anna relates this level of gene
NOTE Confidence: 0.8594637

00:47:57.601 --> 00:48:00.252 expression to either a low risk or high
NOTE Confidence: 0.8594637

00:48:00.252 --> 00:48:02.240 risk of cancer coming back in lungs.
NOTE Confidence: 0.8594637

00:48:02.240 --> 00:48:04.606 Liver bones over the next five years,
NOTE Confidence: 0.8594637

00:48:04.610 --> 00:48:05.630 five through 10.

NOTE Confidence: 0.8594637

00:48:05.630 --> 00:48:06.310 So again,

NOTE Confidence: 0.8594637

00:48:06.310 --> 00:48:08.550 this is a test which is done

NOTE Confidence: 0.8594637

00:48:08.550 --> 00:48:10.379 right at the five year.

NOTE Confidence: 0.8594637

00:48:10.380 --> 00:48:13.204 If you will be a night old clubhouse

NOTE Confidence: 0.8594637

00:48:13.204 --> 00:48:15.799 turn and it can give us a sense.

NOTE Confidence: 0.8594637

00:48:15.800 --> 00:48:19.190 OK, what do we expect in the next five years?

NOTE Confidence: 0.8594637

00:48:19.190 --> 00:48:21.278 Do we expect that your breast

NOTE Confidence: 0.8594637

00:48:21.278 --> 00:48:22.322 cancer succeeded without?

NOTE Confidence: 0.8594637

00:48:22.330 --> 00:48:23.800 High risk of distant recurrence.

NOTE Confidence: 0.8594637

00:48:23.800 --> 00:48:25.912 Those five years or a low risk and

NOTE Confidence: 0.8594637

00:48:25.912 --> 00:48:27.779 manufacturers of the test have somewhat

NOTE Confidence: 0.8594637

00:48:27.779 --> 00:48:29.978 arbitrarily decided that while 5% or higher,

NOTE Confidence: 0.8594637

00:48:29.978 --> 00:48:32.036 they're going to high risk lower than

NOTE Confidence: 0.8594637

00:48:32.036 --> 00:48:34.834 5% going to risk one of the nice things

NOTE Confidence: 0.8594637

00:48:34.834 --> 00:48:37.398 about the report is you get to see it

NOTE Confidence: 0.8594637

00:48:37.398 --> 00:48:39.969 and you get to make up your own mind.

NOTE Confidence: 0.8594637

00:48:39.970 --> 00:48:40.822 What's high.

NOTE Confidence: 0.8594637

00:48:40.822 --> 00:48:42.526 Risk is low disk.

NOTE Confidence: 0.8594637

00:48:42.530 --> 00:48:43.952 But what's really

NOTE Confidence: 0.8594637

00:48:43.952 --> 00:48:45.848 extraordinary about the test?

NOTE Confidence: 0.8594637

00:48:45.850 --> 00:48:48.586 Is not only does it give us a

NOTE Confidence: 0.8594637

00:48:48.586 --> 00:48:50.033 prognostic assessment of what's

NOTE Confidence: 0.8594637

00:48:50.033 --> 00:48:52.097 the risk of cancer coming back,

NOTE Confidence: 0.8594637

00:48:52.100 --> 00:48:54.092 but it predicts will another five

NOTE Confidence: 0.8594637

00:48:54.092 --> 00:48:56.259 years of anti estrogen therapy help?

NOTE Confidence: 0.8594637

00:48:56.260 --> 00:48:58.647 And is the only test of its

NOTE Confidence: 0.8594637

00:48:58.647 --> 00:49:00.420 kind that can do that?

NOTE Confidence: 0.8594637

00:49:00.420 --> 00:49:02.744 So this is a typical report that

NOTE Confidence: 0.8594637

00:49:02.744 --> 00:49:04.988 you might get back that lists

NOTE Confidence: 0.8594637

00:49:04.988 --> 00:49:07.328 the prognostic part at the bottom

NOTE Confidence: 0.8594637

00:49:07.328 --> 00:49:09.612 that this would be a low risk

NOTE Confidence: 0.8594637

00:49:09.612 --> 00:49:11.871 woman with a 2.2% risk of distant

NOTE Confidence: 0.8594637

00:49:11.871 --> 00:49:13.953 recurrence in years five through 10,

NOTE Confidence: 0.8594637

00:49:13.960 --> 00:49:16.480 and then above that it gives the.

NOTE Confidence: 0.8594637

00:49:16.480 --> 00:49:17.344 Predicted result,

NOTE Confidence: 0.8594637

00:49:17.344 --> 00:49:20.368 would we predict that an additional five

NOTE Confidence: 0.8594637

00:49:20.368 --> 00:49:23.496 years would add a significant risk reduction?

NOTE Confidence: 0.8594637

00:49:23.500 --> 00:49:25.432 So this is a test which actually

NOTE Confidence: 0.8594637

00:49:25.432 --> 00:49:27.290 in a study at Yellowstone,

NOTE Confidence: 0.8594637

00:49:27.290 --> 00:49:29.313 shown to be very helpful not only

NOTE Confidence: 0.8594637

00:49:29.313 --> 00:49:31.371 to doctors but people living with

NOTE Confidence: 0.8594637

00:49:31.371 --> 00:49:33.615 cancer to help them make informed

NOTE Confidence: 0.8594637

00:49:33.615 --> 00:49:35.679 decisions about do I want to take

NOTE Confidence: 0.8594637

00:49:35.679 --> 00:49:37.136 another five years of treatment?

NOTE Confidence: 0.8594637

00:49:37.136 --> 00:49:39.698 But what's been missing is the bulk

NOTE Confidence: 0.8594637

00:49:39.698 --> 00:49:42.658 of the data had common women who had

NOTE Confidence: 0.8594637

00:49:42.658 --> 00:49:44.860 received five years of tamoxifen.

NOTE Confidence: 0.8594637

00:49:44.860 --> 00:49:46.610 And as we just discussed,

NOTE Confidence: 0.8594637

00:49:46.610 --> 00:49:48.550 aromat ace inhibitors like Arimidex

NOTE Confidence: 0.8594637

00:49:48.550 --> 00:49:50.490 Femara aromasin have been around

NOTE Confidence: 0.84889746

00:49:50.548 --> 00:49:51.858 now for about 15 years,

NOTE Confidence: 0.84889746

00:49:51.860 --> 00:49:54.660 so most women now who are post menopausal,

NOTE Confidence: 0.84889746

00:49:54.660 --> 00:49:56.060 are completing five years

NOTE Confidence: 0.84889746

00:49:56.060 --> 00:49:57.460 of Aromat ACE inhibitor,

NOTE Confidence: 0.84889746

00:49:57.460 --> 00:50:00.420 and we want to know is this test.

NOTE Confidence: 0.84889746

00:50:00.420 --> 00:50:02.736 Just as well in this population,

NOTE Confidence: 0.84889746

00:50:02.740 --> 00:50:05.050 and at this year's Asco meeting,

NOTE Confidence: 0.84889746

00:50:05.050 --> 00:50:06.594 our big medical oncology

NOTE Confidence: 0.84889746

00:50:06.594 --> 00:50:08.138 meeting in North America,

NOTE Confidence: 0.84889746

00:50:08.140 --> 00:50:10.456 the answer was a resounding yes.

NOTE Confidence: 0.84889746

00:50:10.460 --> 00:50:12.798 That the breast cancer index is just

NOTE Confidence: 0.84889746

00:50:12.798 --> 00:50:15.263 as good at predicting the benefit

NOTE Confidence: 0.84889746

00:50:15.263 --> 00:50:17.573 of extended anti estrogen therapy

NOTE Confidence: 0.84889746

00:50:17.573 --> 00:50:20.284 in women who are completing five

NOTE Confidence: 0.84889746

00:50:20.284 --> 00:50:22.419 years of Aromat ACE inhibitor.

NOTE Confidence: 0.84889746

00:50:22.420 --> 00:50:24.886 And what this table is showing

NOTE Confidence: 0.84889746

00:50:24.886 --> 00:50:27.629 that in a subset analysis and

NOTE Confidence: 0.84889746

00:50:27.629 --> 00:50:30.647 were really Big 5000 woman trial.

NOTE Confidence: 0.84889746

00:50:30.650 --> 00:50:32.935 Those who were had involved

NOTE Confidence: 0.84889746

00:50:32.935 --> 00:50:35.220 armpit lymph nodes or not.

NOTE Confidence: 0.84889746

00:50:35.220 --> 00:50:37.901 If you had a what's called a

NOTE Confidence: 0.84889746

00:50:37.901 --> 00:50:40.124 high benefit from anti estrogen

NOTE Confidence: 0.84889746

00:50:40.124 --> 00:50:43.076 therapy it looked like taking five

NOTE Confidence: 0.84889746

00:50:43.076 --> 00:50:45.729 more years of antacid therapy.

NOTE Confidence: 0.84889746

00:50:45.730 --> 00:50:49.834 Reduce your risk by 2/3 or at least 2/3,

NOTE Confidence: 0.84889746

00:50:49.840 --> 00:50:52.410 whereas if you had a.

NOTE Confidence: 0.84889746

00:50:52.410 --> 00:50:54.345 Ratio of these two predicted

NOTE Confidence: 0.84889746

00:50:54.345 --> 00:50:55.893 genes that were low.
NOTE Confidence: 0.84889746

00:50:55.900 --> 00:50:58.120 You really did not have significant
NOTE Confidence: 0.84889746

00:50:58.120 --> 00:51:00.080 benefit to five more years
NOTE Confidence: 0.84889746

00:51:00.080 --> 00:51:01.720 of anti estrogen therapy.
NOTE Confidence: 0.84889746

00:51:01.720 --> 00:51:04.368 So big validation for what I think is
NOTE Confidence: 0.84889746

00:51:04.368 --> 00:51:06.722 going to be an increasingly utilized
NOTE Confidence: 0.84889746

00:51:06.722 --> 00:51:09.870 tool to help women make this decision.
NOTE Confidence: 0.84889746

00:51:09.870 --> 00:51:12.276 At five years and another population
NOTE Confidence: 0.84889746

00:51:12.276 --> 00:51:14.530 we've also struggled with our well,
NOTE Confidence: 0.84889746

00:51:14.530 --> 00:51:15.712 what about women?
NOTE Confidence: 0.84889746

00:51:15.712 --> 00:51:18.076 Who are her two enriched breast
NOTE Confidence: 0.84889746

00:51:18.076 --> 00:51:20.149 cancer that comprises roughly a
NOTE Confidence: 0.84889746

00:51:20.149 --> 00:51:22.555 fifth of all breast cancers and?
NOTE Confidence: 0.84889746

00:51:22.560 --> 00:51:24.560 We've been really uncertain as
NOTE Confidence: 0.84889746

00:51:24.560 --> 00:51:26.988 to what's the relative role of
NOTE Confidence: 0.84889746

00:51:26.988 --> 00:51:28.748 anti estrogen therapy in that

NOTE Confidence: 0.84889746

00:51:28.748 --> 00:51:31.219 group of women and do they really

NOTE Confidence: 0.84889746

00:51:31.219 --> 00:51:33.199 need 10 years or five years?

