WEBVTT

00:00:00.000 --> 00:00:02.148 Funding for Yale Cancer Answers is

00:00:02.148 --> 00:00:04.180 provided by Smilow Cancer Hospital.

00:00:06.300 --> 00:00:08.485 Welcome to Yale Cancer answers

00:00:08.485 --> 00:00:10.233 with Doctor Anish Chappar.

00:00:10.240 --> 00:00:11.704 Yale Cancer answers features

00:00:11.704 --> 00:00:13.534 the latest information on cancer

00:00:13.534 --> 00:00:15.408 care by welcoming oncologists and

00:00:15.408 --> 00:00:17.574 specialists who are on the forefront

00:00:17.633 --> 00:00:19.295 of the battle to fight cancer.

00:00:19.300 --> 00:00:21.268 This week, it's a conversation about

00:00:21.268 --> 00:00:23.459 lung cancer with Doctor Gavitt Woodard.

00:00:23.460 --> 00:00:25.553 Dr Woodard is an assistant professor of

00:00:25.553 --> 00:00:27.837 surgery at the Yale School of Medicine,

00:00:27.840 --> 00:00:30.102 where Doctor Chappar is a professor

NOTE Confidence: 0.720288085555555

00:00:30.102 --> 00:00:31.233 of surgical oncology.

NOTE Confidence: 0.925048026666667

00:00:32.580 --> 00:00:34.309 Maybe we can start off by you

NOTE Confidence: 0.925048026666667

00:00:34.309 --> 00:00:36.263 telling us a little bit more about

NOTE Confidence: 0.925048026666667

00:00:36.263 --> 00:00:38.230 yourself and what it is you do.

NOTE Confidence: 0.819528408888889

00:00:38.280 --> 00:00:41.097 Yeah, so I am a thoracic surgeon at Yale.

NOTE Confidence: 0.819528408888889

00:00:41.100 --> 00:00:44.285 That means that I deal with all

NOTE Confidence: 0.819528408888889

00:00:44.285 --> 00:00:46.620 thoracic diseases in the chest.

NOTE Confidence: 0.819528408888889

00:00:46.620 --> 00:00:48.888 But the majority of our practice

NOTE Confidence: 0.819528408888889

00:00:48.888 --> 00:00:51.708 tends to be focused on lung cancer

NOTE Confidence: 0.819528408888889

00:00:51.708 --> 00:00:53.870 and patients with lung cancer. You

NOTE Confidence: 0.88928997

00:00:53.880 --> 00:00:56.730 know, we often hear about lung

NOTE Confidence: 0.88928997

00:00:56.730 --> 00:01:00.215 cancer and as one of the most

NOTE Confidence: 0.88928997

00:01:00.215 --> 00:01:02.690 common cancers there is and.

NOTE Confidence: 0.88928997

00:01:02.690 --> 00:01:04.820 And likely one of the leading

NOTE Confidence: 0.88928997

00:01:04.820 --> 00:01:07.082 killers of people as well in

NOTE Confidence: 0.88928997

00:01:07.082 --> 00:01:09.007 terms of cancer related death.

NOTE Confidence: 0.88928997

00:01:09.010 --> 00:01:10.306 Can you tell us a little

NOTE Confidence: 0.88928997

00:01:10.306 --> 00:01:11.570 bit more about lung cancer,

NOTE Confidence: 0.88928997

00:01:11.570 --> 00:01:14.552 what what are the statistics now in

NOTE Confidence: 0.88928997

00:01:14.552 --> 00:01:17.250 terms of incidence and mortality and

NOTE Confidence: 0.88928997

00:01:17.250 --> 00:01:20.300 and what kind of goes into that? Yes,

NOTE Confidence: 0.937476804

00:01:20.310 --> 00:01:23.220 definitely. So as you mentioned,

NOTE Confidence: 0.937476804

00:01:23.220 --> 00:01:26.532 lung cancer is the leading cause of cancer

NOTE Confidence: 0.937476804

00:01:26.532 --> 00:01:29.340 mortality in the US and worldwide, it's

NOTE Confidence: 0.937476804

00:01:29.340 --> 00:01:31.580 the number one cause of cancer mortality.

