

WEBVTT

NOTE duration: "01:02:22.805"

NOTE Confidence: 0.8931355

00:00:03.760 --> 00:00:05.040 Hey, Joel. Why don't we

NOTE Confidence: 0.8931355

00:00:05.040 --> 00:00:05.779 get going?

NOTE Confidence: 0.99025375

00:00:07.605 --> 00:00:08.885 As I explained to our

NOTE Confidence: 0.99025375

00:00:08.885 --> 00:00:10.565 speaker, we're still sort of

NOTE Confidence: 0.99025375

00:00:10.565 --> 00:00:12.085 struggling getting people back in

NOTE Confidence: 0.99025375

00:00:12.085 --> 00:00:12.585 person,

NOTE Confidence: 0.9985349

00:00:12.965 --> 00:00:14.245 but we know that there

NOTE Confidence: 0.9985349

00:00:14.245 --> 00:00:15.945 are many people online.

NOTE Confidence: 0.995804

00:00:16.369 --> 00:00:18.310 So it's a real pleasure,

NOTE Confidence: 0.9252553

00:00:19.489 --> 00:00:21.250 to have Patty Gans here

NOTE Confidence: 0.9252553

00:00:21.250 --> 00:00:21.750 today,

NOTE Confidence: 0.89902264

00:00:22.849 --> 00:00:24.609 to give the Iris Fischer

NOTE Confidence: 0.89902264

00:00:24.609 --> 00:00:25.590 Memorial Lecture.

NOTE Confidence: 0.94856083

00:00:27.305 --> 00:00:29.244 I have known Patty for,

NOTE Confidence: 0.97534955

00:00:29.865 --> 00:00:31.385 just a few years or
NOTE Confidence: 0.97534955

00:00:31.385 --> 00:00:33.085 maybe just a few decades.
NOTE Confidence: 0.99325943

00:00:33.630 --> 00:00:34.829 And when I was a
NOTE Confidence: 0.99325943

00:00:34.829 --> 00:00:37.070 young faculty member interested in
NOTE Confidence: 0.99325943

00:00:37.070 --> 00:00:38.450 issues related to
NOTE Confidence: 0.99876416

00:00:39.149 --> 00:00:40.770 quality of life and survivorship,
NOTE Confidence: 0.9884736

00:00:43.235 --> 00:00:45.075 Patty was about the only
NOTE Confidence: 0.9884736

00:00:45.075 --> 00:00:46.454 person doing this.
NOTE Confidence: 0.98944396

00:00:47.075 --> 00:00:48.675 And I think it's fair
NOTE Confidence: 0.98944396

00:00:48.675 --> 00:00:50.754 to say, and I, said
NOTE Confidence: 0.98944396

00:00:50.754 --> 00:00:52.215 this at dinner last night,
NOTE Confidence: 0.96438974

00:00:52.900 --> 00:00:54.760 that Patty is really the
NOTE Confidence: 0.96438974

00:00:54.820 --> 00:00:55.880 senior statesperson
NOTE Confidence: 0.97673905

00:00:56.500 --> 00:00:58.360 when it comes to work,
NOTE Confidence: 0.98348653

00:00:58.900 --> 00:01:00.260 particularly in breast cancer, but
NOTE Confidence: 0.98348653

00:01:00.260 --> 00:01:01.160 across malignancies

NOTE Confidence: 0.9728881
00:01:01.620 --> 00:01:02.485 related to
NOTE Confidence: 0.99735165
00:01:02.885 --> 00:01:03.385 survivorship,
NOTE Confidence: 0.9897604
00:01:03.845 --> 00:01:05.444 quality of life, late effects
NOTE Confidence: 0.9897604
00:01:05.444 --> 00:01:06.185 of therapy.
NOTE Confidence: 0.99843657
00:01:06.725 --> 00:01:07.845 And, you know, at a
NOTE Confidence: 0.99843657
00:01:07.845 --> 00:01:08.665 time when
NOTE Confidence: 0.88710874
00:01:09.045 --> 00:01:10.025 I think most,
NOTE Confidence: 0.9933608
00:01:10.645 --> 00:01:12.740 medical oncologists and other cancer
NOTE Confidence: 0.9933608
00:01:12.740 --> 00:01:14.580 physicians and researchers were focused
NOTE Confidence: 0.9933608
00:01:14.580 --> 00:01:15.319 on just
NOTE Confidence: 0.9981193
00:01:15.700 --> 00:01:17.240 giving more and
NOTE Confidence: 0.974829
00:01:17.620 --> 00:01:18.900 sort of pounding away at
NOTE Confidence: 0.974829
00:01:18.900 --> 00:01:19.400 people.
NOTE Confidence: 0.9718702
00:01:20.455 --> 00:01:22.134 Patty was asking questions about
NOTE Confidence: 0.9718702
00:01:22.134 --> 00:01:23.095 what does that mean for
NOTE Confidence: 0.9718702

00:01:23.095 --> 00:01:24.534 people after the fact, and
NOTE Confidence: 0.9718702

00:01:24.534 --> 00:01:25.034 that,
NOTE Confidence: 0.9923802

00:01:25.655 --> 00:01:27.354 is more relevant today
NOTE Confidence: 0.96910495

00:01:27.655 --> 00:01:29.194 than, ever before.
NOTE Confidence: 0.99977607

00:01:30.370 --> 00:01:32.130 I will not detail all
NOTE Confidence: 0.99977607

00:01:32.130 --> 00:01:33.030 of the awards
NOTE Confidence: 0.99891925

00:01:33.410 --> 00:01:34.870 that you have won.
NOTE Confidence: 0.95115674

00:01:36.210 --> 00:01:37.490 Patty is a member of
NOTE Confidence: 0.95115674

00:01:37.490 --> 00:01:39.954 the National Academy of Medicine
NOTE Confidence: 0.95115674

00:01:40.174 --> 00:01:41.314 and is just,
NOTE Confidence: 0.9994846

00:01:42.174 --> 00:01:43.235 both renowned
NOTE Confidence: 0.9793174

00:01:43.615 --> 00:01:44.594 and beloved,
NOTE Confidence: 0.99248374

00:01:45.134 --> 00:01:46.994 in the breast cancer community
NOTE Confidence: 0.99248374

00:01:47.134 --> 00:01:49.530 and the psychosocial oncology community
NOTE Confidence: 0.99248374

00:01:49.530 --> 00:01:51.790 and survivorship community. So, Patty,
NOTE Confidence: 0.99248374

00:01:52.090 --> 00:01:53.049 thank you so much for

NOTE Confidence: 0.99248374

00:01:53.049 --> 00:01:54.250 being here, and,

NOTE Confidence: 0.999598

00:01:55.369 --> 00:01:56.270 it's all yours.

NOTE Confidence: 0.9781468

00:02:00.265 --> 00:02:02.345 Thanks. And I I'm glad

NOTE Confidence: 0.9781468

00:02:02.345 --> 00:02:03.945 that Eric moved the microphone

NOTE Confidence: 0.9781468

00:02:03.945 --> 00:02:04.925 because I'm also

NOTE Confidence: 0.99934393

00:02:05.310 --> 00:02:06.130 vertically challenged

NOTE Confidence: 0.98378307

00:02:06.830 --> 00:02:08.270 a little bit. So it's

NOTE Confidence: 0.98378307

00:02:08.270 --> 00:02:09.550 great to be here today,

NOTE Confidence: 0.98378307

00:02:09.550 --> 00:02:11.310 and, I really appreciate the

NOTE Confidence: 0.98378307

00:02:11.310 --> 00:02:12.850 welcome and also the opportunity,

NOTE Confidence: 0.96529895

00:02:13.575 --> 00:02:14.855 to share, which I think

NOTE Confidence: 0.96529895

00:02:14.855 --> 00:02:16.555 will be a multiple decade

NOTE Confidence: 0.96529895

00:02:16.695 --> 00:02:17.755 experience. And,

NOTE Confidence: 0.96700245

00:02:18.375 --> 00:02:19.575 just to to let you

NOTE Confidence: 0.96700245

00:02:19.575 --> 00:02:20.615 know, you know, how my

NOTE Confidence: 0.96700245

00:02:20.615 --> 00:02:21.895 career evolved, but really the
NOTE Confidence: 0.96700245

00:02:21.895 --> 00:02:23.320 focus on symptom science.
NOTE Confidence: 0.92475796

00:02:24.360 --> 00:02:26.140 So just a couple disclosures
NOTE Confidence: 0.99629474

00:02:26.600 --> 00:02:27.100 here.
NOTE Confidence: 0.9943403

00:02:29.640 --> 00:02:30.140 Okay.
NOTE Confidence: 0.98679

00:02:30.475 --> 00:02:31.355 So what am I gonna
NOTE Confidence: 0.98679

00:02:31.355 --> 00:02:32.315 be talking about? Well, I'm
NOTE Confidence: 0.98679

00:02:32.315 --> 00:02:33.755 gonna be sharing my journey,
NOTE Confidence: 0.98679

00:02:33.755 --> 00:02:34.955 and you already heard from
NOTE Confidence: 0.98679

00:02:34.955 --> 00:02:36.395 Eric about, you know, how
NOTE Confidence: 0.98679

00:02:36.395 --> 00:02:37.915 I kind of began to
NOTE Confidence: 0.98679

00:02:37.915 --> 00:02:39.139 work in this area, And
NOTE Confidence: 0.98679

00:02:39.139 --> 00:02:40.599 I've really been very fortunate.
NOTE Confidence: 0.9653405

00:02:41.700 --> 00:02:42.500 I was really in the
NOTE Confidence: 0.9653405

00:02:42.500 --> 00:02:44.020 early days working on quality
NOTE Confidence: 0.9653405

00:02:44.020 --> 00:02:45.380 of life and symptom measurement

NOTE Confidence: 0.9653405
00:02:45.380 --> 00:02:47.185 in clinical trials. And I
NOTE Confidence: 0.9653405
00:02:47.185 --> 00:02:48.465 work Liosha and I were
NOTE Confidence: 0.9653405
00:02:48.465 --> 00:02:49.765 just talking about a trial,
NOTE Confidence: 0.9934912
00:02:50.305 --> 00:02:51.905 that I'm analyzing the quality
NOTE Confidence: 0.9934912
00:02:51.905 --> 00:02:52.945 of life for. So I
NOTE Confidence: 0.9934912
00:02:52.945 --> 00:02:53.445 really
NOTE Confidence: 0.9991375
00:02:53.745 --> 00:02:54.245 began
NOTE Confidence: 0.99155587
00:02:54.550 --> 00:02:55.910 in that way when people
NOTE Confidence: 0.99155587
00:02:55.910 --> 00:02:57.190 were trying to say, could
NOTE Confidence: 0.99155587
00:02:57.190 --> 00:02:58.730 we scientifically measure,
NOTE Confidence: 0.9683934
00:02:59.350 --> 00:03:01.290 patients' experiences with,
NOTE Confidence: 0.973453
00:03:01.669 --> 00:03:02.970 their treatment and disease?
NOTE Confidence: 0.98385876
00:03:03.825 --> 00:03:05.105 Then I wanna talk about
NOTE Confidence: 0.98385876
00:03:05.105 --> 00:03:06.864 my interaction between my own
NOTE Confidence: 0.98385876
00:03:06.864 --> 00:03:08.325 research and what I learned
NOTE Confidence: 0.98385876

00:03:08.465 --> 00:03:10.065 from assessing quality of life
NOTE Confidence: 0.98385876

00:03:10.065 --> 00:03:11.350 outcomes in clinical trials and
NOTE Confidence: 0.98385876

00:03:11.350 --> 00:03:12.510 how I then began to
NOTE Confidence: 0.98385876

00:03:12.510 --> 00:03:13.790 bring that back to my
NOTE Confidence: 0.98385876

00:03:13.790 --> 00:03:15.630 own research. And then lastly,
NOTE Confidence: 0.98385876

00:03:15.630 --> 00:03:17.070 to talk about advancing the
NOTE Confidence: 0.98385876

00:03:17.070 --> 00:03:18.930 whole field of symptom science
NOTE Confidence: 0.98385876

00:03:19.135 --> 00:03:20.194 in cancer survivors
NOTE Confidence: 0.9511729

00:03:20.495 --> 00:03:21.694 and really the need for
NOTE Confidence: 0.9511729

00:03:21.694 --> 00:03:23.135 collaborative team science. And I
NOTE Confidence: 0.9511729

00:03:23.135 --> 00:03:24.415 think that's really what cancer
NOTE Confidence: 0.9511729

00:03:24.415 --> 00:03:26.174 center is about cancer centers
NOTE Confidence: 0.9511729

00:03:26.174 --> 00:03:27.375 are about is to try
NOTE Confidence: 0.9511729

00:03:27.375 --> 00:03:28.790 and do that kind of
NOTE Confidence: 0.9511729

00:03:28.790 --> 00:03:29.930 translational work.
NOTE Confidence: 0.99940026

00:03:30.790 --> 00:03:31.290 So

NOTE Confidence: 0.99099666
00:03:31.590 --> 00:03:33.110 this was about nineteen ninety,
NOTE Confidence: 0.99099666
00:03:33.110 --> 00:03:34.490 and this was a conceptual
NOTE Confidence: 0.99099666
00:03:34.550 --> 00:03:35.825 model that was put forth
NOTE Confidence: 0.99099666
00:03:35.825 --> 00:03:36.945 in terms of talking about
NOTE Confidence: 0.99099666
00:03:36.945 --> 00:03:38.145 quality of life. And there
NOTE Confidence: 0.99099666
00:03:38.145 --> 00:03:39.345 had already been a lot
NOTE Confidence: 0.99099666
00:03:39.345 --> 00:03:40.885 of social science research
NOTE Confidence: 0.9944
00:03:41.345 --> 00:03:42.705 trying to measure the health
NOTE Confidence: 0.9944
00:03:42.705 --> 00:03:43.985 and well-being of the general
NOTE Confidence: 0.9944
00:03:43.985 --> 00:03:44.485 population
NOTE Confidence: 0.9956774
00:03:44.970 --> 00:03:45.849 that came out of the
NOTE Confidence: 0.9956774
00:03:45.849 --> 00:03:46.830 Johnson administration,
NOTE Confidence: 0.9864583
00:03:47.130 --> 00:03:48.410 the war on poverty, a
NOTE Confidence: 0.9864583
00:03:48.410 --> 00:03:49.290 lot of things that were
NOTE Confidence: 0.9864583
00:03:49.290 --> 00:03:50.810 done. How can we measure
NOTE Confidence: 0.9864583

00:03:50.810 --> 00:03:52.170 well-being? And that was then

NOTE Confidence: 0.9864583

00:03:52.170 --> 00:03:53.470 beginning to be adapted

NOTE Confidence: 0.99719685

00:03:53.865 --> 00:03:55.965 to applying it to health

NOTE Confidence: 0.9724662

00:03:56.425 --> 00:03:57.625 health and health well-being and

NOTE Confidence: 0.9724662

00:03:57.625 --> 00:03:58.985 health related quality of life.

NOTE Confidence: 0.9724662

00:03:58.985 --> 00:04:00.425 And cancer, of course, because

NOTE Confidence: 0.9724662

00:04:00.425 --> 00:04:01.705 of the toxicity of our

NOTE Confidence: 0.9724662

00:04:01.705 --> 00:04:02.205 treatments,

NOTE Confidence: 0.9773102

00:04:02.530 --> 00:04:03.730 was the poster child for

NOTE Confidence: 0.9773102

00:04:03.730 --> 00:04:04.530 trying to be able to

NOTE Confidence: 0.9773102

00:04:04.530 --> 00:04:05.569 look at this. So you

NOTE Confidence: 0.9773102

00:04:05.569 --> 00:04:07.250 can see we have quality

NOTE Confidence: 0.9773102

00:04:07.250 --> 00:04:08.129 of life at the center,

NOTE Confidence: 0.9773102

00:04:08.129 --> 00:04:08.849 but look at all the

NOTE Confidence: 0.9773102

00:04:08.849 --> 00:04:09.890 other things that are being

NOTE Confidence: 0.9773102

00:04:09.890 --> 00:04:10.390 measured,

NOTE Confidence: 0.9957422

00:04:10.775 --> 00:04:12.455 symptoms and side effects, social

NOTE Confidence: 0.9957422

00:04:12.455 --> 00:04:14.395 functioning, physical functioning, and psychological

NOTE Confidence: 0.9957422

00:04:14.615 --> 00:04:16.055 functioning. So this was one

NOTE Confidence: 0.9957422

00:04:16.055 --> 00:04:17.275 way of kind of conceptualizing

NOTE Confidence: 0.9924619

00:04:17.654 --> 00:04:19.220 how to measure this. This

NOTE Confidence: 0.9924619

00:04:19.220 --> 00:04:20.180 was another way to kind

NOTE Confidence: 0.9924619

00:04:20.180 --> 00:04:21.620 of break these things down

NOTE Confidence: 0.9924619

00:04:21.620 --> 00:04:22.740 a little bit. But what

NOTE Confidence: 0.9924619

00:04:22.740 --> 00:04:23.940 I'm pointing out here is

NOTE Confidence: 0.9924619

00:04:23.940 --> 00:04:26.180 that symptom status was always

NOTE Confidence: 0.9924619

00:04:26.180 --> 00:04:27.380 part of what people were

NOTE Confidence: 0.9924619

00:04:27.380 --> 00:04:28.595 thinking about as quality of

NOTE Confidence: 0.9924619

00:04:28.595 --> 00:04:29.714 life. You know, when we

NOTE Confidence: 0.9924619

00:04:29.714 --> 00:04:31.095 think about the pro CTCAE

NOTE Confidence: 0.9769476

00:04:31.395 --> 00:04:32.675 now, which is kind of

NOTE Confidence: 0.9769476

00:04:32.675 --> 00:04:34.275 looking at toxicity from treatment

NOTE Confidence: 0.9769476

00:04:34.275 --> 00:04:35.475 but is also looking at

NOTE Confidence: 0.9769476

00:04:35.475 --> 00:04:35.975 symptoms,

NOTE Confidence: 0.97458696

00:04:36.420 --> 00:04:37.779 people think that's a separate

NOTE Confidence: 0.97458696

00:04:37.779 --> 00:04:38.900 thing, but it is really

NOTE Confidence: 0.97458696

00:04:38.900 --> 00:04:39.480 a component

NOTE Confidence: 0.999614

00:04:39.860 --> 00:04:41.080 of quality of life.

NOTE Confidence: 0.98511213

00:04:41.620 --> 00:04:43.000 And in this next slide,

NOTE Confidence: 0.98511213

00:04:43.060 --> 00:04:44.600 really, I wanna point out

NOTE Confidence: 0.98511213

00:04:44.660 --> 00:04:45.160 that

NOTE Confidence: 0.9600797

00:04:45.544 --> 00:04:47.404 when you ask somebody overall,

NOTE Confidence: 0.9600797

00:04:47.464 --> 00:04:48.665 how is your quality of

NOTE Confidence: 0.9600797

00:04:48.665 --> 00:04:49.625 life or how are you

NOTE Confidence: 0.9600797

00:04:49.625 --> 00:04:51.625 feeling today, thinking about walking

NOTE Confidence: 0.9600797

00:04:51.625 --> 00:04:52.824 down the corridor in the

NOTE Confidence: 0.9600797

00:04:52.824 --> 00:04:54.025 hospital or in in near
NOTE Confidence: 0.9600797

00:04:54.025 --> 00:04:55.510 your clinic and saying, how
NOTE Confidence: 0.9600797

00:04:55.510 --> 00:04:56.630 are you today? You're kind
NOTE Confidence: 0.9600797

00:04:56.630 --> 00:04:58.310 of asking that global question,
NOTE Confidence: 0.9600797

00:04:58.310 --> 00:04:59.589 and the person that you're
NOTE Confidence: 0.9600797

00:04:59.589 --> 00:05:00.790 talking to might say, oh,
NOTE Confidence: 0.9600797

00:05:00.790 --> 00:05:02.535 yeah. Everything's okay. But if
NOTE Confidence: 0.9600797

00:05:02.535 --> 00:05:03.815 you really started to ask
NOTE Confidence: 0.9600797

00:05:03.815 --> 00:05:05.575 them, their back is bothering
NOTE Confidence: 0.9600797

00:05:05.575 --> 00:05:07.255 them, they didn't sleep well
NOTE Confidence: 0.9600797

00:05:07.255 --> 00:05:08.455 last night, and they may
NOTE Confidence: 0.9600797

00:05:08.455 --> 00:05:10.055 have a variety of symptoms
NOTE Confidence: 0.9600797

00:05:10.055 --> 00:05:11.915 that really they're kind of
NOTE Confidence: 0.9657619

00:05:12.440 --> 00:05:13.800 putting together to give you
NOTE Confidence: 0.9657619

00:05:13.800 --> 00:05:15.720 that global assessment. And here,
NOTE Confidence: 0.9657619

00:05:15.720 --> 00:05:16.839 if we see patient a

NOTE Confidence: 0.9657619
00:05:16.839 --> 00:05:18.360 and patient b, we can
NOTE Confidence: 0.9657619
00:05:18.360 --> 00:05:20.404 see patient a has a
NOTE Confidence: 0.9657619
00:05:20.404 --> 00:05:22.245 decreased functional status. But if
NOTE Confidence: 0.9657619
00:05:22.245 --> 00:05:24.085 we look at patient b,
NOTE Confidence: 0.9657619
00:05:24.085 --> 00:05:25.685 it's pretty good. If we
NOTE Confidence: 0.9657619
00:05:25.685 --> 00:05:27.630 look at disease symptoms, there
NOTE Confidence: 0.9657619
00:05:27.630 --> 00:05:28.670 are a fair number in
NOTE Confidence: 0.9657619
00:05:28.670 --> 00:05:30.130 patient a that's low,
NOTE Confidence: 0.99862254
00:05:30.510 --> 00:05:31.330 but better
NOTE Confidence: 0.9198902
00:05:31.630 --> 00:05:32.750 in, patient,
NOTE Confidence: 0.9796015
00:05:33.390 --> 00:05:34.750 b over there. But, again,
NOTE Confidence: 0.9796015
00:05:34.750 --> 00:05:35.625 just the the point here
NOTE Confidence: 0.9796015
00:05:35.625 --> 00:05:36.824 is both of them have
NOTE Confidence: 0.9796015
00:05:36.824 --> 00:05:38.824 the same global assessment of
NOTE Confidence: 0.9796015
00:05:38.824 --> 00:05:39.944 quality of life, and you
NOTE Confidence: 0.9796015

00:05:39.944 --> 00:05:41.065 really do have to dig
NOTE Confidence: 0.9796015

00:05:41.065 --> 00:05:42.425 down and look at those
NOTE Confidence: 0.9796015

00:05:42.425 --> 00:05:43.724 domains to understand
NOTE Confidence: 0.9973955

00:05:44.185 --> 00:05:46.370 what people are experiencing and
NOTE Confidence: 0.9973955

00:05:46.370 --> 00:05:47.350 how they're evaluating
NOTE Confidence: 0.9980785

00:05:47.730 --> 00:05:48.870 that global rating.
NOTE Confidence: 0.93979645

00:05:50.210 --> 00:05:51.730 This is another model, again,
NOTE Confidence: 0.93979645

00:05:51.730 --> 00:05:53.169 from the nineteen nineties from,
NOTE Confidence: 0.93979645

00:05:53.604 --> 00:05:55.205 Clear Wilson and Cleary, who
NOTE Confidence: 0.93979645

00:05:55.205 --> 00:05:56.485 really were not just doing
NOTE Confidence: 0.93979645

00:05:56.485 --> 00:05:57.764 this for cancer, but really
NOTE Confidence: 0.93979645

00:05:57.764 --> 00:05:59.445 overall looking at quality of
NOTE Confidence: 0.93979645

00:05:59.445 --> 00:06:00.725 life. And you can see
NOTE Confidence: 0.93979645

00:06:00.725 --> 00:06:01.685 on the left are the
NOTE Confidence: 0.93979645

00:06:01.685 --> 00:06:02.985 biological and physiological
NOTE Confidence: 0.9797576

00:06:03.330 --> 00:06:05.250 variables, but then symptoms are

NOTE Confidence: 0.9797576

00:06:05.250 --> 00:06:06.930 how things are manifested in

NOTE Confidence: 0.9797576

00:06:06.930 --> 00:06:08.690 the patient. And, again, you

NOTE Confidence: 0.9797576

00:06:08.690 --> 00:06:10.370 can see cancer therapy coming

NOTE Confidence: 0.9797576

00:06:10.370 --> 00:06:11.729 in there, if you will,

NOTE Confidence: 0.9797576

00:06:11.729 --> 00:06:12.229 intruding

NOTE Confidence: 0.93376034

00:06:12.705 --> 00:06:14.305 and causing new symptoms for

NOTE Confidence: 0.93376034

00:06:14.305 --> 00:06:15.585 someone. And over at the

NOTE Confidence: 0.93376034

00:06:15.585 --> 00:06:16.705 right, I've circle

NOTE Confidence: 0.9846565

00:06:17.745 --> 00:06:18.245 circled

NOTE Confidence: 0.9759712

00:06:18.545 --> 00:06:20.625 nonmedical factors, which, again, we

NOTE Confidence: 0.9759712

00:06:20.625 --> 00:06:22.325 now talk about social determinants

NOTE Confidence: 0.9759712

00:06:22.385 --> 00:06:24.129 of health. And again, we're

NOTE Confidence: 0.9759712

00:06:24.129 --> 00:06:25.250 always part of these things,

NOTE Confidence: 0.9759712

00:06:25.250 --> 00:06:26.449 but we're now beginning to

NOTE Confidence: 0.9759712

00:06:26.449 --> 00:06:27.349 pay more attention.

NOTE Confidence: 0.97447556

00:06:27.889 --> 00:06:29.430 But if we look again,
NOTE Confidence: 0.9931264

00:06:29.785 --> 00:06:31.625 the patient comes to the
NOTE Confidence: 0.9931264

00:06:31.625 --> 00:06:33.245 illness with preexisting
NOTE Confidence: 0.8610338

00:06:33.625 --> 00:06:34.125 conditions,
NOTE Confidence: 0.98466575

00:06:34.505 --> 00:06:36.505 and we very seldom actually
NOTE Confidence: 0.98466575

00:06:36.505 --> 00:06:37.625 pay attention to this. This
NOTE Confidence: 0.98466575

00:06:37.625 --> 00:06:38.904 is what I call host
NOTE Confidence: 0.98466575

00:06:38.904 --> 00:06:41.050 factors, the life experience. Did
NOTE Confidence: 0.98466575

00:06:41.050 --> 00:06:42.889 they have depression before? Did
NOTE Confidence: 0.98466575

00:06:42.889 --> 00:06:44.430 they have other chronic illnesses?
NOTE Confidence: 0.98466575

00:06:44.569 --> 00:06:45.689 And so this is the
NOTE Confidence: 0.98466575

00:06:45.689 --> 00:06:47.050 soil, if you will, in
NOTE Confidence: 0.98466575

00:06:47.050 --> 00:06:48.729 which our cancer treatment starts
NOTE Confidence: 0.98466575

00:06:48.729 --> 00:06:50.675 to cause problems or symptoms
NOTE Confidence: 0.98466575

00:06:50.675 --> 00:06:52.275 in patients. And, again, there
NOTE Confidence: 0.98466575

00:06:52.275 --> 00:06:53.555 are the characteristics of the

NOTE Confidence: 0.98466575

00:06:53.555 --> 00:06:55.154 individual part of that life

NOTE Confidence: 0.98466575

00:06:55.154 --> 00:06:55.654 history,

NOTE Confidence: 0.9472009

00:06:55.955 --> 00:06:57.975 their personality and other issues,

NOTE Confidence: 0.9472009

00:06:58.115 --> 00:06:59.335 and then their social

NOTE Confidence: 0.98795146

00:06:59.860 --> 00:07:02.259 support and environmental context. All

NOTE Confidence: 0.98795146

00:07:02.259 --> 00:07:03.539 of these things really need

NOTE Confidence: 0.98795146

00:07:03.539 --> 00:07:04.660 to be considered, but we

NOTE Confidence: 0.98795146

00:07:04.660 --> 00:07:06.339 seldom do that except if

NOTE Confidence: 0.98795146

00:07:06.339 --> 00:07:07.380 we have the luxury of

NOTE Confidence: 0.98795146

00:07:07.380 --> 00:07:08.599 doing a very comprehensive

NOTE Confidence: 0.97966826

00:07:09.365 --> 00:07:10.805 study where we're asking a

NOTE Confidence: 0.97966826

00:07:10.805 --> 00:07:12.264 lot of questions of people.

NOTE Confidence: 0.97151154

00:07:12.965 --> 00:07:14.165 So now I wanna start

NOTE Confidence: 0.97151154

00:07:14.165 --> 00:07:15.525 to show you a little

NOTE Confidence: 0.97151154

00:07:15.525 --> 00:07:16.485 bit of data from some

NOTE Confidence: 0.97151154

00:07:16.485 --> 00:07:17.845 of the clinical trials work
NOTE Confidence: 0.97151154

00:07:17.845 --> 00:07:19.150 that I've done over time,
NOTE Confidence: 0.97151154

00:07:19.210 --> 00:07:20.410 where I wanna point out
NOTE Confidence: 0.97151154

00:07:20.410 --> 00:07:22.270 that symptoms really are influencing
NOTE Confidence: 0.97423935

00:07:22.570 --> 00:07:24.250 all these domains. And this
NOTE Confidence: 0.97423935

00:07:24.250 --> 00:07:25.770 is baseline data from the
NOTE Confidence: 0.97423935

00:07:25.770 --> 00:07:27.355 breast cancer prevention trial, which
NOTE Confidence: 0.97423935

00:07:27.355 --> 00:07:28.635 was conducted in the nineteen
NOTE Confidence: 0.97423935

00:07:28.635 --> 00:07:29.915 nineties. I had the good
NOTE Confidence: 0.97423935

00:07:29.915 --> 00:07:30.955 fortune of being able to
NOTE Confidence: 0.97423935

00:07:30.955 --> 00:07:32.715 do the, the quality of
NOTE Confidence: 0.97423935

00:07:32.715 --> 00:07:33.995 life study for the b,
NOTE Confidence: 0.97423935

00:07:34.235 --> 00:07:35.430 b BCPT,
NOTE Confidence: 0.96400654

00:07:36.210 --> 00:07:37.650 the p one trial. But
NOTE Confidence: 0.96400654

00:07:37.650 --> 00:07:39.330 look, that symptoms here are
NOTE Confidence: 0.96400654

00:07:39.330 --> 00:07:40.710 all highly correlated

NOTE Confidence: 0.98536056

00:07:41.090 --> 00:07:42.450 with all of those domains

NOTE Confidence: 0.98536056

00:07:42.450 --> 00:07:43.505 on the left, whether it's

NOTE Confidence: 0.98536056

00:07:43.665 --> 00:07:45.205 pain or physical functioning,

NOTE Confidence: 0.97355497

00:07:45.585 --> 00:07:47.925 mental health. So really understanding

NOTE Confidence: 0.97355497

00:07:48.145 --> 00:07:49.425 the symptom profile of the

NOTE Confidence: 0.97355497

00:07:49.425 --> 00:07:50.965 patient may be very important

NOTE Confidence: 0.9713107

00:07:51.340 --> 00:07:53.020 to both improving their quality

NOTE Confidence: 0.9713107

00:07:53.020 --> 00:07:53.900 of life as well as

NOTE Confidence: 0.9713107

00:07:53.900 --> 00:07:56.060 understanding what they're experiencing. And

NOTE Confidence: 0.9713107

00:07:56.060 --> 00:07:57.500 those were all women before

NOTE Confidence: 0.9713107

00:07:57.500 --> 00:07:59.694 they ever started tamoxifen or

NOTE Confidence: 0.9713107

00:07:59.694 --> 00:08:00.814 a placebo. So these are

NOTE Confidence: 0.9713107

00:08:00.814 --> 00:08:02.414 midlife women. And here is

NOTE Confidence: 0.9713107

00:08:02.414 --> 00:08:03.694 some more data from that

NOTE Confidence: 0.9713107

00:08:03.694 --> 00:08:05.455 particular study where you can

NOTE Confidence: 0.9713107

00:08:05.455 --> 00:08:07.055 see by age, the dark
NOTE Confidence: 0.9713107

00:08:07.055 --> 00:08:08.600 blue are the women thirty
NOTE Confidence: 0.9713107

00:08:08.600 --> 00:08:09.960 five to forty nine. The
NOTE Confidence: 0.9713107

00:08:09.960 --> 00:08:11.720 yellow are the women fifty
NOTE Confidence: 0.9713107

00:08:11.720 --> 00:08:13.240 to fifty nine, and the
NOTE Confidence: 0.9713107

00:08:13.240 --> 00:08:14.920 aqua are the women over
NOTE Confidence: 0.9713107

00:08:14.920 --> 00:08:16.040 sixty. And so I'm pointing
NOTE Confidence: 0.9713107

00:08:16.040 --> 00:08:17.295 out with the arrows here
NOTE Confidence: 0.9713107

00:08:17.375 --> 00:08:19.055 that women fifty to fifty
NOTE Confidence: 0.9713107

00:08:19.055 --> 00:08:20.915 nine, not on any Tamoxifen
NOTE Confidence: 0.9713107

00:08:21.135 --> 00:08:22.595 yet, but just in that
NOTE Confidence: 0.9713107

00:08:22.815 --> 00:08:23.315 perimenopausal
NOTE Confidence: 0.9732774

00:08:23.695 --> 00:08:25.500 menopausal period of time, are
NOTE Confidence: 0.9732774

00:08:25.500 --> 00:08:27.680 having hot flashes, night sweats,
NOTE Confidence: 0.9732774

00:08:27.979 --> 00:08:29.740 vaginal dryness, and joint pains.
NOTE Confidence: 0.9732774

00:08:29.740 --> 00:08:31.100 And joint pains do grow

NOTE Confidence: 0.9732774

00:08:31.100 --> 00:08:32.380 up as women age, and

NOTE Confidence: 0.9732774

00:08:32.380 --> 00:08:33.455 we all know that. And

NOTE Confidence: 0.9732774

00:08:33.455 --> 00:08:34.715 if we think about aromatase

NOTE Confidence: 0.9732774

00:08:34.855 --> 00:08:36.615 inhibitor therapy that we're giving

NOTE Confidence: 0.9732774

00:08:36.615 --> 00:08:37.895 to women with breast cancer,

NOTE Confidence: 0.9732774

00:08:37.895 --> 00:08:38.855 you can see why joint

NOTE Confidence: 0.9732774

00:08:38.855 --> 00:08:39.975 pains become such a big

NOTE Confidence: 0.9732774

00:08:39.975 --> 00:08:41.460 problem. So this is just

NOTE Confidence: 0.9732774

00:08:41.460 --> 00:08:42.820 the importance of looking at

NOTE Confidence: 0.9732774

00:08:42.820 --> 00:08:44.340 these symptoms. And again, the

NOTE Confidence: 0.9732774

00:08:44.340 --> 00:08:46.280 host factor here being age

NOTE Confidence: 0.9732774

00:08:46.420 --> 00:08:48.200 influencing this and the context.