NOTE Confidence: 0.84889746

00:51:33.200 --> 00:51:33.554 Again,

NOTE Confidence: 0.84889746

00:51:33.554 --> 00:51:34.970 this another separate studies

NOTE Confidence: 0.84889746

00:51:34.970 --> 00:51:37.180 seem to indicate that even in

NOTE Confidence: 0.84889746

00:51:37.180 --> 00:51:38.708 the estrogen receptor positive,

NOTE Confidence: 0.84889746

00:51:38.710 --> 00:51:40.514 her two positive women,

NOTE Confidence: 0.84889746

00:51:40.514 --> 00:51:42.769 the breast cancer index is

NOTE Confidence: 0.84889746

00:51:42.769 --> 00:51:44.789 a very useful tool.

NOTE Confidence: 0.84889746

00:51:44.790 --> 00:51:47.100 Now we have at present three

NOTE Confidence: 0.84889746

00:51:47.100 --> 00:51:49.085 decision tools that help us

NOTE Confidence: 0.84889746

00:51:49.085 --> 00:51:51.305 with the decision at five years

NOTE Confidence: 0.84889746

00:51:51.305 --> 00:51:53.439 with this breast cancer index.

NOTE Confidence: 0.84889746

00:51:53.440 --> 00:51:55.100 We just talked about,

NOTE Confidence: 0.84889746

00:51:55.100 --> 00:51:57.175 there's a statistical model called

NOTE Confidence: 0.84889746

00:51:57.175 --> 00:51:59.652 CTS 5 and then we can retool
NOTE Confidence: 0.84889746

00:51:59.652 --> 00:52:02.319 archetype for women who have had an
NOTE Confidence: 0.84889746

00:52:02.319 --> 00:52:04.434 archetype at their initial diagnosis.
NOTE Confidence: 0.84889746

00:52:04.440 --> 00:52:06.546 All three of those can help
NOTE Confidence: 0.84889746

00:52:06.546 --> 00:52:08.483 us estimate risk of recurrence
NOTE Confidence: 0.84889746

00:52:08.483 --> 00:52:10.728 in years five through 10,
NOTE Confidence: 0.84889746

00:52:10.730 --> 00:52:12.884 but really only the breast cancer
NOTE Confidence: 0.84889746

00:52:12.884 --> 00:52:15.540 index gives us this added predictive.
NOTE Confidence: 0.84889746

00:52:15.540 --> 00:52:17.502 Information of would take in five
NOTE Confidence: 0.84889746

00:52:17.502 --> 00:52:19.370 more years would be helpful,
NOTE Confidence: 0.84889746

00:52:19.370 --> 00:52:19.720 OK?
NOTE Confidence: 0.883313

00:52:21.930 --> 00:52:24.138 While that is exciting,
NOTE Confidence: 0.883313

00:52:24.138 --> 00:52:28.517 what is even more exciting is a clinical
NOTE Confidence: 0.883313

00:52:28.517 --> 00:52:32.980 trial that we are about to start at Yale.
NOTE Confidence: 0.883313

00:52:32.980 --> 00:52:36.606 That really brings this down to the
NOTE Confidence: 0.883313

00:52:36.606 --> 00:52:38.760 ultimate micro individual level.

NOTE Confidence: 0.883313
00:52:38.760 --> 00:52:42.276 There is developing technology to look
NOTE Confidence: 0.883313
00:52:42.276 --> 00:52:46.448 for cancer related DNA in people's blood.
NOTE Confidence: 0.883313
00:52:46.450 --> 00:52:48.802 And a company called Natera does
NOTE Confidence: 0.883313
00:52:48.802 --> 00:52:51.779 this by getting a sample of man
NOTE Confidence: 0.883313
00:52:51.779 --> 00:52:53.984 or woman's tumor breast cancer,
NOTE Confidence: 0.883313
00:52:53.990 --> 00:52:56.504 and they look for unique DNA
NOTE Confidence: 0.883313
00:52:56.504 --> 00:52:58.180 sequences inside that cancer.
NOTE Confidence: 0.883313
00:52:58.180 --> 00:53:01.524 All of our DNA has freckles in it.
NOTE Confidence: 0.883313
00:53:01.530 --> 00:53:04.671 Like we all have freckles on our skin and
NOTE Confidence: 0.883313
00:53:04.671 --> 00:53:07.406 they can identify these unique freckles
NOTE Confidence: 0.883313
00:53:07.406 --> 00:53:10.330 that make your tumor cells unique.
NOTE Confidence: 0.883313
00:53:10.330 --> 00:53:13.690 And they build a individual profile for you.
NOTE Confidence: 0.883313
00:53:13.690 --> 00:53:17.098 And then they can look in your blood.
NOTE Confidence: 0.883313
00:53:17.100 --> 00:53:20.034 At various time points after treatment
NOTE Confidence: 0.883313
00:53:20.034 --> 00:53:22.939 and look for these unique freckles
NOTE Confidence: 0.883313

00:53:22.939 --> 00:53:26.371 and we know that if we find cancer
NOTE Confidence: 0.883313

00:53:26.461 --> 00:53:29.100 related DNA in the blood of a
NOTE Confidence: 0.883313

00:53:29.100 --> 00:53:31.557 person who had early breast cancer,
NOTE Confidence: 0.883313

00:53:31.557 --> 00:53:34.191 unfortunately the chance is very high
NOTE Confidence: 0.883313

00:53:34.191 --> 00:53:36.791 that they will develop full blown
NOTE Confidence: 0.883313

00:53:36.791 --> 00:53:39.440 metastatic breast cancer in the future.
NOTE Confidence: 0.883313

00:53:39.440 --> 00:53:40.876 What's not known is.
NOTE Confidence: 0.883313

00:53:40.876 --> 00:53:43.569 Is this an opportunity for us to
NOTE Confidence: 0.883313

00:53:43.569 --> 00:53:45.899 intervene and cure that microscopic
NOTE Confidence: 0.883313

00:53:45.899 --> 00:53:48.983 breast cancer by switching a womans anti
NOTE Confidence: 0.883313

00:53:48.983 --> 00:53:52.026 estrogen therapy even before we can see it?
NOTE Confidence: 0.883313

00:53:52.026 --> 00:53:55.410 Sort of the same idea but much more specific.
NOTE Confidence: 0.883313

00:53:55.410 --> 00:53:57.756 Whereas the breast cancer index we
NOTE Confidence: 0.883313

00:53:57.756 --> 00:54:00.690 just talked about kind of gives us this
NOTE Confidence: 0.883313

00:54:00.690 --> 00:54:03.102 macro level view of might five more
NOTE Confidence: 0.883313

00:54:03.102 --> 00:54:05.930 years of anti estrogen therapy be helpful.

NOTE Confidence: 0.883313

00:54:05.930 --> 00:54:08.618 This natera assay is going to give

NOTE Confidence: 0.883313

00:54:08.618 --> 00:54:10.198 us up-to-date individual information

NOTE Confidence: 0.883313

00:54:10.198 --> 00:54:12.346 that what you're doing right now

NOTE Confidence: 0.883313

00:54:12.346 --> 00:54:14.010 may not be working.

NOTE Confidence: 0.883313

00:54:14.010 --> 00:54:16.537 And this may be an opportunity to

NOTE Confidence: 0.883313

00:54:16.537 --> 00:54:18.605 switch horses before we develop

NOTE Confidence: 0.883313

00:54:18.605 --> 00:54:20.895 evidence of metastatic breast cancer.

NOTE Confidence: 0.883313

00:54:20.900 --> 00:54:24.148 So this is the way the clinical trial

NOTE Confidence: 0.883313

00:54:24.148 --> 00:54:27.980 is going to work. Women who have.

NOTE Confidence: 0.883313

00:54:27.980 --> 00:54:30.085 Breast cancer confined to breast

NOTE Confidence: 0.883313

00:54:30.085 --> 00:54:33.084 or armpit lymph nodes who are at

NOTE Confidence: 0.883313

00:54:33.084 --> 00:54:35.119 significant risk for recurrence will

NOTE Confidence: 0.883313

00:54:35.119 --> 00:54:37.982 have a piece of their tumor sent

NOTE Confidence: 0.883313

00:54:37.982 --> 00:54:40.334 Inotera or they will develop these

NOTE Confidence: 0.883313

00:54:40.340 --> 00:54:42.180 specific individual specific assay

NOTE Confidence: 0.883313

00:54:42.180 --> 00:54:45.437 and then women will do their anti
NOTE Confidence: 0.883313

00:54:45.437 --> 00:54:47.933 estrogen therapy and they will be
NOTE Confidence: 0.883313

00:54:47.933 --> 00:54:50.292 screened every six months by blood
NOTE Confidence: 0.883313

00:54:50.292 --> 00:54:53.101 and if at any point during that five
NOTE Confidence: 0.883313

00:54:53.101 --> 00:54:55.106 years we identify tumor specific
NOTE Confidence: 0.883313

00:54:55.106 --> 00:54:58.129 DNA in the blood they are assigned.
NOTE Confidence: 0.883313

00:54:58.130 --> 00:55:00.608 One to one to either continue
NOTE Confidence: 0.883313

00:55:00.608 --> 00:55:03.661 their current treatment or to do a
NOTE Confidence: 0.883313

00:55:03.661 --> 00:55:04.987 different hormone treatment.
NOTE Confidence: 0.883313

00:55:04.990 --> 00:55:06.052 In this case,
NOTE Confidence: 0.883313

00:55:06.052 --> 00:55:08.530 it'll be a shot called full best
NOTE Confidence: 0.883313

00:55:08.608 --> 00:55:11.128 render faslodex and a different
NOTE Confidence: 0.883313

00:55:11.128 --> 00:55:13.144 CD K inhibitor palbociclib.
NOTE Confidence: 0.883313

00:55:13.150 --> 00:55:16.146 So again, this will really novel concept,
NOTE Confidence: 0.883313

00:55:16.150 --> 00:55:19.076 exciting trial and hopefully it will help
NOTE Confidence: 0.883313

00:55:19.076 --> 00:55:22.661 us both be much more reassured about the

NOTE Confidence: 0.883313

00:55:22.661 --> 00:55:26.437 majority of women who will fall in the tumor.