NOTE Confidence: 0.937476804

00:01:31.580 --> 00:01:36.804 In men and women, it is the #2 most common

NOTE Confidence: 0.937476804

00:01:36.804 --> 00:01:40.119 cancer in terms of who actually is diagnosed.

NOTE Confidence: 0.937476804

00:01:40.120 --> 00:01:43.208 So in women, it's #2 second to breast

NOTE Confidence: 0.937476804

00:01:43.208 --> 00:01:46.799 and in men it's #2 second to prostate.

NOTE Confidence: 0.937476804

00:01:46.800 --> 00:01:49.456 But those cancers aren't as deadly as lung

NOTE Confidence: 0.937476804

00:01:49.456 --> 00:01:52.010 cancer and so even though more patients.

NOTE Confidence: 0.937476804

00:01:52.010 --> 00:01:54.986 Diagnosed with them, more patients end

NOTE Confidence: 0.937476804

00:01:54.986 --> 00:01:58.030 up ultimately dying of lung cancer.

NOTE Confidence: 0.937476804

00:01:58.030 --> 00:02:01.110 So if you think about your lifetime rate

NOTE Confidence: 0.937476804

00:02:01.110 --> 00:02:04.088 of developing lung cancer, it's about 6%.

NOTE Confidence: 0.937476804

00:02:04.088 --> 00:02:07.647 That's one in 16 US adults will end

NOTE Confidence: 0.937476804

00:02:07.647 --> 00:02:10.509 up with a lung cancer diagnosis.

NOTE Confidence: 0.937476804

00:02:10.510 --> 00:02:13.480 Men get it slightly more frequently

NOTE Confidence: 0.937476804

00:02:13.480 --> 00:02:17.005 than women and we have seen these

NOTE Confidence: 0.937476804

00:02:17.005 --> 00:02:20.210 rates slowly decline in recent years,

NOTE Confidence: 0.937476804

00:02:20.210 --> 00:02:22.180 but it still accounts for.

NOTE Confidence: 0.937476804

00:02:22.180 --> 00:02:24.310 The majority of lung cancer deaths.

NOTE Confidence: 0.90543788

00:02:25.470 --> 00:02:29.094 And so tobacco use is still the most

NOTE Confidence: 0.90543788

00:02:29.094 --> 00:02:32.214 common cause for lung cancer, right?

NOTE Confidence: 0.90543788

00:02:32.214 --> 00:02:36.018 But is that just cigarette smoking?

NOTE Confidence: 0.90543788

00:02:36.020 --> 00:02:39.300 How common is it to get lung cancer

NOTE Confidence: 0.90543788

00:02:39.300 --> 00:02:41.699 after other forms of smoking,

NOTE Confidence: 0.90543788

00:02:41.700 --> 00:02:44.544 like pipe smoking, cigar smoking or

NOTE Confidence: 0.90543788

00:02:44.544 --> 00:02:47.235 perhaps more commonly these days, vaping?

NOTE Confidence: 0.90543788

00:02:47.235 --> 00:02:49.245 Do we have numbers on that?

NOTE Confidence: 0.926997690714286

00:02:50.450 --> 00:02:52.930 So all of those things do put you

NOTE Confidence: 0.926997690714286

00:02:52.930 --> 00:02:55.667 at risk for developing lung cancer.

NOTE Confidence: 0.926997690714286

00:02:55.670 --> 00:02:58.712 Tobacco products in general still account

NOTE Confidence: 0.926997690714286

00:02:58.712 --> 00:03:02.508 for the vast majority of lung cancer cases.

NOTE Confidence: 0.926997690714286

00:03:02.510 --> 00:03:05.170 Other things that we think of as

NOTE Confidence: 0.926997690714286

00:03:05.170 --> 00:03:07.572 exposure risks besides tobacco tend to

NOTE Confidence: 0.926997690714286

00:03:07.572 --> 00:03:10.080 be things like radon exposure, asbestos,

NOTE Confidence: 0.926997690714286

00:03:10.080 --> 00:03:13.200 secondhand smoke and air pollution is

NOTE Confidence: 0.926997690714286

00:03:13.200 --> 00:03:16.189 also recognized as a possible cause.