NOTE Confidence: 0.95221764

00:08:48.945 --> 00:08:50.625 This is also, from the

NOTE Confidence: 0.95221764

00:08:50.625 --> 00:08:52.225 p two trial, the STAR

NOTE Confidence: 0.95221764

00:08:52.225 --> 00:08:54.325 trial, where we compare tamoxifen

NOTE Confidence: 0.95221764

00:08:54.545 --> 00:08:56.645 to raloxifene in healthy women.

NOTE Confidence: 0.95221764

00:08:56.899 --> 00:08:58.420 And the first two panels,

NOTE Confidence: 0.95221764

00:08:58.420 --> 00:09:00.040 the SF thirty six mental

NOTE Confidence: 0.95221764

00:09:00.259 --> 00:09:01.779 and physical component show you

NOTE Confidence: 0.95221764

00:09:01.779 --> 00:09:03.779 that there's complete overlap. And

NOTE Confidence: 0.95221764

00:09:03.779 --> 00:09:04.980 the women are actually very

NOTE Confidence: 0.95221764

00:09:04.980 --> 00:09:06.495 highly functional in terms

NOTE Confidence: 0.98014146

00:09:08.495 --> 00:09:08.895 of the scores. Fifty is

NOTE Confidence: 0.98014146

00:09:08.895 --> 00:09:09.295 the average for the population.

NOTE Confidence: 0.98014146

00:09:09.295 --> 00:09:10.115 They're above

NOTE Confidence: 0.8101987

00:09:10.495 --> 00:09:11.615 volunteers from a for our

NOTE Confidence: 0.8101987

00:09:11.615 --> 00:09:13.154 clinical trial have higher

NOTE Confidence: 0.99663925

00:09:13.750 --> 00:09:14.250 psychosocial

NOTE Confidence: 0.9720685

00:09:14.710 --> 00:09:17.030 functioning. And their physical functioning

NOTE Confidence: 0.9720685

00:09:17.030 --> 00:09:18.309 declines a little bit, and

NOTE Confidence: 0.9720685

00:09:18.309 --> 00:09:20.070 their depression doesn't really change

NOTE Confidence: 0.9720685

00:09:20.070 --> 00:09:21.450 very much with the treatment.

NOTE Confidence: 0.9720685

00:09:21.644 --> 00:09:22.684 But again, I wanted to

NOTE Confidence: 0.9720685

00:09:22.684 --> 00:09:23.644 show you when we looked

NOTE Confidence: 0.9720685

00:09:23.644 --> 00:09:24.765 at the symptoms in the

NOTE Confidence: 0.9720685

00:09:24.765 --> 00:09:26.445 trial, we could, in fact,

NOTE Confidence: 0.9720685

00:09:26.445 --> 00:09:27.825 see that there were differences

NOTE Confidence: 0.9720685

00:09:27.964 --> 00:09:29.665 between raloxifen and tamoxifen.

NOTE Confidence: 0.99764717

00:09:30.330 --> 00:09:32.110 And on the panel here,

NOTE Confidence: 0.99250585

00:09:32.570 --> 00:09:33.690 here, if we look at

NOTE Confidence: 0.99250585

00:09:33.690 --> 00:09:34.190 vasomotor

NOTE Confidence: 0.97250086

00:09:34.490 --> 00:09:35.850 symptoms, we can see that

NOTE Confidence: 0.97250086

00:09:35.850 --> 00:09:37.370 women who were over age

NOTE Confidence: 0.97250086

00:09:37.370 --> 00:09:37.870 sixty,

NOTE Confidence: 0.99551594

00:09:38.555 --> 00:09:40.875 had fewer vasomotor symptoms with

NOTE Confidence: 0.99551594

00:09:40.875 --> 00:09:42.075 either of the drugs than

NOTE Confidence: 0.99551594

00:09:42.075 --> 00:09:43.375 the women who were younger.

NOTE Confidence: 0.9847681

00:09:43.755 --> 00:09:44.795 And, again, if we look

NOTE Confidence: 0.9847681

00:09:44.795 --> 00:09:45.995 at leg cramps, we can

NOTE Confidence: 0.9847681

00:09:45.995 --> 00:09:47.710 see, there's a difference between

NOTE Confidence: 0.9847681

00:09:47.710 --> 00:09:49.490 the two drugs. So, again,

NOTE Confidence: 0.9847681

00:09:49.550 --> 00:09:50.990 very valuable to be looking

NOTE Confidence: 0.9847681

00:09:50.990 --> 00:09:52.670 at symptom profiles even when

NOTE Confidence: 0.9847681

00:09:52.670 --> 00:09:53.410 the global

NOTE Confidence: 0.997566

00:09:53.925 --> 00:09:55.605 quality of life domains don't

NOTE Confidence: 0.997566

00:09:55.605 --> 00:09:56.585 seem to be affected.

NOTE Confidence: 0.9683197

00:09:57.605 --> 00:09:59.845 And again, another trial, this

NOTE Confidence: 0.9683197

00:09:59.845 --> 00:10:00.940 was the b thirty five

NOTE Confidence: 0.9683197

00:10:00.940 --> 00:10:02.059 trial. Again, I've had a

NOTE Confidence: 0.9683197

00:10:02.059 --> 00:10:03.840 long term collaboration with NSABP

NOTE Confidence: 0.9683197

00:10:04.140 --> 00:10:05.200 NRG Oncology,

NOTE Confidence: 0.96450406

00:10:05.820 --> 00:10:06.780 but this was a trial

NOTE Confidence: 0.96450406

00:10:06.780 --> 00:10:08.355 looking at, tamoxifen

NOTE Confidence: 0.9669517

00:10:08.815 --> 00:10:10.675 or aromatase inhibitor anastrozole

NOTE Confidence: 0.9650097

00:10:11.295 --> 00:10:12.675 in women who had DCIS,

NOTE Confidence: 0.9940334

00:10:13.134 --> 00:10:14.894 so a very low risk

NOTE Confidence: 0.9940334

00:10:14.894 --> 00:10:15.394 situation.

NOTE Confidence: 0.9561338

00:10:15.720 --> 00:10:16.920 But we can see again

NOTE Confidence: 0.9561338

00:10:16.920 --> 00:10:18.199 here for these curves, the

NOTE Confidence: 0.9561338

00:10:18.199 --> 00:10:20.040 physical component scores comparing the

NOTE Confidence: 0.9561338

00:10:20.040 --> 00:10:21.819 two drugs. There's no difference.

NOTE Confidence: 0.9561338

00:10:21.959 --> 00:10:22.759 But if we look at

NOTE Confidence: 0.9561338

00:10:22.759 --> 00:10:25.355 hot flashes vasomotor symptoms, tamoxifen

NOTE Confidence: 0.9953658

00:10:25.895 --> 00:10:27.495 has a worse profile, more

NOTE Confidence: 0.9953658

00:10:27.495 --> 00:10:27.995 symptoms

NOTE Confidence: 0.96912575

00:10:28.375 --> 00:10:30.235 in these women. And musculoskeletal

NOTE Confidence: 0.944536

00:10:30.775 --> 00:10:32.615 pain, again, no surprise, is

NOTE Confidence: 0.944536

00:10:32.615 --> 00:10:33.115 higher,
NOTE Confidence: 0.9971326

00:10:33.660 --> 00:10:35.020 with the anastrozole. So we
NOTE Confidence: 0.9971326

00:10:35.020 --> 00:10:36.540 can see these patterns. And
NOTE Confidence: 0.9971326

00:10:36.540 --> 00:10:37.820 why is this important? Well,
NOTE Confidence: 0.9971326

00:10:37.820 --> 00:10:38.700 then we can talk to
NOTE Confidence: 0.9971326

00:10:38.700 --> 00:10:39.980 our patients about this. This
NOTE Confidence: 0.9971326

00:10:39.980 --> 00:10:41.580 is information that we can
NOTE Confidence: 0.9971326

00:10:41.580 --> 00:10:42.720 share in the clinic.
NOTE Confidence: 0.99757105

00:10:43.605 --> 00:10:45.285 So I wanna talk about
NOTE Confidence: 0.99757105

00:10:45.285 --> 00:10:47.205 some early parallel research going
NOTE Confidence: 0.99757105

00:10:47.205 --> 00:10:48.425 on in my own laboratory.
NOTE Confidence: 0.998116

00:10:48.965 --> 00:10:50.184 I was very fortunate,
NOTE Confidence: 0.9970516

00:10:50.565 --> 00:10:52.265 because early in my career,
NOTE Confidence: 0.918763

00:10:53.019 --> 00:10:54.959 UCLA had a cancer cancer
NOTE Confidence: 0.918763

00:10:55.019 --> 00:10:55.519 control,
NOTE Confidence: 0.8784753

00:10:56.139 --> 00:10:57.259 p o one, and I

NOTE Confidence: 0.8784753

00:10:57.259 --> 00:10:58.559 was invited actually,

NOTE Confidence: 0.9582475

00:10:59.019 --> 00:11:00.139 this was in nineteen eighty

NOTE Confidence: 0.9582475

00:11:00.139 --> 00:11:01.100 three, to put in a

NOTE Confidence: 0.9582475

00:11:01.100 --> 00:11:02.684 project. And this was my

NOTE Confidence: 0.9582475

00:11:02.684 --> 00:11:04.205 first foray in beginning to

NOTE Confidence: 0.9582475

00:11:04.205 --> 00:11:05.404 look at the impact of,

NOTE Confidence: 0.9582475

00:11:05.725 --> 00:11:07.804 patients' experience from treatment, and

NOTE Confidence: 0.9582475

00:11:07.804 --> 00:11:08.785 I hope to recruit

NOTE Confidence: 0.99950314

00:11:09.089 --> 00:11:11.029 newly diagnosed breast and colorectal

NOTE Confidence: 0.99950314

00:11:11.250 --> 00:11:11.990 cancer patients.

NOTE Confidence: 0.98325354

00:11:12.370 --> 00:11:13.889 And just to say, at

NOTE Confidence: 0.98325354

00:11:13.889 --> 00:11:15.250 that time, in the early

NOTE Confidence: 0.98325354

00:11:15.250 --> 00:11:17.385 eighties, already breast cancer treatment

NOTE Confidence: 0.98325354

00:11:17.385 --> 00:11:18.584 was sort of organized, so

NOTE Confidence: 0.98325354

00:11:18.584 --> 00:11:19.304 you could go to a

NOTE Confidence: 0.98325354

00:11:19.304 --> 00:11:20.665 breast clinic or a surgeon's

NOTE Confidence: 0.98325354

00:11:20.665 --> 00:11:21.865 practice and be able to

NOTE Confidence: 0.98325354

00:11:21.865 --> 00:11:23.420 get those patients. But the

NOTE Confidence: 0.98325354

00:11:23.420 --> 00:11:25.260 colorectal cancer patients in Los

NOTE Confidence: 0.98325354

00:11:25.260 --> 00:11:27.120 Angeles were treated all over.

NOTE Confidence: 0.980393

00:11:27.500 --> 00:11:28.380 People, if they had had

NOTE Confidence: 0.980393

00:11:28.380 --> 00:11:30.140 their gallbladder surgery before, they

NOTE Confidence: 0.980393

00:11:30.140 --> 00:11:31.360 went to the same surgeon

NOTE Confidence: 0.980393

00:11:31.420 --> 00:11:32.780 for their colon cancer that

NOTE Confidence: 0.980393

00:11:32.780 --> 00:11:34.125 they had their gallbladder surgery

NOTE Confidence: 0.980393

00:11:34.125 --> 00:11:35.325 with and so forth. So

NOTE Confidence: 0.980393

00:11:35.325 --> 00:11:36.125 it was very hard to

NOTE Confidence: 0.980393

00:11:36.125 --> 00:11:38.445 recruit those patients. And, be

NOTE Confidence: 0.980393

00:11:38.445 --> 00:11:39.565 that as it may, it

NOTE Confidence: 0.980393

00:11:39.565 --> 00:11:40.765 wound up mostly we were

NOTE Confidence: 0.980393

00:11:40.765 --> 00:11:41.885 able to get breast cancer

NOTE Confidence: 0.980393

00:11:41.885 --> 00:11:43.440 patients, and then I became

NOTE Confidence: 0.980393

00:11:43.440 --> 00:11:44.559 an expert, if you will,

NOTE Confidence: 0.980393

00:11:44.559 --> 00:11:45.620 in following these,

NOTE Confidence: 0.9852349

00:11:46.320 --> 00:11:47.680 activities and outcomes. And we,

NOTE Confidence: 0.9852349

00:11:47.680 --> 00:11:49.520 in fact, followed patients for

NOTE Confidence: 0.9852349

00:11:49.520 --> 00:11:50.820 the first year after,

NOTE Confidence: 0.97064835

00:11:51.304 --> 00:11:53.625 their treatment, with, breast cancer

NOTE Confidence: 0.97064835

00:11:53.625 --> 00:11:55.465 surgery and did a randomized

NOTE Confidence: 0.97064835

00:11:55.465 --> 00:11:56.585 trial, which was a failed

NOTE Confidence: 0.97064835

00:11:56.585 --> 00:11:57.945 trial. I could tell you

NOTE Confidence: 0.97064835

00:11:57.945 --> 00:11:58.825 about that. But we had

NOTE Confidence: 0.97064835

00:11:58.825 --> 00:12:00.309 a lot of good descriptive

NOTE Confidence: 0.97064835

00:12:00.309 --> 00:12:01.690 data about the experience

NOTE Confidence: 0.9934408

00:12:02.149 --> 00:12:03.670 of women with that. And

NOTE Confidence: 0.9934408

00:12:03.670 --> 00:12:04.950 because we had followed these

NOTE Confidence: 0.9934408

00:12:04.950 --> 00:12:06.709 women for a year, I
NOTE Confidence: 0.9934408

00:12:06.709 --> 00:12:08.465 realized that some things were
NOTE Confidence: 0.9934408

00:12:08.465 --> 00:12:10.145 getting better. Physical functioning was
NOTE Confidence: 0.9934408

00:12:10.145 --> 00:12:11.925 getting better, but the psychosocial
NOTE Confidence: 0.97633415

00:12:12.385 --> 00:12:14.225 function didn't recover and sexual
NOTE Confidence: 0.97633415

00:12:14.225 --> 00:12:15.985 function was terrible. So I
NOTE Confidence: 0.97633415

00:12:15.985 --> 00:12:17.365 was able to get some
NOTE Confidence: 0.97633415

00:12:17.610 --> 00:12:19.210 funding from the American Cancer
NOTE Confidence: 0.97633415

00:12:19.210 --> 00:12:21.050 Society to follow this cohort
NOTE Confidence: 0.97633415

00:12:21.050 --> 00:12:22.010 further, and I was able
NOTE Confidence: 0.97633415

00:12:22.010 --> 00:12:22.890 to follow them for two
NOTE Confidence: 0.97633415

00:12:22.890 --> 00:12:24.410 or three years later. And
NOTE Confidence: 0.97633415

00:12:24.410 --> 00:12:26.510 that, achieved some new information
NOTE Confidence: 0.97633415

00:12:26.650 --> 00:12:28.095 particularly about sexual
NOTE Confidence: 0.98306227

00:12:28.475 --> 00:12:29.275 health. And then when there
NOTE Confidence: 0.98306227

00:12:29.275 --> 00:12:30.175 was an RFA,

NOTE Confidence: 0.9957713

00:12:30.795 --> 00:12:31.915 from the NCI in the

NOTE Confidence: 0.9957713

00:12:31.915 --> 00:12:32.815 early nineties,

NOTE Confidence: 0.9727542

00:12:33.355 --> 00:12:34.075 I was able to get

NOTE Confidence: 0.9727542

00:12:34.075 --> 00:12:34.875 an r o one to

NOTE Confidence: 0.9727542

00:12:34.875 --> 00:12:36.495 look at sexuality and intimacy

NOTE Confidence: 0.9727542

00:12:36.769 --> 00:12:38.209 in breast cancer survivors. And

NOTE Confidence: 0.9727542

00:12:38.209 --> 00:12:39.170 I did this study with

NOTE Confidence: 0.9727542

00:12:39.170 --> 00:12:40.929 Julia Rowland in Washington where

NOTE Confidence: 0.9727542

00:12:40.929 --> 00:12:42.290 she was at Georgetown before

NOTE Confidence: 0.9727542

00:12:42.290 --> 00:12:42.950 she became,

NOTE Confidence: 0.9292602

00:12:43.329 --> 00:12:44.370 director of the Office of

NOTE Confidence: 0.9292602

00:12:44.370 --> 00:12:45.269 Cancer Survivorship.

NOTE Confidence: 0.9094734

00:12:45.665 --> 00:12:47.925 And we focus particularly on,

NOTE Confidence: 0.9840427

00:12:48.384 --> 00:12:49.985 women who were about a

NOTE Confidence: 0.9840427

00:12:49.985 --> 00:12:51.285 year out after treatment,

NOTE Confidence: 0.9667945

00:12:51.665 --> 00:12:53.024 did a couple of very
NOTE Confidence: 0.9667945

00:12:53.024 --> 00:12:53.460 large,
NOTE Confidence: 0.98079723

00:12:54.020 --> 00:12:55.220 studies in terms of cross
NOTE Confidence: 0.98079723

00:12:55.220 --> 00:12:56.900 sectional data and recruited them
NOTE Confidence: 0.98079723

00:12:56.900 --> 00:12:58.340 for an interventional study and
NOTE Confidence: 0.98079723

00:12:58.340 --> 00:12:59.620 tried to also focus on
NOTE Confidence: 0.98079723

00:12:59.620 --> 00:13:01.000 African American women.
NOTE Confidence: 0.9814704

00:13:02.165 --> 00:13:03.684 Again, because I was beginning
NOTE Confidence: 0.9814704

00:13:03.684 --> 00:13:04.804 to see all these symptoms
NOTE Confidence: 0.9814704

00:13:04.804 --> 00:13:05.764 in our patients who we
NOTE Confidence: 0.9814704

00:13:05.764 --> 00:13:07.204 were doing in our following
NOTE Confidence: 0.9814704

00:13:07.204 --> 00:13:08.630 in our research, I noticed
NOTE Confidence: 0.9814704

00:13:08.790 --> 00:13:10.950 again, managing menopausal symptoms was
NOTE Confidence: 0.9814704

00:13:10.950 --> 00:13:11.770 really problematic.
NOTE Confidence: 0.9699106

00:13:12.309 --> 00:13:13.110 And I was able to
NOTE Confidence: 0.9699106

00:13:13.110 --> 00:13:14.390 get funding from the department

NOTE Confidence: 0.9699106
00:13:14.390 --> 00:13:15.830 of defense, which was newly
NOTE Confidence: 0.9699106
00:13:15.830 --> 00:13:17.585 organized at that time. This
NOTE Confidence: 0.9699106
00:13:17.585 --> 00:13:18.945 was again a failed grant
NOTE Confidence: 0.9699106
00:13:18.945 --> 00:13:20.625 application to the NIH where
NOTE Confidence: 0.9699106
00:13:20.625 --> 00:13:22.225 mostly the male reviewers said,
NOTE Confidence: 0.9699106
00:13:22.225 --> 00:13:23.585 oh, those are not problems
NOTE Confidence: 0.9699106
00:13:23.585 --> 00:13:24.804 for women with cancer.
NOTE Confidence: 0.97961044
00:13:25.590 --> 00:13:27.590 But finally, the DOD actually
NOTE Confidence: 0.97961044
00:13:27.590 --> 00:13:28.090 appreciated
NOTE Confidence: 0.9962142
00:13:28.550 --> 00:13:30.010 the fact these were issues.
NOTE Confidence: 0.9976195
00:13:30.550 --> 00:13:31.210 And then,
NOTE Confidence: 0.9850175
00:13:31.590 --> 00:13:32.790 again, I was able to
NOTE Confidence: 0.9850175
00:13:32.790 --> 00:13:34.170 get a core grant supplement
NOTE Confidence: 0.9850175
00:13:34.230 --> 00:13:36.054 to look at, the issues
NOTE Confidence: 0.9850175
00:13:36.054 --> 00:13:37.415 in younger women with breast
NOTE Confidence: 0.9850175

00:13:37.415 --> 00:13:38.215 cancer. And this is when
NOTE Confidence: 0.9850175

00:13:38.215 --> 00:13:39.495 I first began to look
NOTE Confidence: 0.9850175

00:13:39.495 --> 00:13:40.235 at these issues,
NOTE Confidence: 0.9996461

00:13:40.535 --> 00:13:41.895 not only in terms of
NOTE Confidence: 0.9996461

00:13:41.895 --> 00:13:43.550 bone health, cardiovascular
NOTE Confidence: 0.9978399

00:13:43.929 --> 00:13:45.210 health, but beginning some of
NOTE Confidence: 0.9978399

00:13:45.210 --> 00:13:47.070 the work on cognitive function,
NOTE Confidence: 0.968925

00:13:47.529 --> 00:13:48.970 in women after breast cancer
NOTE Confidence: 0.968925

00:13:48.970 --> 00:13:50.990 treatment, focusing on these issues,
NOTE Confidence: 0.9917682

00:13:51.355 --> 00:13:52.975 in younger women in particular.
NOTE Confidence: 0.9954306

00:13:54.315 --> 00:13:55.515 So what did I learn
NOTE Confidence: 0.9954306

00:13:55.515 --> 00:13:56.955 from these studies? Well, again,
NOTE Confidence: 0.9954306

00:13:56.955 --> 00:13:58.475 I've already mentioned the host
NOTE Confidence: 0.9954306

00:13:58.475 --> 00:13:58.975 factors.
NOTE Confidence: 0.9996424

00:13:59.380 --> 00:14:00.840 What the patient brings
NOTE Confidence: 0.9818293

00:14:01.300 --> 00:14:02.900 to their cancer diagnosis is

NOTE Confidence: 0.9818293
00:14:02.900 --> 00:14:04.260 very important. And if you
NOTE Confidence: 0.9818293
00:14:04.260 --> 00:14:05.140 could just think, if you're
NOTE Confidence: 0.9818293
00:14:05.140 --> 00:14:06.420 a clinician and you're seeing
NOTE Confidence: 0.9818293
00:14:06.420 --> 00:14:07.525 a patient, and if you
NOTE Confidence: 0.9818293
00:14:07.525 --> 00:14:08.804 could just ask the patient,
NOTE Confidence: 0.9818293
00:14:08.804 --> 00:14:09.765 have you ever had an
NOTE Confidence: 0.9818293
00:14:09.765 --> 00:14:11.605 episode of depression in your
NOTE Confidence: 0.9818293
00:14:11.605 --> 00:14:14.005 past life? Okay. That's one
NOTE Confidence: 0.9818293
00:14:14.005 --> 00:14:15.285 question that would be very
NOTE Confidence: 0.9818293
00:14:15.285 --> 00:14:16.949 valuable because we know that
NOTE Confidence: 0.9818293
00:14:16.949 --> 00:14:17.829 people who have had a
NOTE Confidence: 0.9818293
00:14:17.829 --> 00:14:19.910 past episode of depression are
NOTE Confidence: 0.9818293
00:14:19.910 --> 00:14:21.269 more likely to have another
NOTE Confidence: 0.9818293
00:14:21.269 --> 00:14:22.870 episode. And the if you
NOTE Confidence: 0.9818293
00:14:22.870 --> 00:14:24.069 will, the trauma and the
NOTE Confidence: 0.9818293

00:14:24.069 --> 00:14:25.535 difficulties of having a cancer
NOTE Confidence: 0.9818293

00:14:25.535 --> 00:14:26.035 characteristics
NOTE Confidence: 0.83220625

00:14:28.014 --> 00:14:28.514 of
NOTE Confidence: 0.9527609

00:14:30.495 --> 00:14:30.995 the
NOTE Confidence: 0.95792127

00:14:32.975 --> 00:14:33.862 tumor and whether maybe somebody
NOTE Confidence: 0.95792127

00:14:33.862 --> 00:14:33.881 can tolerate that treatment. But,
NOTE Confidence: 0.95792127

00:14:33.881 --> 00:14:33.900 again, many things we don't
NOTE Confidence: 0.95792127

00:14:33.900 --> 00:14:33.919 ask about. We focus on
NOTE Confidence: 0.95792127

00:14:33.919 --> 00:14:34.254 the tumor and we focus
NOTE Confidence: 0.95792127

00:14:34.254 --> 00:14:36.050 on characteristics of the tumor
NOTE Confidence: 0.95792127

00:14:36.050 --> 00:14:37.250 and whether maybe somebody can
NOTE Confidence: 0.95792127

00:14:37.250 --> 00:14:39.010 tolerate that treatment. But we
NOTE Confidence: 0.95792127

00:14:39.010 --> 00:14:40.450 don't really know what someone
NOTE Confidence: 0.95792127

00:14:40.450 --> 00:14:42.485 has experienced before, which may
NOTE Confidence: 0.95792127

00:14:42.485 --> 00:14:44.185 influence all of the symptoms
NOTE Confidence: 0.95792127

00:14:44.245 --> 00:14:45.305 after their treatment.

NOTE Confidence: 0.98143846

00:14:46.165 --> 00:14:47.944 Again, the importance of collaborative

NOTE Confidence: 0.98143846

00:14:48.084 --> 00:14:49.785 team science. I have had

NOTE Confidence: 0.99163616

00:14:50.110 --> 00:14:51.630 the good fortune to work

NOTE Confidence: 0.99163616

00:14:51.630 --> 00:14:53.649 with many social scientists, particularly

NOTE Confidence: 0.99163616

00:14:53.790 --> 00:14:55.170 psychologists, some psychiatrists

NOTE Confidence: 0.95404065

00:14:55.709 --> 00:14:57.070 since the beginning. That first

NOTE Confidence: 0.95404065

00:14:57.070 --> 00:14:58.605 grant that I had, was

NOTE Confidence: 0.95404065

00:14:58.605 --> 00:15:00.045 with a psychologist and a

NOTE Confidence: 0.95404065

00:15:00.045 --> 00:15:01.985 psychiatrist. And so very valuable,

NOTE Confidence: 0.9656926

00:15:02.445 --> 00:15:03.165 to be able to do

NOTE Confidence: 0.9656926

00:15:03.165 --> 00:15:04.205 that because I had no

NOTE Confidence: 0.9656926

00:15:04.205 --> 00:15:04.705 methodological

NOTE Confidence: 0.9844961

00:15:05.085 --> 00:15:06.960 training. When I mentor people

NOTE Confidence: 0.9844961

00:15:06.960 --> 00:15:08.240 today, I say, you need

NOTE Confidence: 0.9844961

00:15:08.240 --> 00:15:09.680 to get that master's degree.

NOTE Confidence: 0.9844961

00:15:09.680 --> 00:15:10.480 You need to get that
NOTE Confidence: 0.9844961

00:15:10.480 --> 00:15:12.000 PhD. Whatever it is, you
NOTE Confidence: 0.9844961

00:15:12.000 --> 00:15:13.235 need to learn that science
NOTE Confidence: 0.9844961

00:15:13.235 --> 00:15:14.515 because we do not learn
NOTE Confidence: 0.9844961

00:15:14.515 --> 00:15:15.955 that in medicine. And, again,
NOTE Confidence: 0.9844961

00:15:15.955 --> 00:15:16.995 I've had a lot of
NOTE Confidence: 0.9844961

00:15:16.995 --> 00:15:19.155 basic and translational collaborators as
NOTE Confidence: 0.9844961

00:15:19.155 --> 00:15:19.655 well.
NOTE Confidence: 0.9948969

00:15:19.980 --> 00:15:21.180 And then the next message
NOTE Confidence: 0.9948969

00:15:21.180 --> 00:15:22.380 here is to never do
NOTE Confidence: 0.9948969

00:15:22.380 --> 00:15:24.079 a survey or an intervention,
NOTE Confidence: 0.96167004

00:15:24.779 --> 00:15:27.100 without either collecting clinical data
NOTE Confidence: 0.96167004

00:15:27.100 --> 00:15:27.839 or biological
NOTE Confidence: 0.9690043

00:15:28.915 --> 00:15:29.955 And again, if we need
NOTE Confidence: 0.9690043

00:15:29.955 --> 00:15:31.815 to move the translational needle
NOTE Confidence: 0.9690043

00:15:32.035 --> 00:15:33.235 on this kind of research,

NOTE Confidence: 0.9690043

00:15:33.235 --> 00:15:34.855 we need to look comprehensively.

NOTE Confidence: 0.96750754

00:15:35.555 --> 00:15:37.095 So it's not just enough,

NOTE Confidence: 0.9992406

00:15:37.570 --> 00:15:38.950 to do that survey.

NOTE Confidence: 0.9291822

00:15:39.810 --> 00:15:41.330 And then the value is

NOTE Confidence: 0.9291822

00:15:41.330 --> 00:15:43.270 I've already indicated about building

NOTE Confidence: 0.9587988

00:15:43.650 --> 00:15:45.590 on past observations and findings,

NOTE Confidence: 0.9587988

00:15:45.815 --> 00:15:47.815 especially when they complement the

NOTE Confidence: 0.9587988

00:15:47.815 --> 00:15:49.894 clinical experience. And again, because

NOTE Confidence: 0.9587988

00:15:49.894 --> 00:15:50.714 I'm a clinician,

NOTE Confidence: 0.9615741

00:15:51.175 --> 00:15:52.135 I have been able to

NOTE Confidence: 0.9615741

00:15:52.135 --> 00:15:53.255 move back and forth from

NOTE Confidence: 0.9615741

00:15:53.255 --> 00:15:54.375 the clinic when I begin

NOTE Confidence: 0.9615741

00:15:54.375 --> 00:15:55.575 to hear about new symptoms

NOTE Confidence: 0.9615741

00:15:55.575 --> 00:15:56.680 or or problems a patient

NOTE Confidence: 0.9615741

00:15:56.680 --> 00:15:58.279 has that then becomes a

NOTE Confidence: 0.9615741

00:15:58.279 --> 00:15:59.259 point of investigation.
NOTE Confidence: 0.8673185

00:16:00.040 --> 00:16:00.779 But also,
NOTE Confidence: 0.991348

00:16:01.160 --> 00:16:02.839 if I'm investigating something or
NOTE Confidence: 0.991348

00:16:02.839 --> 00:16:04.120 doing research or trying to
NOTE Confidence: 0.991348

00:16:04.120 --> 00:16:05.399 manage those symptoms in a
NOTE Confidence: 0.991348

00:16:05.399 --> 00:16:07.135 new trial, I can recruit
NOTE Confidence: 0.991348

00:16:07.135 --> 00:16:08.675 those patients. I can also
NOTE Confidence: 0.9324124

00:16:09.055 --> 00:16:10.355 do what I learn
NOTE Confidence: 0.9896753

00:16:10.895 --> 00:16:12.255 in the clinic from the
NOTE Confidence: 0.9896753

00:16:12.255 --> 00:16:13.635 studies that we've done.
NOTE Confidence: 0.99979895

00:16:14.255 --> 00:16:14.755 So
NOTE Confidence: 0.9527961

00:16:15.270 --> 00:16:16.710 again, the importance of my
NOTE Confidence: 0.9527961

00:16:16.710 --> 00:16:18.790 parallel medical oncology practice just
NOTE Confidence: 0.9527961

00:16:18.790 --> 00:16:20.070 as I was alluding to.
NOTE Confidence: 0.9527961

00:16:20.070 --> 00:16:21.910 Again, I was, again, in
NOTE Confidence: 0.9527961

00:16:21.910 --> 00:16:23.270 the very beginning, taking care

NOTE Confidence: 0.9527961

00:16:23.270 --> 00:16:24.435 of patients at the VA

NOTE Confidence: 0.9527961

00:16:24.435 --> 00:16:26.595 with very advanced cancer, running

NOTE Confidence: 0.9527961

00:16:26.595 --> 00:16:28.855 a palliative care and rehabilitation

NOTE Confidence: 0.98892754

00:16:29.235 --> 00:16:30.995 ward. But, again, because of

NOTE Confidence: 0.98892754

00:16:30.995 --> 00:16:32.275 the focus of my research

NOTE Confidence: 0.98892754

00:16:32.275 --> 00:16:33.620 and my move back to

NOTE Confidence: 0.98892754

00:16:33.779 --> 00:16:34.839 UCLA full time,

NOTE Confidence: 0.99037063

00:16:35.300 --> 00:16:36.820 my practice is really focused

NOTE Confidence: 0.99037063

00:16:36.820 --> 00:16:38.360 on breast cancer patients.