NOTE Confidence: 0.883313

00:55:26.440 --> 00:55:28.300 Dean, a negative population,

NOTE Confidence: 0.883313

00:55:28.300 --> 00:55:29.695 cured their cancer.

NOTE Confidence: 0.883313

00:55:29.700 --> 00:55:32.568 And give us a early warning,

NOTE Confidence: 0.883313

00:55:32.570 --> 00:55:34.478 an opportunity for those

NOTE Confidence: 0.883313

00:55:34.478 --> 00:55:36.863 women who may have sub,

NOTE Confidence: 0.883313

00:55:36.870 --> 00:55:39.260 clinical or undetectable cancer potential.

NOTE Confidence: 0.883313

00:55:39.260 --> 00:55:43.210 Only by circulating tumor DNA.

NOTE Confidence: 0.883313

00:55:43.210 --> 00:55:43.619 Alright,

NOTE Confidence: 0.883313

00:55:43.619 --> 00:55:47.300 so the last topic we're going to talk about

NOTE Confidence: 0.883313

00:55:47.387 --> 00:55:50.537 is exciting new drug called Sacituzumab,

NOTE Confidence: 0.883313

00:55:50.540 --> 00:55:53.046 which is a drug which is already

NOTE Confidence: 0.883313

00:55:53.046 --> 00:55:55.760 FDA approved to treat women with

NOTE Confidence: 0.883313

00:55:55.760 --> 00:55:57.326 metastatic estrogen progesterone

NOTE Confidence: 0.883313

00:55:57.326 --> 00:56:00.160 and her two receptor negative.

NOTE Confidence: 0.883313

00:56:00.160 --> 00:56:03.359 What we call triple negative breast cancer.

NOTE Confidence: 0.8230822

00:56:03.360 --> 00:56:06.349 Facet ISM is a member of a

NOTE Confidence: 0.8230822

00:56:06.349 --> 00:56:08.859 relatively novel class of medicines.

NOTE Confidence: 0.8230822

00:56:08.860 --> 00:56:10.210 It's an antibody.

NOTE Confidence: 0.8230822

00:56:10.210 --> 00:56:12.010 Antibodies are proteins that

NOTE Confidence: 0.8230822

00:56:12.010 --> 00:56:14.363 our own body makes, which.

NOTE Confidence: 0.8230822

00:56:14.363 --> 00:56:17.141 Bind to unique elements typically have

NOTE Confidence: 0.8230822

00:56:17.141 --> 00:56:20.078 infections to target them for Eradication,

NOTE Confidence: 0.8230822

00:56:20.080 --> 00:56:22.495 but antibodies can be engineered

NOTE Confidence: 0.8230822

00:56:22.495 --> 00:56:24.427 to recognize specific proteins

NOTE Confidence: 0.8230822

00:56:24.427 --> 00:56:27.039 on the surface of cancer cells,

NOTE Confidence: 0.8230822

00:56:27.040 --> 00:56:30.316 and this sassy twosome AB has been

NOTE Confidence: 0.8230822

00:56:30.316 --> 00:56:32.609 engineered to recognize Trope two.

NOTE Confidence: 0.8230822

00:56:32.610 --> 00:56:35.571 Trope Two is a substance which is

NOTE Confidence: 0.8230822

00:56:35.571 --> 00:56:38.426 expressed at high density on the

NOTE Confidence: 0.8230822

00:56:38.426 --> 00:56:41.414 surface of many different cancer cells,

NOTE Confidence: 0.8230822

00:56:41.420 --> 00:56:44.738 including breast cancer cells and to this.

NOTE Confidence: 0.8230822

00:56:44.740 --> 00:56:46.966 Anti Trump two antibody is fused.

NOTE Confidence: 0.8230822

00:56:46.970 --> 00:56:48.830 All these green dots which

NOTE Confidence: 0.8230822

00:56:48.830 --> 00:56:50.318 are is the payload.

NOTE Confidence: 0.8230822

00:56:50.320 --> 00:56:52.375 These chemotherapy molecules and the

NOTE Confidence: 0.8230822

00:56:52.375 --> 00:56:55.130 secret sauce of this treatment is the

NOTE Confidence: 0.8230822

00:56:55.130 --> 00:56:57.020 antibody binds to the cancer cell.

NOTE Confidence: 0.8230822

00:56:57.020 --> 00:56:59.393 It's taken up by the cancer cell

NOTE Confidence: 0.8230822

00:56:59.393 --> 00:57:01.997 in the chemo is only released in

NOTE Confidence: 0.8230822

00:57:01.997 --> 00:57:04.259 the cancer cell so it's highly

NOTE Confidence: 0.8230822

00:57:04.334 --> 00:57:06.638 specific for your cancer and it's

NOTE Confidence: 0.8230822

00:57:06.638 --> 00:57:08.934 the chemo is only released inside

NOTE Confidence: 0.8230822

00:57:08.934 --> 00:57:12.412 the cells so it does not cause a lot

NOTE Confidence: 0.8230822

00:57:12.412 --> 00:57:15.030 of side effects and what has made.

NOTE Confidence: 0.8230822

00:57:15.030 --> 00:57:17.025 There's company that developed this

NOTE Confidence: 0.8230822

00:57:17.025 --> 00:57:19.589 technology very prominent and lots of money.

NOTE Confidence: 0.8230822

00:57:19.590 --> 00:57:22.194 Is this special linker and the Linker

NOTE Confidence: 0.8230822

00:57:22.194 --> 00:57:24.910 is only broken that links the chemo

NOTE Confidence: 0.8230822

00:57:24.910 --> 00:57:27.190 to the antibody inside the cell.

NOTE Confidence: 0.8230822

00:57:27.190 --> 00:57:29.850 So here's a cartoon or what happens.

NOTE Confidence: 0.8230822

00:57:29.850 --> 00:57:31.920 The antibody binds the surface of

NOTE Confidence: 0.8230822

00:57:31.920 --> 00:57:34.789 the cell in the stroke two molecule.

NOTE Confidence: 0.8230822

00:57:34.790 --> 00:57:36.690 It's brought inside the cell

NOTE Confidence: 0.8230822

00:57:36.690 --> 00:57:38.590 into what's called an endosome.

NOTE Confidence: 0.8230822

00:57:38.590 --> 00:57:40.714 The endosome turns into a body

NOTE Confidence: 0.8230822

00:57:40.714 --> 00:57:43.030 that releases a bunch of digestive

NOTE Confidence: 0.8230822

00:57:43.030 --> 00:57:45.105 enzymes which cleave the chemo

NOTE Confidence: 0.8230822

00:57:45.105 --> 00:57:46.900 from this special Linker.

NOTE Confidence: 0.8230822

00:57:46.900 --> 00:57:49.060 And then that chemo drug,

NOTE Confidence: 0.8230822

00:57:49.060 --> 00:57:51.220 which is called SN 38,

NOTE Confidence: 0.8230822

00:57:51.220 --> 00:57:54.220 binds to cancer cell DNA

NOTE Confidence: 0.8230822

00:57:54.220 --> 00:57:57.220 and kills the cancer cells.

NOTE Confidence: 0.8230822

00:57:57.220 --> 00:57:59.218 And this is the data looking

NOTE Confidence: 0.8230822

00:57:59.218 --> 00:58:01.102 at Sacituzumab in women with

NOTE Confidence: 0.8230822

00:58:01.102 --> 00:58:03.026 metastatic triple negative breast

NOTE Confidence: 0.8230822

00:58:03.026 --> 00:58:04.950 cancer estrogen progesterone and

NOTE Confidence: 0.8230822

00:58:04.950 --> 00:58:07.229 her two negative breast cancer.

NOTE Confidence: 0.8230822

00:58:07.230 --> 00:58:09.575 So these were women who had received

NOTE Confidence: 0.8230822

00:58:09.575 --> 00:58:12.229 a lot of chemotherapy already.

NOTE Confidence: 0.8230822

00:58:12.230 --> 00:58:14.315 So population women or in

NOTE Confidence: 0.8230822

00:58:14.315 --> 00:58:15.983 a really tough situation.

NOTE Confidence: 0.8230822

00:58:15.990 --> 00:58:19.318 And what you see on that top line,

NOTE Confidence: 0.8230822

00:58:19.320 --> 00:58:21.410 which is the green line.

NOTE Confidence: 0.8230822

00:58:21.410 --> 00:58:23.996 These are women treated with Sacituzumab

NOTE Confidence: 0.8230822

00:58:23.996 --> 00:58:26.510 and the bottom line are women.

NOTE Confidence: 0.8230822

00:58:26.510 --> 00:58:28.838 Dad who received the therapy that

NOTE Confidence: 0.8230822

00:58:28.838 --> 00:58:31.248 physicians choice was thought to be
NOTE Confidence: 0.8230822

00:58:31.248 --> 00:58:33.228 the best available alternative therapy.
NOTE Confidence: 0.8230822

00:58:33.230 --> 00:58:35.645 And so the time until cancer grew
NOTE Confidence: 0.8230822

00:58:35.645 --> 00:58:37.969 and people needed another treatment,
NOTE Confidence: 0.8230822

00:58:37.970 --> 00:58:40.786 you can see on the left lower curve
NOTE Confidence: 0.8230822

00:58:40.786 --> 00:58:42.343 is substantially increased when
NOTE Confidence: 0.8230822

00:58:42.343 --> 00:58:44.695 you're treated with sassy twos map
NOTE Confidence: 0.8230822

00:58:44.695 --> 00:58:47.258 and that also translated into a
NOTE Confidence: 0.8230822

00:58:47.258 --> 00:58:48.962 very meaningful prolongation in
NOTE Confidence: 0.8230822

00:58:48.962 --> 00:58:51.356 how long women were surviving and
NOTE Confidence: 0.8230822

00:58:51.356 --> 00:58:54.265 the side of a profile is actually
NOTE Confidence: 0.8230822

00:58:54.265 --> 00:58:56.880 really good with this medicine.
NOTE Confidence: 0.8230822

00:58:56.880 --> 00:58:59.392 And this was the what I think even
NOTE Confidence: 0.8230822

00:58:59.392 --> 00:59:00.907 more exciting information from
NOTE Confidence: 0.8230822

00:59:00.907 --> 00:59:02.937 this year's asthma meeting that
NOTE Confidence: 0.8230822

00:59:02.937 --> 00:59:05.777 this trope to target is not unique

NOTE Confidence: 0.8230822

00:59:05.777 --> 00:59:07.712 to triple negative breast cancer

NOTE Confidence: 0.8230822

00:59:07.712 --> 00:59:09.970 cells or to bladder cancer cells.

NOTE Confidence: 0.8230822

00:59:09.970 --> 00:59:10.712 In fact,

NOTE Confidence: 0.8230822

00:59:10.712 --> 00:59:12.567 it's present on estrogen receptor

NOTE Confidence: 0.8230822

00:59:12.567 --> 00:59:14.080 positive breast cancer cells.