NOTE Confidence: 0.926997690714286

00:03:16.190 --> 00:03:18.941 But the other thing that's worth mentioning

NOTE Confidence: 0.926997690714286

00:03:18.941 --> 00:03:21.599 is that even among never smokers.

NOTE Confidence: 0.926997690714286

00:03:21.600 --> 00:03:23.896 We are seeing a rise in the incidence

NOTE Confidence: 0.926997690714286

00:03:23.896 --> 00:03:24.980 of lung cancer,

NOTE Confidence: 0.926997690714286

00:03:24.980 --> 00:03:27.465 meaning that more and more people who

NOTE Confidence: 0.926997690714286

00:03:27.465 --> 00:03:29.787 have never smoked cigarettes at all

NOTE Confidence: 0.926997690714286

00:03:29.787 --> 00:03:32.157 are being diagnosed with lung cancer.

NOTE Confidence: 0.926997690714286

00:03:32.160 --> 00:03:35.400 About one in five new lung cancer diagnosis

NOTE Confidence: 0.926997690714286

00:03:35.400 --> 00:03:39.354 is in a person who has never smoked at all.

NOTE Confidence: 0.926997690714286

00:03:39.360 --> 00:03:41.712 And if you were to think of

NOTE Confidence: 0.926997690714286

00:03:41.712 --> 00:03:43.839 lung cancer among never smokers,

NOTE Confidence: 0.926997690714286

00:03:43.840 --> 00:03:47.120 it would account for the #7 global

NOTE Confidence: 0.926997690714286

00:03:47.120 --> 00:03:49.170 cause of cancer mortality just

NOTE Confidence: 0.926997690714286

00:03:49.170 --> 00:03:51.410 among people who never smoked.

NOTE Confidence: 0.872874672

00:03:51.780 --> 00:03:53.988 Wow, that's really interesting.

NOTE Confidence: 0.872874672

00:03:53.988 --> 00:03:56.250 Why? Why is it that people who

NOTE Confidence: 0.872874672

00:03:56.250 --> 00:03:58.180 have never smoked get lung cancer?

NOTE Confidence: 0.872874672

00:03:58.180 --> 00:03:59.896 And why is that rate rising?

NOTE Confidence: 0.92877878625

00:04:00.920 --> 00:04:04.320 We don't have great answers for that yet.

NOTE Confidence: 0.92877878625

00:04:04.320 --> 00:04:08.288 Some of it is probably because we are.

NOTE Confidence: 0.92877878625

00:04:08.290 --> 00:04:10.733 Doing a good job of screening patients

NOTE Confidence: 0.92877878625

00:04:10.733 --> 00:04:12.730 whether they've been smokers or not.

NOTE Confidence: 0.92877878625

00:04:12.730 --> 00:04:15.770 People are getting more CT scans and we

NOTE Confidence: 0.92877878625

00:04:15.770 --> 00:04:18.609 are catching lesions at an earlier stage

NOTE Confidence: 0.92877878625

00:04:18.609 --> 00:04:21.857 or perhaps someone is found to have a

NOTE Confidence: 0.92877878625

00:04:21.857 --> 00:04:23.792 small slow growing adenocarcinoma who

NOTE Confidence: 0.92877878625

00:04:23.792 --> 00:04:26.682 was a never smoker just because we are

NOTE Confidence: 0.92877878625

00:04:26.682 --> 00:04:29.970 using a lot of cross-sectional imaging,

NOTE Confidence: 0.92877878625

00:04:29.970 --> 00:04:32.778 meaning CT scans on a patient who rolls

NOTE Confidence: 0.92877878625

00:04:32.778 --> 00:04:35.348 into the emergency room for some reason

NOTE Confidence: 0.92877878625

00:04:35.348 --> 00:04:38.829 or who is having a CT scan to screen for.

NOTE Confidence: 0.92877878625

00:04:38.830 --> 00:04:40.798 Coronary artery calcifications.