NOTE Confidence: 0.9882072

00:16:38.980 --> 00:16:40.660 And then, in the nineteen

NOTE Confidence: 0.9882072

00:16:40.660 --> 00:16:42.135 nineties, with the emergence of

NOTE Confidence: 0.9882072

00:16:42.215 --> 00:16:43.975 high dose chemotherapy treatment, which

NOTE Confidence: 0.9882072

00:16:43.975 --> 00:16:44.775 we all know was a

NOTE Confidence: 0.9882072

00:16:44.775 --> 00:16:45.755 failed experiment,

NOTE Confidence: 0.808666

00:16:46.535 --> 00:16:47.035 unfortunately,

NOTE Confidence: 0.96447676

00:16:47.495 --> 00:16:48.455 but it did lead to
NOTE Confidence: 0.96447676

00:16:48.455 --> 00:16:49.735 a lot of toxicity. And
NOTE Confidence: 0.96447676

00:16:49.735 --> 00:16:50.775 we were able to observe
NOTE Confidence: 0.96447676

00:16:50.775 --> 00:16:51.595 that, unfortunately,
NOTE Confidence: 0.9820847

00:16:52.680 --> 00:16:54.920 and fatigue, cognitive difficulties, and
NOTE Confidence: 0.9820847

00:16:54.920 --> 00:16:57.160 menopausal symptoms really kind of
NOTE Confidence: 0.9820847

00:16:57.160 --> 00:16:59.320 became preeminent in managing the
NOTE Confidence: 0.9820847

00:16:59.320 --> 00:17:01.020 aftereffects from these treatments
NOTE Confidence: 0.99394333

00:17:01.585 --> 00:17:03.265 as well as the more
NOTE Confidence: 0.99394333

00:17:03.265 --> 00:17:05.125 widespread use of of chemotherapy.
NOTE Confidence: 0.98047394

00:17:05.505 --> 00:17:07.585 And, again, having lived through
NOTE Confidence: 0.98047394

00:17:07.585 --> 00:17:08.920 all of these decades of
NOTE Confidence: 0.98047394

00:17:08.920 --> 00:17:10.280 changes in treatment of breast
NOTE Confidence: 0.98047394

00:17:10.280 --> 00:17:11.560 cancer, I can say, you
NOTE Confidence: 0.98047394

00:17:11.560 --> 00:17:12.780 know, there's great enthusiasm
NOTE Confidence: 0.98854095

00:17:13.080 --> 00:17:13.880 around the turn of the

NOTE Confidence: 0.98854095

00:17:13.880 --> 00:17:15.420 last century this last century

NOTE Confidence: 0.98854095

00:17:15.554 --> 00:17:17.315 to give everybody chemotherapy. And

NOTE Confidence: 0.98854095

00:17:17.315 --> 00:17:18.195 if you had a tumor

NOTE Confidence: 0.98854095

00:17:18.195 --> 00:17:19.315 that was larger than a

NOTE Confidence: 0.98854095

00:17:19.315 --> 00:17:21.234 centimeter in size, you got

NOTE Confidence: 0.98854095

00:17:21.234 --> 00:17:22.674 chemotherapy. And that meant a

NOTE Confidence: 0.98854095

00:17:22.674 --> 00:17:23.875 lot of early stage breast

NOTE Confidence: 0.98854095

00:17:23.875 --> 00:17:25.970 cancer patients were being exposed.

NOTE Confidence: 0.98854095

00:17:26.269 --> 00:17:27.070 And so there was a

NOTE Confidence: 0.98854095

00:17:27.070 --> 00:17:28.350 big pool of people now

NOTE Confidence: 0.98854095

00:17:28.350 --> 00:17:29.490 who were getting chemotherapy.

NOTE Confidence: 0.9160559

00:17:29.950 --> 00:17:31.409 And before the anthracyclines

NOTE Confidence: 0.97553587

00:17:31.710 --> 00:17:33.710 were popularized, CMF was very

NOTE Confidence: 0.97553587

00:17:33.710 --> 00:17:34.210 popular.

NOTE Confidence: 0.99015826

00:17:34.635 --> 00:17:36.575 That caused probably more cognitive

NOTE Confidence: 0.99015826

00:17:36.715 --> 00:17:38.315 difficulties than we see with
NOTE Confidence: 0.99015826

00:17:38.315 --> 00:17:39.535 some of the other regimens.
NOTE Confidence: 0.997529

00:17:39.915 --> 00:17:41.135 And so I was beginning
NOTE Confidence: 0.997529

00:17:41.195 --> 00:17:42.715 to see more people in
NOTE Confidence: 0.997529

00:17:42.715 --> 00:17:43.455 my practice
NOTE Confidence: 0.95369774

00:17:44.020 --> 00:17:45.220 who were having these kinds
NOTE Confidence: 0.95369774

00:17:45.220 --> 00:17:46.900 of persistent symptoms, and that's
NOTE Confidence: 0.95369774

00:17:46.900 --> 00:17:48.040 really when I embarked
NOTE Confidence: 0.9843738

00:17:48.340 --> 00:17:49.140 on what I would say
NOTE Confidence: 0.9843738

00:17:49.140 --> 00:17:50.340 the last two decades of
NOTE Confidence: 0.9843738

00:17:50.340 --> 00:17:51.380 work, which has really been
NOTE Confidence: 0.9843738

00:17:51.380 --> 00:17:51.880 focusing
NOTE Confidence: 0.99836946

00:17:52.355 --> 00:17:54.135 primarily on fatigue and cognitive
NOTE Confidence: 0.99836946

00:17:54.195 --> 00:17:54.695 function.
NOTE Confidence: 0.9710699

00:17:54.994 --> 00:17:55.875 And I think the good
NOTE Confidence: 0.9710699

00:17:55.875 --> 00:17:57.234 message here is that with

NOTE Confidence: 0.9710699

00:17:57.234 --> 00:17:58.835 the advent of genomic tests

NOTE Confidence: 0.9710699

00:17:58.835 --> 00:18:00.455 for breast cancer, in particular

NOTE Confidence: 0.9710699

00:18:00.515 --> 00:18:02.040 but other tumors, we can

NOTE Confidence: 0.9710699

00:18:02.040 --> 00:18:03.640 be much more specific in

NOTE Confidence: 0.9710699

00:18:03.640 --> 00:18:05.240 who gets the exposure to

NOTE Confidence: 0.9710699

00:18:05.240 --> 00:18:06.680 chemotherapy and who does not

NOTE Confidence: 0.9710699

00:18:06.680 --> 00:18:08.200 need it anymore, which again

NOTE Confidence: 0.9710699

00:18:08.200 --> 00:18:09.560 is really very important for

NOTE Confidence: 0.9710699

00:18:09.560 --> 00:18:11.785 us in minimizing the morbidity

NOTE Confidence: 0.9710699

00:18:11.845 --> 00:18:13.225 of, cancer treatments.

NOTE Confidence: 0.98291534

00:18:14.485 --> 00:18:15.525 So just to point out

NOTE Confidence: 0.98291534

00:18:15.525 --> 00:18:16.645 now in terms of talking

NOTE Confidence: 0.98291534

00:18:16.645 --> 00:18:17.465 about survivors,

NOTE Confidence: 0.98555756

00:18:18.260 --> 00:18:19.320 it's really wonderful,

NOTE Confidence: 0.9983097

00:18:19.700 --> 00:18:20.740 for us to see so

NOTE Confidence: 0.9983097

00:18:20.740 --> 00:18:22.440 many people surviving cancer.

NOTE Confidence: 0.9889787

00:18:23.140 --> 00:18:23.640 Again,

NOTE Confidence: 0.9671653

00:18:24.180 --> 00:18:26.180 eighteen million, probably more today,

NOTE Confidence: 0.9671653

00:18:26.180 --> 00:18:27.365 but this is some some

NOTE Confidence: 0.9671653

00:18:27.365 --> 00:18:28.884 data that we have. And,

NOTE Confidence: 0.9671653

00:18:28.884 --> 00:18:30.664 again, just to point out,

NOTE Confidence: 0.9596975

00:18:30.965 --> 00:18:32.325 this is about five percent

NOTE Confidence: 0.9596975

00:18:32.325 --> 00:18:34.085 of the US population. Okay?

NOTE Confidence: 0.9596975

00:18:34.085 --> 00:18:35.410 So there's nothing to, you

NOTE Confidence: 0.9596975

00:18:35.490 --> 00:18:36.369 you know, be,

NOTE Confidence: 0.9880273

00:18:36.690 --> 00:18:37.970 surprised about, if you will.

NOTE Confidence: 0.9880273

00:18:37.970 --> 00:18:38.850 It's a number of people

NOTE Confidence: 0.9880273

00:18:38.850 --> 00:18:39.570 that we need to be

NOTE Confidence: 0.9880273

00:18:39.570 --> 00:18:40.790 very concerned about.

NOTE Confidence: 0.9922387

00:18:41.490 --> 00:18:43.810 And thinking about, who's surviving

NOTE Confidence: 0.9922387

00:18:43.810 --> 00:18:44.915 and how long, you can

NOTE Confidence: 0.9922387

00:18:44.915 --> 00:18:46.115 see here data from the

NOTE Confidence: 0.9922387

00:18:46.115 --> 00:18:47.335 National Cancer Institute

NOTE Confidence: 0.9899522

00:18:47.715 --> 00:18:48.675 that there are a large

NOTE Confidence: 0.9899522

00:18:48.675 --> 00:18:49.715 number of people who are

NOTE Confidence: 0.9899522

00:18:49.715 --> 00:18:51.795 living fifteen, twenty, thirty years

NOTE Confidence: 0.9899522

00:18:51.795 --> 00:18:52.290 out.

NOTE Confidence: 0.9874304

00:18:52.690 --> 00:18:54.770 Women have, slightly greater survival

NOTE Confidence: 0.9874304

00:18:54.770 --> 00:18:55.890 than men because of the

NOTE Confidence: 0.9874304

00:18:55.890 --> 00:18:57.010 kinds of tumors that they

NOTE Confidence: 0.9874304

00:18:57.010 --> 00:18:58.369 have. But we can expect

NOTE Confidence: 0.9874304

00:18:58.369 --> 00:19:00.230 this to increase even further

NOTE Confidence: 0.9874304

00:19:00.375 --> 00:19:01.494 because of the aging of

NOTE Confidence: 0.9874304

00:19:01.494 --> 00:19:03.335 the population, the screening tests

NOTE Confidence: 0.9874304

00:19:03.335 --> 00:19:05.035 that we have, early diagnosis

NOTE Confidence: 0.9874304

00:19:05.095 --> 00:19:06.375 for many different kinds of

NOTE Confidence: 0.9874304

00:19:06.375 --> 00:19:06.875 cancer.

NOTE Confidence: 0.9981228

00:19:07.734 --> 00:19:09.060 So how did we make

NOTE Confidence: 0.9981228

00:19:09.060 --> 00:19:10.500 these kinds of strides? Well,

NOTE Confidence: 0.9981228

00:19:10.500 --> 00:19:11.960 again, earlier detection,

NOTE Confidence: 0.9597126

00:19:12.500 --> 00:19:14.119 new drugs and other treatments,

NOTE Confidence: 0.9777773

00:19:14.740 --> 00:19:16.280 the advent of combined modality

NOTE Confidence: 0.9777773

00:19:16.420 --> 00:19:18.545 therapy, Prolonged adjuvant and or

NOTE Confidence: 0.9777773

00:19:18.545 --> 00:19:20.145 maintenance therapies have really played

NOTE Confidence: 0.9777773

00:19:20.145 --> 00:19:21.025 a role. And, again, in

NOTE Confidence: 0.9777773

00:19:21.025 --> 00:19:22.325 the case of breast cancer,

NOTE Confidence: 0.9777773

00:19:22.465 --> 00:19:24.065 because of our endocrine therapies,

NOTE Confidence: 0.9777773

00:19:24.065 --> 00:19:24.965 we see many

NOTE Confidence: 0.9943203

00:19:25.369 --> 00:19:27.390 fewer second cancers breast cancers,

NOTE Confidence: 0.994036

00:19:28.090 --> 00:19:29.470 than we used to see.

NOTE Confidence: 0.9789821

00:19:29.770 --> 00:19:30.890 But think about all the

NOTE Confidence: 0.9789821

00:19:30.890 --> 00:19:32.090 patients who are living now

NOTE Confidence: 0.9789821

00:19:32.090 --> 00:19:33.230 long term on immunotherapy

NOTE Confidence: 0.95574677

00:19:33.530 --> 00:19:34.270 with melanoma

NOTE Confidence: 0.973153

00:19:34.734 --> 00:19:36.494 and other cancers. So there's,

NOTE Confidence: 0.973153

00:19:36.734 --> 00:19:38.275 again, a lot of therapy

NOTE Confidence: 0.973153

00:19:38.415 --> 00:19:39.955 that patients are get getting

NOTE Confidence: 0.973153

00:19:40.175 --> 00:19:41.455 that are leading to longer

NOTE Confidence: 0.973153

00:19:41.455 --> 00:19:43.180 lives and survival, and then

NOTE Confidence: 0.973153

00:19:43.180 --> 00:19:44.800 this prevention of second malignancies.

NOTE Confidence: 0.97988826

00:19:46.140 --> 00:19:47.420 But there is a cost

NOTE Confidence: 0.97988826

00:19:47.420 --> 00:19:48.780 and the cost is time.

NOTE Confidence: 0.97988826

00:19:48.780 --> 00:19:49.820 And if we think about

NOTE Confidence: 0.97988826

00:19:49.820 --> 00:19:51.020 it, when I started my

NOTE Confidence: 0.97988826

00:19:51.020 --> 00:19:51.520 career,

NOTE Confidence: 0.8965261

00:19:52.225 --> 00:19:53.585 patients say with breast cancer

NOTE Confidence: 0.8965261

00:19:53.585 --> 00:19:54.945 just had surgery, maybe they

NOTE Confidence: 0.8965261

00:19:54.945 --> 00:19:55.765 had radiation,
NOTE Confidence: 0.9738073

00:19:56.145 --> 00:19:57.184 they were in the hospital
NOTE Confidence: 0.9738073

00:19:57.184 --> 00:19:58.225 for a longer time with
NOTE Confidence: 0.9738073

00:19:58.225 --> 00:19:59.505 that initial treatment, they might
NOTE Confidence: 0.9738073

00:19:59.505 --> 00:20:00.545 have had a radical or
NOTE Confidence: 0.9738073

00:20:00.545 --> 00:20:01.125 a modified
NOTE Confidence: 0.91525376

00:20:01.429 --> 00:20:02.250 radical mastectomy.
NOTE Confidence: 0.9720683

00:20:02.710 --> 00:20:03.509 But it was kind of
NOTE Confidence: 0.9720683

00:20:03.509 --> 00:20:04.710 over with it, you know,
NOTE Confidence: 0.9720683

00:20:04.710 --> 00:20:06.230 six, eight weeks after their
NOTE Confidence: 0.9720683

00:20:06.230 --> 00:20:07.129 initial diagnosis.
NOTE Confidence: 0.9724488

00:20:07.509 --> 00:20:08.389 If you take a breast
NOTE Confidence: 0.9724488

00:20:08.389 --> 00:20:10.125 cancer patient today, it may
NOTE Confidence: 0.9724488

00:20:10.125 --> 00:20:11.165 be nine months to a
NOTE Confidence: 0.9724488

00:20:11.165 --> 00:20:12.605 year before she finishes any
NOTE Confidence: 0.9724488

00:20:12.605 --> 00:20:13.984 treatment if she has reconstruction

NOTE Confidence: 0.9724488

00:20:14.205 --> 00:20:15.105 and even has,

NOTE Confidence: 0.9511918

00:20:15.405 --> 00:20:16.125 more prolonged,

NOTE Confidence: 0.9950668

00:20:16.525 --> 00:20:17.505 targeted therapy.

NOTE Confidence: 0.9845958

00:20:18.050 --> 00:20:19.330 It may even go into

NOTE Confidence: 0.9845958

00:20:19.330 --> 00:20:20.690 two years. So a very

NOTE Confidence: 0.9845958

00:20:20.690 --> 00:20:22.210 long period of time, and

NOTE Confidence: 0.9845958

00:20:22.210 --> 00:20:24.210 that period of time really

NOTE Confidence: 0.9845958

00:20:24.210 --> 00:20:25.410 is kind of mirrored in

NOTE Confidence: 0.9845958

00:20:25.410 --> 00:20:26.550 the time of recovery.

NOTE Confidence: 0.9716497

00:20:27.365 --> 00:20:28.325 I did the quality of

NOTE Confidence: 0.9716497

00:20:28.325 --> 00:20:30.085 life recently for the OLYMPIA

NOTE Confidence: 0.9716497

00:20:30.085 --> 00:20:32.085 trial, which was just after

NOTE Confidence: 0.9716497

00:20:32.085 --> 00:20:34.244 adjuvant chemotherapy and BRCA one

NOTE Confidence: 0.9716497

00:20:34.244 --> 00:20:35.750 and two carriers, a PARP

NOTE Confidence: 0.9716497

00:20:35.750 --> 00:20:37.750 inhibitor for a year. And

NOTE Confidence: 0.9716497

00:20:37.750 --> 00:20:39.190 we expected that there would
NOTE Confidence: 0.9716497

00:20:39.190 --> 00:20:40.169 be recovery
NOTE Confidence: 0.992798

00:20:40.710 --> 00:20:42.070 in the control arm that
NOTE Confidence: 0.992798

00:20:42.070 --> 00:20:43.450 didn't get the PARP inhibitor
NOTE Confidence: 0.992798

00:20:43.669 --> 00:20:44.470 by a year,
NOTE Confidence: 0.9867716

00:20:44.994 --> 00:20:45.875 because that's what we had
NOTE Confidence: 0.9867716

00:20:45.875 --> 00:20:46.675 seen in a lot of
NOTE Confidence: 0.9867716

00:20:46.675 --> 00:20:47.715 other, other,
NOTE Confidence: 0.95616376

00:20:48.035 --> 00:20:49.715 trials. But, no, even in
NOTE Confidence: 0.95616376

00:20:49.715 --> 00:20:50.994 the control arm, it was
NOTE Confidence: 0.95616376

00:20:50.994 --> 00:20:52.615 two years before fatigue,
NOTE Confidence: 0.9961033

00:20:53.500 --> 00:20:55.580 improved, in those patients. So
NOTE Confidence: 0.9961033

00:20:55.580 --> 00:20:56.859 the burden of our initial
NOTE Confidence: 0.9961033

00:20:56.859 --> 00:20:58.779 treatments now are much more
NOTE Confidence: 0.9961033

00:20:58.779 --> 00:20:59.279 substantial.
NOTE Confidence: 0.9359509

00:21:00.975 --> 00:21:02.734 So then, really, for many

NOTE Confidence: 0.9359509

00:21:02.734 --> 00:21:04.655 patients, cancer's now a chronic

NOTE Confidence: 0.9359509

00:21:04.655 --> 00:21:06.255 disease. It just, you know,

NOTE Confidence: 0.9359509

00:21:06.255 --> 00:21:07.535 maybe chronic in the sense

NOTE Confidence: 0.9359509

00:21:07.535 --> 00:21:09.260 of you are getting ongoing

NOTE Confidence: 0.9359509

00:21:09.260 --> 00:21:10.380 therapy, and I'll speak to

NOTE Confidence: 0.9359509

00:21:10.380 --> 00:21:12.320 people living with metastatic disease.

NOTE Confidence: 0.9359509

00:21:12.460 --> 00:21:13.980 But the sequelae in the

NOTE Confidence: 0.9359509

00:21:13.980 --> 00:21:14.720 after effects

NOTE Confidence: 0.99160033

00:21:15.020 --> 00:21:16.140 may not go away for

NOTE Confidence: 0.99160033

00:21:16.140 --> 00:21:17.520 a large number of people.

NOTE Confidence: 0.99160033

00:21:17.765 --> 00:21:18.965 And again, this is what

NOTE Confidence: 0.99160033

00:21:18.965 --> 00:21:20.484 we've been focused on studying

NOTE Confidence: 0.99160033

00:21:20.484 --> 00:21:21.765 in the last couple of

NOTE Confidence: 0.99160033

00:21:21.765 --> 00:21:22.265 decades.

NOTE Confidence: 0.99824536

00:21:23.365 --> 00:21:23.865 So

NOTE Confidence: 0.9682703

00:21:24.484 --> 00:21:25.785 just to kind of clarify
NOTE Confidence: 0.9966478

00:21:26.244 --> 00:21:26.744 some
NOTE Confidence: 0.92909974

00:21:27.119 --> 00:21:28.420 semantics, if you will,
NOTE Confidence: 0.99168247

00:21:28.880 --> 00:21:30.320 in general, we think about
NOTE Confidence: 0.99168247

00:21:30.320 --> 00:21:31.920 a long term effect as
NOTE Confidence: 0.99168247

00:21:31.920 --> 00:21:32.420 something
NOTE Confidence: 0.9833416

00:21:32.880 --> 00:21:34.800 that comes on during treatment.
NOTE Confidence: 0.9833416

00:21:34.800 --> 00:21:36.020 So it could be fatigue.
NOTE Confidence: 0.96887237

00:21:36.484 --> 00:21:37.304 It could be,
NOTE Confidence: 0.8104767

00:21:38.804 --> 00:21:39.304 cognitive
NOTE Confidence: 0.9882278

00:21:39.684 --> 00:21:41.205 difficulties. It could be mood
NOTE Confidence: 0.9882278

00:21:41.205 --> 00:21:43.640 changes, whatever, difficulties with sleep,
NOTE Confidence: 0.9882278

00:21:43.720 --> 00:21:44.840 and it just doesn't go
NOTE Confidence: 0.9882278

00:21:44.840 --> 00:21:46.280 away. You're seeing that person
NOTE Confidence: 0.9882278

00:21:46.280 --> 00:21:47.800 back. Normally, we expect people
NOTE Confidence: 0.9882278

00:21:47.800 --> 00:21:49.160 to have a recovery in

NOTE Confidence: 0.9882278
00:21:49.160 --> 00:21:50.440 the year after their treatment
NOTE Confidence: 0.9882278
00:21:50.440 --> 00:21:51.875 ends. But if it's persisting
NOTE Confidence: 0.9882278
00:21:52.095 --> 00:21:53.775 beyond that, it's really a
NOTE Confidence: 0.9882278
00:21:53.775 --> 00:21:55.855 long term persistent problem that
NOTE Confidence: 0.9882278
00:21:55.855 --> 00:21:57.375 came on associated with the
NOTE Confidence: 0.9882278
00:21:57.375 --> 00:21:57.875 treatment.
NOTE Confidence: 0.9908348
00:21:58.320 --> 00:22:00.000 In contrast, a late effect
NOTE Confidence: 0.9908348
00:22:00.000 --> 00:22:01.280 is something that crops up
NOTE Confidence: 0.9908348
00:22:01.280 --> 00:22:02.480 later kind of out of
NOTE Confidence: 0.9908348
00:22:02.480 --> 00:22:03.920 the blue. So the patient
NOTE Confidence: 0.9908348
00:22:03.920 --> 00:22:05.200 who goes into heart failure
NOTE Confidence: 0.9908348
00:22:05.200 --> 00:22:06.615 later or the patient who
NOTE Confidence: 0.9908348
00:22:06.615 --> 00:22:07.595 may have osteoporosis
NOTE Confidence: 0.9642338
00:22:07.975 --> 00:22:09.255 and that starts to have
NOTE Confidence: 0.9642338
00:22:09.255 --> 00:22:11.255 fractures later, things that really
NOTE Confidence: 0.9642338

00:22:11.255 --> 00:22:12.535 are not there that are
NOTE Confidence: 0.9642338

00:22:12.535 --> 00:22:13.895 immediate with the treatment. They
NOTE Confidence: 0.9642338

00:22:13.895 --> 00:22:15.320 tend to be rarer, but
NOTE Confidence: 0.9642338

00:22:15.320 --> 00:22:17.400 sometimes more serious and catch
NOTE Confidence: 0.9642338

00:22:17.400 --> 00:22:19.420 patients and doctors by surprise.
NOTE Confidence: 0.97348475

00:22:19.800 --> 00:22:21.980 But, again, it's difficult sometimes
NOTE Confidence: 0.97348475

00:22:22.040 --> 00:22:23.455 to kind of separate these
NOTE Confidence: 0.97348475

00:22:23.455 --> 00:22:24.335 things, and I don't really
NOTE Confidence: 0.97348475

00:22:24.335 --> 00:22:25.055 care if you call it
NOTE Confidence: 0.97348475

00:22:25.055 --> 00:22:26.095 a late effect or a
NOTE Confidence: 0.97348475

00:22:26.095 --> 00:22:27.535 long term problem. They're just
NOTE Confidence: 0.97348475

00:22:27.535 --> 00:22:28.655 the after effects of the
NOTE Confidence: 0.97348475

00:22:28.655 --> 00:22:29.555 cancer treatment.
NOTE Confidence: 0.9802137

00:22:31.909 --> 00:22:33.270 So this is actually a
NOTE Confidence: 0.9802137

00:22:33.270 --> 00:22:35.350 Yale publication from Michaela's group,
NOTE Confidence: 0.9802137

00:22:35.350 --> 00:22:36.710 which I I'm I'm a

NOTE Confidence: 0.9802137

00:22:36.710 --> 00:22:38.549 consultant on her ACS grant,

NOTE Confidence: 0.9802137

00:22:38.549 --> 00:22:39.590 and she but she this

NOTE Confidence: 0.9802137

00:22:39.590 --> 00:22:40.585 was some work that she

NOTE Confidence: 0.9802137

00:22:40.585 --> 00:22:41.805 and her team were doing.

NOTE Confidence: 0.9974143

00:22:42.185 --> 00:22:43.385 And they were looking at

NOTE Confidence: 0.9974143

00:22:43.385 --> 00:22:44.125 the NHIS,

NOTE Confidence: 0.9717409

00:22:44.825 --> 00:22:46.425 dataset, the National Health Interview

NOTE Confidence: 0.9717409

00:22:46.425 --> 00:22:47.865 Survey, and they were looking

NOTE Confidence: 0.9717409

00:22:47.865 --> 00:22:49.385 at what happened to patients

NOTE Confidence: 0.9717409

00:22:49.385 --> 00:22:50.990 in terms of self reporting

NOTE Confidence: 0.8848547

00:22:51.290 --> 00:22:52.670 about whether they have limitations.

NOTE Confidence: 0.9632379

00:22:53.130 --> 00:22:54.170 And if this is you

NOTE Confidence: 0.9632379

00:22:54.170 --> 00:22:55.130 can push or pull an

NOTE Confidence: 0.9632379

00:22:55.130 --> 00:22:56.650 object or do kind of

NOTE Confidence: 0.9632379

00:22:56.650 --> 00:22:57.930 heavy lifting, things around the

NOTE Confidence: 0.9632379

00:22:57.930 --> 00:22:59.290 house, these kind of functional
NOTE Confidence: 0.9632379

00:22:59.290 --> 00:22:59.790 limitations.
NOTE Confidence: 0.99156976

00:23:00.095 --> 00:23:01.215 And this is looking at
NOTE Confidence: 0.99156976

00:23:01.215 --> 00:23:02.174 the people who said they
NOTE Confidence: 0.99156976

00:23:02.174 --> 00:23:02.975 had a history of a
NOTE Confidence: 0.99156976

00:23:02.975 --> 00:23:03.875 cancer diagnosis.
NOTE Confidence: 0.9907057

00:23:04.255 --> 00:23:05.215 And we can see over
NOTE Confidence: 0.9907057

00:23:05.215 --> 00:23:05.715 time
NOTE Confidence: 0.95091164

00:23:06.095 --> 00:23:07.615 the numbers who are without
NOTE Confidence: 0.95091164

00:23:07.615 --> 00:23:09.294 limitation, maybe it's going up
NOTE Confidence: 0.95091164

00:23:09.294 --> 00:23:10.399 a little bit. But look
NOTE Confidence: 0.95091164

00:23:10.399 --> 00:23:12.000 at this between nineteen ninety
NOTE Confidence: 0.95091164

00:23:12.000 --> 00:23:13.380 nine and two thousand seventeen.
NOTE Confidence: 0.924651

00:23:13.760 --> 00:23:14.799 And again, these are cross
NOTE Confidence: 0.924651

00:23:14.799 --> 00:23:16.340 sectional. It's not longitudinal.
NOTE Confidence: 0.9990903

00:23:16.880 --> 00:23:17.919 But we can see the

NOTE Confidence: 0.9990903

00:23:17.919 --> 00:23:19.140 instantaneous reporting

NOTE Confidence: 0.98287725

00:23:19.455 --> 00:23:20.575 of people here now in

NOTE Confidence: 0.98287725

00:23:20.575 --> 00:23:22.175 two thousand seventeen. We have

NOTE Confidence: 0.98287725

00:23:22.175 --> 00:23:23.875 eight million of them roughly

NOTE Confidence: 0.98287725

00:23:24.015 --> 00:23:25.695 estimated from the population who

NOTE Confidence: 0.98287725

00:23:25.695 --> 00:23:27.375 are living with limitations from

NOTE Confidence: 0.98287725

00:23:27.375 --> 00:23:28.115 their cancer,

NOTE Confidence: 0.9382939

00:23:28.840 --> 00:23:30.380 associated with their cancer diagnosis.

NOTE Confidence: 0.9382939

00:23:30.520 --> 00:23:31.480 And here, if we look

NOTE Confidence: 0.9382939

00:23:31.480 --> 00:23:33.340 at again, this is the

NOTE Confidence: 0.9382939

00:23:33.400 --> 00:23:34.440 fold to to this is

NOTE Confidence: 0.9382939

00:23:34.440 --> 00:23:35.160 a two fold,

NOTE Confidence: 0.9892707

00:23:35.705 --> 00:23:36.905 two point two five fold

NOTE Confidence: 0.9892707

00:23:36.905 --> 00:23:37.405 increase,

NOTE Confidence: 0.96569633

00:23:37.984 --> 00:23:39.725 in, amount of limitations,

NOTE Confidence: 0.9858017

00:23:40.425 --> 00:23:41.785 that individuals with a cancer

NOTE Confidence: 0.9858017

00:23:41.785 --> 00:23:43.565 diagnosis and history of cancer

NOTE Confidence: 0.9858017

00:23:43.705 --> 00:23:45.065 are reporting. So this is,

NOTE Confidence: 0.9858017

00:23:45.065 --> 00:23:46.890 in fact, quantifying some of

NOTE Confidence: 0.9858017

00:23:46.890 --> 00:23:48.090 those things that I've told

NOTE Confidence: 0.9858017

00:23:48.090 --> 00:23:49.290 you that you can either

NOTE Confidence: 0.9858017

00:23:49.290 --> 00:23:50.410 hear about in your clinic

NOTE Confidence: 0.9858017

00:23:50.410 --> 00:23:51.690 or hear about in the

NOTE Confidence: 0.9858017

00:23:51.690 --> 00:23:53.130 reports that we wrote write

NOTE Confidence: 0.9858017

00:23:53.130 --> 00:23:54.590 about in terms of clinical

NOTE Confidence: 0.9858017

00:23:54.650 --> 00:23:56.355 trial results or in terms

NOTE Confidence: 0.9858017

00:23:56.355 --> 00:23:57.775 of observational studies.