NOTE Confidence: 0.8230822

00:59:14.080 --> 00:59:16.522 Just so happened that the drug

NOTE Confidence: 0.8230822

00:59:16.522 --> 00:59:18.868 manufacturer made a decision that it

NOTE Confidence: 0.8230822

00:59:18.868 --> 00:59:21.136 was more expeditious for them to get

NOTE Confidence: 0.8230822

00:59:21.136 --> 00:59:24.430 it approved in triple negative breast cancer.

NOTE Confidence: 0.8230822

00:59:24.430 --> 00:59:26.255 But they reported this year

NOTE Confidence: 0.8230822

00:59:26.255 --> 00:59:28.080 a study looking at roughly

NOTE Confidence: 0.8599751

00:59:28.155 --> 00:59:30.480 35 women with estrogen receptor

NOTE Confidence: 0.8599751

00:59:30.480 --> 00:59:31.875 positive breast cancer.

NOTE Confidence: 0.8599751

00:59:31.880 --> 00:59:33.596 Received lots of chemo.

NOTE Confidence: 0.8599751

00:59:33.596 --> 00:59:36.609 Also giving this drug sassy to some

NOTE Confidence: 0.8599751

00:59:36.609 --> 00:59:39.409 app and what you see on the bottom
NOTE Confidence: 0.8599751

00:59:39.409 --> 00:59:42.512 left is what's called a waterfall plot
NOTE Confidence: 0.8599751

00:59:42.512 --> 00:59:45.130 in each bar represents an individual
NOTE Confidence: 0.8599751

00:59:45.130 --> 00:59:48.450 woman and the height of the bar above
NOTE Confidence: 0.8599751

00:59:48.539 --> 00:59:51.667 or below the X axis is whether their
NOTE Confidence: 0.8599751

00:59:51.667 --> 00:59:55.058 cancer grew or shrunk compared to baseline.
NOTE Confidence: 0.8599751

00:59:55.060 --> 00:59:56.938 And so when you see a
NOTE Confidence: 0.8599751

00:59:56.938 --> 00:59:58.190 waterfall curve like this,
NOTE Confidence: 0.8599751

00:59:58.190 --> 01:00:00.948 where the vast majority of women are.
NOTE Confidence: 0.8599751

01:00:00.950 --> 01:00:03.855 Pointed down that means the vast majority
NOTE Confidence: 0.8599751

01:00:03.855 --> 01:00:06.300 of women's cancer actually shrunk.
NOTE Confidence: 0.8599751

01:00:06.300 --> 01:00:08.530 Now in the oncology world,
NOTE Confidence: 0.8599751

01:00:08.530 --> 01:00:11.206 we use a change from baseline,
NOTE Confidence: 0.8599751

01:00:11.210 --> 01:00:16.746 a shrinkage of 30% as a definition of.
NOTE Confidence: 0.8599751

01:00:16.750 --> 01:00:17.672 Partial response,
NOTE Confidence: 0.8599751

01:00:17.672 --> 01:00:19.977 whereas a growth that's generally

NOTE Confidence: 0.8599751

01:00:19.977 --> 01:00:22.709 over about 15 percent 10 to 15%.

NOTE Confidence: 0.8599751

01:00:22.710 --> 01:00:23.970 We call progression.

NOTE Confidence: 0.8599751

01:00:23.970 --> 01:00:25.650 So the really critical

NOTE Confidence: 0.8599751

01:00:25.650 --> 01:00:27.400 things about this study,

NOTE Confidence: 0.8599751

01:00:27.400 --> 01:00:30.641 from my perspective is that only one

NOTE Confidence: 0.8599751

01:00:30.641 --> 01:00:33.455 women had progression from the 1st at

NOTE Confidence: 0.8599751

01:00:33.455 --> 01:00:36.350 the time of the first data recording.

NOTE Confidence: 0.8599751

01:00:36.350 --> 01:00:39.150 The vast majority of women either had

NOTE Confidence: 0.8599751

01:00:39.150 --> 01:00:41.880 stable disease or their cancer shrunk,

NOTE Confidence: 0.8599751

01:00:41.880 --> 01:00:44.370 and so that's really really

NOTE Confidence: 0.8599751

01:00:44.370 --> 01:00:45.864 encouraging stuff Ann.

NOTE Confidence: 0.8599751

01:00:45.870 --> 01:00:46.782 Is Why?

NOTE Confidence: 0.8599751

01:00:46.782 --> 01:00:49.974 We are thrilled that we are participating

NOTE Confidence: 0.8599751

01:00:49.974 --> 01:00:52.709 site in this tropics two trial,

NOTE Confidence: 0.8599751

01:00:52.710 --> 01:00:55.170 and that's a clinical trial that's

NOTE Confidence: 0.8599751

01:00:55.170 --> 01:00:56.810 exactly mirroring the registration
NOTE Confidence: 0.8599751

01:00:56.872 --> 01:00:59.248 trial for triple negative breast cancer.
NOTE Confidence: 0.8599751

01:00:59.250 --> 01:01:02.328 Women who have received treatment for
NOTE Confidence: 0.8599751

01:01:02.328 --> 01:01:04.380 estrogen receptor positive breast.
NOTE Confidence: 0.8599751

01:01:04.380 --> 01:01:06.080 Really neat thing about this
NOTE Confidence: 0.8599751

01:01:06.080 --> 01:01:08.445 study is you don't have to have
NOTE Confidence: 0.8599751

01:01:08.445 --> 01:01:09.940 received a lot of chemo,
NOTE Confidence: 0.8599751

01:01:09.940 --> 01:01:12.229 so this is going to be healthier.
NOTE Confidence: 0.8599751

01:01:12.230 --> 01:01:14.540 Population of women and we expect that
NOTE Confidence: 0.8599751

01:01:14.540 --> 01:01:16.809 any treatment it's going to work better,
NOTE Confidence: 0.8599751

01:01:16.810 --> 01:01:19.176 healthier you are and it will be
NOTE Confidence: 0.8599751

01:01:19.176 --> 01:01:21.058 assigned the study to some app.
NOTE Confidence: 0.8599751

01:01:21.060 --> 01:01:21.894 Or again,
NOTE Confidence: 0.8599751

01:01:21.894 --> 01:01:24.396 the treatment of Physicians Choice with
NOTE Confidence: 0.8599751

01:01:24.396 --> 01:01:26.815 Medecins which we already use which
NOTE Confidence: 0.8599751

01:01:26.815 --> 01:01:29.083 are highly effective in that setting.

NOTE Confidence: 0.8599751

01:01:29.090 --> 01:01:34.256 And that probably was my last slide.

NOTE Confidence: 0.8599751

01:01:34.260 --> 01:01:36.858 So I will.

NOTE Confidence: 0.8599751

01:01:36.860 --> 01:01:39.700 Turn it back over to you mera.

NOTE Confidence: 0.8599751

01:01:39.700 --> 01:01:43.358 If I can figure out how to do that.

NOTE Confidence: 0.82009655

01:01:43.360 --> 01:01:45.390 Yeah, that was fantastic and.

NOTE Confidence: 0.83877057

01:01:47.750 --> 01:01:49.948 Between the sassy and the tropics we

NOTE Confidence: 0.83877057

01:01:49.948 --> 01:01:53.113 have a lot to discuss so got a lot of

NOTE Confidence: 0.83877057

01:01:53.113 --> 01:01:55.650 questions that came through with your talk.

NOTE Confidence: 0.83877057

01:01:55.650 --> 01:01:57.826 One of 'em is from Donna asked what

NOTE Confidence: 0.83877057

01:01:57.826 --> 01:02:00.327 tests are available to see if there is

NOTE Confidence: 0.83877057

01:02:00.327 --> 01:02:02.852 a recurrence during the five years of

NOTE Confidence: 0.83877057

01:02:02.852 --> 01:02:04.857 post mastectomy anti hormone treatment.

NOTE Confidence: 0.83877057

01:02:04.860 --> 01:02:07.533 I mean I guess the questions could be like

NOTE Confidence: 0.83877057

01:02:07.533 --> 01:02:10.212 you know are there blood tests or their

NOTE Confidence: 0.83877057

01:02:10.212 --> 01:02:13.078 scans or images that should be done through?

NOTE Confidence: 0.865131664666667

01:02:13.080 --> 01:02:15.752 Yeah yeah. So that is one of the
NOTE Confidence: 0.865131664666667

01:02:15.752 --> 01:02:18.037 most frequent questions that we get
NOTE Confidence: 0.865131664666667

01:02:18.037 --> 01:02:20.953 asked and I have to acknowledge the
NOTE Confidence: 0.865131664666667

01:02:20.953 --> 01:02:23.603 answer is still really disappointing
NOTE Confidence: 0.865131664666667

01:02:23.603 --> 01:02:26.126 because after rigorously looking at
NOTE Confidence: 0.865131664666667

01:02:26.126 --> 01:02:28.106 looking at the currently available
NOTE Confidence: 0.865131664666667

01:02:28.106 --> 01:02:30.515 serum blood test tumor markers or
NOTE Confidence: 0.865131664666667

01:02:30.515 --> 01:02:33.147 doing cat scans every six months or
NOTE Confidence: 0.865131664666667

01:02:33.147 --> 01:02:35.447 monitoring for circulating tumor cells,
NOTE Confidence: 0.865131664666667

01:02:35.450 --> 01:02:38.778 we really have not identified a tool that
NOTE Confidence: 0.865131664666667

01:02:38.778 --> 01:02:41.117 impacts outcomes in a meaningful way.
NOTE Confidence: 0.865131664666667

01:02:41.120 --> 01:02:43.550 So it's still really old fashion.
NOTE Confidence: 0.865131664666667

01:02:43.550 --> 01:02:45.170 It's how you feeling.
NOTE Confidence: 0.865131664666667

01:02:45.170 --> 01:02:46.790 What's important to recognize
NOTE Confidence: 0.865131664666667

01:02:46.790 --> 01:02:48.910 about that is no surveillance.
NOTE Confidence: 0.865131664666667