NOTE Confidence: 0.85697308375

00:04:42.060 --> 00:04:46.788 So you know then that raises the question,

NOTE Confidence: 0.85697308375

00:04:46.790 --> 00:04:49.254 right now we have lung cancer screening

NOTE Confidence: 0.85697308375

00:04:49.254 --> 00:04:51.837 for people who are heavy smokers, right?

NOTE Confidence: 0.85697308375

00:04:51.837 --> 00:04:54.420 And maybe you can tell us a little bit

NOTE Confidence: 0.85697308375

00:04:54.490 --> 00:04:56.905 more about the guidelines as to who

NOTE Confidence: 0.85697308375

00:04:56.905 --> 00:04:59.002 qualifies for lung cancer screening with

NOTE Confidence: 0.85697308375

00:04:59.002 --> 00:05:04.020 low dose CT scans but with the rate of of

NOTE Confidence: 0.85697308375

00:05:04.020 --> 00:05:07.440 lung cancer increasing in never smokers?

NOTE Confidence: 0.85697308375

00:05:07.440 --> 00:05:08.792 Should that be expanded?

NOTE Confidence: 0.85697308375

00:05:08.792 --> 00:05:11.585 I mean, should we be thinking about

NOTE Confidence: 0.85697308375

00:05:11.585 --> 00:05:13.474 screening more people for lung

NOTE Confidence: 0.85697308375

00:05:13.474 --> 00:05:15.316 cancer if people who have smoked

NOTE Confidence: 0.85697308375

00:05:15.316 --> 00:05:17.783 less or who have never smoked are

NOTE Confidence: 0.85697308375

00:05:17.783 --> 00:05:20.025 actually increasing in terms of their

NOTE Confidence: 0.85697308375

00:05:20.025 --> 00:05:21.960 rate of developing lung cancer?

NOTE Confidence: 0.918353102142857

00:05:22.900 --> 00:05:25.539 Yes, that's a great question and probably

NOTE Confidence: 0.918353102142857

00:05:25.539 --> 00:05:28.138 something that is coming on the horizon.

NOTE Confidence: 0.918353102142857

00:05:28.140 --> 00:05:30.144 When the first trials were done

NOTE Confidence: 0.918353102142857

00:05:30.144 --> 00:05:32.359 to look at lung cancer screening

NOTE Confidence: 0.918353102142857

00:05:32.359 --> 00:05:35.180 as a way of detecting lung cancer,

NOTE Confidence: 0.918353102142857

00:05:35.180 --> 00:05:37.076 earlier we had that the Nelson

NOTE Confidence: 0.918353102142857

00:05:37.076 --> 00:05:39.618 trial and the in the United States,

NOTE Confidence: 0.918353102142857

00:05:39.620 --> 00:05:41.978 the national lung cancer screening trial.

NOTE Confidence: 0.918353102142857

00:05:41.980 --> 00:05:43.625 The original criteria for these

NOTE Confidence: 0.918353102142857

00:05:43.625 --> 00:05:45.940 were a little bit more stringent.

NOTE Confidence: 0.918353102142857

00:05:45.940 --> 00:05:48.540 They had a tighter age range and a

NOTE Confidence: 0.918353102142857

00:05:48.540 --> 00:05:50.720 greater pack year smoking history,

NOTE Confidence: 0.918353102142857

00:05:50.720 --> 00:05:52.420 meaning that they were really

NOTE Confidence: 0.918353102142857

00:05:52.420 --> 00:05:53.100 targeting people.

NOTE Confidence: 0.918353102142857

00:05:53.100 --> 00:05:55.251 Who were felt to be the most at risk

NOTE Confidence: 0.918353102142857

00:05:55.251 --> 00:05:57.373 for lung cancer and these trials showed

NOTE Confidence: 0.918353102142857

00:05:57.373 --> 00:05:59.970 that if you did lung cancer screening,

NOTE Confidence: 0.918353102142857

00:05:59.970 --> 00:06:02.224 which means it's an annual low dose

NOTE Confidence: 0.918353102142857

00:06:02.224 --> 00:06:04.415 CT scan done in someone who we

NOTE Confidence: 0.918353102142857

00:06:04.415 --> 00:06:06.690 think is at risk for lung cancer,

NOTE Confidence: 0.918353102142857

00:06:06.690 --> 00:06:10.250 you can reduce lung cancer mortality by 20%.