NOTE Confidence: 0.9953995

00:23:58.715 --> 00:23:59.215 So,

NOTE Confidence: 0.9738631

00:23:59.595 --> 00:24:00.875 again, to show a little

NOTE Confidence: 0.9738631

00:24:00.875 --> 00:24:02.234 bit about what goes on

NOTE Confidence: 0.9738631

00:24:02.234 --> 00:24:03.115 in terms of how we

NOTE Confidence: 0.9738631
00:24:03.115 --> 00:24:03.994 look at the results of
NOTE Confidence: 0.9738631
00:24:03.994 --> 00:24:05.054 a clinical trial,
NOTE Confidence: 0.9701611
00:24:05.560 --> 00:24:07.240 this was an NSABP trial,
NOTE Confidence: 0.9701611
00:24:07.240 --> 00:24:08.840 the b thirty trial, which
NOTE Confidence: 0.9701611
00:24:08.840 --> 00:24:10.140 was a three arm randomized
NOTE Confidence: 0.9701611
00:24:10.200 --> 00:24:11.100 controlled trial,
NOTE Confidence: 0.9685731
00:24:11.560 --> 00:24:13.080 in higher risk breast cancer
NOTE Confidence: 0.9685731
00:24:13.080 --> 00:24:14.515 patients that had more advanced
NOTE Confidence: 0.9685731
00:24:14.515 --> 00:24:15.955 stage disease. And it was
NOTE Confidence: 0.9685731
00:24:15.955 --> 00:24:16.455 asking
NOTE Confidence: 0.9925659
00:24:16.755 --> 00:24:18.295 whether you needed to have
NOTE Confidence: 0.9925659
00:24:18.355 --> 00:24:19.715 a whole you know, an
NOTE Confidence: 0.9925659
00:24:19.715 --> 00:24:20.775 extended sequential,
NOTE Confidence: 0.9691472
00:24:21.395 --> 00:24:23.060 course of docetaxel, which is
NOTE Confidence: 0.9691472
00:24:23.060 --> 00:24:24.740 a taxane therapy in addition
NOTE Confidence: 0.9691472

00:24:24.740 --> 00:24:26.360 to adriamycin and cytoxin.
NOTE Confidence: 0.98218143

00:24:26.900 --> 00:24:28.100 But one of the arms
NOTE Confidence: 0.98218143

00:24:28.100 --> 00:24:29.880 actually eliminated the cytoxin.
NOTE Confidence: 0.9811571

00:24:30.255 --> 00:24:31.315 So there was a possibility
NOTE Confidence: 0.9916458

00:24:31.935 --> 00:24:33.215 that in some women, there
NOTE Confidence: 0.9916458

00:24:33.215 --> 00:24:34.255 might not be so much
NOTE Confidence: 0.9916458

00:24:34.255 --> 00:24:34.755 amenorrhea
NOTE Confidence: 0.97105664

00:24:35.135 --> 00:24:36.015 as a result of the
NOTE Confidence: 0.97105664

00:24:36.015 --> 00:24:37.375 treatment. And you might be
NOTE Confidence: 0.97105664

00:24:37.375 --> 00:24:38.200 able to have,
NOTE Confidence: 0.97845

00:24:39.000 --> 00:24:40.359 potentially a better outcome in
NOTE Confidence: 0.97845

00:24:40.359 --> 00:24:41.100 terms of,
NOTE Confidence: 0.99522465

00:24:42.039 --> 00:24:43.639 potentially having children or other
NOTE Confidence: 0.99522465

00:24:43.639 --> 00:24:45.320 effects. And so there's a
NOTE Confidence: 0.99522465

00:24:45.320 --> 00:24:46.460 difference in the docetaxel
NOTE Confidence: 0.9872648

00:24:46.835 --> 00:24:48.934 arms between these three, treatments.

NOTE Confidence: 0.9992059

00:24:49.234 --> 00:24:50.034 But if you can see

NOTE Confidence: 0.9992059

00:24:50.034 --> 00:24:51.414 the results of the trial,

NOTE Confidence: 0.974733

00:24:51.955 --> 00:24:53.075 you know, these curves are

NOTE Confidence: 0.974733

00:24:53.075 --> 00:24:54.375 pretty much overlapping,

NOTE Confidence: 0.99758327

00:24:55.210 --> 00:24:57.450 but the sequential therapy actually

NOTE Confidence: 0.99758327

00:24:57.450 --> 00:24:58.330 comes out to be a

NOTE Confidence: 0.99758327

00:24:58.330 --> 00:24:59.850 little bit better. You can

NOTE Confidence: 0.99758327

00:24:59.850 --> 00:25:00.350 see,

NOTE Confidence: 0.98661965

00:25:00.890 --> 00:25:01.870 that it's better.

NOTE Confidence: 0.9375617

00:25:02.304 --> 00:25:02.804 And,

NOTE Confidence: 0.97287816

00:25:03.345 --> 00:25:04.705 and if you ask the

NOTE Confidence: 0.97287816

00:25:04.705 --> 00:25:05.904 patient and you ask the

NOTE Confidence: 0.97287816

00:25:05.904 --> 00:25:07.744 doctors, everybody's thinking that we

NOTE Confidence: 0.97287816

00:25:07.744 --> 00:25:09.044 have to have the sequential

NOTE Confidence: 0.97287816

00:25:09.184 --> 00:25:09.684 therapy.

NOTE Confidence: 0.98182243

00:25:10.179 --> 00:25:10.980 And if you look at
NOTE Confidence: 0.98182243

00:25:10.980 --> 00:25:12.500 how the data are reported
NOTE Confidence: 0.98182243

00:25:12.500 --> 00:25:13.799 in the New England Journal,
NOTE Confidence: 0.9934235

00:25:14.179 --> 00:25:15.540 report, these are only grade
NOTE Confidence: 0.9934235

00:25:15.540 --> 00:25:16.740 three and four three to
NOTE Confidence: 0.9934235

00:25:16.740 --> 00:25:18.100 five three and four adverse
NOTE Confidence: 0.9934235

00:25:18.100 --> 00:25:19.315 events. You can see the
NOTE Confidence: 0.9934235

00:25:19.315 --> 00:25:21.155 sequential therapy, which has six
NOTE Confidence: 0.9934235

00:25:21.155 --> 00:25:21.655 cycles
NOTE Confidence: 0.98390937

00:25:21.955 --> 00:25:22.775 of the docetaxel.
NOTE Confidence: 0.99271303

00:25:23.795 --> 00:25:24.595 You know, you can see
NOTE Confidence: 0.99271303

00:25:24.595 --> 00:25:25.655 there's more neutropenia.
NOTE Confidence: 0.99583787

00:25:26.309 --> 00:25:27.210 There's more fatigue,
NOTE Confidence: 0.9992907

00:25:27.830 --> 00:25:28.950 you know, in terms of
NOTE Confidence: 0.9992907

00:25:28.950 --> 00:25:30.090 these kinds of problems.
NOTE Confidence: 0.97355074

00:25:30.470 --> 00:25:32.470 Neuropathy wasn't even mentioned here

NOTE Confidence: 0.97355074

00:25:32.470 --> 00:25:33.590 because it's not grade three

NOTE Confidence: 0.97355074

00:25:33.590 --> 00:25:34.869 or four. It's probably grade

NOTE Confidence: 0.97355074

00:25:34.869 --> 00:25:36.035 one or two. But if

NOTE Confidence: 0.97355074

00:25:36.035 --> 00:25:37.595 you treat anyone with a

NOTE Confidence: 0.97355074

00:25:37.595 --> 00:25:39.355 taxane regimen, you know that

NOTE Confidence: 0.97355074

00:25:39.355 --> 00:25:40.475 neuropathy is going to be

NOTE Confidence: 0.97355074

00:25:40.475 --> 00:25:41.595 a big problem for these

NOTE Confidence: 0.97355074

00:25:41.595 --> 00:25:42.955 patients, and that's going to

NOTE Confidence: 0.97355074

00:25:42.955 --> 00:25:44.175 be a burden for them.

NOTE Confidence: 0.99784005

00:25:44.850 --> 00:25:46.530 This was our companion quality

NOTE Confidence: 0.99784005

00:25:46.530 --> 00:25:47.510 of life study,

NOTE Confidence: 0.9196814

00:25:47.970 --> 00:25:48.950 for this particular,

NOTE Confidence: 0.9863986

00:25:49.490 --> 00:25:50.869 trial, and we were interested

NOTE Confidence: 0.9863986

00:25:51.090 --> 00:25:52.049 in whether there was a

NOTE Confidence: 0.9863986

00:25:52.049 --> 00:25:53.109 difference in amenorrhea

NOTE Confidence: 0.9733601

00:25:53.855 --> 00:25:55.054 between the two arms. But
NOTE Confidence: 0.9733601

00:25:55.054 --> 00:25:56.095 I just wanna point out
NOTE Confidence: 0.9733601

00:25:56.095 --> 00:25:57.315 the quality of life
NOTE Confidence: 0.9463913

00:25:57.774 --> 00:25:59.054 data. And these are data
NOTE Confidence: 0.9463913

00:25:59.054 --> 00:26:01.135 with the FACT trial outcome
NOTE Confidence: 0.9463913

00:26:01.135 --> 00:26:03.119 index, which is the physical
NOTE Confidence: 0.9463913

00:26:03.119 --> 00:26:04.720 and functioning scales of the
NOTE Confidence: 0.9463913

00:26:04.720 --> 00:26:06.000 the FACT and the symptom
NOTE Confidence: 0.9463913

00:26:06.000 --> 00:26:07.619 scale. And you can see
NOTE Confidence: 0.9746159

00:26:07.920 --> 00:26:09.680 that this blue line here
NOTE Confidence: 0.9746159

00:26:09.680 --> 00:26:11.284 is the sequential therapy. So
NOTE Confidence: 0.9746159

00:26:11.284 --> 00:26:11.784 here,
NOTE Confidence: 0.98875415

00:26:12.085 --> 00:26:13.284 six months of therapy is
NOTE Confidence: 0.98875415

00:26:13.284 --> 00:26:15.044 longer for these patients, but
NOTE Confidence: 0.98875415

00:26:15.044 --> 00:26:16.085 we have the other two
NOTE Confidence: 0.98875415

00:26:16.085 --> 00:26:17.845 arms kind of recovering. And

NOTE Confidence: 0.98875415

00:26:17.845 --> 00:26:19.440 everybody comes back to where

NOTE Confidence: 0.98875415

00:26:19.440 --> 00:26:20.960 they were at baseline. So

NOTE Confidence: 0.98875415

00:26:20.960 --> 00:26:22.100 if you look at overall

NOTE Confidence: 0.98875415

00:26:22.320 --> 00:26:23.700 quality of life and functioning,

NOTE Confidence: 0.9894472

00:26:24.160 --> 00:26:25.920 patients are actually doing okay.

NOTE Confidence: 0.9894472

00:26:25.920 --> 00:26:27.280 There's not much difference between

NOTE Confidence: 0.9894472

00:26:27.280 --> 00:26:28.835 the arms. But, again, if

NOTE Confidence: 0.9894472

00:26:28.835 --> 00:26:29.815 we look here

NOTE Confidence: 0.92750734

00:26:30.195 --> 00:26:31.635 now at symptoms, which was

NOTE Confidence: 0.92750734

00:26:31.635 --> 00:26:32.675 a summary of a symptom

NOTE Confidence: 0.92750734

00:26:32.675 --> 00:26:34.434 checklist, look, there's a a

NOTE Confidence: 0.92750734

00:26:34.434 --> 00:26:35.690 score of about ten for

NOTE Confidence: 0.92750734

00:26:35.690 --> 00:26:36.810 the severity of the and

NOTE Confidence: 0.92750734

00:26:36.810 --> 00:26:38.090 number of symptoms here at

NOTE Confidence: 0.92750734

00:26:38.090 --> 00:26:38.750 the beginning,

NOTE Confidence: 0.9879363

00:26:39.130 --> 00:26:40.570 and it's higher in the
NOTE Confidence: 0.9879363

00:26:40.570 --> 00:26:41.070 docetaxel
NOTE Confidence: 0.93578494

00:26:41.369 --> 00:26:42.510 arm where it's sequential.
NOTE Confidence: 0.98161286

00:26:43.195 --> 00:26:44.635 And they all come back
NOTE Confidence: 0.98161286

00:26:44.635 --> 00:26:46.635 down, but they're much higher
NOTE Confidence: 0.98161286

00:26:46.635 --> 00:26:47.914 than the patients were before.
NOTE Confidence: 0.98161286

00:26:47.914 --> 00:26:48.955 So you this is this
NOTE Confidence: 0.98161286

00:26:48.955 --> 00:26:49.455 persistence
NOTE Confidence: 0.983414

00:26:49.835 --> 00:26:51.515 of symptoms that we're showing
NOTE Confidence: 0.983414

00:26:51.515 --> 00:26:52.859 in a clinical trial. And
NOTE Confidence: 0.983414

00:26:52.859 --> 00:26:54.059 again, the clinical trial is
NOTE Confidence: 0.983414

00:26:54.059 --> 00:26:55.340 great because you can compare
NOTE Confidence: 0.983414

00:26:55.340 --> 00:26:56.880 arms, but you also have
NOTE Confidence: 0.983414

00:26:57.100 --> 00:26:58.139 a good data out to
NOTE Confidence: 0.983414

00:26:58.139 --> 00:26:59.019 this point in time in
NOTE Confidence: 0.983414

00:26:59.019 --> 00:27:00.225 a prospective way.

NOTE Confidence: 0.98529893
00:27:00.705 --> 00:27:01.744 So we decided to go
NOTE Confidence: 0.98529893
00:27:01.744 --> 00:27:03.044 back and look at neuropathy
NOTE Confidence: 0.98529893
00:27:03.265 --> 00:27:04.544 since that really hadn't been
NOTE Confidence: 0.98529893
00:27:04.544 --> 00:27:05.845 reported in the study.
NOTE Confidence: 0.97567683
00:27:06.145 --> 00:27:08.225 And again, looking here at
NOTE Confidence: 0.97567683
00:27:08.225 --> 00:27:08.725 baseline,
NOTE Confidence: 0.97795254
00:27:09.119 --> 00:27:10.560 patients are reporting a little
NOTE Confidence: 0.97795254
00:27:10.560 --> 00:27:12.160 bit of, this is either
NOTE Confidence: 0.97795254
00:27:12.160 --> 00:27:14.080 not at all zero, one
NOTE Confidence: 0.97795254
00:27:14.080 --> 00:27:15.460 a little bit, two somewhat,
NOTE Confidence: 0.97795254
00:27:15.520 --> 00:27:16.480 three quite a bit, and
NOTE Confidence: 0.97795254
00:27:16.480 --> 00:27:18.095 four on the severity scale.
NOTE Confidence: 0.97795254
00:27:18.174 --> 00:27:19.294 And so there's not much
NOTE Confidence: 0.97795254
00:27:19.294 --> 00:27:20.655 neuropathy at the at the
NOTE Confidence: 0.97795254
00:27:20.655 --> 00:27:21.934 beginning, but some people do
NOTE Confidence: 0.97795254

00:27:21.934 --> 00:27:23.375 have some. But again, the
NOTE Confidence: 0.97795254

00:27:23.375 --> 00:27:24.975 sequential arm has a lot
NOTE Confidence: 0.97795254

00:27:24.975 --> 00:27:26.734 more neuropathy here in terms
NOTE Confidence: 0.97795254

00:27:26.734 --> 00:27:28.809 of patient reported complaints. And
NOTE Confidence: 0.97795254

00:27:28.809 --> 00:27:29.929 if we look at everyone,
NOTE Confidence: 0.97795254

00:27:29.929 --> 00:27:31.529 they're still elevated out here
NOTE Confidence: 0.97795254

00:27:31.529 --> 00:27:33.289 at twenty four months. Again,
NOTE Confidence: 0.97795254

00:27:33.289 --> 00:27:34.570 a bit higher in the
NOTE Confidence: 0.97795254

00:27:34.570 --> 00:27:35.929 sequential arm, which has a
NOTE Confidence: 0.97795254

00:27:35.929 --> 00:27:36.750 higher dose.
NOTE Confidence: 0.9821039

00:27:37.585 --> 00:27:38.865 And then we went and
NOTE Confidence: 0.9821039

00:27:38.865 --> 00:27:39.825 looked at what were the
NOTE Confidence: 0.9821039

00:27:39.825 --> 00:27:42.225 predictors of having persistent symptoms
NOTE Confidence: 0.9821039

00:27:42.225 --> 00:27:43.825 over time. And this was
NOTE Confidence: 0.9821039

00:27:43.825 --> 00:27:45.345 what we were seeing in
NOTE Confidence: 0.9821039

00:27:45.345 --> 00:27:46.640 terms of whether you had

NOTE Confidence: 0.9821039

00:27:46.640 --> 00:27:48.560 baseline neuropathy. Those few patients

NOTE Confidence: 0.9821039

00:27:48.560 --> 00:27:49.840 who did have neuropathy at

NOTE Confidence: 0.9821039

00:27:49.840 --> 00:27:51.600 the beginning, again, asking about

NOTE Confidence: 0.9821039

00:27:51.600 --> 00:27:53.175 what people are functioning like.

NOTE Confidence: 0.94562423

00:27:53.575 --> 00:27:55.335 The treatment regimen, again, more

NOTE Confidence: 0.94562423

00:27:55.335 --> 00:27:56.875 taxane as you would predict.

NOTE Confidence: 0.9808157

00:27:57.175 --> 00:27:59.095 Being older was also highly

NOTE Confidence: 0.9808157

00:27:59.095 --> 00:28:00.795 significant in terms of the

NOTE Confidence: 0.9808157

00:28:00.855 --> 00:28:03.570 multivariate model. Greater nodal involvement,

NOTE Confidence: 0.9666849

00:28:04.030 --> 00:28:04.530 mastectomy,

NOTE Confidence: 0.99723005

00:28:04.910 --> 00:28:06.190 and greater BMI. So these

NOTE Confidence: 0.99723005

00:28:06.190 --> 00:28:07.470 are all what we call

NOTE Confidence: 0.99723005

00:28:07.470 --> 00:28:09.695 host factors that influence the

NOTE Confidence: 0.99723005

00:28:09.695 --> 00:28:11.215 persistence of neuropathy. So it's

NOTE Confidence: 0.99723005

00:28:11.215 --> 00:28:12.835 not just getting that sequential

NOTE Confidence: 0.9658363

00:28:13.294 --> 00:28:14.835 longer dose, higher dose,
NOTE Confidence: 0.97742206

00:28:15.294 --> 00:28:16.734 but also these host factors.
NOTE Confidence: 0.97742206

00:28:16.734 --> 00:28:18.734 And, again, very important. So,
NOTE Confidence: 0.97742206

00:28:18.734 --> 00:28:20.580 again, we did some qualitative
NOTE Confidence: 0.97742206

00:28:20.799 --> 00:28:22.320 data with both patients and
NOTE Confidence: 0.97742206

00:28:22.320 --> 00:28:23.859 doctors to see, would you
NOTE Confidence: 0.97742206

00:28:23.919 --> 00:28:26.000 ever modify your regimen based
NOTE Confidence: 0.97742206

00:28:26.000 --> 00:28:26.899 on these things?
NOTE Confidence: 0.9573846

00:28:27.434 --> 00:28:28.635 Patient said, no. I want
NOTE Confidence: 0.9573846

00:28:28.635 --> 00:28:29.915 the best therapy. If it's
NOTE Confidence: 0.9573846

00:28:29.915 --> 00:28:31.115 better, I want it. And
NOTE Confidence: 0.9573846

00:28:31.115 --> 00:28:32.315 the doctor said, well, I
NOTE Confidence: 0.9573846

00:28:32.315 --> 00:28:33.674 couldn't do anything that was
NOTE Confidence: 0.9573846

00:28:33.674 --> 00:28:34.955 off guideline. You know, if
NOTE Confidence: 0.9573846

00:28:34.955 --> 00:28:36.395 the guideline says this, and
NOTE Confidence: 0.9573846

00:28:36.395 --> 00:28:38.299 these were good oncologists both

NOTE Confidence: 0.9573846

00:28:38.299 --> 00:28:39.900 in the community and breast

NOTE Confidence: 0.9573846

00:28:39.900 --> 00:28:40.960 specialists at various

NOTE Confidence: 0.990874

00:28:41.419 --> 00:28:42.779 institutions. So that was an

NOTE Confidence: 0.990874

00:28:42.779 --> 00:28:43.760 interesting exercise.

NOTE Confidence: 0.9870834

00:28:44.140 --> 00:28:45.260 And again, just to show

NOTE Confidence: 0.9870834

00:28:45.260 --> 00:28:47.065 you here that the severity

NOTE Confidence: 0.9870834

00:28:47.125 --> 00:28:49.225 of the neuropathy actually influences,

NOTE Confidence: 0.96193534

00:28:50.005 --> 00:28:51.045 the quality of life. So

NOTE Confidence: 0.96193534

00:28:51.045 --> 00:28:52.005 this is the fact the

NOTE Confidence: 0.96193534

00:28:52.005 --> 00:28:53.685 trial outcome index, the quality

NOTE Confidence: 0.96193534

00:28:53.685 --> 00:28:54.940 of life measure. And we

NOTE Confidence: 0.96193534

00:28:54.940 --> 00:28:56.139 can see the higher the

NOTE Confidence: 0.96193534

00:28:56.139 --> 00:28:56.639 severity

NOTE Confidence: 0.96561235

00:28:56.940 --> 00:28:58.380 of the neuropathy, the poorer

NOTE Confidence: 0.96561235

00:28:58.380 --> 00:28:59.659 the quality of life. Other

NOTE Confidence: 0.96561235

00:28:59.659 --> 00:29:01.100 people have done studies again
NOTE Confidence: 0.96561235

00:29:01.100 --> 00:29:02.380 showing that there's a higher
NOTE Confidence: 0.96561235

00:29:02.380 --> 00:29:03.934 fall risk in people who've
NOTE Confidence: 0.96561235

00:29:03.934 --> 00:29:04.835 had taxanes,
NOTE Confidence: 0.97708565

00:29:05.455 --> 00:29:06.575 as part of their therapy.
NOTE Confidence: 0.97708565

00:29:06.575 --> 00:29:07.934 And so this becomes an
NOTE Confidence: 0.97708565

00:29:07.934 --> 00:29:10.015 ongoing problem that somebody needs
NOTE Confidence: 0.97708565

00:29:10.015 --> 00:29:10.975 to live with. And I
NOTE Confidence: 0.97708565

00:29:10.975 --> 00:29:12.335 don't even wanna go go
NOTE Confidence: 0.97708565

00:29:12.335 --> 00:29:13.320 there, but if we think
NOTE Confidence: 0.97708565

00:29:13.320 --> 00:29:14.299 about immunotherapy
NOTE Confidence: 0.9446547

00:29:14.679 --> 00:29:16.620 in patients who've become adrenally
NOTE Confidence: 0.9446547

00:29:16.760 --> 00:29:19.179 insufficient or have bad thyroid
NOTE Confidence: 0.9446547

00:29:19.400 --> 00:29:19.900 complications,
NOTE Confidence: 0.9952147

00:29:20.279 --> 00:29:21.419 others from the immunotherapy,
NOTE Confidence: 0.98700625

00:29:22.125 --> 00:29:23.165 these are things that the

NOTE Confidence: 0.98700625
00:29:23.165 --> 00:29:24.685 person might be getting curative
NOTE Confidence: 0.98700625
00:29:24.685 --> 00:29:25.745 adjuvant therapy,
NOTE Confidence: 0.97939783
00:29:26.045 --> 00:29:27.425 but then has the sequelae
NOTE Confidence: 0.97939783
00:29:27.485 --> 00:29:28.365 that we have to deal
NOTE Confidence: 0.97939783
00:29:28.365 --> 00:29:29.665 with. So we very much
NOTE Confidence: 0.97939783
00:29:29.805 --> 00:29:31.165 need to be concerned about
NOTE Confidence: 0.97939783
00:29:31.165 --> 00:29:31.460 these
NOTE Confidence: 0.99776053
00:29:33.140 --> 00:29:34.980 things. So this is, a
NOTE Confidence: 0.99776053
00:29:34.980 --> 00:29:36.659 way of now looking at
NOTE Confidence: 0.99776053
00:29:36.659 --> 00:29:37.940 what we're doing to patients
NOTE Confidence: 0.99776053
00:29:37.940 --> 00:29:39.335 in terms of the long
NOTE Confidence: 0.99776053
00:29:39.335 --> 00:29:40.395 term biological
NOTE Confidence: 0.9780645
00:29:40.695 --> 00:29:41.975 effects of the treatments that
NOTE Confidence: 0.9780645
00:29:41.975 --> 00:29:43.255 we provide. And a lot
NOTE Confidence: 0.9780645
00:29:43.255 --> 00:29:44.215 of the work that our
NOTE Confidence: 0.9780645

00:29:44.215 --> 00:29:45.495 our group has been focused
NOTE Confidence: 0.9780645

00:29:45.495 --> 00:29:46.955 on has also been accelerated
NOTE Confidence: 0.9780645

00:29:47.095 --> 00:29:48.370 aging. This is a nice
NOTE Confidence: 0.9780645

00:29:48.370 --> 00:29:50.050 review paper that Mina Sedrick
NOTE Confidence: 0.9780645

00:29:50.050 --> 00:29:52.290 wrote, several years ago. He's
NOTE Confidence: 0.9780645

00:29:52.290 --> 00:29:53.650 now been recruited to UCLA
NOTE Confidence: 0.9780645

00:29:53.650 --> 00:29:54.450 and as part of our
NOTE Confidence: 0.9780645

00:29:54.450 --> 00:29:57.015 group. But, again, thinking about
NOTE Confidence: 0.9780645

00:29:57.015 --> 00:29:57.975 the fact that we are
NOTE Confidence: 0.9780645

00:29:57.975 --> 00:29:59.255 exposing people to all of
NOTE Confidence: 0.9780645

00:29:59.255 --> 00:30:00.475 these kinds of therapies,
NOTE Confidence: 0.9964339

00:30:00.855 --> 00:30:01.895 and it's great for the
NOTE Confidence: 0.9964339

00:30:01.895 --> 00:30:03.255 cancer cells, but it's not
NOTE Confidence: 0.9964339

00:30:03.255 --> 00:30:04.375 so great for the normal
NOTE Confidence: 0.9964339

00:30:04.375 --> 00:30:05.880 tissues in terms of the
NOTE Confidence: 0.9964339

00:30:05.880 --> 00:30:06.940 injury that we,

NOTE Confidence: 0.96389896
00:30:07.480 --> 00:30:09.160 provide to those tissues. If
NOTE Confidence: 0.96389896
00:30:09.160 --> 00:30:10.040 you want, you can think
NOTE Confidence: 0.96389896
00:30:10.040 --> 00:30:11.500 about them as off target
NOTE Confidence: 0.96389896
00:30:11.560 --> 00:30:12.060 experiences.
NOTE Confidence: 0.99730855
00:30:12.705 --> 00:30:14.225 And these all lead to
NOTE Confidence: 0.99730855
00:30:14.225 --> 00:30:16.085 increased inflammation in the body
NOTE Confidence: 0.96415865
00:30:16.465 --> 00:30:18.085 and the potential for accelerated
NOTE Confidence: 0.96415865
00:30:18.225 --> 00:30:19.585 aging. And so we need
NOTE Confidence: 0.96415865
00:30:19.585 --> 00:30:21.090 to think about a subgroup
NOTE Confidence: 0.96415865
00:30:21.090 --> 00:30:22.289 of patients who may have
NOTE Confidence: 0.96415865
00:30:22.289 --> 00:30:23.889 these long term problems. Now
NOTE Confidence: 0.96415865
00:30:23.889 --> 00:30:25.809 the most classical subgroup for,
NOTE Confidence: 0.96415865
00:30:25.809 --> 00:30:27.010 like, thinking about this are
NOTE Confidence: 0.96415865
00:30:27.010 --> 00:30:28.710 the childhood cancer survivors,
NOTE Confidence: 0.9795219
00:30:29.015 --> 00:30:30.295 who we now have thirty,
NOTE Confidence: 0.9795219

00:30:30.295 --> 00:30:31.995 forty, fifty years of follow-up
NOTE Confidence: 0.9795219

00:30:32.215 --> 00:30:33.415 showing that they are all
NOTE Confidence: 0.9795219

00:30:33.415 --> 00:30:34.695 dying at an earlier age.
NOTE Confidence: 0.9795219

00:30:34.695 --> 00:30:35.595 They have comorbidities
NOTE Confidence: 0.98553795

00:30:36.210 --> 00:30:37.330 that you would expect with
NOTE Confidence: 0.98553795

00:30:37.330 --> 00:30:38.930 much older patients and have
NOTE Confidence: 0.98553795

00:30:38.930 --> 00:30:41.010 the frailty phenotype where people
NOTE Confidence: 0.98553795

00:30:41.010 --> 00:30:41.750 have fatigue,
NOTE Confidence: 0.9781271

00:30:42.210 --> 00:30:44.370 difficulty doing physical activities, and
NOTE Confidence: 0.9781271

00:30:44.370 --> 00:30:46.265 so forth, and are impaired
NOTE Confidence: 0.9781271

00:30:46.325 --> 00:30:47.445 as a result of this.
NOTE Confidence: 0.9781271

00:30:47.445 --> 00:30:48.645 And in cancer, when we
NOTE Confidence: 0.9781271

00:30:48.645 --> 00:30:49.925 were only treating people in
NOTE Confidence: 0.9781271

00:30:49.925 --> 00:30:51.525 our sixties, seventies, and eighties
NOTE Confidence: 0.9781271

00:30:51.525 --> 00:30:52.645 where they might not live
NOTE Confidence: 0.9781271

00:30:52.645 --> 00:30:53.845 long enough to have these

NOTE Confidence: 0.9781271

00:30:53.845 --> 00:30:54.745 kinds of problems,

NOTE Confidence: 0.98842305

00:30:55.350 --> 00:30:56.150 some of us who've been

NOTE Confidence: 0.98842305

00:30:56.150 --> 00:30:57.670 interested in younger adults with

NOTE Confidence: 0.98842305

00:30:57.670 --> 00:30:59.590 cancer are very worried because

NOTE Confidence: 0.98842305

00:30:59.590 --> 00:31:00.630 they have no other risk

NOTE Confidence: 0.98842305

00:31:00.630 --> 00:31:02.090 factors other than the cancer.

NOTE Confidence: 0.98842305

00:31:02.205 --> 00:31:03.585 We're treating them intensively

NOTE Confidence: 0.97145176

00:31:03.885 --> 00:31:05.245 and we may are beginning

NOTE Confidence: 0.97145176

00:31:05.245 --> 00:31:06.605 to see accelerated aging in

NOTE Confidence: 0.97145176

00:31:06.605 --> 00:31:08.125 these individuals who are now

NOTE Confidence: 0.97145176

00:31:08.125 --> 00:31:09.405 living a longer time with

NOTE Confidence: 0.97145176

00:31:09.405 --> 00:31:10.740 the after effects. So we

NOTE Confidence: 0.97145176

00:31:10.740 --> 00:31:12.260 really need to be thinking

NOTE Confidence: 0.97145176

00:31:12.260 --> 00:31:13.159 about cure,

NOTE Confidence: 0.9995286

00:31:13.460 --> 00:31:14.340 but we need to be

NOTE Confidence: 0.9995286

00:31:14.340 --> 00:31:14.840 cognizant
NOTE Confidence: 0.9709198

00:31:15.220 --> 00:31:16.740 of the potential long term
NOTE Confidence: 0.9709198

00:31:16.740 --> 00:31:18.195 and late effects that may
NOTE Confidence: 0.9709198

00:31:18.195 --> 00:31:19.635 be occurring. And it would
NOTE Confidence: 0.9709198

00:31:19.635 --> 00:31:20.674 be wonderful if we could
NOTE Confidence: 0.9709198

00:31:20.674 --> 00:31:21.955 really figure out who's most
NOTE Confidence: 0.9709198

00:31:21.955 --> 00:31:23.315 susceptible so we could, in
NOTE Confidence: 0.9709198

00:31:23.315 --> 00:31:23.815 fact,
NOTE Confidence: 0.9966649

00:31:24.115 --> 00:31:25.554 personalize this and do this
NOTE Confidence: 0.9966649

00:31:25.554 --> 00:31:26.215 more precisely.
NOTE Confidence: 0.98328096

00:31:27.240 --> 00:31:29.000 So the chronic symptoms that
NOTE Confidence: 0.98328096

00:31:29.000 --> 00:31:30.280 I've told you about in
NOTE Confidence: 0.98328096

00:31:30.280 --> 00:31:32.360 adult cancer survivors, such as
NOTE Confidence: 0.98328096

00:31:32.360 --> 00:31:32.860 fatigue,
NOTE Confidence: 0.94732094

00:31:33.400 --> 00:31:36.280 cognitive difficulties, neuropathy, pain, decreased
NOTE Confidence: 0.94732094

00:31:36.280 --> 00:31:38.065 physical functioning, insomnia.