01:02:48.910 --> 01:02:50.872 Imaging or testing does not mean

NOTE Confidence: 0.865131664666667
01:02:50.872 --> 01:02:53.030 we're going to ignore what happens.
NOTE Confidence: 0.865131664666667
01:02:53.030 --> 01:02:54.695 We have extraordinarily low thresholds
NOTE Confidence: 0.865131664666667
01:02:54.695 --> 01:02:56.820 to do imaging or diagnostic testing,
NOTE Confidence: 0.865131664666667
01:02:56.820 --> 01:02:59.781 but it seems to fly in the face of
NOTE Confidence: 0.865131664666667
01:02:59.781 --> 01:03:01.633 everything here all along, right?
NOTE Confidence: 0.865131664666667
01:03:01.633 --> 01:03:03.348 But early diagnosis saves lives,
NOTE Confidence: 0.865131664666667
01:03:03.350 --> 01:03:05.010 and that is critically important
NOTE Confidence: 0.865131664666667
01:03:05.010 --> 01:03:07.140 for breast cancer in the breast,
NOTE Confidence: 0.865131664666667
01:03:07.140 --> 01:03:09.580 and we're still working on the tools for
NOTE Confidence: 0.865131664666667
01:03:09.580 --> 01:03:11.609 early diagnosis for recurrence elsewhere.
NOTE Confidence: 0.85955155
01:03:12.830 --> 01:03:14.870 That's great, and then we have
NOTE Confidence: 0.85955155
01:03:14.870 --> 01:03:16.230 another question from Tina,
NOTE Confidence: 0.85955155
01:03:16.230 --> 01:03:17.930 this time regarding the DNA
NOTE Confidence: 0.85955155
01:03:17.930 --> 01:03:19.290 in blood clinical trials.
NOTE Confidence: 0.85955155
01:03:19.290 --> 01:03:21.078 Are they being done in patients
NOTE Confidence: 0.85955155

01:03:21.078 --> 01:03:23.369 after 10 years of either tamoxifen,
NOTE Confidence: 0.85955155

01:03:23.370 --> 01:03:27.100 arimidex or other forms of anti estrogen?
NOTE Confidence: 0.860686

01:03:27.100 --> 01:03:28.720 So I suspect, unfortunately,
NOTE Confidence: 0.860686

01:03:28.720 --> 01:03:30.745 like the pace is slow.
NOTE Confidence: 0.860686

01:03:30.750 --> 01:03:33.006 Alright, so it's one thing to
NOTE Confidence: 0.860686

01:03:33.006 --> 01:03:35.630 be able to detect a population.
NOTE Confidence: 0.860686

01:03:35.630 --> 01:03:38.060 Women who are likely to recur.
NOTE Confidence: 0.860686

01:03:38.060 --> 01:03:39.980 It's yet another critical thing
NOTE Confidence: 0.860686

01:03:39.980 --> 01:03:43.240 to be able to prove we can do
NOTE Confidence: 0.860686

01:03:43.240 --> 01:03:45.345 something different to help impact
NOTE Confidence: 0.860686

01:03:45.345 --> 01:03:47.398 the outcome of those women,
NOTE Confidence: 0.860686

01:03:47.400 --> 01:03:49.428 so I suspect that this circulating
NOTE Confidence: 0.860686

01:03:49.428 --> 01:03:52.189 tumor DNA in the natera assays probably
NOTE Confidence: 0.860686

01:03:52.189 --> 01:03:54.859 will not be available for common
NOTE Confidence: 0.860686

01:03:54.859 --> 01:03:57.230 consumption until we've determined that.
NOTE Confidence: 0.860686

01:03:57.230 --> 01:03:59.215 We can actually change therapy

NOTE Confidence: 0.860686
01:03:59.215 --> 01:04:00.406 and improve outcomes,
NOTE Confidence: 0.860686
01:04:00.410 --> 01:04:02.534 so I think we're probably like
NOTE Confidence: 0.860686
01:04:02.534 --> 01:04:04.938 a couple of years off until
NOTE Confidence: 0.860686
01:04:04.938 --> 01:04:06.758 these really hit Primetime.
NOTE Confidence: 0.860686
01:04:06.760 --> 01:04:09.070 They this similar technology is not
NOTE Confidence: 0.860686
01:04:09.070 --> 01:04:11.130 just specific for breast cancer,
NOTE Confidence: 0.860686
01:04:11.130 --> 01:04:14.694 so it is being used in colorectal cancer now.
NOTE Confidence: 0.860686
01:04:14.700 --> 01:04:17.479 Similar types of trials are being done,
NOTE Confidence: 0.860686
01:04:17.480 --> 01:04:21.044 but it's the pace will be slow until enough.
NOTE Confidence: 0.8010641
01:04:25.000 --> 01:04:26.266 Then we just get the answer.
NOTE Confidence: 0.8010641
01:04:26.270 --> 01:04:27.110 Spencer We gotta do.
NOTE Confidence: 0.84079665
01:04:27.910 --> 01:04:29.298 That was really great.
NOTE Confidence: 0.84079665
01:04:29.298 --> 01:04:31.380 We have another question from Lynn
NOTE Confidence: 0.84079665
01:04:31.450 --> 01:04:33.718 who asks are women with hormone
NOTE Confidence: 0.84079665
01:04:33.718 --> 01:04:35.613 receptor positive cancers ever going
NOTE Confidence: 0.84079665

01:04:35.613 --> 01:04:37.832 to be able to take anything after
NOTE Confidence: 0.84079665

01:04:37.832 --> 01:04:39.878 menopause to help with all the
NOTE Confidence: 0.84079665

01:04:39.878 --> 01:04:41.638 hormone replacements stuff like skin,
NOTE Confidence: 0.84079665

01:04:41.640 --> 01:04:43.020 her libido, mood, memory,
NOTE Confidence: 0.84079665

01:04:43.020 --> 01:04:45.090 family fat and then I know
NOTE Confidence: 0.84079665

01:04:45.160 --> 01:04:46.920 that's a question of problems
NOTE Confidence: 0.84079665

01:04:46.920 --> 01:04:48.680 to your practice a lot.
NOTE Confidence: 0.84079665

01:04:48.680 --> 01:04:49.380 Yeah, yeah.
NOTE Confidence: 0.84079665

01:04:49.380 --> 01:04:51.844 So critically important people working on it.
NOTE Confidence: 0.84079665

01:04:51.850 --> 01:04:54.307 We will be doing more research neus.
NOTE Confidence: 0.84079665

01:04:54.310 --> 01:04:56.487 So there are some things we can
NOTE Confidence: 0.84079665

01:04:56.487 --> 01:04:58.660 do like for vaginal dryness.
NOTE Confidence: 0.84079665

01:04:58.660 --> 01:05:00.478 We know that Topical Vaginal estrogen
NOTE Confidence: 0.84079665

01:05:00.478 --> 01:05:02.599 is safe when used at minimally
NOTE Confidence: 0.84079665

01:05:02.599 --> 01:05:04.719 effective dose libido has just
NOTE Confidence: 0.84079665

01:05:04.719 --> 01:05:05.991 been extraordinarily frustrating,

NOTE Confidence: 0.84079665

01:05:06.000 --> 01:05:07.840 so have things like waking.

NOTE Confidence: 0.84079665

01:05:07.840 --> 01:05:10.036 I think it's a matter of

NOTE Confidence: 0.84079665

01:05:10.036 --> 01:05:11.134 with your oncologist.

NOTE Confidence: 0.84079665

01:05:11.140 --> 01:05:13.336 You just need to decide OK?

NOTE Confidence: 0.84079665

01:05:13.340 --> 01:05:15.986 Where is my risk profile set might

NOTE Confidence: 0.84079665

01:05:15.986 --> 01:05:18.180 weight gain ultimately be a bigger

NOTE Confidence: 0.84079665

01:05:18.180 --> 01:05:20.166 detriment to my health then staying

NOTE Confidence: 0.84079665

01:05:20.166 --> 01:05:22.837 on my anti estrogen therapy for an

NOTE Confidence: 0.84079665

01:05:22.837 --> 01:05:25.146 additional five years and so these

NOTE Confidence: 0.84079665

01:05:25.146 --> 01:05:27.136 are the kinds of individualized

NOTE Confidence: 0.84079665

01:05:27.136 --> 01:05:29.570 decisions that we need to make but.

NOTE Confidence: 0.84079665

01:05:29.570 --> 01:05:31.890 But I totally understand endocrine

NOTE Confidence: 0.84079665

01:05:31.890 --> 01:05:35.666 therapy is a long tough slug and we are

NOTE Confidence: 0.84079665

01:05:35.666 --> 01:05:38.370 trying to find ways to make it better.

NOTE Confidence: 0.8509685

01:05:39.660 --> 01:05:43.000 So as we wait for more questions to come in,

NOTE Confidence: 0.8509685

01:05:43.000 --> 01:05:44.998 I have one for Doctor Mastriani,
NOTE Confidence: 0.8509685

01:05:45.000 --> 01:05:47.528 you know, like what if a woman is
NOTE Confidence: 0.8509685

01:05:47.528 --> 01:05:49.678 addressing one side with cancer with,
NOTE Confidence: 0.8509685

01:05:49.680 --> 01:05:51.016 for example, mastectomy and
NOTE Confidence: 0.8509685

01:05:51.016 --> 01:05:52.349 reconstruction, but she wants
NOTE Confidence: 0.8509685

01:05:52.349 --> 01:05:54.014 to preserve our opposite breast.
NOTE Confidence: 0.8509685

01:05:54.020 --> 01:05:55.988 What are some options for for
NOTE Confidence: 0.8509685

01:05:55.988 --> 01:05:57.700 them on the opposite side?
NOTE Confidence: 0.89070404

01:05:59.100 --> 01:06:00.096 The great question.
NOTE Confidence: 0.89070404

01:06:00.096 --> 01:06:03.111 A lot of people like to match the natural
NOTE Confidence: 0.89070404

01:06:03.111 --> 01:06:05.599 breast and I I always have a Frank
NOTE Confidence: 0.89070404

01:06:05.674 --> 01:06:08.249 conversation with patients about that.
NOTE Confidence: 0.89070404

01:06:08.250 --> 01:06:09.402 It's not impossible,
NOTE Confidence: 0.89070404

01:06:09.402 --> 01:06:12.656 but we just sort of have to identify
NOTE Confidence: 0.89070404

01:06:12.656 --> 01:06:15.056 what goals the patient had.
NOTE Confidence: 0.89070404

01:06:15.060 --> 01:06:17.440 And one clothing. So are we going

NOTE Confidence: 0.89070404

01:06:17.440 --> 01:06:20.089 to match the volume of the breast?

NOTE Confidence: 0.89070404

01:06:20.090 --> 01:06:22.596 Do you want to have matching nipples?

NOTE Confidence: 0.89070404

01:06:22.600 --> 01:06:25.464 Can we match that with a secondary procedure?

NOTE Confidence: 0.89070404

01:06:25.470 --> 01:06:27.594 The biggest challenges I find actually

NOTE Confidence: 0.89070404

01:06:27.594 --> 01:06:30.138 our average women who have had children.

NOTE Confidence: 0.89070404

01:06:30.140 --> 01:06:32.646 They just have that dissent of tissue.

NOTE Confidence: 0.89070404

01:06:32.650 --> 01:06:34.810 And that's tougher to to address.

NOTE Confidence: 0.89070404

01:06:34.810 --> 01:06:37.030 But we can certainly address that

NOTE Confidence: 0.89070404

01:06:37.030 --> 01:06:39.483 with a procedure like a lift or

NOTE Confidence: 0.89070404

01:06:39.483 --> 01:06:41.295 putting an implant in there to

NOTE Confidence: 0.89070404

01:06:41.295 --> 01:06:43.419 give them a similar appearance.

NOTE Confidence: 0.89070404

01:06:43.420 --> 01:06:44.912 So there are many,

NOTE Confidence: 0.89070404

01:06:44.912 --> 01:06:45.658 many options.

NOTE Confidence: 0.89070404

01:06:45.660 --> 01:06:47.588 But I always try to talk to my

NOTE Confidence: 0.89070404

01:06:47.588 --> 01:06:49.097 patients and find out what their

NOTE Confidence: 0.89070404

01:06:49.097 --> 01:06:51.121 goals are and we try to match what
NOTE Confidence: 0.89070404

01:06:51.121 --> 01:06:53.185 I can do with what their wants are.
NOTE Confidence: 0.8445006

01:06:54.830 --> 01:06:58.403 Excellent and I have a question for a Andrew,
NOTE Confidence: 0.8445006

01:06:58.410 --> 01:07:01.362 you know one of those things that patients
NOTE Confidence: 0.8445006

01:07:01.362 --> 01:07:03.978 will often complain about is fatigue.
NOTE Confidence: 0.8445006

01:07:03.980 --> 01:07:05.970 During radiation. Is that something
NOTE Confidence: 0.8445006

01:07:05.970 --> 01:07:09.154 that we actually really see, or is it?
NOTE Confidence: 0.8445006

01:07:09.154 --> 01:07:11.941 And if we do, are there any
NOTE Confidence: 0.8445006

01:07:11.941 --> 01:07:13.926 options or strategy with the.
NOTE Confidence: 0.8268766

01:07:15.470 --> 01:07:17.885 Fatigue is probably on the order of
NOTE Confidence: 0.8268766

01:07:17.885 --> 01:07:20.490 maybe I would say 50 to 75% of patients.
NOTE Confidence: 0.8268766

01:07:20.490 --> 01:07:22.230 It's using pretty mild fatigue and
NOTE Confidence: 0.8268766

01:07:22.230 --> 01:07:24.029 all the symptoms of radiation.
NOTE Confidence: 0.8268766

01:07:24.030 --> 01:07:27.294 Let's say you. Have a five week course.
NOTE Confidence: 0.8268766

01:07:27.300 --> 01:07:29.498 They don't really start the first week.
NOTE Confidence: 0.8268766

01:07:29.500 --> 01:07:31.698 Probably don't even start the second week.

NOTE Confidence: 0.8268766

01:07:31.700 --> 01:07:33.578 Radiation side effects are always delayed,

NOTE Confidence: 0.8268766

01:07:33.580 --> 01:07:34.764 so they probably start.

NOTE Confidence: 0.8268766

01:07:34.764 --> 01:07:36.540 Maybe the end of the second

NOTE Confidence: 0.8268766

01:07:36.604 --> 01:07:38.289 week starting the third week.

NOTE Confidence: 0.8268766

01:07:38.290 --> 01:07:40.537 I personally found that patients who exercise

NOTE Confidence: 0.8268766

01:07:40.537 --> 01:07:42.689 more actually don't have that much fatigue.

NOTE Confidence: 0.8268766

01:07:42.690 --> 01:07:44.006 There probably is correlated,

NOTE Confidence: 0.8268766

01:07:44.006 --> 01:07:46.450 but there's no real study looking at that.

NOTE Confidence: 0.8268766

01:07:46.450 --> 01:07:47.806 And after radiation phased,

NOTE Confidence: 0.8268766

01:07:47.806 --> 01:07:49.501 fortunate thing about fatigue is

NOTE Confidence: 0.8268766

01:07:49.501 --> 01:07:51.158 generally a short term side effects,

NOTE Confidence: 0.8268766

01:07:51.160 --> 01:07:53.044 so that usually goes away within

NOTE Confidence: 0.8268766

01:07:53.044 --> 01:07:53.986 about a month.

NOTE Confidence: 0.8096904

01:07:55.010 --> 01:07:57.608 Excellent, have a couple of questions

NOTE Confidence: 0.8096904

01:07:57.608 --> 01:08:00.090 coming in for doctor fishback.

NOTE Confidence: 0.8096904

01:08:00.090 --> 01:08:01.476 Very popular tonight.
NOTE Confidence: 0.8096904

01:08:01.476 --> 01:08:04.248 Alexa ask is tamoxifen 10 milligrams
NOTE Confidence: 0.8096904

01:08:04.248 --> 01:08:07.017 daily just as effective as tamoxifen.
NOTE Confidence: 0.8096904

01:08:07.020 --> 01:08:10.050 20 milligrams a day and.
NOTE Confidence: 0.8096904

01:08:10.050 --> 01:08:12.024 The one other question for you
NOTE Confidence: 0.8096904

01:08:12.024 --> 01:08:14.348 is do you along the lines of,
NOTE Confidence: 0.8096904

01:08:14.350 --> 01:08:16.010 I think Anti estrogen therapies.
NOTE Confidence: 0.8096904

01:08:16.010 --> 01:08:19.007 Do you have to have the PCI test to
NOTE Confidence: 0.8096904

01:08:19.007 --> 01:08:21.963 decide to stay on meds for 10 years if?
NOTE Confidence: 0.8096904

01:08:21.970 --> 01:08:24.186 If so, do you have the test at
NOTE Confidence: 0.8096904

01:08:24.186 --> 01:08:25.960 five years after diagnosis or
NOTE Confidence: 0.8096904

01:08:25.960 --> 01:08:28.258 five years when you started the?
NOTE Confidence: 0.81701285

01:08:28.260 --> 01:08:28.810 Yeah, yeah.
NOTE Confidence: 0.81701285

01:08:28.810 --> 01:08:31.010 So the first question about the dose of
NOTE Confidence: 0.81701285

01:08:31.063 --> 01:08:33.218 tamoxifen that's really interesting one.
NOTE Confidence: 0.81701285

01:08:33.220 --> 01:08:35.537 It gets to how to drug companies.

NOTE Confidence: 0.81701285

01:08:35.540 --> 01:08:37.190 Pick the right dose right?

NOTE Confidence: 0.81701285

01:08:37.190 --> 01:08:38.740 So for a pharmaceutical company

NOTE Confidence: 0.81701285

01:08:38.740 --> 01:08:40.738 they have no interest in finding

NOTE Confidence: 0.81701285

01:08:40.738 --> 01:08:42.290 a minimally effective dose.

NOTE Confidence: 0.81701285

01:08:42.290 --> 01:08:45.790 That takes a lot of people in a lot of time.

NOTE Confidence: 0.81701285

01:08:45.790 --> 01:08:47.950 They want to very quickly determine

NOTE Confidence: 0.81701285

01:08:47.950 --> 01:08:49.736 what's a maximally tolerated dose

NOTE Confidence: 0.81701285

01:08:49.736 --> 01:08:51.703 and move that to clinical trials and

NOTE Confidence: 0.81701285

01:08:51.703 --> 01:08:53.740 that way they are sure their drug.

NOTE Confidence: 0.81701285

01:08:53.740 --> 01:08:55.016 If it doesn't work,

NOTE Confidence: 0.81701285

01:08:55.016 --> 01:08:56.292 it's not working 'cause

NOTE Confidence: 0.81701285

01:08:56.292 --> 01:08:57.870 they picked the wrong dose.

NOTE Confidence: 0.81701285

01:08:57.870 --> 01:08:59.460 So tamoxifen in the 1970s,

NOTE Confidence: 0.81701285

01:08:59.460 --> 01:09:00.688 when it was evaluated,

NOTE Confidence: 0.81701285

01:09:00.688 --> 01:09:02.923 there was a lot of good data

NOTE Confidence: 0.81701285

01:09:02.923 --> 01:09:04.867 that just 5 milligrams a day.
NOTE Confidence: 0.81701285

01:09:04.870 --> 01:09:06.258 Tamoxifen achieved significant blood
NOTE Confidence: 0.81701285

01:09:06.258 --> 01:09:08.666 levels and didn't have a lot of
NOTE Confidence: 0.81701285

01:09:08.666 --> 01:09:10.268 the side effects that 20 molded,
NOTE Confidence: 0.81701285

01:09:10.270 --> 01:09:12.699 but twenty was the maximally tolerated dose.
NOTE Confidence: 0.81701285

01:09:12.700 --> 01:09:14.800 And from then on became the dose
NOTE Confidence: 0.81701285

01:09:14.800 --> 01:09:16.859 used in all clinical trials.
NOTE Confidence: 0.81701285

01:09:16.860 --> 01:09:18.852 So there's no question in my
NOTE Confidence: 0.81701285

01:09:18.852 --> 01:09:20.680 mind that for many women,
NOTE Confidence: 0.81701285

01:09:20.680 --> 01:09:21.984 10 would be effective,
NOTE Confidence: 0.81701285

01:09:21.984 --> 01:09:24.391 but we just don't have 10s of
NOTE Confidence: 0.81701285

01:09:24.391 --> 01:09:25.537 thousands of people.
NOTE Confidence: 0.81701285

01:09:25.540 --> 01:09:26.928 Data demonstrating that 10
NOTE Confidence: 0.81701285

01:09:26.928 --> 01:09:28.316 is equivalent to 20.
NOTE Confidence: 0.81701285

01:09:28.320 --> 01:09:30.957 So if we reach a situation where a woman
NOTE Confidence: 0.81701285

01:09:30.957 --> 01:09:33.427 needs to be an anti estrogen therapy

NOTE Confidence: 0.81701285

01:09:33.427 --> 01:09:35.600 to prevent breast cancer recurrence,

NOTE Confidence: 0.81701285

01:09:35.600 --> 01:09:38.029 a lifesaving treatment and 20 is intolerable,

NOTE Confidence: 0.81701285

01:09:38.030 --> 01:09:41.500 then I think 10 is a reasonable thing to try.

NOTE Confidence: 0.81701285

01:09:41.500 --> 01:09:42.362 In fact,

NOTE Confidence: 0.81701285

01:09:42.362 --> 01:09:44.086 there's some recent data.