NOTE Confidence: 0.9722798

00:31:38.445 --> 00:31:40.385 These are all classically things

NOTE Confidence: 0.9722798

00:31:40.445 --> 00:31:41.885 that are very common in

NOTE Confidence: 0.9722798

00:31:41.885 --> 00:31:42.765 aging. And if any of

NOTE Confidence: 0.9722798

00:31:42.765 --> 00:31:44.125 you have had aging parents

NOTE Confidence: 0.9722798

00:31:44.125 --> 00:31:45.345 or know of individuals

NOTE Confidence: 0.9729344

00:31:45.679 --> 00:31:47.039 who you've watched go through

NOTE Confidence: 0.9729344

00:31:47.039 --> 00:31:48.240 this, you know that the

NOTE Confidence: 0.9729344

00:31:48.240 --> 00:31:49.460 frailty phenotype

NOTE Confidence: 0.9515583

00:31:49.840 --> 00:31:51.600 as people go unless they

NOTE Confidence: 0.9515583

00:31:51.600 --> 00:31:52.720 die suddenly as an older

NOTE Confidence: 0.9515583

00:31:52.720 --> 00:31:54.235 person. But usually, there's a

NOTE Confidence: 0.9515583

00:31:54.235 --> 00:31:56.155 gradual decline in function, and

NOTE Confidence: 0.9515583

00:31:56.155 --> 00:31:57.355 we are seeing this now

NOTE Confidence: 0.9515583

00:31:57.355 --> 00:31:58.715 in patients who are much

NOTE Confidence: 0.9515583

00:31:58.715 --> 00:31:59.835 younger who have been treated

NOTE Confidence: 0.9515583

00:31:59.835 --> 00:32:00.440 for cancer
NOTE Confidence: 0.9964011

00:32:00.840 --> 00:32:02.120 with these symptoms as being
NOTE Confidence: 0.9964011

00:32:02.120 --> 00:32:03.179 part of the manifestation.
NOTE Confidence: 0.95378894

00:32:04.120 --> 00:32:05.659 So I've been very fortunate.
NOTE Confidence: 0.98688453

00:32:05.960 --> 00:32:07.720 About twenty five years ago,
NOTE Confidence: 0.98688453

00:32:07.720 --> 00:32:09.320 doctor Julie Bauer came into
NOTE Confidence: 0.98688453

00:32:09.320 --> 00:32:10.745 my lab as a postdoctoral
NOTE Confidence: 0.93580294

00:32:11.045 --> 00:32:12.885 fellow, and doctor Mike Erwin,
NOTE Confidence: 0.93580294

00:32:12.885 --> 00:32:13.705 who's a psychiatrist,
NOTE Confidence: 0.9416397

00:32:14.645 --> 00:32:16.165 relocated to Los Angeles from
NOTE Confidence: 0.9416397

00:32:16.165 --> 00:32:17.705 the UC UC San Diego
NOTE Confidence: 0.95204616

00:32:18.130 --> 00:32:19.410 and, to be the director
NOTE Confidence: 0.95204616

00:32:19.410 --> 00:32:20.470 of the cousin psychoneuroimmunology
NOTE Confidence: 0.94410133

00:32:21.170 --> 00:32:21.670 center.
NOTE Confidence: 0.98913443

00:32:22.050 --> 00:32:24.370 And he really had been
NOTE Confidence: 0.98913443

00:32:24.370 --> 00:32:26.390 very innovative with other people

NOTE Confidence: 0.98913443
00:32:26.625 --> 00:32:28.065 looking in the laboratory with
NOTE Confidence: 0.98913443
00:32:28.065 --> 00:32:29.184 better ways to look at
NOTE Confidence: 0.98913443
00:32:29.184 --> 00:32:30.485 inflammation. And, again,
NOTE Confidence: 0.9982403
00:32:31.105 --> 00:32:32.304 if we think about the
NOTE Confidence: 0.9982403
00:32:32.304 --> 00:32:33.505 advances that have been made
NOTE Confidence: 0.9982403
00:32:33.505 --> 00:32:34.865 in measuring all sorts of
NOTE Confidence: 0.9982403
00:32:34.865 --> 00:32:36.910 things, he brought that science
NOTE Confidence: 0.9982403
00:32:36.970 --> 00:32:37.710 to UCLA
NOTE Confidence: 0.97524935
00:32:38.250 --> 00:32:39.290 and our ability to look
NOTE Confidence: 0.97524935
00:32:39.290 --> 00:32:40.330 at this. And this review
NOTE Confidence: 0.97524935
00:32:40.330 --> 00:32:41.450 paper that was written in
NOTE Confidence: 0.97524935
00:32:41.450 --> 00:32:41.950 JCO,
NOTE Confidence: 0.96166104
00:32:42.650 --> 00:32:44.010 in two thousand eight with
NOTE Confidence: 0.96166104
00:32:44.010 --> 00:32:46.415 other colleagues really focused fact
NOTE Confidence: 0.96166104
00:32:46.554 --> 00:32:48.415 that the tumor, the metastases,
NOTE Confidence: 0.96166104

00:32:48.635 --> 00:32:49.915 chemotherapy, all of the things

NOTE Confidence: 0.96166104

00:32:49.915 --> 00:32:51.054 that we did to patients

NOTE Confidence: 0.96166104

00:32:51.275 --> 00:32:52.715 here on the left, that

NOTE Confidence: 0.96166104

00:32:52.715 --> 00:32:53.755 the patient came to us

NOTE Confidence: 0.96166104

00:32:53.755 --> 00:32:54.830 with and we did to

NOTE Confidence: 0.96166104

00:32:54.830 --> 00:32:56.030 them on the left hand

NOTE Confidence: 0.96166104

00:32:56.030 --> 00:32:57.950 side had a dramatic effect

NOTE Confidence: 0.96166104

00:32:57.950 --> 00:32:59.490 on the neuroendocrine system,

NOTE Confidence: 0.7943763

00:33:00.990 --> 00:33:02.290 really through inflammation

NOTE Confidence: 0.91229725

00:33:02.670 --> 00:33:03.170 primarily

NOTE Confidence: 0.97900856

00:33:03.845 --> 00:33:05.925 and interfering with sleep and

NOTE Confidence: 0.97900856

00:33:05.925 --> 00:33:07.205 having all sorts of effects

NOTE Confidence: 0.97900856

00:33:07.205 --> 00:33:08.745 on the central nervous system

NOTE Confidence: 0.97900856

00:33:08.805 --> 00:33:10.585 leading to the behavioral alterations

NOTE Confidence: 0.97900856

00:33:10.725 --> 00:33:11.685 that you see on the

NOTE Confidence: 0.97900856

00:33:11.685 --> 00:33:12.160 right,

NOTE Confidence: 0.9868177

00:33:12.640 --> 00:33:14.880 such as depression, fatigue, impaired

NOTE Confidence: 0.9868177

00:33:14.880 --> 00:33:16.640 sleep, and cognitive dysfunction. And,

NOTE Confidence: 0.9868177

00:33:16.640 --> 00:33:18.160 again, this gave us the

NOTE Confidence: 0.9868177

00:33:18.160 --> 00:33:18.660 biological

NOTE Confidence: 0.9801558

00:33:19.120 --> 00:33:20.735 underpinnings, if you will, for

NOTE Confidence: 0.9801558

00:33:21.054 --> 00:33:22.575 understanding some of these symptoms.

NOTE Confidence: 0.9801558

00:33:22.575 --> 00:33:24.174 So again, I was very,

NOTE Confidence: 0.9801558

00:33:24.174 --> 00:33:26.095 very fortunate. And our group

NOTE Confidence: 0.9801558

00:33:26.095 --> 00:33:27.135 has really looked at all

NOTE Confidence: 0.9801558

00:33:27.135 --> 00:33:28.174 of these symptoms in a

NOTE Confidence: 0.9801558

00:33:28.174 --> 00:33:29.315 variety of studies.

NOTE Confidence: 0.9551295

00:33:30.390 --> 00:33:31.990 So just again, for those

NOTE Confidence: 0.9551295

00:33:31.990 --> 00:33:32.790 of you who may not

NOTE Confidence: 0.9551295

00:33:32.790 --> 00:33:34.550 see patients who are, complaining

NOTE Confidence: 0.9551295

00:33:34.550 --> 00:33:35.530 of this in the clinic,

NOTE Confidence: 0.9551295

00:33:35.670 --> 00:33:36.470 to tell you what a
NOTE Confidence: 0.9551295

00:33:36.470 --> 00:33:37.910 patient describes to us. This
NOTE Confidence: 0.9551295

00:33:37.910 --> 00:33:39.294 was actually a a phys
NOTE Confidence: 0.9551295

00:33:39.455 --> 00:33:40.514 a physical rehabilitation
NOTE Confidence: 0.9811043

00:33:40.894 --> 00:33:42.575 physician with breast cancer who
NOTE Confidence: 0.9811043

00:33:42.575 --> 00:33:44.735 said, during cancer therapy, I
NOTE Confidence: 0.9811043

00:33:44.735 --> 00:33:46.514 also always felt the exhaustion
NOTE Confidence: 0.9811043

00:33:46.654 --> 00:33:47.794 of physical exercise
NOTE Confidence: 0.99968094

00:33:48.260 --> 00:33:49.700 without any of the positive
NOTE Confidence: 0.99968094

00:33:49.700 --> 00:33:50.680 physical attributes.
NOTE Confidence: 0.9948503

00:33:51.060 --> 00:33:52.820 My limbs felt heavy. The
NOTE Confidence: 0.9948503

00:33:52.820 --> 00:33:54.180 quality of my sleep was
NOTE Confidence: 0.9948503

00:33:54.180 --> 00:33:56.020 changed. The mere act of
NOTE Confidence: 0.9948503

00:33:56.020 --> 00:33:57.855 sleeping itself seemed like work
NOTE Confidence: 0.9948503

00:33:57.855 --> 00:33:58.355 sometimes.
NOTE Confidence: 0.9786565

00:33:58.815 --> 00:34:00.175 My brain felt tired and

NOTE Confidence: 0.9786565

00:34:00.175 --> 00:34:01.695 so did my spirits. I

NOTE Confidence: 0.9786565

00:34:01.695 --> 00:34:02.735 seem to have lost my

NOTE Confidence: 0.9786565

00:34:02.735 --> 00:34:04.175 zest for life. So I

NOTE Confidence: 0.9786565

00:34:04.175 --> 00:34:05.215 think, you know, this really

NOTE Confidence: 0.9786565

00:34:05.215 --> 00:34:05.715 encapsulates

NOTE Confidence: 0.9537001

00:34:06.095 --> 00:34:07.600 all of those symptoms. And

NOTE Confidence: 0.9537001

00:34:07.600 --> 00:34:08.480 when I used to see

NOTE Confidence: 0.9537001

00:34:08.480 --> 00:34:10.239 these patients initially, in fact,

NOTE Confidence: 0.9537001

00:34:10.239 --> 00:34:11.440 one of my colleagues who

NOTE Confidence: 0.9537001

00:34:11.440 --> 00:34:13.119 was diagnosed with breast cancer

NOTE Confidence: 0.9537001

00:34:13.119 --> 00:34:14.400 and had these symptoms, they

NOTE Confidence: 0.9537001

00:34:14.400 --> 00:34:15.840 looked depressed. And you you

NOTE Confidence: 0.9537001

00:34:15.840 --> 00:34:16.719 you, you know, just kinda

NOTE Confidence: 0.9537001

00:34:16.719 --> 00:34:17.505 say, why don't you get

NOTE Confidence: 0.9537001

00:34:17.505 --> 00:34:18.864 on with your life? You

NOTE Confidence: 0.9537001

00:34:18.864 --> 00:34:20.145 know, what's going? But they're
NOTE Confidence: 0.9537001

00:34:20.145 --> 00:34:22.484 really sub suffering and symptomatic.
NOTE Confidence: 0.9959535

00:34:22.864 --> 00:34:23.984 And now that we've all
NOTE Confidence: 0.9959535

00:34:23.984 --> 00:34:25.585 lived through COVID and long
NOTE Confidence: 0.9959535

00:34:25.585 --> 00:34:26.980 COVID, this is what's going
NOTE Confidence: 0.9959535

00:34:26.980 --> 00:34:28.739 on in long COVID. And,
NOTE Confidence: 0.9959535

00:34:29.060 --> 00:34:30.900 my, again, interpretation of what
NOTE Confidence: 0.9959535

00:34:30.900 --> 00:34:32.120 we see with the inflammation
NOTE Confidence: 0.9995773

00:34:32.580 --> 00:34:34.265 associated with COVID is that
NOTE Confidence: 0.9995773

00:34:34.265 --> 00:34:35.625 the body only has a
NOTE Confidence: 0.9995773

00:34:35.625 --> 00:34:36.605 certain repertoire
NOTE Confidence: 0.9857395

00:34:36.985 --> 00:34:38.425 of how to respond to
NOTE Confidence: 0.9857395

00:34:38.425 --> 00:34:40.585 an acute inflammatory challenge, and
NOTE Confidence: 0.9857395

00:34:40.585 --> 00:34:41.545 that's what we do with
NOTE Confidence: 0.9857395

00:34:41.545 --> 00:34:43.485 cancer treatment. Whether it's radiation,
NOTE Confidence: 0.99416864

00:34:44.090 --> 00:34:45.530 chemotherapy, putting all of these

NOTE Confidence: 0.99416864

00:34:45.530 --> 00:34:47.210 things together, we're dealing with

NOTE Confidence: 0.99416864

00:34:47.210 --> 00:34:48.350 an acute inflammatory,

NOTE Confidence: 0.9723733

00:34:49.450 --> 00:34:51.045 challenge. And again, this is

NOTE Confidence: 0.9723733

00:34:51.045 --> 00:34:51.944 how the body responds

NOTE Confidence: 0.9440058

00:34:52.405 --> 00:34:53.525 with an increase in pro

NOTE Confidence: 0.9440058

00:34:53.525 --> 00:34:54.744 inflammatory cytokines.

NOTE Confidence: 0.9754832

00:34:55.125 --> 00:34:56.244 And there may be local

NOTE Confidence: 0.9754832

00:34:56.244 --> 00:34:57.545 and systemic effects,

NOTE Confidence: 0.992566

00:34:57.844 --> 00:34:59.625 including all of these cytokines

NOTE Confidence: 0.9316491

00:35:00.030 --> 00:35:01.810 affecting the central nervous system

NOTE Confidence: 0.9316491

00:35:01.950 --> 00:35:02.989 where in fact you can

NOTE Confidence: 0.9316491

00:35:02.989 --> 00:35:04.989 see both the brain symptoms

NOTE Confidence: 0.9316491

00:35:04.989 --> 00:35:06.510 and the fatigue really being

NOTE Confidence: 0.9316491

00:35:06.510 --> 00:35:07.010 influenced

NOTE Confidence: 0.9640567

00:35:07.635 --> 00:35:08.915 by inflammation. And we've been

NOTE Confidence: 0.9640567

00:35:08.915 --> 00:35:10.195 able to document this in
NOTE Confidence: 0.9640567

00:35:10.195 --> 00:35:10.835 a quite a bit of
NOTE Confidence: 0.9640567

00:35:10.835 --> 00:35:12.114 our work. One of the
NOTE Confidence: 0.9640567

00:35:12.114 --> 00:35:13.795 first studies was that, doctor
NOTE Confidence: 0.9640567

00:35:13.795 --> 00:35:15.235 Bauer actually followed up on
NOTE Confidence: 0.9640567

00:35:15.235 --> 00:35:15.895 the patients,
NOTE Confidence: 0.9986497

00:35:16.400 --> 00:35:17.620 that we had recruited
NOTE Confidence: 0.9906951

00:35:18.000 --> 00:35:19.840 in our sexuality and intimacy
NOTE Confidence: 0.9906951

00:35:19.840 --> 00:35:20.880 study. We had a couple
NOTE Confidence: 0.9906951

00:35:20.880 --> 00:35:22.400 thousand patients where we had,
NOTE Confidence: 0.9906951

00:35:22.640 --> 00:35:24.165 all these kinds of questions
NOTE Confidence: 0.9906951

00:35:24.165 --> 00:35:25.445 asked about them before we
NOTE Confidence: 0.9906951

00:35:25.445 --> 00:35:26.505 went into an intervention.
NOTE Confidence: 0.98413044

00:35:26.965 --> 00:35:27.925 And she was able to
NOTE Confidence: 0.98413044

00:35:27.925 --> 00:35:29.285 recruit some of these patients
NOTE Confidence: 0.98413044

00:35:29.285 --> 00:35:30.325 to come back into the

NOTE Confidence: 0.98413044

00:35:30.325 --> 00:35:32.170 lab and actually test them

NOTE Confidence: 0.98413044

00:35:32.170 --> 00:35:33.849 and evaluate them and actually

NOTE Confidence: 0.98413044

00:35:33.849 --> 00:35:35.049 show that there were changes

NOTE Confidence: 0.98413044

00:35:35.049 --> 00:35:36.410 with inflammation and bringing that

NOTE Confidence: 0.98413044

00:35:36.410 --> 00:35:37.769 into our lab. But things

NOTE Confidence: 0.98413044

00:35:37.769 --> 00:35:39.529 that are associated with fatigue

NOTE Confidence: 0.98413044

00:35:39.529 --> 00:35:40.875 in our cancer survivors and

NOTE Confidence: 0.98413044

00:35:40.875 --> 00:35:42.475 breast cancer survivors are the

NOTE Confidence: 0.98413044

00:35:42.475 --> 00:35:44.395 comorbid medical conditions. So again,

NOTE Confidence: 0.98413044

00:35:44.395 --> 00:35:45.375 things that are also,

NOTE Confidence: 0.9537527

00:35:45.675 --> 00:35:47.135 going on in the host.

NOTE Confidence: 0.9176588

00:35:48.100 --> 00:35:49.560 Increased body mass index,

NOTE Confidence: 0.92636883

00:35:49.940 --> 00:35:51.640 anemia is very rare.

NOTE Confidence: 0.99139756

00:35:52.020 --> 00:35:54.520 But demographic factors, younger age,

NOTE Confidence: 0.99139756

00:35:54.660 --> 00:35:55.480 lower income,

NOTE Confidence: 0.991368

00:35:55.895 --> 00:35:57.114 not being married,
NOTE Confidence: 0.9712117

00:35:57.495 --> 00:35:58.695 or living with someone is
NOTE Confidence: 0.9712117

00:35:58.695 --> 00:35:59.195 important.
NOTE Confidence: 0.9907027

00:35:59.495 --> 00:36:01.575 Psychological factors, a past history
NOTE Confidence: 0.9907027

00:36:01.575 --> 00:36:02.235 of depression,
NOTE Confidence: 0.94864166

00:36:02.614 --> 00:36:03.435 a catastrophizing
NOTE Confidence: 0.9659701

00:36:03.815 --> 00:36:05.580 coping style, but good things
NOTE Confidence: 0.9659701

00:36:05.580 --> 00:36:07.840 being physical activity, so inactivity
NOTE Confidence: 0.9659701

00:36:08.060 --> 00:36:09.340 not being good. And then
NOTE Confidence: 0.9659701

00:36:09.340 --> 00:36:11.020 these comorbid symptoms that were
NOTE Confidence: 0.9659701

00:36:11.020 --> 00:36:12.480 often co occurring
NOTE Confidence: 0.9495492

00:36:12.785 --> 00:36:14.065 with fatigue, such as pain,
NOTE Confidence: 0.9495492

00:36:14.065 --> 00:36:16.305 menopausal symptoms, and sleep disturbance.
NOTE Confidence: 0.9495492

00:36:16.305 --> 00:36:17.445 A lot of these things
NOTE Confidence: 0.9495492

00:36:17.665 --> 00:36:19.364 all associated with inflammation.
NOTE Confidence: 0.9676267

00:36:19.719 --> 00:36:20.839 And in the early studies

NOTE Confidence: 0.9676267

00:36:20.839 --> 00:36:21.880 that she did, she was

NOTE Confidence: 0.9676267

00:36:21.880 --> 00:36:23.960 able to document higher levels

NOTE Confidence: 0.9676267

00:36:23.960 --> 00:36:25.500 of inflammation in the patients

NOTE Confidence: 0.9676267

00:36:25.559 --> 00:36:26.680 who were more fatigued. And

NOTE Confidence: 0.9676267

00:36:26.680 --> 00:36:28.114 this was going out five

NOTE Confidence: 0.9676267

00:36:28.114 --> 00:36:29.635 years and then subsequently eight

NOTE Confidence: 0.9676267

00:36:29.635 --> 00:36:31.234 years out after their initial

NOTE Confidence: 0.9676267

00:36:31.234 --> 00:36:32.375 questionnaire data.

NOTE Confidence: 0.9817148

00:36:32.835 --> 00:36:34.989 And, again, in many works

NOTE Confidence: 0.9817148

00:36:34.989 --> 00:36:35.969 that she's written,

NOTE Confidence: 0.9652389

00:36:36.430 --> 00:36:37.710 again, this is one review

NOTE Confidence: 0.9652389

00:36:37.710 --> 00:36:38.930 a number of years ago,

NOTE Confidence: 0.9652389

00:36:38.989 --> 00:36:40.989 really looking at host factors

NOTE Confidence: 0.9652389

00:36:40.989 --> 00:36:42.610 that are associated with this

NOTE Confidence: 0.9652389

00:36:42.795 --> 00:36:43.915 and ways that we might

NOTE Confidence: 0.9652389

00:36:43.915 --> 00:36:45.835 begin to intervention to intervene

NOTE Confidence: 0.9652389

00:36:45.835 --> 00:36:47.915 on this. And, doctor Bauer

NOTE Confidence: 0.9652389

00:36:47.915 --> 00:36:49.295 actually led the ASCO,

NOTE Confidence: 0.9549262

00:36:50.075 --> 00:36:51.135 guideline fatigue,

NOTE Confidence: 0.97701544

00:36:52.230 --> 00:36:53.370 guideline on fatigue,

NOTE Confidence: 0.94963133

00:36:53.750 --> 00:36:54.790 in two thousand thirteen. And

NOTE Confidence: 0.94963133

00:36:54.790 --> 00:36:56.070 we just updated it now

NOTE Confidence: 0.94963133

00:36:56.070 --> 00:36:56.969 where she again,

NOTE Confidence: 0.9934704

00:36:57.270 --> 00:36:58.550 led this, as well. So

NOTE Confidence: 0.9934704

00:36:58.550 --> 00:36:59.750 if you're interested, you can

NOTE Confidence: 0.9934704

00:36:59.750 --> 00:37:01.255 read about the recommendations

NOTE Confidence: 0.9606704

00:37:01.555 --> 00:37:03.234 how we manage fatigue in

NOTE Confidence: 0.9606704

00:37:03.234 --> 00:37:04.215 cancer survivors.

NOTE Confidence: 0.9708205

00:37:04.915 --> 00:37:05.955 But I just wanna show

NOTE Confidence: 0.9708205

00:37:05.955 --> 00:37:07.555 you about how we might

NOTE Confidence: 0.9708205

00:37:07.555 --> 00:37:08.435 be able to get a

NOTE Confidence: 0.9708205
00:37:08.435 --> 00:37:09.655 little bit more precise
NOTE Confidence: 0.9980062
00:37:10.020 --> 00:37:11.540 in terms of understanding why
NOTE Confidence: 0.9980062
00:37:11.540 --> 00:37:13.300 some individuals might be more
NOTE Confidence: 0.9980062
00:37:13.300 --> 00:37:13.800 predisposed
NOTE Confidence: 0.97898066
00:37:14.340 --> 00:37:15.960 to have preexisting fatigue.
NOTE Confidence: 0.9719208
00:37:16.420 --> 00:37:17.720 This was in a study,
NOTE Confidence: 0.94967836
00:37:18.204 --> 00:37:19.085 it was our mind body
NOTE Confidence: 0.94967836
00:37:19.085 --> 00:37:20.864 study where we recruited women
NOTE Confidence: 0.94967836
00:37:20.925 --> 00:37:22.045 who were just about to
NOTE Confidence: 0.94967836
00:37:22.045 --> 00:37:23.565 initiate endocrine therapy and we
NOTE Confidence: 0.94967836
00:37:23.565 --> 00:37:25.025 were following them for cognitive
NOTE Confidence: 0.9899727
00:37:25.730 --> 00:37:27.489 difficulties over time. But this
NOTE Confidence: 0.9899727
00:37:27.489 --> 00:37:28.770 was from the baseline data
NOTE Confidence: 0.9899727
00:37:28.770 --> 00:37:29.989 where we looked at fatigue
NOTE Confidence: 0.9391426
00:37:30.290 --> 00:37:32.050 and cognitive complaints in these
NOTE Confidence: 0.9391426

00:37:32.050 --> 00:37:33.989 patients and looked at snips
NOTE Confidence: 0.9902322

00:37:34.295 --> 00:37:35.895 in the promoter regions of
NOTE Confidence: 0.9902322

00:37:35.895 --> 00:37:36.395 TNF
NOTE Confidence: 0.8889193

00:37:37.094 --> 00:37:38.694 alpha IL six and IL
NOTE Confidence: 0.8889193

00:37:38.694 --> 00:37:39.655 one to see if there
NOTE Confidence: 0.8889193

00:37:39.655 --> 00:37:41.114 was any genetic predisposition
NOTE Confidence: 0.9729577

00:37:42.055 --> 00:37:43.745 to have a more a
NOTE Confidence: 0.9729577

00:37:43.745 --> 00:37:44.469 greater inflammatory
NOTE Confidence: 0.9981324

00:37:44.770 --> 00:37:46.150 response and symptoms.
NOTE Confidence: 0.9442513

00:37:46.530 --> 00:37:47.810 And here what we're showing
NOTE Confidence: 0.9442513

00:37:47.810 --> 00:37:48.869 is with the MFSI
NOTE Confidence: 0.9717491

00:37:49.250 --> 00:37:51.089 fatigue score, patients with the
NOTE Confidence: 0.9717491

00:37:51.089 --> 00:37:51.589 GG
NOTE Confidence: 0.9708641

00:37:51.969 --> 00:37:53.175 genotype of TNF,
NOTE Confidence: 0.9919285

00:37:53.715 --> 00:37:55.235 three zero eight, have a
NOTE Confidence: 0.9919285

00:37:55.235 --> 00:37:57.155 higher reporting of fatigue. You

NOTE Confidence: 0.9919285

00:37:57.155 --> 00:37:58.135 can see the AA

NOTE Confidence: 0.9523434

00:37:58.594 --> 00:37:59.795 SNP has a very low

NOTE Confidence: 0.9523434

00:37:59.795 --> 00:38:01.280 reporting. Here, if we look

NOTE Confidence: 0.9523434

00:38:01.280 --> 00:38:02.719 here at IL six, the

NOTE Confidence: 0.9523434

00:38:02.719 --> 00:38:04.180 SNP, the GG,

NOTE Confidence: 0.96289545

00:38:04.719 --> 00:38:06.560 pattern has a higher reporting

NOTE Confidence: 0.96289545

00:38:06.560 --> 00:38:07.600 of fatigue. And here, this

NOTE Confidence: 0.96289545

00:38:07.600 --> 00:38:09.255 is the CC SNP of

NOTE Confidence: 0.96289545

00:38:09.255 --> 00:38:10.614 IL one. So you can

NOTE Confidence: 0.96289545

00:38:10.614 --> 00:38:11.914 see that there's variation

NOTE Confidence: 0.9934903

00:38:12.535 --> 00:38:13.835 based on the genetic,

NOTE Confidence: 0.9801113

00:38:14.855 --> 00:38:16.750 components in a person's makeup.

NOTE Confidence: 0.9801113

00:38:16.750 --> 00:38:17.710 You know, these are not

NOTE Confidence: 0.9801113

00:38:17.710 --> 00:38:19.310 abnormalities. It's just how they

NOTE Confidence: 0.9801113

00:38:19.310 --> 00:38:21.489 might be handling potentially inflammation

NOTE Confidence: 0.99047893

00:38:21.870 --> 00:38:23.070 in their body. And this
NOTE Confidence: 0.99047893

00:38:23.070 --> 00:38:24.430 was true for both cognitive
NOTE Confidence: 0.99047893

00:38:24.430 --> 00:38:26.974 complaints and fatigue at baseline.
NOTE Confidence: 0.99981254

00:38:27.755 --> 00:38:28.415 In addition,
NOTE Confidence: 0.97710055

00:38:28.715 --> 00:38:30.555 we put together an additive
NOTE Confidence: 0.97710055

00:38:30.555 --> 00:38:32.155 genetic score. So the more
NOTE Confidence: 0.97710055

00:38:32.155 --> 00:38:32.875 of these,
NOTE Confidence: 0.9941534

00:38:33.410 --> 00:38:34.850 SNPs that you have that
NOTE Confidence: 0.9941534

00:38:34.850 --> 00:38:36.450 are the higher burden SNPs
NOTE Confidence: 0.9941534

00:38:36.450 --> 00:38:37.510 in terms of inflammation,
NOTE Confidence: 0.9576308

00:38:38.050 --> 00:38:39.650 the greater the reporting of
NOTE Confidence: 0.9576308

00:38:39.650 --> 00:38:40.770 fatigue you can see in
NOTE Confidence: 0.9576308

00:38:40.770 --> 00:38:42.035 terms of the score. And
NOTE Confidence: 0.9576308

00:38:42.035 --> 00:38:42.855 in a multivariate
NOTE Confidence: 0.9976094

00:38:43.155 --> 00:38:43.635 model,
NOTE Confidence: 0.99438286

00:38:44.195 --> 00:38:45.955 predictors of fatigue were age,

NOTE Confidence: 0.99438286

00:38:45.955 --> 00:38:47.175 body mass index,

NOTE Confidence: 0.97166544

00:38:47.635 --> 00:38:49.075 whether you got chemotherapy or

NOTE Confidence: 0.97166544

00:38:49.075 --> 00:38:50.435 not, or the genetic risk

NOTE Confidence: 0.97166544

00:38:50.435 --> 00:38:52.310 score. So, again, these host

NOTE Confidence: 0.97166544

00:38:52.310 --> 00:38:52.810 factors

NOTE Confidence: 0.97111815

00:38:53.110 --> 00:38:54.310 that may be giving us

NOTE Confidence: 0.97111815

00:38:54.310 --> 00:38:55.590 a clue as to who

NOTE Confidence: 0.97111815

00:38:55.590 --> 00:38:56.870 may be more at risk

NOTE Confidence: 0.97111815

00:38:56.870 --> 00:38:58.390 for symptoms and if we

NOTE Confidence: 0.97111815

00:38:58.390 --> 00:38:59.750 could, in fact, use this.

NOTE Confidence: 0.97111815

00:38:59.750 --> 00:39:00.914 Now I have to say,

NOTE Confidence: 0.9956567

00:39:01.214 --> 00:39:02.974 we haven't completely validated this.

NOTE Confidence: 0.9956567

00:39:02.974 --> 00:39:03.875 We have a new,

NOTE Confidence: 0.95515674

00:39:04.335 --> 00:39:06.094 study actually where we're one

NOTE Confidence: 0.95515674

00:39:06.094 --> 00:39:07.135 of the clinical trials that

NOTE Confidence: 0.95515674

00:39:07.135 --> 00:39:08.580 we're looking at, maybe even
NOTE Confidence: 0.95515674

00:39:08.580 --> 00:39:10.600 BIOSHA's fourteen eighteen trial,
NOTE Confidence: 0.98922056

00:39:10.980 --> 00:39:12.100 that he was just asking
NOTE Confidence: 0.98922056

00:39:12.100 --> 00:39:13.080 me about analyzing,
NOTE Confidence: 0.99373066

00:39:13.540 --> 00:39:14.340 where we may be able
NOTE Confidence: 0.99373066

00:39:14.340 --> 00:39:15.800 to replicate this data.
NOTE Confidence: 0.99726444

00:39:16.635 --> 00:39:17.135 So,
NOTE Confidence: 0.9867275

00:39:17.435 --> 00:39:19.275 doctor Bauer recently did another
NOTE Confidence: 0.9867275

00:39:19.275 --> 00:39:21.355 study where we wanted to
NOTE Confidence: 0.9867275

00:39:21.355 --> 00:39:21.855 understand
NOTE Confidence: 0.964131

00:39:22.315 --> 00:39:23.650 how did people, you know,
NOTE Confidence: 0.964131

00:39:23.650 --> 00:39:24.370 with all of our other
NOTE Confidence: 0.964131

00:39:24.370 --> 00:39:25.830 data had been cross sectional.
NOTE Confidence: 0.964131

00:39:26.050 --> 00:39:27.170 How did they get there?
NOTE Confidence: 0.964131

00:39:27.170 --> 00:39:28.450 Did they have fatigue in
NOTE Confidence: 0.964131

00:39:28.450 --> 00:39:30.050 the very beginning, or did

NOTE Confidence: 0.964131

00:39:30.050 --> 00:39:31.489 it sometime come off on

NOTE Confidence: 0.964131

00:39:31.489 --> 00:39:32.994 with treatment? And so this

NOTE Confidence: 0.964131

00:39:32.994 --> 00:39:34.835 was an inception cohort of

NOTE Confidence: 0.964131

00:39:34.835 --> 00:39:36.114 patients who had not yet

NOTE Confidence: 0.964131

00:39:36.114 --> 00:39:37.954 gotten their chemotherapy treatment. They

NOTE Confidence: 0.964131

00:39:37.954 --> 00:39:39.395 had had surgery but had

NOTE Confidence: 0.964131

00:39:39.395 --> 00:39:40.295 not had radiation.