NOTE Confidence: 0.81701285

01:09:44.090 --> 01:09:46.666 In women with a much lower risk

NOTE Confidence: 0.81701285

01:09:46.666 --> 01:09:48.829 breast cancer problem DCIS that 5

NOTE Confidence: 0.81701285

01:09:48.829 --> 01:09:51.118 milligrams a day has a benefit that

NOTE Confidence: 0.81701285

01:09:51.189 --> 01:09:53.861 looks very similar to 20 so I would

NOTE Confidence: 0.81701285

01:09:53.861 --> 01:09:55.532 not advocate cutting your pills

NOTE Confidence: 0.81701285

01:09:55.532 --> 01:09:58.317 in half but but if we reached the

NOTE Confidence: 0.81701285

01:09:58.317 --> 01:10:00.525 point of just I'm either stopped.

NOTE Confidence: 0.81701285

01:10:00.530 --> 01:10:03.640 This pill or I'm going to find a better way,

NOTE Confidence: 0.81701285

01:10:03.640 --> 01:10:05.817 I think the Tensor East Wash now.

NOTE Confidence: 0.81701285

01:10:05.820 --> 01:10:07.680 The second question about the DCI.

NOTE Confidence: 0.81701285

01:10:07.680 --> 01:10:08.302 So yes,
NOTE Confidence: 0.81701285

01:10:08.302 --> 01:10:09.546 this is a test,
NOTE Confidence: 0.81701285

01:10:09.550 --> 01:10:11.727 which is typically done at five years.
NOTE Confidence: 0.81701285

01:10:11.730 --> 01:10:13.590 It is an increasingly popular test.
NOTE Confidence: 0.81701285

01:10:13.590 --> 01:10:16.320 I would not say it is yet to test that
NOTE Confidence: 0.81701285

01:10:16.401 --> 01:10:19.497 every woman needs to do in my own practice.
NOTE Confidence: 0.81701285

01:10:19.500 --> 01:10:21.366 For women who have really high
NOTE Confidence: 0.81701285

01:10:21.366 --> 01:10:22.299 risk breast cancer,
NOTE Confidence: 0.81701285

01:10:22.300 --> 01:10:23.544 several involved aren't that
NOTE Confidence: 0.81701285

01:10:23.544 --> 01:10:24.477 lymph nodes involved.
NOTE Confidence: 0.81701285

01:10:24.480 --> 01:10:26.035 I still really encourage women
NOTE Confidence: 0.81701285

01:10:26.035 --> 01:10:28.210 to stick with it for 10 years,
NOTE Confidence: 0.81701285

01:10:28.210 --> 01:10:30.331 but for women who have lower risk
NOTE Confidence: 0.81701285

01:10:30.331 --> 01:10:32.358 breast cancer have kind of struggled.
NOTE Confidence: 0.81701285

01:10:32.360 --> 01:10:33.812 With five years of treatment and
NOTE Confidence: 0.81701285

01:10:33.812 --> 01:10:35.317 really would rather be off if

NOTE Confidence: 0.81701285

01:10:35.317 --> 01:10:36.527 there's any more evidence that

NOTE Confidence: 0.81701285

01:10:36.527 --> 01:10:37.659 we can constantly stop it,

NOTE Confidence: 0.81701285

01:10:37.660 --> 01:10:39.106 I think it's really helpful test.

NOTE Confidence: 0.852286

01:10:40.550 --> 01:10:42.206 Excellent and this one.

NOTE Confidence: 0.852286

01:10:42.206 --> 01:10:43.862 I probably a combination

NOTE Confidence: 0.852286

01:10:43.862 --> 01:10:45.948 of both Neil and Andrew.

NOTE Confidence: 0.852286

01:10:45.950 --> 01:10:47.610 You mentioned new medications.

NOTE Confidence: 0.852286

01:10:47.610 --> 01:10:49.270 This is from Elizabeth,

NOTE Confidence: 0.852286

01:10:49.270 --> 01:10:51.340 who initiates the exploration invention

NOTE Confidence: 0.852286

01:10:51.340 --> 01:10:53.776 of these new treatments, drug therapies.

NOTE Confidence: 0.852286

01:10:53.776 --> 01:10:56.104 Is it the drug companies or

NOTE Confidence: 0.852286

01:10:56.104 --> 01:10:57.979 scientists at the University?

NOTE Confidence: 0.852286

01:10:57.980 --> 01:11:00.470 And I think it's new treatments.

NOTE Confidence: 0.852286

01:11:00.470 --> 01:11:04.059 New drugs. Thoughts on that?

NOTE Confidence: 0.81508607

01:11:06.070 --> 01:11:07.522 Yeah, so regarding radiation,

NOTE Confidence: 0.81508607

01:11:07.522 --> 01:11:10.265 a lot of the new treatment techniques
NOTE Confidence: 0.81508607

01:11:10.265 --> 01:11:12.237 is initiated by physicians.
NOTE Confidence: 0.81508607

01:11:12.240 --> 01:11:13.880 Every single clinical particular
NOTE Confidence: 0.81508607

01:11:13.880 --> 01:11:15.930 clinic and treatment center has,
NOTE Confidence: 0.81508607

01:11:15.930 --> 01:11:18.807 even though they follow the same guidelines,
NOTE Confidence: 0.81508607

01:11:18.810 --> 01:11:20.730 may have slight level variations
NOTE Confidence: 0.81508607

01:11:20.730 --> 01:11:23.330 in terms of the clinical practice.
NOTE Confidence: 0.81508607

01:11:23.330 --> 01:11:24.461 So for example,
NOTE Confidence: 0.81508607

01:11:24.461 --> 01:11:27.100 the trial data mention that we're adopting
NOTE Confidence: 0.81508607

01:11:27.174 --> 01:11:29.910 the five whole breast radiation treatment.
NOTE Confidence: 0.81508607

01:11:29.910 --> 01:11:32.521 That was a variation that the University
NOTE Confidence: 0.81508607

01:11:32.521 --> 01:11:35.248 of Florence and Italy particularly did,
NOTE Confidence: 0.81508607

01:11:35.250 --> 01:11:37.370 and they publish that in.
NOTE Confidence: 0.81508607

01:11:37.370 --> 01:11:38.818 We're adopting it here,
NOTE Confidence: 0.81508607

01:11:38.818 --> 01:11:40.628 so in terms of radiation,
NOTE Confidence: 0.81508607

01:11:40.630 --> 01:11:43.758 a lot of these new techniques is by

NOTE Confidence: 0.81508607

01:11:43.758 --> 01:11:46.690 physician and by hospital to kind of

NOTE Confidence: 0.81508607

01:11:46.690 --> 01:11:49.851 publish their results and try to share

NOTE Confidence: 0.81508607

01:11:49.851 --> 01:11:52.356 with the General Medical community.

NOTE Confidence: 0.81508607

01:11:52.360 --> 01:11:52.730 But

NOTE Confidence: 0.8484132

01:11:52.730 --> 01:11:55.690 I think for the for the medicine part,

NOTE Confidence: 0.8484132

01:11:55.690 --> 01:11:57.540 it really is a unique,

NOTE Confidence: 0.8484132

01:11:57.540 --> 01:11:58.650 exciting collaboration between

NOTE Confidence: 0.8484132

01:11:58.650 --> 01:12:00.500 physicians in academia and industry.

NOTE Confidence: 0.8484132

01:12:00.500 --> 01:12:02.712 The positions in academia often do a

NOTE Confidence: 0.8484132

01:12:02.712 --> 01:12:05.397 lot of the baseline basic science work

NOTE Confidence: 0.8484132

01:12:05.397 --> 01:12:07.899 for some of these novel compounds.

NOTE Confidence: 0.8484132

01:12:07.900 --> 01:12:09.380 That industry then develops

NOTE Confidence: 0.8484132

01:12:09.380 --> 01:12:11.230 and industry more and more,

NOTE Confidence: 0.8484132

01:12:11.230 --> 01:12:13.795 they are able to screen millions, 10s,

NOTE Confidence: 0.8484132

01:12:13.795 --> 01:12:16.210 millions of compounds and come up with

NOTE Confidence: 0.8484132

01:12:16.210 --> 01:12:19.368 a lot of interesting ideas on their own.

NOTE Confidence: 0.8484132

01:12:19.370 --> 01:12:21.335 And the collaborate with the

NOTE Confidence: 0.8484132

01:12:21.335 --> 01:12:22.907 academic medical centers to.

NOTE Confidence: 0.8484132

01:12:22.910 --> 01:12:25.223 I'll get those ideas to people who need it.

NOTE Confidence: 0.86509407

01:12:27.260 --> 01:12:29.366 Doctor Mastriani had to drop off.

NOTE Confidence: 0.86509407

01:12:29.370 --> 01:12:31.834 She has. She had a screaming toddler

NOTE Confidence: 0.86509407

01:12:31.834 --> 01:12:33.946 in the background, so there are

NOTE Confidence: 0.86509407

01:12:33.946 --> 01:12:35.354 any questions for reconstruction.

NOTE Confidence: 0.86509407

01:12:35.360 --> 01:12:38.168 I'm happy to pass those along to her.

NOTE Confidence: 0.86509407

01:12:38.170 --> 01:12:39.930 She's she's just a phenomenal

NOTE Confidence: 0.86509407

01:12:39.930 --> 01:12:41.338 addition to our program.

NOTE Confidence: 0.86509407

01:12:41.340 --> 01:12:43.657 And you know, I was privileged to

NOTE Confidence: 0.86509407

01:12:43.657 --> 01:12:46.619 see her as a trainee in a residence.

NOTE Confidence: 0.86509407

01:12:46.620 --> 01:12:48.735 And now she's telling me

NOTE Confidence: 0.86509407

01:12:48.735 --> 01:12:51.940 what to do so it's fantastic.

NOTE Confidence: 0.86509407

01:12:51.940 --> 01:12:54.286 Along the lines of additional questions,

NOTE Confidence: 0.86509407

01:12:54.290 --> 01:12:57.034 what are thoughts on you know Neil?

NOTE Confidence: 0.86509407

01:12:57.040 --> 01:12:59.588 You mentioned a little bit of this

NOTE Confidence: 0.86509407

01:12:59.588 --> 01:13:02.412 and Andrew as well on deescalation so

NOTE Confidence: 0.86509407

01:13:02.412 --> 01:13:05.264 often we're trying to do, you know,

NOTE Confidence: 0.86509407

01:13:05.264 --> 01:13:07.616 get better, newer drugs more longer,

NOTE Confidence: 0.86509407

01:13:07.620 --> 01:13:09.188 longer courses of treatment

NOTE Confidence: 0.86509407

01:13:09.188 --> 01:13:11.540 so we can keep you know.

NOTE Confidence: 0.86509407

01:13:11.540 --> 01:13:13.108 Of course, you know.

NOTE Confidence: 0.86509407

01:13:13.108 --> 01:13:15.460 Survival is our number one concern.