NOTE Confidence: 0.99955165

00:39:41.099 --> 00:39:42.480 And if we look here,

NOTE Confidence: 0.99369264

00:39:42.780 --> 00:39:44.320 we can look at the

NOTE Confidence: 0.99369264

00:39:44.380 --> 00:39:44.880 baseline,

NOTE Confidence: 0.9570955

00:39:45.260 --> 00:39:46.219 which is over here on

NOTE Confidence: 0.9570955

00:39:46.219 --> 00:39:47.339 the left, and you can

NOTE Confidence: 0.9570955

00:39:47.339 --> 00:39:48.460 see a few of the

NOTE Confidence: 0.9570955

00:39:48.460 --> 00:39:49.944 people here. This is a

NOTE Confidence: 0.9570955

00:39:49.944 --> 00:39:51.224 cohort of a little over

NOTE Confidence: 0.9570955

00:39:51.224 --> 00:39:52.204 two hundred patients.
NOTE Confidence: 0.9940706

00:39:52.505 --> 00:39:53.305 A few of them had
NOTE Confidence: 0.9940706

00:39:53.305 --> 00:39:54.744 high levels of fatigue on
NOTE Confidence: 0.9940706

00:39:54.744 --> 00:39:55.405 the MFSI,
NOTE Confidence: 0.9733077

00:39:55.864 --> 00:39:57.065 but most of them here
NOTE Confidence: 0.9733077

00:39:57.065 --> 00:39:58.599 in the green had stable
NOTE Confidence: 0.9733077

00:39:58.599 --> 00:39:59.960 low, hundred and seventy eight
NOTE Confidence: 0.9733077

00:39:59.960 --> 00:40:00.920 out of these two hundred
NOTE Confidence: 0.9733077

00:40:00.920 --> 00:40:02.759 and seventy patients had low
NOTE Confidence: 0.9733077

00:40:02.759 --> 00:40:04.440 scores, and they never actually
NOTE Confidence: 0.9733077

00:40:04.440 --> 00:40:06.015 rose. But if we look
NOTE Confidence: 0.9733077

00:40:06.015 --> 00:40:08.355 at eighteen months over here,
NOTE Confidence: 0.9733077

00:40:08.415 --> 00:40:09.375 which is where we might
NOTE Confidence: 0.9733077

00:40:09.375 --> 00:40:11.075 do a cross sectional analysis
NOTE Confidence: 0.9733077

00:40:11.135 --> 00:40:12.575 of patients, so these are
NOTE Confidence: 0.9733077

00:40:12.575 --> 00:40:14.560 people who have somewhat elevated

NOTE Confidence: 0.9733077

00:40:14.620 --> 00:40:15.920 levels. And you can see

NOTE Confidence: 0.9733077

00:40:16.140 --> 00:40:17.440 some of them were actually

NOTE Confidence: 0.9733077

00:40:17.500 --> 00:40:18.940 low to begin with. Some

NOTE Confidence: 0.9733077

00:40:18.940 --> 00:40:19.980 of them were high and

NOTE Confidence: 0.9733077

00:40:19.980 --> 00:40:21.500 actually declined and even didn't

NOTE Confidence: 0.9733077

00:40:21.500 --> 00:40:22.945 have high levels. And then

NOTE Confidence: 0.9733077

00:40:22.945 --> 00:40:24.725 some who were persistently high.

NOTE Confidence: 0.9733077

00:40:24.864 --> 00:40:25.765 So understanding,

NOTE Confidence: 0.99118525

00:40:26.145 --> 00:40:27.425 again, we've done a lot

NOTE Confidence: 0.99118525

00:40:27.425 --> 00:40:29.445 of analysis of this data,

NOTE Confidence: 0.99118525

00:40:29.480 --> 00:40:30.280 but there are a number

NOTE Confidence: 0.99118525

00:40:30.280 --> 00:40:31.880 of psychosocial predictors. And I

NOTE Confidence: 0.99118525

00:40:31.880 --> 00:40:33.320 was mentioning to someone last

NOTE Confidence: 0.99118525

00:40:33.320 --> 00:40:35.480 night, early childhood trauma is

NOTE Confidence: 0.99118525

00:40:35.480 --> 00:40:37.000 actually a predictor in some

NOTE Confidence: 0.99118525

00:40:37.000 --> 00:40:38.625 of these individuals for having
NOTE Confidence: 0.99118525

00:40:38.625 --> 00:40:40.225 high levels of fatigue and
NOTE Confidence: 0.99118525

00:40:40.225 --> 00:40:41.605 other symptoms at baseline
NOTE Confidence: 0.9884622

00:40:41.905 --> 00:40:43.585 that actually persists. So that
NOTE Confidence: 0.9884622

00:40:43.585 --> 00:40:44.945 could be something we might
NOTE Confidence: 0.9884622

00:40:44.945 --> 00:40:46.325 wanna be able to incorporate
NOTE Confidence: 0.9884622

00:40:46.385 --> 00:40:47.364 into our evaluation.
NOTE Confidence: 0.99826497

00:40:49.009 --> 00:40:50.049 So why is it under
NOTE Confidence: 0.99826497

00:40:50.210 --> 00:40:52.869 important to understand biological mechanisms
NOTE Confidence: 0.99826497

00:40:52.930 --> 00:40:53.750 of the treatment?
NOTE Confidence: 0.9971732

00:40:54.130 --> 00:40:55.864 I can't tell you how
NOTE Confidence: 0.9971732

00:40:55.864 --> 00:40:57.565 validating this is for patients.
NOTE Confidence: 0.97233295

00:40:57.864 --> 00:40:58.905 People look me up on
NOTE Confidence: 0.97233295

00:40:58.905 --> 00:41:00.185 the web or they've heard
NOTE Confidence: 0.97233295

00:41:00.185 --> 00:41:01.405 me talk, etcetera.
NOTE Confidence: 0.9814604

00:41:01.705 --> 00:41:02.665 And when I can say

NOTE Confidence: 0.9814604

00:41:02.665 --> 00:41:04.219 to them, there's a biological

NOTE Confidence: 0.9814604

00:41:04.359 --> 00:41:05.880 reason why you're still having

NOTE Confidence: 0.9814604

00:41:05.880 --> 00:41:08.359 fatigue or cognitive complaints, they

NOTE Confidence: 0.9814604

00:41:08.359 --> 00:41:09.560 feel much better. It doesn't

NOTE Confidence: 0.9814604

00:41:09.560 --> 00:41:11.015 take away the symptoms, but

NOTE Confidence: 0.9814604

00:41:11.015 --> 00:41:12.375 it means that they really

NOTE Confidence: 0.9814604

00:41:12.375 --> 00:41:13.734 have something. It's not just

NOTE Confidence: 0.9814604

00:41:13.734 --> 00:41:14.555 in your head,

NOTE Confidence: 0.97279733

00:41:14.935 --> 00:41:15.994 literally and figuratively.

NOTE Confidence: 0.9822332

00:41:16.614 --> 00:41:18.234 And so that's very valuable.

NOTE Confidence: 0.9822332

00:41:18.455 --> 00:41:20.455 In addition, it really helps

NOTE Confidence: 0.9822332

00:41:20.455 --> 00:41:21.790 us to develop interventions,

NOTE Confidence: 0.98090017

00:41:22.330 --> 00:41:24.570 either pharmacological or behavioral. And

NOTE Confidence: 0.98090017

00:41:24.570 --> 00:41:25.610 we've now done a lot

NOTE Confidence: 0.98090017

00:41:25.610 --> 00:41:27.210 of behavioral interventions where we

NOTE Confidence: 0.98090017

00:41:27.210 --> 00:41:28.489 actually show we can move
NOTE Confidence: 0.98090017

00:41:28.489 --> 00:41:30.190 the needle on the inflammation,
NOTE Confidence: 0.9758463

00:41:30.695 --> 00:41:32.155 and it is actually associated
NOTE Confidence: 0.9758463

00:41:32.215 --> 00:41:33.815 with the response, the clinical
NOTE Confidence: 0.9758463

00:41:33.815 --> 00:41:35.675 response to treating those symptoms.
NOTE Confidence: 0.98743826

00:41:35.975 --> 00:41:37.255 And possibly, we might be
NOTE Confidence: 0.98743826

00:41:37.255 --> 00:41:38.535 able to identify people who
NOTE Confidence: 0.98743826

00:41:38.535 --> 00:41:39.810 are at higher risk. And
NOTE Confidence: 0.98743826

00:41:39.810 --> 00:41:41.430 there may be some concerns
NOTE Confidence: 0.98743826

00:41:41.489 --> 00:41:43.170 about how this inflammation is
NOTE Confidence: 0.98743826

00:41:43.170 --> 00:41:45.489 also affecting tumor biology and
NOTE Confidence: 0.98743826

00:41:45.489 --> 00:41:47.010 prognosis for patients. So there's
NOTE Confidence: 0.98743826

00:41:47.010 --> 00:41:48.185 a lot going on here,
NOTE Confidence: 0.98743826

00:41:48.344 --> 00:41:49.864 but understanding this, I think,
NOTE Confidence: 0.98743826

00:41:49.864 --> 00:41:50.844 is very powerful.
NOTE Confidence: 0.9901923

00:41:51.705 --> 00:41:53.145 So, this is a review

NOTE Confidence: 0.9901923

00:41:53.145 --> 00:41:54.425 that we wrote recently that

NOTE Confidence: 0.9901923

00:41:54.425 --> 00:41:55.385 talked about some of these

NOTE Confidence: 0.9901923

00:41:55.385 --> 00:41:56.605 things. And if you're interested,

NOTE Confidence: 0.9901923

00:41:56.780 --> 00:41:57.739 you may wanna look at

NOTE Confidence: 0.9901923

00:41:57.739 --> 00:41:59.980 this. But, it's incorporating these

NOTE Confidence: 0.9901923

00:41:59.980 --> 00:42:02.480 issues of accelerated aging, persistent

NOTE Confidence: 0.9901923

00:42:02.700 --> 00:42:03.200 inflammation,

NOTE Confidence: 0.9437576

00:42:03.579 --> 00:42:05.985 and looking at interventions, behavioral,

NOTE Confidence: 0.9437576

00:42:05.985 --> 00:42:07.125 and potentially pharmacologic

NOTE Confidence: 0.97645557

00:42:07.825 --> 00:42:09.185 that might be useful. And

NOTE Confidence: 0.97645557

00:42:09.185 --> 00:42:10.545 I'm really I'm just completed

NOTE Confidence: 0.97645557

00:42:10.545 --> 00:42:11.665 a phase two trial of

NOTE Confidence: 0.97645557

00:42:11.665 --> 00:42:13.045 a very interesting nutraceutical

NOTE Confidence: 0.98914117

00:42:13.790 --> 00:42:15.170 that seems to be actually

NOTE Confidence: 0.98914117

00:42:15.230 --> 00:42:16.050 very effective

NOTE Confidence: 0.98543125

00:42:16.430 --> 00:42:18.190 in decreasing cognitive complaints in
NOTE Confidence: 0.98543125

00:42:18.190 --> 00:42:19.630 women with breast cancer. And
NOTE Confidence: 0.98543125

00:42:19.630 --> 00:42:20.910 we're actually now going back
NOTE Confidence: 0.98543125

00:42:20.910 --> 00:42:21.870 to the clinic and doing
NOTE Confidence: 0.98543125

00:42:21.870 --> 00:42:22.914 a mouse model to see
NOTE Confidence: 0.98543125

00:42:22.914 --> 00:42:24.355 if we can actually show
NOTE Confidence: 0.98543125

00:42:24.355 --> 00:42:25.954 the biology of how I
NOTE Confidence: 0.98543125

00:42:25.954 --> 00:42:27.654 think we're decreasing neuroinflammation.
NOTE Confidence: 0.9686011

00:42:28.194 --> 00:42:29.635 So these are very important
NOTE Confidence: 0.9686011

00:42:29.635 --> 00:42:31.569 things to really understand to
NOTE Confidence: 0.9686011

00:42:31.569 --> 00:42:32.769 improve the well-being of our
NOTE Confidence: 0.9686011

00:42:32.769 --> 00:42:33.269 patients.
NOTE Confidence: 0.97990423

00:42:33.730 --> 00:42:34.690 I wanna just spend the
NOTE Confidence: 0.97990423

00:42:34.690 --> 00:42:36.049 last few minutes talking about
NOTE Confidence: 0.97990423

00:42:36.049 --> 00:42:37.589 a couple of special populations
NOTE Confidence: 0.97990423

00:42:37.650 --> 00:42:38.609 that we need to think

NOTE Confidence: 0.97990423

00:42:38.609 --> 00:42:40.375 about and for future research,

NOTE Confidence: 0.97990423

00:42:40.375 --> 00:42:41.895 people who are now in

NOTE Confidence: 0.97990423

00:42:41.895 --> 00:42:42.935 this field to think about.

NOTE Confidence: 0.97990423

00:42:42.935 --> 00:42:44.215 And that's the young adult

NOTE Confidence: 0.97990423

00:42:44.215 --> 00:42:46.455 cancer patients and survivors and

NOTE Confidence: 0.97990423

00:42:46.455 --> 00:42:48.395 people living with metastatic disease.

NOTE Confidence: 0.87903523

00:42:49.130 --> 00:42:49.450 So again,

NOTE Confidence: 0.9306164

00:42:50.250 --> 00:42:52.010 this is a minority group,

NOTE Confidence: 0.9306164

00:42:52.010 --> 00:42:52.969 if you will, within the

NOTE Confidence: 0.9306164

00:42:52.969 --> 00:42:54.030 two million cancer,

NOTE Confidence: 0.981496

00:42:54.730 --> 00:42:56.330 cases that are diagnosed every

NOTE Confidence: 0.981496

00:42:56.330 --> 00:42:57.710 year, but very important.

NOTE Confidence: 0.9870986

00:42:58.055 --> 00:42:58.455 And,

NOTE Confidence: 0.8092026

00:42:58.855 --> 00:43:00.075 it's again challenging

NOTE Confidence: 0.9830378

00:43:00.455 --> 00:43:02.075 because young adults have heterogeneous

NOTE Confidence: 0.89308375

00:43:02.375 --> 00:43:03.815 cancer diagnoses. You know, it
NOTE Confidence: 0.89308375

00:43:03.815 --> 00:43:05.275 ranges from leukemia,
NOTE Confidence: 0.87967235

00:43:05.575 --> 00:43:06.857 people who are getting, transplanted
NOTE Confidence: 0.87967235

00:43:06.857 --> 00:43:07.100 in
NOTE Confidence: 0.9760827

00:43:15.020 --> 00:43:15.370 think about cancer in a
NOTE Confidence: 0.9760827

00:43:15.370 --> 00:43:15.975 young person, plus we don't
NOTE Confidence: 0.9760827

00:43:15.975 --> 00:43:17.255 think about cancer in a
NOTE Confidence: 0.9760827

00:43:17.255 --> 00:43:18.935 young person, plus we don't
NOTE Confidence: 0.9760827

00:43:18.935 --> 00:43:20.614 screen for cancer. Again, we've
NOTE Confidence: 0.9760827

00:43:20.614 --> 00:43:21.995 just now moved the colorectal
NOTE Confidence: 0.9760827

00:43:22.055 --> 00:43:24.020 cancer screening guidelines down to
NOTE Confidence: 0.9760827

00:43:24.020 --> 00:43:24.820 forty five, but a lot
NOTE Confidence: 0.9760827

00:43:24.820 --> 00:43:25.780 of them are being diagnosed
NOTE Confidence: 0.9760827

00:43:25.780 --> 00:43:26.820 when they're thirty five. The
NOTE Confidence: 0.9760827

00:43:26.820 --> 00:43:28.420 breast cancer patients are being
NOTE Confidence: 0.9760827

00:43:28.420 --> 00:43:29.700 diagnosed. They come in with

NOTE Confidence: 0.9760827
00:43:29.700 --> 00:43:31.300 a lump, nobody pays attention
NOTE Confidence: 0.9760827
00:43:31.300 --> 00:43:32.385 to it, or it's post
NOTE Confidence: 0.9760827
00:43:32.385 --> 00:43:32.885 pregnancy,
NOTE Confidence: 0.97572225
00:43:33.665 --> 00:43:34.465 that they may have this.
NOTE Confidence: 0.97572225
00:43:34.465 --> 00:43:35.505 And so, again, there's a
NOTE Confidence: 0.97572225
00:43:35.505 --> 00:43:36.785 good reason why they often
NOTE Confidence: 0.97572225
00:43:36.785 --> 00:43:39.000 have, more advanced disease. They
NOTE Confidence: 0.97572225
00:43:39.000 --> 00:43:40.920 get more toxic therapy mostly
NOTE Confidence: 0.97572225
00:43:40.920 --> 00:43:42.120 because we've thought that we
NOTE Confidence: 0.97572225
00:43:42.200 --> 00:43:43.400 they can tolerate it, and
NOTE Confidence: 0.97572225
00:43:43.400 --> 00:43:44.520 we wanna treat them for
NOTE Confidence: 0.97572225
00:43:44.520 --> 00:43:45.020 cure.
NOTE Confidence: 0.98298556
00:43:45.320 --> 00:43:46.815 So that's very important. A
NOTE Confidence: 0.98298556
00:43:46.815 --> 00:43:48.035 lot of them are uninsured,
NOTE Confidence: 0.98298556
00:43:48.174 --> 00:43:49.135 so that's a big issue.
NOTE Confidence: 0.98298556

00:43:49.135 --> 00:43:50.494 It's their first encounter with
NOTE Confidence: 0.98298556

00:43:50.494 --> 00:43:51.855 the health care system. And
NOTE Confidence: 0.98298556

00:43:51.855 --> 00:43:52.515 so the
NOTE Confidence: 0.9989778

00:43:53.060 --> 00:43:53.880 financial toxicity
NOTE Confidence: 0.9814824

00:43:54.420 --> 00:43:56.020 is very, very high. And
NOTE Confidence: 0.9814824

00:43:56.020 --> 00:43:57.460 already, this segment of the
NOTE Confidence: 0.9814824

00:43:57.460 --> 00:43:58.980 population has high rates of
NOTE Confidence: 0.9814824

00:43:58.980 --> 00:44:00.120 anxiety and depression
NOTE Confidence: 0.97072583

00:44:00.444 --> 00:44:01.805 just in the background before
NOTE Confidence: 0.97072583

00:44:01.805 --> 00:44:03.164 they ever get cancer and
NOTE Confidence: 0.97072583

00:44:03.164 --> 00:44:04.765 is exacerbated with this. So
NOTE Confidence: 0.97072583

00:44:04.765 --> 00:44:06.684 again, very disruptive to young
NOTE Confidence: 0.97072583

00:44:06.684 --> 00:44:08.045 people. And it's not the
NOTE Confidence: 0.97072583

00:44:08.045 --> 00:44:09.005 same for a twenty year
NOTE Confidence: 0.97072583

00:44:09.005 --> 00:44:09.799 old as it is for
NOTE Confidence: 0.97072583

00:44:09.799 --> 00:44:10.660 a thirty five or a

NOTE Confidence: 0.97072583

00:44:10.660 --> 00:44:11.480 forty five year old. So,

NOTE Confidence: 0.97072583

00:44:11.480 --> 00:44:12.839 again, there are different age

NOTE Confidence: 0.97072583

00:44:12.839 --> 00:44:14.760 and developmental stages in this

NOTE Confidence: 0.97072583

00:44:14.760 --> 00:44:15.719 group that we have to

NOTE Confidence: 0.97072583

00:44:15.719 --> 00:44:17.234 pay attention to. But I

NOTE Confidence: 0.97072583

00:44:17.234 --> 00:44:18.675 wanna call you attention call

NOTE Confidence: 0.97072583

00:44:18.675 --> 00:44:20.195 your attention to this particular

NOTE Confidence: 0.97072583

00:44:20.195 --> 00:44:20.695 study,

NOTE Confidence: 0.881094

00:44:21.075 --> 00:44:21.974 that was con

NOTE Confidence: 0.950621

00:44:22.435 --> 00:44:24.055 commissioned by Teen Cancer America,

NOTE Confidence: 0.950621

00:44:24.309 --> 00:44:25.430 really looking at the cost

NOTE Confidence: 0.950621

00:44:25.430 --> 00:44:26.950 of cancer care and not

NOTE Confidence: 0.950621

00:44:26.950 --> 00:44:28.390 just the economic cost, the

NOTE Confidence: 0.950621

00:44:28.390 --> 00:44:30.630 financial cost, but also the

NOTE Confidence: 0.950621

00:44:30.630 --> 00:44:32.730 lost employment and opportunities,

NOTE Confidence: 0.92968726

00:44:33.694 --> 00:44:34.815 other things that happened to
NOTE Confidence: 0.92968726

00:44:34.815 --> 00:44:35.315 them,
NOTE Confidence: 0.9661127

00:44:35.775 --> 00:44:37.214 loss of well-being. And I
NOTE Confidence: 0.9661127

00:44:37.214 --> 00:44:38.494 just again, it's a dense
NOTE Confidence: 0.9661127

00:44:38.494 --> 00:44:40.015 slide. But I wanna just
NOTE Confidence: 0.9661127

00:44:40.015 --> 00:44:40.994 pull out here,
NOTE Confidence: 0.96429294

00:44:41.360 --> 00:44:42.800 the age thirty five to
NOTE Confidence: 0.96429294

00:44:42.800 --> 00:44:44.420 thirty nine and look at
NOTE Confidence: 0.96429294

00:44:44.560 --> 00:44:45.760 this is men here and
NOTE Confidence: 0.96429294

00:44:45.760 --> 00:44:47.200 this is women and this
NOTE Confidence: 0.96429294

00:44:47.200 --> 00:44:48.640 is the total in millions
NOTE Confidence: 0.96429294

00:44:48.640 --> 00:44:49.815 in terms of of cost.
NOTE Confidence: 0.96429294

00:44:49.815 --> 00:44:50.935 And there's this big difference
NOTE Confidence: 0.96429294

00:44:50.935 --> 00:44:52.135 here, and this is probably
NOTE Confidence: 0.96429294

00:44:52.135 --> 00:44:53.575 driven by the breast cancer
NOTE Confidence: 0.96429294

00:44:53.575 --> 00:44:55.895 cases where, again, very common

NOTE Confidence: 0.96429294
00:44:55.895 --> 00:44:57.430 disease in this age group,
NOTE Confidence: 0.96429294
00:44:57.670 --> 00:44:59.530 but for women having more
NOTE Confidence: 0.96429294
00:44:59.589 --> 00:45:00.489 burden here.
NOTE Confidence: 0.9885989
00:45:00.950 --> 00:45:02.230 And then if we look
NOTE Confidence: 0.9885989
00:45:02.230 --> 00:45:02.730 at
NOTE Confidence: 0.95843333
00:45:03.109 --> 00:45:04.070 I wanna just say the
NOTE Confidence: 0.95843333
00:45:04.070 --> 00:45:05.750 health system costs here, the
NOTE Confidence: 0.95843333
00:45:05.750 --> 00:45:07.135 cost per person per
NOTE Confidence: 0.9681545
00:45:07.515 --> 00:45:08.975 thousand is thirty five thousand
NOTE Confidence: 0.9681545
00:45:09.114 --> 00:45:09.835 if we just look at
NOTE Confidence: 0.9681545
00:45:09.835 --> 00:45:11.275 the health system costs, but
NOTE Confidence: 0.9681545
00:45:11.275 --> 00:45:12.635 the productivity costs are a
NOTE Confidence: 0.9681545
00:45:12.635 --> 00:45:14.235 hundred and ninety nine per
NOTE Confidence: 0.9681545
00:45:14.235 --> 00:45:15.210 person. But if we look
NOTE Confidence: 0.9681545
00:45:15.210 --> 00:45:17.050 at the financial total financial
NOTE Confidence: 0.9681545

00:45:17.050 --> 00:45:17.950 costs overall,
NOTE Confidence: 0.9788074

00:45:18.489 --> 00:45:19.690 it's two hundred and fifty
NOTE Confidence: 0.9788074

00:45:19.690 --> 00:45:21.770 nine thousand per person. And,
NOTE Confidence: 0.9788074

00:45:21.770 --> 00:45:23.164 again, in terms of burden
NOTE Confidence: 0.9788074

00:45:23.164 --> 00:45:24.204 of disease, in terms of
NOTE Confidence: 0.9788074

00:45:24.204 --> 00:45:25.184 the non financial,
NOTE Confidence: 0.97352946

00:45:25.805 --> 00:45:27.405 over a million. So again,
NOTE Confidence: 0.97352946

00:45:27.405 --> 00:45:28.285 this is looking at a
NOTE Confidence: 0.97352946

00:45:28.285 --> 00:45:28.785 lifetime,
NOTE Confidence: 0.99465084

00:45:29.244 --> 00:45:30.839 perspective. So we do need
NOTE Confidence: 0.99465084

00:45:30.839 --> 00:45:32.040 to pay attention to these
NOTE Confidence: 0.99465084

00:45:32.040 --> 00:45:32.859 younger adults,
NOTE Confidence: 0.9997054

00:45:33.239 --> 00:45:33.980 with cancer.
NOTE Confidence: 0.9778587

00:45:34.760 --> 00:45:36.280 And then finally, coming to
NOTE Confidence: 0.9778587

00:45:36.280 --> 00:45:37.660 the people living with metastatic
NOTE Confidence: 0.9778587

00:45:37.719 --> 00:45:38.805 disease, this is a very

NOTE Confidence: 0.9778587

00:45:38.885 --> 00:45:40.025 large and growing number,

NOTE Confidence: 0.99927855

00:45:40.325 --> 00:45:41.224 in our clinics.

NOTE Confidence: 0.9884254

00:45:41.765 --> 00:45:43.125 We are very fortunate now

NOTE Confidence: 0.9884254

00:45:43.125 --> 00:45:44.665 to have had targeted therapies

NOTE Confidence: 0.9884254

00:45:44.724 --> 00:45:46.810 and serial targeted therapies or

NOTE Confidence: 0.9884254

00:45:46.810 --> 00:45:48.330 immunotherapies that have been very

NOTE Confidence: 0.9884254

00:45:48.330 --> 00:45:48.830 effective.

NOTE Confidence: 0.99399996

00:45:49.130 --> 00:45:50.890 And, it's very valuable to

NOTE Confidence: 0.99399996

00:45:50.890 --> 00:45:51.770 be able to take care

NOTE Confidence: 0.99399996

00:45:51.770 --> 00:45:52.810 of these patients, but they

NOTE Confidence: 0.99399996

00:45:52.810 --> 00:45:54.395 never go off therapy. It's

NOTE Confidence: 0.99399996

00:45:54.395 --> 00:45:55.835 very costly for them. There

NOTE Confidence: 0.99399996

00:45:55.835 --> 00:45:56.975 may be chronic morbidities.

NOTE Confidence: 0.9837752

00:45:57.435 --> 00:45:59.594 And, again, chronic myelogenous leukemia,

NOTE Confidence: 0.9837752

00:45:59.594 --> 00:46:00.395 which was kind of the

NOTE Confidence: 0.9837752

00:46:00.395 --> 00:46:02.079 poster child for this group
NOTE Confidence: 0.9837752

00:46:02.079 --> 00:46:02.739 of patients,
NOTE Confidence: 0.96619093

00:46:03.359 --> 00:46:03.680 very,
NOTE Confidence: 0.9754222

00:46:04.400 --> 00:46:05.839 important. They do have chronic
NOTE Confidence: 0.9754222

00:46:05.839 --> 00:46:06.960 fatigue as an issue. It
NOTE Confidence: 0.9754222

00:46:06.960 --> 00:46:07.760 could be a burden in
NOTE Confidence: 0.9754222

00:46:07.760 --> 00:46:09.414 terms of their being adherent.
NOTE Confidence: 0.9754222

00:46:09.474 --> 00:46:11.255 And so finding ways either
NOTE Confidence: 0.9754222

00:46:11.315 --> 00:46:12.434 to take them off their
NOTE Confidence: 0.9754222

00:46:12.434 --> 00:46:13.555 therapy, people are looking at
NOTE Confidence: 0.9754222

00:46:13.555 --> 00:46:15.154 minimal or residual disease, a
NOTE Confidence: 0.9754222

00:46:15.154 --> 00:46:16.489 lot of other things, as
NOTE Confidence: 0.9754222

00:46:16.489 --> 00:46:18.750 well as mitigating these, toxicities.
NOTE Confidence: 0.9819995

00:46:19.290 --> 00:46:20.489 So very important for us
NOTE Confidence: 0.9819995

00:46:20.489 --> 00:46:21.690 to think about them. And
NOTE Confidence: 0.9819995

00:46:21.690 --> 00:46:22.650 there was a a good

NOTE Confidence: 0.9819995

00:46:22.650 --> 00:46:24.330 study done, a few years

NOTE Confidence: 0.9819995

00:46:24.330 --> 00:46:24.825 ago,

NOTE Confidence: 0.97675574

00:46:25.891 --> 00:46:27.005 by, folks at the NCI

NOTE Confidence: 0.94212013

00:46:27.385 --> 00:46:29.065 calling out, in this case,

NOTE Confidence: 0.94212013

00:46:29.065 --> 00:46:31.305 bladder, breast, colon, rectum, lung,

NOTE Confidence: 0.94212013

00:46:31.305 --> 00:46:33.484 and bronc, lung cancer, melanoma,

NOTE Confidence: 0.98871684

00:46:33.810 --> 00:46:35.410 and prostate. So here's lung.

NOTE Confidence: 0.98871684

00:46:35.410 --> 00:46:36.450 And looking at the number

NOTE Confidence: 0.98871684

00:46:36.450 --> 00:46:37.430 of people living,

NOTE Confidence: 0.9744906

00:46:37.890 --> 00:46:39.650 with, lung cancer that have

NOTE Confidence: 0.9744906

00:46:39.650 --> 00:46:40.850 metastatic disease, you can see

NOTE Confidence: 0.9744906

00:46:40.850 --> 00:46:42.734 the large numbers here. And,

NOTE Confidence: 0.9658986

00:46:43.215 --> 00:46:44.895 recurrence as well. The dark

NOTE Confidence: 0.9658986

00:46:44.895 --> 00:46:46.335 blue is recurrent and de

NOTE Confidence: 0.9658986

00:46:46.335 --> 00:46:48.015 novo is the light blue.

NOTE Confidence: 0.9658986

00:46:48.015 --> 00:46:48.895 And you can see again
NOTE Confidence: 0.9658986

00:46:48.895 --> 00:46:50.369 for breast, we have a
NOTE Confidence: 0.9658986

00:46:50.369 --> 00:46:51.489 lot of recurrence, but we
NOTE Confidence: 0.9658986

00:46:51.489 --> 00:46:53.089 also have de novo going
NOTE Confidence: 0.9658986

00:46:53.089 --> 00:46:54.450 on here. So these are
NOTE Confidence: 0.9658986

00:46:54.450 --> 00:46:55.969 important diseases that we need
NOTE Confidence: 0.9658986

00:46:55.969 --> 00:46:57.170 to pay attention to because
NOTE Confidence: 0.9658986

00:46:57.170 --> 00:46:58.450 people are on long term
NOTE Confidence: 0.9658986

00:46:58.450 --> 00:46:58.950 therapy.
NOTE Confidence: 0.9869056

00:46:59.569 --> 00:47:00.835 And if you look at
NOTE Confidence: 0.9869056

00:47:00.835 --> 00:47:01.955 the length of time, the
NOTE Confidence: 0.9869056

00:47:01.955 --> 00:47:03.475 green boxes here are out
NOTE Confidence: 0.9869056

00:47:03.475 --> 00:47:04.435 to ten years. So this
NOTE Confidence: 0.9869056

00:47:04.435 --> 00:47:06.135 is the prostate cancer patients,
NOTE Confidence: 0.8485623

00:47:06.594 --> 00:47:07.094 melanoma,
NOTE Confidence: 0.9954902

00:47:07.510 --> 00:47:08.890 greater than ten years,

NOTE Confidence: 0.97017556

00:47:09.589 --> 00:47:10.869 colon and rectum and so

NOTE Confidence: 0.97017556

00:47:10.869 --> 00:47:12.869 forth. So these individuals are

NOTE Confidence: 0.97017556

00:47:12.869 --> 00:47:14.550 living a long time on

NOTE Confidence: 0.97017556

00:47:14.550 --> 00:47:16.329 chronic therapies very often,

NOTE Confidence: 0.9642864

00:47:16.825 --> 00:47:18.445 and so the financial burden

NOTE Confidence: 0.9642864

00:47:18.505 --> 00:47:20.265 and the morbidity from therapies

NOTE Confidence: 0.9642864

00:47:20.265 --> 00:47:21.305 need to be think think

NOTE Confidence: 0.9642864

00:47:21.385 --> 00:47:22.585 we need to think about.

NOTE Confidence: 0.9642864

00:47:22.585 --> 00:47:23.465 And this is a very

NOTE Confidence: 0.9642864

00:47:23.465 --> 00:47:24.665 hot and new area for

NOTE Confidence: 0.9642864

00:47:24.665 --> 00:47:25.705 people who wanna work in

NOTE Confidence: 0.9642864

00:47:25.705 --> 00:47:26.205 survivorship

NOTE Confidence: 0.9993609

00:47:27.579 --> 00:47:28.700 research. So I'll just close

NOTE Confidence: 0.9993609

00:47:28.700 --> 00:47:29.980 in the last few minutes

NOTE Confidence: 0.9993609

00:47:29.980 --> 00:47:31.339 about how we might think

NOTE Confidence: 0.9993609

00:47:31.339 --> 00:47:33.359 about survivorship research and survivorship

NOTE Confidence: 0.9685102

00:47:33.994 --> 00:47:35.114 care. And this is from

NOTE Confidence: 0.9685102

00:47:35.114 --> 00:47:37.035 the Institute of Medicine lost

NOTE Confidence: 0.9685102

00:47:37.035 --> 00:47:38.635 in transition report, and it

NOTE Confidence: 0.9685102

00:47:38.635 --> 00:47:39.515 may not be a perfect

NOTE Confidence: 0.9685102

00:47:39.515 --> 00:47:41.035 diagram of what goes on,

NOTE Confidence: 0.9685102

00:47:41.035 --> 00:47:42.474 but often we're treating people

NOTE Confidence: 0.9685102

00:47:42.474 --> 00:47:43.660 out here for cure. And

NOTE Confidence: 0.9685102

00:47:43.660 --> 00:47:44.460 this is the group of

NOTE Confidence: 0.9685102

00:47:44.460 --> 00:47:45.420 people who are living a

NOTE Confidence: 0.9685102

00:47:45.420 --> 00:47:46.620 long time. And this is

NOTE Confidence: 0.9685102

00:47:46.620 --> 00:47:47.660 where we can focus our

NOTE Confidence: 0.9685102

00:47:47.660 --> 00:47:49.200 attention in terms of research.

NOTE Confidence: 0.9665766

00:47:49.980 --> 00:47:51.660 So, again, in terms of

NOTE Confidence: 0.9665766

00:47:51.660 --> 00:47:53.100 research, we can think about,

NOTE Confidence: 0.9988426

00:47:54.045 --> 00:47:56.045 developing and evaluating treatments to

NOTE Confidence: 0.9988426

00:47:56.045 --> 00:47:57.325 improve quality of life or

NOTE Confidence: 0.9988426

00:47:57.325 --> 00:47:58.385 quality of care.

NOTE Confidence: 0.9835919

00:47:58.925 --> 00:48:00.045 We need to focus on

NOTE Confidence: 0.9835919

00:48:00.045 --> 00:48:01.565 preventing the late effects as

NOTE Confidence: 0.9835919

00:48:01.565 --> 00:48:03.050 I've already talked about, and

NOTE Confidence: 0.9835919

00:48:03.050 --> 00:48:04.010 we need to attend to

NOTE Confidence: 0.9835919

00:48:04.010 --> 00:48:05.230 the vulnerable populations

NOTE Confidence: 0.96216834

00:48:05.690 --> 00:48:07.290 and those with comorbid and

NOTE Confidence: 0.96216834

00:48:07.290 --> 00:48:08.670 conditions and who are disadvantaged.

NOTE Confidence: 0.994426

00:48:09.290 --> 00:48:10.489 And we've spent a lot

NOTE Confidence: 0.994426

00:48:10.489 --> 00:48:11.370 of time in the last

NOTE Confidence: 0.994426

00:48:11.370 --> 00:48:12.805 few years about talking about

NOTE Confidence: 0.994426

00:48:12.805 --> 00:48:14.745 the integration of palliative care

NOTE Confidence: 0.994426

00:48:14.805 --> 00:48:15.305 with

NOTE Confidence: 0.9819314

00:48:15.605 --> 00:48:17.285 metastatic disease from the time

NOTE Confidence: 0.9819314

00:48:17.285 --> 00:48:18.565 of diagnosis because of the

NOTE Confidence: 0.9819314

00:48:18.565 --> 00:48:20.300 benefits. But palliative care is

NOTE Confidence: 0.9819314

00:48:20.300 --> 00:48:21.420 something that we actually need

NOTE Confidence: 0.9819314

00:48:21.420 --> 00:48:22.619 to do in every cancer

NOTE Confidence: 0.9819314

00:48:22.619 --> 00:48:24.800 patient and every survivor because,

NOTE Confidence: 0.9819314

00:48:24.859 --> 00:48:25.359 really,

NOTE Confidence: 0.9622645

00:48:25.660 --> 00:48:27.180 symptom management, as I've tried

NOTE Confidence: 0.9622645

00:48:27.180 --> 00:48:27.839 to emphasize,

NOTE Confidence: 0.98095137

00:48:28.165 --> 00:48:29.605 is very powerful. If you

NOTE Confidence: 0.98095137

00:48:29.605 --> 00:48:31.525 can control those symptoms, patients

NOTE Confidence: 0.98095137

00:48:31.525 --> 00:48:32.724 are gonna have higher levels

NOTE Confidence: 0.98095137

00:48:32.724 --> 00:48:34.005 of function, and they're going

NOTE Confidence: 0.98095137

00:48:34.005 --> 00:48:34.724 to be able to do

NOTE Confidence: 0.98095137

00:48:34.724 --> 00:48:36.005 better over the long haul.

NOTE Confidence: 0.98095137

00:48:36.005 --> 00:48:38.049 So thinking about palliative care

NOTE Confidence: 0.98095137

00:48:38.049 --> 00:48:39.969 again for everyone who's treated

NOTE Confidence: 0.98095137
00:48:39.969 --> 00:48:41.989 with cancer and particularly for
NOTE Confidence: 0.81040406
00:48:42.369 --> 00:48:43.989 survivors is very important.
NOTE Confidence: 0.95329744
00:48:44.295 --> 00:48:45.995 This is a nice, diagram,
NOTE Confidence: 0.9834234
00:48:46.614 --> 00:48:48.215 from folks at MD Anderson
NOTE Confidence: 0.9834234
00:48:48.215 --> 00:48:49.495 really kind of thinking about
NOTE Confidence: 0.9834234
00:48:49.495 --> 00:48:51.015 the continuum of care. And
NOTE Confidence: 0.9834234
00:48:51.015 --> 00:48:52.215 we can call it palliative
NOTE Confidence: 0.9834234
00:48:52.215 --> 00:48:53.175 care. We can call it
NOTE Confidence: 0.9834234
00:48:53.175 --> 00:48:54.680 supportive care. But all of
NOTE Confidence: 0.9834234
00:48:54.680 --> 00:48:55.800 those things that we give
NOTE Confidence: 0.9834234
00:48:55.800 --> 00:48:56.760 to people at the end
NOTE Confidence: 0.9834234
00:48:56.760 --> 00:48:57.960 of life, we should be
NOTE Confidence: 0.9834234
00:48:57.960 --> 00:48:59.160 giving right from the very
NOTE Confidence: 0.9834234
00:48:59.160 --> 00:49:00.839 beginning and really trying to
NOTE Confidence: 0.9834234
00:49:00.839 --> 00:49:02.359 highlight those most in need
NOTE Confidence: 0.9834234

00:49:02.359 --> 00:49:03.795 by screening, if you will,
NOTE Confidence: 0.9834234

00:49:03.875 --> 00:49:05.555 for symptoms and morbidities that
NOTE Confidence: 0.9834234

00:49:05.555 --> 00:49:06.614 people are having.
NOTE Confidence: 0.99092054

00:49:07.474 --> 00:49:07.974 So,
NOTE Confidence: 0.9730554

00:49:08.434 --> 00:49:09.875 in thinking about the kinds
NOTE Confidence: 0.9730554

00:49:09.875 --> 00:49:11.155 of study designs you might
NOTE Confidence: 0.9730554

00:49:11.155 --> 00:49:12.674 wanna consider in your symptom
NOTE Confidence: 0.9730554

00:49:12.674 --> 00:49:13.575 science research,
NOTE Confidence: 0.9695445

00:49:14.020 --> 00:49:16.100 Again, randomized controlled trials are
NOTE Confidence: 0.9695445

00:49:16.100 --> 00:49:17.540 really important in terms of
NOTE Confidence: 0.9695445

00:49:17.540 --> 00:49:18.040 evaluating,
NOTE Confidence: 0.96736455

00:49:18.739 --> 00:49:20.100 treatments. And I've been very
NOTE Confidence: 0.96736455

00:49:20.100 --> 00:49:21.300 fortunate because of my work
NOTE Confidence: 0.96736455

00:49:21.300 --> 00:49:21.875 in the,
NOTE Confidence: 0.94518614

00:49:22.435 --> 00:49:24.035 cooperative groups, but also even
NOTE Confidence: 0.94518614

00:49:24.035 --> 00:49:25.715 in our own, studies where

NOTE Confidence: 0.94518614

00:49:25.715 --> 00:49:27.735 we've either done attention control,

NOTE Confidence: 0.94518614

00:49:27.795 --> 00:49:29.255 wait list control, or placebos

NOTE Confidence: 0.94518614

00:49:29.475 --> 00:49:30.355 where you can kind of

NOTE Confidence: 0.94518614

00:49:30.355 --> 00:49:32.020 catch the natural history of

NOTE Confidence: 0.94518614

00:49:32.020 --> 00:49:33.220 the condition and then look

NOTE Confidence: 0.94518614

00:49:33.220 --> 00:49:34.120 at your intervention.

NOTE Confidence: 0.99905056

00:49:34.420 --> 00:49:34.920 But

NOTE Confidence: 0.9535099

00:49:35.380 --> 00:49:37.300 observational studies are also very

NOTE Confidence: 0.9535099

00:49:37.300 --> 00:49:38.660 powerful, and you can do

NOTE Confidence: 0.9535099

00:49:38.660 --> 00:49:39.955 a lot more data collection

NOTE Confidence: 0.9535099

00:49:40.195 --> 00:49:42.215 sometimes in your observational research,

NOTE Confidence: 0.9535099

00:49:42.435 --> 00:49:44.435 particularly collecting the data, the

NOTE Confidence: 0.9535099

00:49:44.435 --> 00:49:46.455 biological specimens, and more enriched

NOTE Confidence: 0.9535099

00:49:46.675 --> 00:49:47.175 questionnaires.

NOTE Confidence: 0.97257304

00:49:48.140 --> 00:49:49.980 Intervention studies are also very,

NOTE Confidence: 0.97257304

00:49:49.980 --> 00:49:51.339 very powerful because if you
NOTE Confidence: 0.97257304

00:49:51.339 --> 00:49:52.460 see an effect from your
NOTE Confidence: 0.97257304

00:49:52.460 --> 00:49:52.960 intervention,
NOTE Confidence: 0.9522811

00:49:53.260 --> 00:49:54.299 it can also show a
NOTE Confidence: 0.9522811

00:49:54.299 --> 00:49:56.355 biological marker moves with that.
NOTE Confidence: 0.9522811

00:49:56.435 --> 00:49:58.114 That again validates that. All
NOTE Confidence: 0.9522811

00:49:58.114 --> 00:49:58.835 the things that we would
NOTE Confidence: 0.9522811

00:49:58.835 --> 00:49:59.715 think about in terms of
NOTE Confidence: 0.9522811

00:49:59.715 --> 00:50:01.155 a therapeutic trial, we wanna
NOTE Confidence: 0.9522811

00:50:01.155 --> 00:50:02.114 do with these kinds of
NOTE Confidence: 0.9522811

00:50:02.114 --> 00:50:02.614 interventions.
NOTE Confidence: 0.97685915

00:50:02.915 --> 00:50:04.915 And then doing correlative studies,
NOTE Confidence: 0.97685915

00:50:05.075 --> 00:50:06.550 as I've mentioned, looking at
NOTE Confidence: 0.97685915

00:50:06.550 --> 00:50:07.750 animal models if we can
NOTE Confidence: 0.97685915

00:50:07.750 --> 00:50:09.430 use them to actually understand
NOTE Confidence: 0.97685915

00:50:09.430 --> 00:50:11.350 the mechanisms by which either

NOTE Confidence: 0.97685915

00:50:11.350 --> 00:50:12.630 drugs work or how the

NOTE Confidence: 0.97685915

00:50:12.630 --> 00:50:13.610 symptoms occur.

NOTE Confidence: 0.97655016

00:50:14.765 --> 00:50:16.924 Some additional observations. Well, again,

NOTE Confidence: 0.97655016

00:50:16.924 --> 00:50:18.525 clinical trials that include symptom

NOTE Confidence: 0.97655016

00:50:18.525 --> 00:50:19.025 assessments

NOTE Confidence: 0.99242705

00:50:19.405 --> 00:50:21.325 can identify target symptoms in

NOTE Confidence: 0.99242705

00:50:21.325 --> 00:50:22.444 need of our attention that

NOTE Confidence: 0.99242705

00:50:22.444 --> 00:50:23.744 we might not know about.

NOTE Confidence: 0.9617352

00:50:24.339 --> 00:50:25.619 We need to understand the

NOTE Confidence: 0.9617352

00:50:25.619 --> 00:50:27.140 treatment emergent as well as

NOTE Confidence: 0.9617352

00:50:27.140 --> 00:50:29.160 persistent post treatment symptoms.

NOTE Confidence: 0.9681755

00:50:29.940 --> 00:50:30.900 And we need to have

NOTE Confidence: 0.9681755

00:50:30.900 --> 00:50:32.819 effective management for symptoms in

NOTE Confidence: 0.9681755

00:50:32.819 --> 00:50:35.285 in in addressing adherence. Again,

NOTE Confidence: 0.9950013

00:50:35.665 --> 00:50:37.265 increasingly, we know that patients

NOTE Confidence: 0.9950013

00:50:37.265 --> 00:50:38.785 who have more symptoms, who
NOTE Confidence: 0.9950013

00:50:38.785 --> 00:50:40.465 have more social determinants of
NOTE Confidence: 0.9950013

00:50:40.465 --> 00:50:41.285 health difficulties
NOTE Confidence: 0.9427342

00:50:41.585 --> 00:50:43.560 are likely to be nonadherent
NOTE Confidence: 0.9427342

00:50:43.700 --> 00:50:44.900 to their therapy, which could
NOTE Confidence: 0.9427342

00:50:44.900 --> 00:50:45.880 be life saving.
NOTE Confidence: 0.9058711

00:50:46.340 --> 00:50:48.200 And, again, looking at research
NOTE Confidence: 0.9058711

00:50:48.340 --> 00:50:49.160 which focuses
NOTE Confidence: 0.98614526

00:50:49.540 --> 00:50:51.405 who's at greatest risk would
NOTE Confidence: 0.98614526

00:50:51.405 --> 00:50:52.605 be the most efficient way
NOTE Confidence: 0.98614526

00:50:52.605 --> 00:50:54.225 to do this. So defining
NOTE Confidence: 0.98614526

00:50:54.285 --> 00:50:55.825 those populations, developing
NOTE Confidence: 0.9697255

00:50:56.285 --> 00:50:58.285 precision symptom management would be
NOTE Confidence: 0.9697255

00:50:58.285 --> 00:50:59.105 very valuable.
NOTE Confidence: 0.983568

00:50:59.680 --> 00:51:01.599 And understanding the biology, again,
NOTE Confidence: 0.983568

00:51:01.599 --> 00:51:03.040 as I've emphasized, again, the

NOTE Confidence: 0.983568
00:51:03.040 --> 00:51:04.480 good fortune I've had to
NOTE Confidence: 0.983568
00:51:04.480 --> 00:51:06.079 have good collaborators to do
NOTE Confidence: 0.983568
00:51:06.079 --> 00:51:07.700 this is very powerful.
NOTE Confidence: 0.99959224
00:51:08.535 --> 00:51:09.415 So what are some of
NOTE Confidence: 0.99959224
00:51:09.415 --> 00:51:10.795 the challenges and opportunities?
NOTE Confidence: 0.9911747
00:51:11.495 --> 00:51:13.415 Well, funding sources for symptom
NOTE Confidence: 0.9911747
00:51:13.415 --> 00:51:14.955 related research are limited,
NOTE Confidence: 0.9935587
00:51:15.495 --> 00:51:16.875 and assembling a multidisciplinary
NOTE Confidence: 0.9576003
00:51:17.415 --> 00:51:18.650 team might be difficult. Again,
NOTE Confidence: 0.9576003
00:51:18.650 --> 00:51:19.150 in
NOTE Confidence: 0.9572063
00:51:19.450 --> 00:51:20.810 a cancer center like yours
NOTE Confidence: 0.9572063
00:51:20.810 --> 00:51:22.010 or mine, this is a
NOTE Confidence: 0.9572063
00:51:22.010 --> 00:51:23.290 lot easier to do. And
NOTE Confidence: 0.9572063
00:51:23.290 --> 00:51:24.650 certainly being on a university
NOTE Confidence: 0.9572063
00:51:24.650 --> 00:51:26.410 campus is very helpful. And,
NOTE Confidence: 0.9572063

00:51:26.410 --> 00:51:26.910 again,
NOTE Confidence: 0.9976354

00:51:27.235 --> 00:51:28.835 comprehensive assessments that I've had
NOTE Confidence: 0.9976354

00:51:28.835 --> 00:51:30.835 the real privilege of doing
NOTE Confidence: 0.9976354

00:51:30.835 --> 00:51:31.735 over my career,
NOTE Confidence: 0.9912984

00:51:32.355 --> 00:51:33.555 can be very daunting. So
NOTE Confidence: 0.9912984

00:51:33.555 --> 00:51:34.515 it may not be easy
NOTE Confidence: 0.9912984

00:51:34.515 --> 00:51:35.335 to do this.
NOTE Confidence: 0.9995275

00:51:35.900 --> 00:51:36.940 But the growing number of
NOTE Confidence: 0.9995275

00:51:36.940 --> 00:51:37.839 cancer survivors
NOTE Confidence: 0.97699624

00:51:38.140 --> 00:51:39.579 really tells us that we
NOTE Confidence: 0.97699624

00:51:39.579 --> 00:51:41.579 cannot ignore this anymore. And
NOTE Confidence: 0.97699624

00:51:41.579 --> 00:51:42.780 it's really, you know, just
NOTE Confidence: 0.97699624

00:51:42.780 --> 00:51:43.660 as we're trying to figure
NOTE Confidence: 0.97699624

00:51:43.660 --> 00:51:44.805 out what's going on with
NOTE Confidence: 0.97699624

00:51:44.805 --> 00:51:46.325 COVID with millions of people
NOTE Confidence: 0.97699624

00:51:46.325 --> 00:51:47.765 now having long COVID, we

NOTE Confidence: 0.97699624

00:51:47.765 --> 00:51:50.105 have eighteen million cancer survivors.

NOTE Confidence: 0.99937516

00:51:50.565 --> 00:51:51.525 We need to be doing

NOTE Confidence: 0.99937516

00:51:51.525 --> 00:51:53.065 this for our cancer survivors

NOTE Confidence: 0.99937516

00:51:53.125 --> 00:51:53.770 as well.

NOTE Confidence: 0.9563564

00:51:54.890 --> 00:51:56.170 And lastly, I wanted to

NOTE Confidence: 0.9563564

00:51:56.170 --> 00:51:58.170 show this nice, editorial that,

NOTE Confidence: 0.9563564

00:51:58.410 --> 00:51:59.530 some of our colleagues in

NOTE Confidence: 0.9563564

00:51:59.530 --> 00:52:01.290 France who've been studying the

NOTE Confidence: 0.9563564

00:52:01.290 --> 00:52:02.730 Canto cohort. It's a cohort

NOTE Confidence: 0.9563564

00:52:02.730 --> 00:52:04.525 of breast cancer patients about

NOTE Confidence: 0.9563564

00:52:04.525 --> 00:52:05.344 ten thousand.

NOTE Confidence: 0.9940501

00:52:05.884 --> 00:52:07.644 Really, they are now, also

NOTE Confidence: 0.9940501

00:52:07.805 --> 00:52:09.325 again, we've collaborated with them,

NOTE Confidence: 0.9940501

00:52:09.325 --> 00:52:10.690 but they're really looking at

NOTE Confidence: 0.9940501

00:52:10.690 --> 00:52:12.690 systemic inflammation and cancer related

NOTE Confidence: 0.9940501

00:52:12.690 --> 00:52:13.190 frailty
NOTE Confidence: 0.99530435

00:52:13.489 --> 00:52:14.450 to kind of look at
NOTE Confidence: 0.99530435

00:52:14.450 --> 00:52:15.570 how we might put this
NOTE Confidence: 0.99530435

00:52:15.570 --> 00:52:16.690 into our clinics in the
NOTE Confidence: 0.99530435

00:52:16.690 --> 00:52:18.055 future with precision,
NOTE Confidence: 0.95472306

00:52:18.675 --> 00:52:20.195 identification of those at risk
NOTE Confidence: 0.95472306

00:52:20.195 --> 00:52:21.255 and need of treatment.
NOTE Confidence: 0.99620646

00:52:21.955 --> 00:52:23.795 So in closing, I wanna
NOTE Confidence: 0.99620646

00:52:23.795 --> 00:52:26.000 express my appreciation to everyone
NOTE Confidence: 0.99620646

00:52:26.000 --> 00:52:27.040 who's helped me along the
NOTE Confidence: 0.99620646

00:52:27.040 --> 00:52:28.000 way. This is not a
NOTE Confidence: 0.99620646

00:52:28.000 --> 00:52:28.980 solo act.
NOTE Confidence: 0.97399384

00:52:29.360 --> 00:52:31.040 I've had wonderful collaborators as
NOTE Confidence: 0.97399384

00:52:31.040 --> 00:52:32.239 well as patients who've been
NOTE Confidence: 0.97399384

00:52:32.239 --> 00:52:33.300 very, very important.
NOTE Confidence: 0.91119975

00:52:34.175 --> 00:52:35.535 I'll also the funding that

NOTE Confidence: 0.91119975

00:52:35.535 --> 00:52:37.395 I've had over, my career.

NOTE Confidence: 0.99364084

00:52:37.695 --> 00:52:38.735 And I wanna thank you,

NOTE Confidence: 0.99364084

00:52:38.735 --> 00:52:39.695 and I'll be happy to

NOTE Confidence: 0.99364084

00:52:39.695 --> 00:52:40.594 take some questions.

NOTE Confidence: 0.819696

00:52:48.619 --> 00:52:49.119 Yes.

NOTE Confidence: 0.9348445

00:52:49.905 --> 00:52:50.565 Doctor Sam.

NOTE Confidence: 0.7884876

00:52:50.945 --> 00:52:52.865 Wonderful talk. It's been so

NOTE Confidence: 0.7884876

00:52:52.865 --> 00:52:53.365 inspiring.

NOTE Confidence: 0.7423298

00:52:54.065 --> 00:52:55.125 Let me grab the microphone.

NOTE Confidence: 0.99225426

00:52:57.900 --> 00:52:59.680 So you have this wonderful,

NOTE Confidence: 0.9031919

00:53:00.300 --> 00:53:02.300 experience and and advantage. In

NOTE Confidence: 0.9031919

00:53:02.300 --> 00:53:03.819 your in your view, looking

NOTE Confidence: 0.9031919

00:53:03.819 --> 00:53:04.960 ahead ten years,

NOTE Confidence: 0.993172

00:53:05.265 --> 00:53:06.465 things are better for our

NOTE Confidence: 0.993172

00:53:06.465 --> 00:53:06.965 patients.

NOTE Confidence: 0.9803172

00:53:07.585 --> 00:53:09.025 What are the main things
NOTE Confidence: 0.9803172

00:53:09.025 --> 00:53:10.225 that have happened to make
NOTE Confidence: 0.9803172

00:53:10.225 --> 00:53:11.985 that come true? Do you
NOTE Confidence: 0.9803172

00:53:11.985 --> 00:53:13.364 think it's de escalation
NOTE Confidence: 0.9132076

00:53:13.905 --> 00:53:14.405 or
NOTE Confidence: 0.99963933

00:53:14.750 --> 00:53:15.489 earlier interventions
NOTE Confidence: 0.99656105

00:53:15.950 --> 00:53:16.690 or better
NOTE Confidence: 0.9788423

00:53:17.230 --> 00:53:18.989 post treatment interventions for those
NOTE Confidence: 0.9788423

00:53:18.989 --> 00:53:20.590 types of symptoms? Oh, maybe
NOTE Confidence: 0.9788423

00:53:20.590 --> 00:53:21.390 we could get the lights
NOTE Confidence: 0.9788423

00:53:21.390 --> 00:53:22.525 back. So,
NOTE Confidence: 0.98642284

00:53:22.905 --> 00:53:24.105 This is the dramatic portion
NOTE Confidence: 0.98642284

00:53:24.105 --> 00:53:25.965 of our morning. So,
NOTE Confidence: 0.83916205

00:53:26.585 --> 00:53:28.285 so, you know, I think
NOTE Confidence: 0.94536835

00:53:28.745 --> 00:53:30.700 if changing anything, taking away
NOTE Confidence: 0.94536835

00:53:30.700 --> 00:53:32.300 something is very, very hard.

NOTE Confidence: 0.94536835

00:53:32.300 --> 00:53:33.020 Right now, we have a

NOTE Confidence: 0.94536835

00:53:33.020 --> 00:53:34.560 few deescalation trials,

NOTE Confidence: 0.95611644

00:53:35.099 --> 00:53:36.560 in NRG oncology

NOTE Confidence: 0.92038846

00:53:37.099 --> 00:53:38.560 in breast cancer. And,

NOTE Confidence: 0.9993593

00:53:39.224 --> 00:53:40.285 you know, we've

NOTE Confidence: 0.97030437

00:53:40.905 --> 00:53:42.505 perhaps in prostate cancer with

NOTE Confidence: 0.97030437

00:53:42.505 --> 00:53:44.525 active surveillance are are reducing,

NOTE Confidence: 0.9887648

00:53:45.464 --> 00:53:47.300 the treatments that patients would

NOTE Confidence: 0.9887648

00:53:47.300 --> 00:53:48.580 get treatment with. But it's

NOTE Confidence: 0.9887648

00:53:48.580 --> 00:53:49.619 so hard to sell this,

NOTE Confidence: 0.9887648

00:53:49.619 --> 00:53:50.660 and it's really hard in

NOTE Confidence: 0.9887648

00:53:50.660 --> 00:53:51.719 the medical community

NOTE Confidence: 0.9792383

00:53:52.100 --> 00:53:53.460 where it's hard not to

NOTE Confidence: 0.9792383

00:53:53.460 --> 00:53:54.820 treat. And it's also hard

NOTE Confidence: 0.9792383

00:53:54.820 --> 00:53:56.864 for patients and particularly with

NOTE Confidence: 0.9792383

00:53:56.864 --> 00:53:58.165 our minority underserved
NOTE Confidence: 0.9844356

00:53:58.785 --> 00:54:00.145 populations where they feel that
NOTE Confidence: 0.9844356

00:54:00.145 --> 00:54:01.425 the health system has cheated
NOTE Confidence: 0.9844356

00:54:01.425 --> 00:54:03.025 them and hasn't helped them,
NOTE Confidence: 0.9844356

00:54:03.025 --> 00:54:03.905 you know, in the past.
NOTE Confidence: 0.9844356

00:54:03.905 --> 00:54:05.369 And if we're trying to
NOTE Confidence: 0.9844356

00:54:05.369 --> 00:54:06.410 kind of say, well, you
NOTE Confidence: 0.9844356

00:54:06.410 --> 00:54:07.609 know, your tumor is so
NOTE Confidence: 0.9844356

00:54:07.609 --> 00:54:09.050 favorable that you really don't
NOTE Confidence: 0.9844356

00:54:09.050 --> 00:54:10.489 need this, it's a hard
NOTE Confidence: 0.9844356

00:54:10.489 --> 00:54:12.250 sell for things. And because,
NOTE Confidence: 0.9844356

00:54:12.250 --> 00:54:14.114 again, the American psyche I
NOTE Confidence: 0.9844356

00:54:14.114 --> 00:54:15.075 don't know whether they can
NOTE Confidence: 0.9844356

00:54:15.075 --> 00:54:15.955 probably do it better in
NOTE Confidence: 0.9844356

00:54:15.955 --> 00:54:16.675 Europe and a lot of
NOTE Confidence: 0.9844356

00:54:16.675 --> 00:54:17.955 countries, but our psyche is

NOTE Confidence: 0.9844356

00:54:17.955 --> 00:54:18.614 to treat.

NOTE Confidence: 0.9724834

00:54:18.995 --> 00:54:20.435 And even when you think

NOTE Confidence: 0.9724834

00:54:20.435 --> 00:54:22.050 about the troubles we had

NOTE Confidence: 0.9724834

00:54:22.050 --> 00:54:23.750 with managed care health care,

NOTE Confidence: 0.9724834

00:54:23.890 --> 00:54:25.410 people feel that they're being

NOTE Confidence: 0.9724834

00:54:25.410 --> 00:54:26.930 denied something in our system.

NOTE Confidence: 0.9724834

00:54:26.930 --> 00:54:28.130 And so it's very, very

NOTE Confidence: 0.9724834

00:54:28.130 --> 00:54:28.994 tough. I don't know if

NOTE Confidence: 0.9724834

00:54:28.994 --> 00:54:30.035 we can change our culture.

NOTE Confidence: 0.9724834

00:54:30.035 --> 00:54:30.994 I think that's the big

NOTE Confidence: 0.9724834

00:54:30.994 --> 00:54:32.055 challenge, Bios.

NOTE Confidence: 0.9093906

00:54:34.035 --> 00:54:35.474 So Betty, this is a,

NOTE Confidence: 0.9456493

00:54:36.239 --> 00:54:37.840 somewhat provocative question that I've

NOTE Confidence: 0.9456493

00:54:37.840 --> 00:54:39.440 been thinking about after I

NOTE Confidence: 0.9456493

00:54:39.440 --> 00:54:40.320 read an article in the

NOTE Confidence: 0.9456493

00:54:40.320 --> 00:54:41.780 New England Journal of Medicine,
NOTE Confidence: 0.9456493

00:54:41.840 --> 00:54:43.414 I think last year, and
NOTE Confidence: 0.9456493

00:54:43.414 --> 00:54:45.035 it was titled a nocebo
NOTE Confidence: 0.9456493

00:54:45.174 --> 00:54:45.674 effect.
NOTE Confidence: 0.90708363

00:54:46.855 --> 00:54:48.394 And I just wonder if
NOTE Confidence: 0.9930143

00:54:48.775 --> 00:54:50.055 some of this is related
NOTE Confidence: 0.9930143

00:54:50.055 --> 00:54:50.535 to our
NOTE Confidence: 0.90045625

00:54:51.130 --> 00:54:52.570 the way we we describe
NOTE Confidence: 0.90045625

00:54:52.570 --> 00:54:54.110 these drugs as horribly toxic,
NOTE Confidence: 0.99574035

00:54:54.650 --> 00:54:56.330 and people really look for
NOTE Confidence: 0.99574035

00:54:56.330 --> 00:54:57.230 the side effects.
NOTE Confidence: 0.9936811

00:54:57.530 --> 00:54:58.969 And many of the things
NOTE Confidence: 0.9936811

00:54:58.969 --> 00:55:00.945 that patients describe, unfortunately,
NOTE Confidence: 0.8864085

00:55:01.484 --> 00:55:02.685 I experience as I get
NOTE Confidence: 0.8864085

00:55:02.685 --> 00:55:04.525 older. The lack cramps, the
NOTE Confidence: 0.8864085

00:55:04.525 --> 00:55:05.905 back pain, and so forth.

NOTE Confidence: 0.85844254

00:55:06.420 --> 00:55:07.860 And I attribute it to

NOTE Confidence: 0.85844254

00:55:07.860 --> 00:55:08.820 my age because I don't

NOTE Confidence: 0.85844254

00:55:08.820 --> 00:55:10.100 take any drugs. But So

NOTE Confidence: 0.85844254

00:55:10.100 --> 00:55:10.739 it's not when you take

NOTE Confidence: 0.85844254

00:55:10.739 --> 00:55:11.820 the drug, you actually didn't

NOTE Confidence: 0.85844254

00:55:11.820 --> 00:55:12.420 take it. Yeah. Let me

NOTE Confidence: 0.85844254

00:55:12.420 --> 00:55:13.880 tell you about an interesting

NOTE Confidence: 0.85844254

00:55:13.940 --> 00:55:14.440 story.

NOTE Confidence: 0.9713833

00:55:15.575 --> 00:55:16.575 So I have a part

NOTE Confidence: 0.9713833

00:55:16.695 --> 00:55:17.415 I'm part of a u

NOTE Confidence: 0.9713833

00:55:17.415 --> 00:55:18.535 o one, which is looking

NOTE Confidence: 0.9713833

00:55:18.535 --> 00:55:19.275 at tolerability.