NOTE Confidence: 0.86509407

01:13:15.460 --> 01:13:18.225 Yet sometimes like for some of the

NOTE Confidence: 0.86509407

01:13:18.225 --> 01:13:20.716 less advanced diseases like DCIS you

NOTE Confidence: 0.86509407

01:13:20.716 --> 01:13:23.170 mentioned and certain types of cancers.

NOTE Confidence: 0.86509407

01:13:23.170 --> 01:13:26.278 We may be overtreating as opposed

NOTE Confidence: 0.86509407

01:13:26.278 --> 01:13:29.430 to thinking of less treatment.

NOTE Confidence: 0.86509407

01:13:29.430 --> 01:13:29.740 Right,

NOTE Confidence: 0.834367

01:13:29.740 --> 01:13:30.892 that is absolutely correct.

NOTE Confidence: 0.834367

01:13:30.892 --> 01:13:32.620 I'm over the past year is

NOTE Confidence: 0.834367

01:13:32.678 --> 01:13:34.308 radiation terms of cure rates,

NOTE Confidence: 0.834367

01:13:34.310 --> 01:13:35.835 control of local regional disease

NOTE Confidence: 0.834367

01:13:35.835 --> 01:13:37.055 has been pretty effective,

NOTE Confidence: 0.834367

01:13:37.060 --> 01:13:38.276 and we've been developing

NOTE Confidence: 0.834367

01:13:38.276 --> 01:13:39.796 our new technology and many,

NOTE Confidence: 0.834367

01:13:39.800 --> 01:13:41.822 many studies in trying to reduce

NOTE Confidence: 0.834367

01:13:41.822 --> 01:13:43.766 the side effects and that kind

NOTE Confidence: 0.834367

01:13:43.766 --> 01:13:45.600 of in the name of the game.

NOTE Confidence: 0.834367

01:13:45.600 --> 01:13:45.902 Fortunately,

NOTE Confidence: 0.834367

01:13:45.902 --> 01:13:47.412 breast cancers when those cancers

NOTE Confidence: 0.834367

01:13:47.412 --> 01:13:49.260 that has a much higher cure,

NOTE Confidence: 0.834367

01:13:49.260 --> 01:13:51.388 an control rate compared to other cancers.

NOTE Confidence: 0.834367

01:13:51.390 --> 01:13:53.184 So we actually have this privilege

NOTE Confidence: 0.834367

01:13:53.184 --> 01:13:55.396 of spending a lot of time and

NOTE Confidence: 0.834367
01:13:55.396 --> 01:13:56.981 energy trying to increase side
NOTE Confidence: 0.834367
01:13:56.981 --> 01:13:58.709 effects that we might not have.
NOTE Confidence: 0.834367
01:13:58.710 --> 01:13:59.847 For example in.
NOTE Confidence: 0.834367
01:13:59.847 --> 01:14:02.500 Patients with brain cancer or lung cancer.
NOTE Confidence: 0.834367
01:14:02.500 --> 01:14:04.840 So different trials like I mentioned,
NOTE Confidence: 0.834367
01:14:04.840 --> 01:14:06.795 you know the fabric trial
NOTE Confidence: 0.834367
01:14:06.795 --> 01:14:07.968 changing the fractionation,
NOTE Confidence: 0.834367
01:14:07.970 --> 01:14:10.316 maybe adding on breath hold technique.
NOTE Confidence: 0.834367
01:14:10.320 --> 01:14:11.872 All these different techniques
NOTE Confidence: 0.834367
01:14:11.872 --> 01:14:14.659 is really used to try to focus
NOTE Confidence: 0.834367
01:14:14.659 --> 01:14:16.957 patients in the Gray area where,
NOTE Confidence: 0.834367
01:14:16.960 --> 01:14:19.222 where maybe the treatment doesn't have
NOTE Confidence: 0.834367
01:14:19.222 --> 01:14:22.336 to be that long or that extensive or
NOTE Confidence: 0.834367
01:14:22.336 --> 01:14:24.640 cover regional nodes when you only
NOTE Confidence: 0.834367
01:14:24.710 --> 01:14:27.098 have maybe one lymph nodes compared
NOTE Confidence: 0.834367

01:14:27.098 --> 01:14:29.436 to patients with four lymph nodes.
NOTE Confidence: 0.834367

01:14:29.436 --> 01:14:31.674 So patients along the Gray area
NOTE Confidence: 0.834367

01:14:31.674 --> 01:14:34.004 spectrum are targets where we want
NOTE Confidence: 0.834367

01:14:34.004 --> 01:14:36.278 to tease out exactly which treatment
NOTE Confidence: 0.834367

01:14:36.352 --> 01:14:38.626 could benefit them the most without
NOTE Confidence: 0.834367

01:14:38.626 --> 01:14:40.806 causing that were side effects.
NOTE Confidence: 0.834367

01:14:40.806 --> 01:14:41.462 Yeah,
NOTE Confidence: 0.834367

01:14:41.462 --> 01:14:42.118 so
NOTE Confidence: 0.79552776

01:14:42.120 --> 01:14:44.400 I have the medical equivalent meddock
NOTE Confidence: 0.79552776

01:14:44.400 --> 01:14:46.469 equivalent in what Andrew said is,
NOTE Confidence: 0.79552776

01:14:46.470 --> 01:14:48.126 I think, somewhat shamefully,
NOTE Confidence: 0.79552776

01:14:48.126 --> 01:14:50.610 I think that medical oncologist have
NOTE Confidence: 0.79552776

01:14:50.676 --> 01:14:53.084 been slow to get to the game of
NOTE Confidence: 0.79552776

01:14:53.084 --> 01:14:55.180 Deescalation and have pursued a more
NOTE Confidence: 0.79552776

01:14:55.180 --> 01:14:57.322 is better philosophy for for decades.
NOTE Confidence: 0.79552776

01:14:57.330 --> 01:15:00.218 And but we, although late to the game,

NOTE Confidence: 0.79552776

01:15:00.220 --> 01:15:02.398 we very much been catching up.

NOTE Confidence: 0.79552776

01:15:02.400 --> 01:15:05.397 So I think the best example of that is

NOTE Confidence: 0.79552776

01:15:05.397 --> 01:15:08.519 this Oncotype DX test where a test which

NOTE Confidence: 0.79552776

01:15:08.519 --> 01:15:11.487 has allowed us to give fully 50% less.

NOTE Confidence: 0.79552776

01:15:11.487 --> 01:15:13.522 Chemotherapy to women with early

NOTE Confidence: 0.79552776

01:15:13.522 --> 01:15:15.833 breast cancer and it now, thankfully,

NOTE Confidence: 0.79552776

01:15:15.833 --> 01:15:18.164 is pretty much top of mind in

NOTE Confidence: 0.79552776

01:15:18.164 --> 01:15:20.230 terms of medical oncologists.

NOTE Confidence: 0.79552776

01:15:20.230 --> 01:15:22.588 How can we give less chemo?

NOTE Confidence: 0.79552776

01:15:22.590 --> 01:15:24.560 How can we ameliorate the

NOTE Confidence: 0.79552776

01:15:24.560 --> 01:15:26.530 toxicities of anti estrogen therapy?

NOTE Confidence: 0.79552776

01:15:26.530 --> 01:15:28.900 Those types of things we have,

NOTE Confidence: 0.79552776

01:15:28.900 --> 01:15:30.166 Android or Merriweather?

NOTE Confidence: 0.79552776

01:15:30.166 --> 01:15:32.276 We've highlighted a really terrific

NOTE Confidence: 0.79552776

01:15:32.276 --> 01:15:34.867 study was coming up for women with

NOTE Confidence: 0.79552776

01:15:34.867 --> 01:15:36.552 non invasive breast cancer DCIS
NOTE Confidence: 0.79552776

01:15:36.619 --> 01:15:38.669 looking at avoiding surgery and
NOTE Confidence: 0.79552776

01:15:38.669 --> 01:15:40.719 radiation altogether and seeing that
NOTE Confidence: 0.79552776

01:15:40.720 --> 01:15:43.604 does everybody with DCIS need to be?
NOTE Confidence: 0.79552776

01:15:43.610 --> 01:15:43.985 Treated,
NOTE Confidence: 0.79552776

01:15:43.985 --> 01:15:45.860 treated so we're cranking along
NOTE Confidence: 0.79552776

01:15:45.860 --> 01:15:47.360 at those interesting questions.
NOTE Confidence: 0.79552776

01:15:47.360 --> 01:15:49.610 Any of these trials are great,
NOTE Confidence: 0.742784

01:15:49.610 --> 01:15:52.985 and I'm hoping they put me out of business
NOTE Confidence: 0.742784

01:15:52.985 --> 01:15:56.360 so I can just become a smile. O Moderador,
NOTE Confidence: 0.742784

01:15:56.360 --> 01:15:57.860 which do awfully well.
NOTE Confidence: 0.8541649

01:15:59.780 --> 01:16:01.465 I actually don't see any
NOTE Confidence: 0.8541649

01:16:01.465 --> 01:16:03.150 other questions that I know.
NOTE Confidence: 0.8541649

01:16:03.150 --> 01:16:05.222 The hour is late and I really
NOTE Confidence: 0.8541649

01:16:05.222 --> 01:16:07.529 first of all appreciate so much.
NOTE Confidence: 0.8541649

01:16:07.530 --> 01:16:09.889 Neil, Andrew and Melissa for your time,

NOTE Confidence: 0.8541649

01:16:09.890 --> 01:16:11.894 the audience, and you know the

NOTE Confidence: 0.8541649

01:16:11.894 --> 01:16:13.947 patients that we have the privilege

NOTE Confidence: 0.8541649

01:16:13.947 --> 01:16:16.523 of taking care of for your time this

NOTE Confidence: 0.8541649

01:16:16.587 --> 01:16:18.974 evening just to listen in to Smilow

NOTE Confidence: 0.8541649

01:16:18.974 --> 01:16:20.674 Cancer Center and the phenomenal

NOTE Confidence: 0.8541649

01:16:20.674 --> 01:16:22.359 work that's being done here.

NOTE Confidence: 0.8541649

01:16:22.360 --> 01:16:25.720 And with that this is being recorded so

NOTE Confidence: 0.8541649

01:16:25.720 --> 01:16:29.597 you can go back if you had questions and.

NOTE Confidence: 0.8541649

01:16:29.600 --> 01:16:31.280 Exactly and we're always happy

NOTE Confidence: 0.8541649

01:16:31.280 --> 01:16:32.960 to answer questions at anytime.

NOTE Confidence: 0.8541649

01:16:32.960 --> 01:16:34.640 Thank you so much, guys.

NOTE Confidence: 0.82068735

01:16:37.760 --> 01:16:40.319 Take care everyone, take care.