NOTE Confidence: 0.9192971

00:55:19.815 --> 00:55:20.855 Some move with a moonshot

NOTE Confidence: 0.9192971

00:55:20.855 --> 00:55:21.655 grant. We're in the last

NOTE Confidence: 0.9192971

00:55:21.655 --> 00:55:23.094 few months of it. And

NOTE Confidence: 0.9192971

00:55:23.094 --> 00:55:24.135 we are going back and
NOTE Confidence: 0.9192971

00:55:24.135 --> 00:55:25.260 looking at the p one
NOTE Confidence: 0.9192971

00:55:25.260 --> 00:55:26.320 data, the BCPT.
NOTE Confidence: 0.9676954

00:55:26.620 --> 00:55:27.500 We're gonna show you the
NOTE Confidence: 0.9676954

00:55:27.500 --> 00:55:28.700 data in the healthy women
NOTE Confidence: 0.9676954

00:55:28.700 --> 00:55:30.239 before they ever started anything.
NOTE Confidence: 0.95018137

00:55:30.940 --> 00:55:31.820 And we're,
NOTE Confidence: 0.97192174

00:55:32.140 --> 00:55:33.580 Lynn Lynn Henry and I,
NOTE Confidence: 0.97192174

00:55:33.580 --> 00:55:35.415 we got, additional using some
NOTE Confidence: 0.97192174

00:55:35.415 --> 00:55:36.695 of our BCRF money to
NOTE Confidence: 0.97192174

00:55:36.695 --> 00:55:37.895 look at the SNPs at
NOTE Confidence: 0.97192174

00:55:37.895 --> 00:55:40.135 rapid metabolizers of, CYP two
NOTE Confidence: 0.97192174

00:55:40.135 --> 00:55:41.869 d six to see if
NOTE Confidence: 0.97192174

00:55:41.869 --> 00:55:43.549 more toxicity is actually occurring
NOTE Confidence: 0.97192174

00:55:43.549 --> 00:55:44.829 in this particular trial. But
NOTE Confidence: 0.97192174

00:55:44.829 --> 00:55:45.710 we've begun to look at

NOTE Confidence: 0.97192174
00:55:45.710 --> 00:55:47.789 the tamoxifen versus placebo arm
NOTE Confidence: 0.97192174
00:55:47.789 --> 00:55:49.549 with the statisticians we've been
NOTE Confidence: 0.97192174
00:55:49.549 --> 00:55:50.735 working with. And when we
NOTE Confidence: 0.97192174
00:55:50.735 --> 00:55:52.815 looked at discontinuation of therapy
NOTE Confidence: 0.97192174
00:55:52.815 --> 00:55:55.055 in the randomized trial, again,
NOTE Confidence: 0.97192174
00:55:55.055 --> 00:55:56.515 placebo versus tamoxifen,
NOTE Confidence: 0.97829807
00:55:56.975 --> 00:55:57.935 we actually found that there
NOTE Confidence: 0.97829807
00:55:57.935 --> 00:55:59.020 was actually seemed to be
NOTE Confidence: 0.97829807
00:55:59.020 --> 00:56:00.020 no difference when we kind
NOTE Confidence: 0.97829807
00:56:00.020 --> 00:56:01.480 of looked at overall toxicity.
NOTE Confidence: 0.98805606
00:56:01.780 --> 00:56:02.819 And then as we began
NOTE Confidence: 0.98805606
00:56:02.819 --> 00:56:04.180 to explore things, I'm just
NOTE Confidence: 0.98805606
00:56:04.180 --> 00:56:05.960 looking at the nocebo effect
NOTE Confidence: 0.99469906
00:56:06.285 --> 00:56:07.885 in the control arm. And
NOTE Confidence: 0.99469906
00:56:07.885 --> 00:56:09.085 what we see is in
NOTE Confidence: 0.99469906

00:56:09.085 --> 00:56:11.105 the patients who got placebo,
NOTE Confidence: 0.9956827

00:56:11.645 --> 00:56:12.605 they have an increase in
NOTE Confidence: 0.9956827

00:56:12.605 --> 00:56:14.285 their hot flashes at three
NOTE Confidence: 0.9956827

00:56:14.285 --> 00:56:14.785 months.
NOTE Confidence: 0.97365695

00:56:15.245 --> 00:56:16.770 It kinda stays steady at
NOTE Confidence: 0.97365695

00:56:16.770 --> 00:56:17.730 six months. It doesn't go
NOTE Confidence: 0.97365695

00:56:17.730 --> 00:56:19.270 up. In the treatment arm,
NOTE Confidence: 0.97365695

00:56:19.410 --> 00:56:20.850 it's higher. The the odds
NOTE Confidence: 0.97365695

00:56:20.850 --> 00:56:22.230 ratio for hot flashes
NOTE Confidence: 0.9714055

00:56:22.530 --> 00:56:23.795 being elevated at three months
NOTE Confidence: 0.9714055

00:56:23.795 --> 00:56:24.675 is higher in the treatment
NOTE Confidence: 0.9714055

00:56:24.675 --> 00:56:25.955 arm with Tamoxifen and goes
NOTE Confidence: 0.9714055

00:56:25.955 --> 00:56:27.495 up further. And it's particularly
NOTE Confidence: 0.9714055

00:56:27.555 --> 00:56:28.915 marked in the women who
NOTE Confidence: 0.9714055

00:56:28.915 --> 00:56:29.955 are less than fifty and
NOTE Confidence: 0.9714055

00:56:29.955 --> 00:56:30.935 fifty to sixty,

NOTE Confidence: 0.99144936

00:56:31.635 --> 00:56:32.775 whereas in the

NOTE Confidence: 0.9839914

00:56:33.400 --> 00:56:34.760 placebo arm, it's in all

NOTE Confidence: 0.9839914

00:56:34.760 --> 00:56:36.440 age groups. So I'm gonna

NOTE Confidence: 0.9839914

00:56:36.440 --> 00:56:37.560 write a paper on this

NOTE Confidence: 0.9839914

00:56:37.560 --> 00:56:39.020 nocebo effect because

NOTE Confidence: 0.9539291

00:56:39.480 --> 00:56:40.940 for me, this was fascinating

NOTE Confidence: 0.9998399

00:56:41.635 --> 00:56:42.295 to see

NOTE Confidence: 0.95871776

00:56:42.595 --> 00:56:43.875 that, in fact, I mean,

NOTE Confidence: 0.95871776

00:56:43.875 --> 00:56:45.635 everybody moxifen had a bad

NOTE Confidence: 0.95871776

00:56:45.635 --> 00:56:46.755 rap. It was a cancer

NOTE Confidence: 0.95871776

00:56:46.755 --> 00:56:47.715 drug. Why you're giving a

NOTE Confidence: 0.95871776

00:56:47.715 --> 00:56:49.335 cancer drug to prevent cancer

NOTE Confidence: 0.95871776

00:56:49.635 --> 00:56:50.535 in, you know,

NOTE Confidence: 0.94029546

00:56:50.839 --> 00:56:52.520 healthy women. But I I

NOTE Confidence: 0.94029546

00:56:52.520 --> 00:56:53.420 think our placebo

NOTE Confidence: 0.99533147

00:56:53.800 --> 00:56:54.300 trials,
NOTE Confidence: 0.95417076
00:56:55.000 --> 00:56:56.440 will have a chance to
NOTE Confidence: 0.95417076
00:56:56.440 --> 00:56:57.480 look at this issue. And
NOTE Confidence: 0.95417076
00:56:57.480 --> 00:56:59.400 I'm just, again, fascinated by
NOTE Confidence: 0.95417076
00:56:59.400 --> 00:57:00.359 the fact that we're seeing
NOTE Confidence: 0.95417076
00:57:00.359 --> 00:57:01.864 this. Yeah, it's really interesting
NOTE Confidence: 0.95417076
00:57:01.864 --> 00:57:02.985 what you said, because we
NOTE Confidence: 0.95417076
00:57:02.985 --> 00:57:04.344 actually saw the same thing
NOTE Confidence: 0.95417076
00:57:04.344 --> 00:57:05.305 in, in a number of
NOTE Confidence: 0.95417076
00:57:05.305 --> 00:57:07.465 randomized trials, adjuvant trials in
NOTE Confidence: 0.95417076
00:57:07.465 --> 00:57:09.005 swag that we never published,
NOTE Confidence: 0.982444
00:57:09.390 --> 00:57:10.670 that in the control arm,
NOTE Confidence: 0.982444
00:57:10.670 --> 00:57:12.369 people who discontinue the placebo
NOTE Confidence: 0.982444
00:57:12.510 --> 00:57:13.569 for whatever
NOTE Confidence: 0.8972188
00:57:14.109 --> 00:57:15.230 pill they were taking us
NOTE Confidence: 0.8972188
00:57:15.230 --> 00:57:16.435 in the active arm

NOTE Confidence: 0.9429273

00:57:16.755 --> 00:57:18.515 actually do worse in the

NOTE Confidence: 0.9429273

00:57:18.515 --> 00:57:20.115 control arm than those who

NOTE Confidence: 0.9429273

00:57:20.115 --> 00:57:20.855 don't discontinue

NOTE Confidence: 0.8685722

00:57:21.235 --> 00:57:22.835 the placebo. And we're looking

NOTE Confidence: 0.8685722

00:57:22.835 --> 00:57:23.900 at some of these predictive

NOTE Confidence: 0.8685722

00:57:23.900 --> 00:57:24.764 factors. You know, we'll look

NOTE Confidence: 0.8685722

00:57:24.764 --> 00:57:24.956 at we're actually starting to

NOTE Confidence: 0.8685722

00:57:24.956 --> 00:57:25.688 do the longitudinal models, but

NOTE Confidence: 0.8685722

00:57:25.796 --> 00:57:26.337 absolutely. And when I just

NOTE Confidence: 0.8685722

00:57:26.337 --> 00:57:26.878 recently went to the literature

NOTE Confidence: 0.8685722

00:57:26.878 --> 00:57:27.420 to look at the placebo

NOTE Confidence: 0.8685722

00:57:27.420 --> 00:57:29.440 effect in cancer, I couldn't

NOTE Confidence: 0.8685722

00:57:29.500 --> 00:57:30.960 find much. So

NOTE Confidence: 0.9818291

00:57:33.885 --> 00:57:35.085 I couldn't find much. So

NOTE Confidence: 0.9818291

00:57:35.085 --> 00:57:36.205 I feel compelled to write

NOTE Confidence: 0.9818291

00:57:36.205 --> 00:57:37.965 this up because, again, here's

NOTE Confidence: 0.9818291

00:57:37.965 --> 00:57:39.485 healthy women. They're not people

NOTE Confidence: 0.9818291

00:57:39.485 --> 00:57:40.145 with cancer.

NOTE Confidence: 0.991663

00:57:40.445 --> 00:57:41.740 And, of course, they're at

NOTE Confidence: 0.991663

00:57:41.740 --> 00:57:42.540 an age group where they

NOTE Confidence: 0.991663

00:57:42.540 --> 00:57:43.420 could have all of these

NOTE Confidence: 0.991663

00:57:43.420 --> 00:57:44.400 symptoms together,

NOTE Confidence: 0.96836036

00:57:44.780 --> 00:57:46.220 but it's very you know,

NOTE Confidence: 0.96836036

00:57:46.220 --> 00:57:47.180 I had women when I

NOTE Confidence: 0.96836036

00:57:47.180 --> 00:57:48.700 was treating people on p

NOTE Confidence: 0.96836036

00:57:48.700 --> 00:57:49.740 one who quit you know,

NOTE Confidence: 0.96836036

00:57:49.740 --> 00:57:50.400 when we,

NOTE Confidence: 0.9749659

00:57:50.805 --> 00:57:52.165 divulged what treatment arm they're

NOTE Confidence: 0.9749659

00:57:52.165 --> 00:57:53.445 on, they were so upset

NOTE Confidence: 0.9749659

00:57:53.445 --> 00:57:54.585 that they were on placebo

NOTE Confidence: 0.9749659

00:57:54.645 --> 00:57:55.785 because they had attributed

NOTE Confidence: 0.89787024

00:57:56.245 --> 00:57:57.705 all of their sexual difficulties,

NOTE Confidence: 0.89787024

00:57:57.765 --> 00:57:59.000 whatever it was to the

NOTE Confidence: 0.89787024

00:57:59.000 --> 00:57:59.720 fact that they were on

NOTE Confidence: 0.89787024

00:57:59.720 --> 00:58:01.000 Tamoxifen, and they were very

NOTE Confidence: 0.89787024

00:58:01.000 --> 00:58:02.240 angry. It was very interesting.

NOTE Confidence: 0.89787024

00:58:02.440 --> 00:58:03.559 Really in charge of the

NOTE Confidence: 0.89787024

00:58:03.559 --> 00:58:05.339 health situation. Yeah. Yeah. Yeah.

NOTE Confidence: 0.89787024

00:58:05.480 --> 00:58:07.020 So but it's excellent question.

NOTE Confidence: 0.96667266

00:58:07.595 --> 00:58:08.475 Yeah. Thanks, Patty, for a

NOTE Confidence: 0.96667266

00:58:08.475 --> 00:58:09.435 wonderful talk. I was struck

NOTE Confidence: 0.96667266

00:58:09.435 --> 00:58:10.155 by the number of lung

NOTE Confidence: 0.96667266

00:58:10.155 --> 00:58:11.675 cancer patients living with metastatic

NOTE Confidence: 0.96667266

00:58:11.675 --> 00:58:13.275 disease. It reminds me, maybe

NOTE Confidence: 0.96667266

00:58:13.275 --> 00:58:14.315 twenty five years ago, twenty

NOTE Confidence: 0.96667266

00:58:14.315 --> 00:58:15.355 three years ago, Tara Parker

NOTE Confidence: 0.96667266

00:58:15.355 --> 00:58:16.870 Pope write an article why
NOTE Confidence: 0.96667266

00:58:16.870 --> 00:58:17.990 curing your lung cancer might
NOTE Confidence: 0.96667266

00:58:17.990 --> 00:58:19.190 be the best thing and
NOTE Confidence: 0.96667266

00:58:19.190 --> 00:58:20.150 the idea that people could
NOTE Confidence: 0.96667266

00:58:20.150 --> 00:58:21.670 live with these targeted therapies.
NOTE Confidence: 0.96667266

00:58:21.670 --> 00:58:22.710 And we just had the
NOTE Confidence: 0.96667266

00:58:22.710 --> 00:58:23.610 twentieth anniversary
NOTE Confidence: 0.97015494

00:58:24.145 --> 00:58:25.505 of EGFR mutations, and we
NOTE Confidence: 0.97015494

00:58:25.505 --> 00:58:26.385 had a symposium here at
NOTE Confidence: 0.97015494

00:58:26.385 --> 00:58:27.345 Yale a few weeks ago.
NOTE Confidence: 0.97015494

00:58:27.345 --> 00:58:28.465 And probably very few people
NOTE Confidence: 0.97015494

00:58:28.465 --> 00:58:29.345 are cured on these targeted
NOTE Confidence: 0.97015494

00:58:29.345 --> 00:58:30.385 therapies, but they're living with
NOTE Confidence: 0.97015494

00:58:30.385 --> 00:58:31.265 them. And now as we're
NOTE Confidence: 0.97015494

00:58:31.265 --> 00:58:32.545 moving to earlier disease, it's
NOTE Confidence: 0.97015494

00:58:32.545 --> 00:58:33.425 important to keep them on

NOTE Confidence: 0.97015494

00:58:33.425 --> 00:58:34.819 the drugs. So my question

NOTE Confidence: 0.97015494

00:58:34.819 --> 00:58:36.260 is about access and how

NOTE Confidence: 0.97015494

00:58:36.260 --> 00:58:37.460 with the entire country or

NOTE Confidence: 0.97015494

00:58:37.460 --> 00:58:38.660 world, how do we get

NOTE Confidence: 0.97015494

00:58:38.660 --> 00:58:40.180 patients the the right symptom

NOTE Confidence: 0.97015494

00:58:40.180 --> 00:58:41.800 relief? Can we use telehealth?

NOTE Confidence: 0.97015494

00:58:42.075 --> 00:58:43.195 You know, I'm frustrated we

NOTE Confidence: 0.97015494

00:58:43.195 --> 00:58:44.795 can't even do telehealth anymore

NOTE Confidence: 0.97015494

00:58:44.795 --> 00:58:46.235 from here, you know, across

NOTE Confidence: 0.97015494

00:58:46.235 --> 00:58:48.075 state lines. Are there processes

NOTE Confidence: 0.97015494

00:58:48.075 --> 00:58:49.195 in place where people could

NOTE Confidence: 0.97015494

00:58:49.195 --> 00:58:50.190 get both symptom relief and

NOTE Confidence: 0.97015494

00:58:50.190 --> 00:58:51.150 support, and they also need

NOTE Confidence: 0.97015494

00:58:51.150 --> 00:58:52.349 emotional support? And how are

NOTE Confidence: 0.97015494

00:58:52.349 --> 00:58:53.470 we gonna get all diverse

NOTE Confidence: 0.97015494

00:58:53.470 --> 00:58:55.150 populations this access? Yeah. I

NOTE Confidence: 0.97015494

00:58:55.150 --> 00:58:56.030 I think that is the

NOTE Confidence: 0.97015494

00:58:56.030 --> 00:58:56.770 next question.

NOTE Confidence: 0.98907894

00:58:57.484 --> 00:58:58.625 When I was at ASCO,

NOTE Confidence: 0.98907894

00:58:58.845 --> 00:59:00.045 I was impressed in the

NOTE Confidence: 0.98907894

00:59:00.045 --> 00:59:01.005 sessions that I went to

NOTE Confidence: 0.98907894

00:59:01.005 --> 00:59:02.365 where people are now trying

NOTE Confidence: 0.98907894

00:59:02.365 --> 00:59:03.505 to incorporate pros

NOTE Confidence: 0.97736275

00:59:03.885 --> 00:59:05.425 into monitoring of patients.

NOTE Confidence: 0.95380497

00:59:05.930 --> 00:59:07.450 There are major challenges in

NOTE Confidence: 0.95380497

00:59:07.450 --> 00:59:08.650 trying to be able to

NOTE Confidence: 0.95380497

00:59:08.650 --> 00:59:10.089 deliver this. And whether it's

NOTE Confidence: 0.95380497

00:59:10.089 --> 00:59:11.150 gonna be navigators

NOTE Confidence: 0.99243444

00:59:11.530 --> 00:59:13.130 or telehealth, I think this

NOTE Confidence: 0.99243444

00:59:13.130 --> 00:59:14.345 is the next group of

NOTE Confidence: 0.99243444

00:59:14.345 --> 00:59:15.464 interventions that we need to

NOTE Confidence: 0.99243444
00:59:15.464 --> 00:59:16.585 test and show they're cost
NOTE Confidence: 0.99243444
00:59:16.585 --> 00:59:17.085 effective
NOTE Confidence: 0.9713905
00:59:17.545 --> 00:59:19.065 as well as, effective in
NOTE Confidence: 0.9713905
00:59:19.065 --> 00:59:20.525 terms of benefit for patients.
NOTE Confidence: 0.9713905
00:59:20.585 --> 00:59:21.305 And we need to be
NOTE Confidence: 0.9713905
00:59:21.305 --> 00:59:22.424 able to do that outreach.
NOTE Confidence: 0.9713905
00:59:22.424 --> 00:59:23.779 And absolutely and for some
NOTE Confidence: 0.9713905
00:59:23.779 --> 00:59:24.579 things, we don't have a
NOTE Confidence: 0.9713905
00:59:24.579 --> 00:59:26.019 lot of symptoms. I mean,
NOTE Confidence: 0.9713905
00:59:26.019 --> 00:59:27.299 I can tell you I
NOTE Confidence: 0.9713905
00:59:27.299 --> 00:59:28.259 can tell you a a
NOTE Confidence: 0.9713905
00:59:28.259 --> 00:59:29.140 range of things you can
NOTE Confidence: 0.9713905
00:59:29.140 --> 00:59:30.579 do for fatigue that are
NOTE Confidence: 0.9713905
00:59:30.579 --> 00:59:31.960 non drug related.
NOTE Confidence: 0.9815955
00:59:32.635 --> 00:59:33.915 You know, tai chi is
NOTE Confidence: 0.9815955

00:59:33.915 --> 00:59:35.755 very effective for insomnia. When
NOTE Confidence: 0.9815955

00:59:35.755 --> 00:59:37.115 I speak to communities, it's
NOTE Confidence: 0.9815955

00:59:37.115 --> 00:59:38.974 very hard to get CBTI
NOTE Confidence: 0.9815955

00:59:39.115 --> 00:59:40.474 for insomnia. It's, you know,
NOTE Confidence: 0.9815955

00:59:40.474 --> 00:59:41.700 it's probably not even easy
NOTE Confidence: 0.9815955

00:59:41.700 --> 00:59:43.220 here in your cancer center
NOTE Confidence: 0.9815955

00:59:43.220 --> 00:59:44.020 to get that, but you
NOTE Confidence: 0.9815955

00:59:44.180 --> 00:59:45.800 tai chi is effective. Acupuncture
NOTE Confidence: 0.9815955

00:59:45.940 --> 00:59:47.380 is effective. And in many
NOTE Confidence: 0.9815955

00:59:47.380 --> 00:59:47.880 communities,
NOTE Confidence: 0.9726632

00:59:48.260 --> 00:59:49.595 these are available. But our
NOTE Confidence: 0.9726632

00:59:49.595 --> 00:59:50.735 community of physicians
NOTE Confidence: 0.9845917

00:59:51.035 --> 00:59:52.395 doesn't actually know a lot
NOTE Confidence: 0.9845917

00:59:52.395 --> 00:59:54.315 about these behavioral interventions. And
NOTE Confidence: 0.9845917

00:59:54.315 --> 00:59:55.675 that's why the ASCO guidelines
NOTE Confidence: 0.9845917

00:59:55.675 --> 00:59:56.635 are very powerful. If you

NOTE Confidence: 0.9845917

00:59:56.635 --> 00:59:57.535 look at the ASCO,

NOTE Confidence: 0.7985467

00:59:58.395 --> 00:59:59.055 fatigue guideline,

NOTE Confidence: 0.99037004

00:59:59.420 --> 01:00:00.800 exercise is very important.

NOTE Confidence: 0.97214526

01:00:01.260 --> 01:00:03.579 Mindfulness is very effective. Cognitive

NOTE Confidence: 0.97214526

01:00:03.579 --> 01:00:04.619 behavioral therapy, there are a

NOTE Confidence: 0.97214526

01:00:04.619 --> 01:00:05.599 whole bunch of therapies

NOTE Confidence: 0.98663056

01:00:05.900 --> 01:00:07.645 that, again, are not costly

NOTE Confidence: 0.98663056

01:00:07.645 --> 01:00:08.684 in terms of, you know,

NOTE Confidence: 0.98663056

01:00:08.684 --> 01:00:09.484 how we think about the

NOTE Confidence: 0.98663056

01:00:09.484 --> 01:00:11.005 cost of our drugs, but

NOTE Confidence: 0.98663056

01:00:11.005 --> 01:00:11.724 you need to be able

NOTE Confidence: 0.98663056

01:00:11.724 --> 01:00:12.924 to connect people. And a

NOTE Confidence: 0.98663056

01:00:12.924 --> 01:00:13.964 lot of these things are

NOTE Confidence: 0.98663056

01:00:13.964 --> 01:00:15.460 now available online, so it's

NOTE Confidence: 0.98663056

01:00:15.540 --> 01:00:16.900 kind of cataloging them and

NOTE Confidence: 0.98663056

01:00:16.900 --> 01:00:18.420 connecting patients. But I think
NOTE Confidence: 0.98663056

01:00:18.420 --> 01:00:19.380 we need to do high
NOTE Confidence: 0.98663056

01:00:19.380 --> 01:00:21.380 level randomized trials to show
NOTE Confidence: 0.98663056

01:00:21.380 --> 01:00:22.500 the evidence so that we
NOTE Confidence: 0.98663056

01:00:22.500 --> 01:00:24.099 can get payers to pay
NOTE Confidence: 0.98663056

01:00:24.099 --> 01:00:25.080 for these things.
NOTE Confidence: 0.9827016

01:00:25.605 --> 01:00:27.045 Because, you know, one of
NOTE Confidence: 0.9827016

01:00:27.045 --> 01:00:27.865 my sadnesses
NOTE Confidence: 0.9909482

01:00:28.405 --> 01:00:29.445 is that we all do
NOTE Confidence: 0.9909482

01:00:29.445 --> 01:00:31.605 these randomized trials, get NCI
NOTE Confidence: 0.9909482

01:00:31.605 --> 01:00:33.710 funding to show something's effective,
NOTE Confidence: 0.9909482

01:00:33.770 --> 01:00:34.910 but they're not disseminated.
NOTE Confidence: 0.86598474

01:00:36.010 --> 01:00:36.910 Anne Partridge,
NOTE Confidence: 0.94829714

01:00:37.290 --> 01:00:38.570 Antonio Wolf, and I did,
NOTE Confidence: 0.94829714

01:00:38.730 --> 01:00:40.145 and Julie Bauer did a
NOTE Confidence: 0.94829714

01:00:40.145 --> 01:00:42.465 study on, mindfulness and survivor

NOTE Confidence: 0.94829714
01:00:42.465 --> 01:00:43.905 education in younger women with
NOTE Confidence: 0.94829714
01:00:43.905 --> 01:00:44.725 breast cancer,
NOTE Confidence: 0.97947115
01:00:45.025 --> 01:00:46.065 and we found that it
NOTE Confidence: 0.97947115
01:00:46.065 --> 01:00:47.745 was the mindfulness in particular
NOTE Confidence: 0.97947115
01:00:47.745 --> 01:00:48.645 was very effective.
NOTE Confidence: 0.9791743
01:00:48.980 --> 01:00:50.020 Very fortunate that we just
NOTE Confidence: 0.9791743
01:00:50.020 --> 01:00:50.980 got an r o one,
NOTE Confidence: 0.9791743
01:00:50.980 --> 01:00:52.180 and we're putting it into
NOTE Confidence: 0.9791743
01:00:52.180 --> 01:00:53.480 an NRG trial
NOTE Confidence: 0.9949144
01:00:53.780 --> 01:00:55.000 to be able to disseminate
NOTE Confidence: 0.9949144
01:00:55.220 --> 01:00:56.040 now mindfulness
NOTE Confidence: 0.99549085
01:00:56.405 --> 01:00:57.605 either with an app or
NOTE Confidence: 0.99549085
01:00:57.605 --> 01:00:58.265 on Zoom,
NOTE Confidence: 0.9703979
01:00:58.724 --> 01:00:59.224 delivery,
NOTE Confidence: 0.8282325
01:00:59.925 --> 01:01:01.525 across the country, hopefully, to
NOTE Confidence: 0.8282325

01:01:01.525 --> 01:01:03.925 rural and underserved populations as

NOTE Confidence: 0.8282325

01:01:03.925 --> 01:01:05.204 well as, you know, the

NOTE Confidence: 0.8282325

01:01:05.204 --> 01:01:06.710 cancer center kinda people will

NOTE Confidence: 0.8282325

01:01:06.710 --> 01:01:07.910 come on. You could add

NOTE Confidence: 0.8282325

01:01:07.910 --> 01:01:09.510 that that Lomap trial, like

NOTE Confidence: 0.8282325

01:01:09.510 --> 01:01:11.030 the pragmatic arm, you know,

NOTE Confidence: 0.8282325

01:01:11.030 --> 01:01:12.710 and you can grab large

NOTE Confidence: 0.8282325

01:01:12.710 --> 01:01:13.505 amounts of data.

NOTE Confidence: 0.96055603

01:01:13.984 --> 01:01:14.865 Yes. And, I mean, I

NOTE Confidence: 0.96055603

01:01:14.865 --> 01:01:16.565 think if you have descriptions

NOTE Confidence: 0.9890451

01:01:17.184 --> 01:01:18.565 of what people are experiencing,

NOTE Confidence: 0.9890451

01:01:18.704 --> 01:01:20.085 then you have that catalog

NOTE Confidence: 0.9890451

01:01:20.384 --> 01:01:21.744 of list of issues, and

NOTE Confidence: 0.9890451

01:01:21.744 --> 01:01:23.070 then you link it up

NOTE Confidence: 0.9890451

01:01:23.150 --> 01:01:24.770 with resources that are available.

NOTE Confidence: 0.9952986

01:01:25.070 --> 01:01:26.110 And more and more, they

NOTE Confidence: 0.9952986

01:01:26.110 --> 01:01:27.250 can be on a centralized

NOTE Confidence: 0.9952986

01:01:27.310 --> 01:01:28.210 portal somewhere.

NOTE Confidence: 0.9854652

01:01:28.670 --> 01:01:29.630 I I when I was

NOTE Confidence: 0.9854652

01:01:29.630 --> 01:01:30.830 at VCU a couple weeks

NOTE Confidence: 0.9854652

01:01:30.830 --> 01:01:32.365 ago, one of the, people

NOTE Confidence: 0.9854652

01:01:32.365 --> 01:01:33.165 that I met with is

NOTE Confidence: 0.9854652

01:01:33.165 --> 01:01:34.845 looking at cognitive difficulties in

NOTE Confidence: 0.9854652

01:01:34.845 --> 01:01:36.545 brain tumor patients. She's completely

NOTE Confidence: 0.9854652

01:01:36.605 --> 01:01:38.065 recruiting all of her patients

NOTE Confidence: 0.984044

01:01:38.365 --> 01:01:39.950 via the Internet. So she's

NOTE Confidence: 0.984044

01:01:39.950 --> 01:01:41.310 getting her brain tumor patients

NOTE Confidence: 0.984044

01:01:41.310 --> 01:01:42.690 for her intervention studies,

NOTE Confidence: 0.99260324

01:01:43.070 --> 01:01:44.030 you know, across the whole

NOTE Confidence: 0.99260324

01:01:44.030 --> 01:01:45.390 country. She's somehow gotten the

NOTE Confidence: 0.99260324

01:01:45.390 --> 01:01:46.770 permissions to do this.

NOTE Confidence: 0.9732457

01:01:47.105 --> 01:01:47.825 And so I think we
NOTE Confidence: 0.9732457

01:01:47.825 --> 01:01:48.704 need to be much more
NOTE Confidence: 0.9732457

01:01:48.704 --> 01:01:50.224 innovative, and that's what COVID
NOTE Confidence: 0.9732457

01:01:50.224 --> 01:01:51.505 also taught us is there
NOTE Confidence: 0.9732457

01:01:51.505 --> 01:01:52.464 are many more ways to
NOTE Confidence: 0.9732457

01:01:52.464 --> 01:01:53.905 reach people. And so we
NOTE Confidence: 0.9732457

01:01:53.905 --> 01:01:54.859 need to get out to
NOTE Confidence: 0.9732457

01:01:54.859 --> 01:01:56.619 that community of patients once
NOTE Confidence: 0.9732457

01:01:56.619 --> 01:01:57.500 you can tell me what
NOTE Confidence: 0.9732457

01:01:57.500 --> 01:01:58.940 their symptoms are. I used
NOTE Confidence: 0.9732457

01:01:58.940 --> 01:01:59.740 to be a lung cancer
NOTE Confidence: 0.9732457

01:01:59.740 --> 01:02:00.540 doctor when I was at
NOTE Confidence: 0.9732457

01:02:00.540 --> 01:02:02.140 the VA. That's like forty
NOTE Confidence: 0.9732457

01:02:02.140 --> 01:02:03.020 years ago, but, you know,
NOTE Confidence: 0.9732457

01:02:03.020 --> 01:02:04.265 I still have roots there.
NOTE Confidence: 0.9732457

01:02:04.345 --> 01:02:05.224 And so I think, you

NOTE Confidence: 0.9732457

01:02:05.224 --> 01:02:06.505 know, those things are possible,

NOTE Confidence: 0.9732457

01:02:06.505 --> 01:02:07.385 but we need to be

NOTE Confidence: 0.9732457

01:02:07.385 --> 01:02:08.424 able to know what people

NOTE Confidence: 0.9732457

01:02:08.424 --> 01:02:10.025 are suffering with and then

NOTE Confidence: 0.9732457

01:02:10.025 --> 01:02:11.144 interview them and talk to

NOTE Confidence: 0.9732457

01:02:11.144 --> 01:02:12.105 them about what they would

NOTE Confidence: 0.9732457

01:02:12.105 --> 01:02:12.984 like to have, what kind

NOTE Confidence: 0.9732457

01:02:12.984 --> 01:02:14.250 of services might be helpful

NOTE Confidence: 0.99632215

01:02:14.970 --> 01:02:15.470 to

NOTE Confidence: 0.8970657

01:02:16.010 --> 01:02:17.610 them. K. Patty, thank you

NOTE Confidence: 0.8970657

01:02:17.610 --> 01:02:18.430 so much.

NOTE Confidence: 0.9652416

01:02:20.170 --> 01:02:20.910 Thank you.