NOTE Confidence: 0.918353102142857

00:06:10.250 --> 00:06:12.155 And these were really remarkable

NOTE Confidence: 0.918353102142857

00:06:12.155 --> 00:06:14.623 results and this is widely approved

NOTE Confidence: 0.918353102142857

00:06:14.623 --> 00:06:16.587 annual lung cancer screening.

NOTE Confidence: 0.918353102142857

00:06:16.590 --> 00:06:19.998 CT scans are covered by Medicare

NOTE Confidence: 0.918353102142857

00:06:19.998 --> 00:06:22.906 and most private insurance and as

NOTE Confidence: 0.918353102142857

00:06:22.906 --> 00:06:25.132 we have had more data and more.

NOTE Confidence: 0.918353102142857

00:06:25.140 --> 00:06:28.128 Experience with lung cancer screening CTS,

NOTE Confidence: 0.918353102142857

00:06:28.130 --> 00:06:31.350 we've actually started to widen the criteria,

NOTE Confidence: 0.918353102142857

00:06:31.350 --> 00:06:33.625 meaning we're screening more and more people.

NOTE Confidence: 0.918353102142857

00:06:33.630 --> 00:06:36.339 So we've dropped the age now to 50 years,

NOTE Confidence: 0.918353102142857

00:06:36.340 --> 00:06:38.926 so anyone over 50 would qualify.

NOTE Confidence: 0.918353102142857

00:06:38.930 --> 00:06:40.595 And we've dropped the smoking

NOTE Confidence: 0.918353102142857

00:06:40.595 --> 00:06:42.670 requirement down to 20 pack years.

NOTE Confidence: 0.918353102142857

00:06:42.670 --> 00:06:46.282 So anyone over 50 who has a

NOTE Confidence: 0.918353102142857

00:06:46.282 --> 00:06:47.830 relevant smoking history,

NOTE Confidence: 0.918353102142857

00:06:47.830 --> 00:06:49.342 who's a current smoker,

NOTE Confidence: 0.918353102142857

00:06:49.342 --> 00:06:51.610 or who's quit within the last

NOTE Confidence: 0.918353102142857

00:06:51.687 --> 00:06:54.171 15 years would qualify for lung

NOTE Confidence: 0.918353102142857

00:06:54.171 --> 00:06:55.827 cancer screening CT scans.

NOTE Confidence: 0.868293114375

00:06:56.890 --> 00:06:59.536 Right. And so more to come on

NOTE Confidence: 0.868293114375

00:06:59.536 --> 00:07:01.555 whether that expands to people

NOTE Confidence: 0.868293114375

00:07:01.555 --> 00:07:05.330 who have never smoked, so.

NOTE Confidence: 0.868293114375

00:07:05.330 --> 00:07:08.426 So with low dose CT screening,

NOTE Confidence: 0.868293114375

00:07:08.430 --> 00:07:12.504 you had mentioned that the mortality of

NOTE Confidence: 0.868293114375

00:07:12.504 --> 00:07:16.629 lung cancer is actually coming down.

NOTE Confidence: 0.868293114375

00:07:16.630 --> 00:07:18.982 What? What's the proportion do you

NOTE Confidence: 0.868293114375

00:07:18.982 --> 00:07:21.662 think of people who are diagnosed

NOTE Confidence: 0.868293114375

00:07:21.662 --> 00:07:24.242 with lung cancer because they're

NOTE Confidence: 0.868293114375

00:07:24.242 --> 00:07:26.302 caught through screening versus

NOTE Confidence: 0.868293114375

00:07:26.302 --> 00:07:28.482 because they are symptomatic and

NOTE Confidence: 0.868293114375

00:07:28.482 --> 00:07:31.040 are are diagnosed at a later stage?

NOTE Confidence: 0.942869671111111

00:07:31.800 --> 00:07:33.740 Right. So if you're having

NOTE Confidence: 0.942869671111111

00:07:33.740 --> 00:07:35.292 symptoms of lung cancer,

NOTE Confidence: 0.942869671111111

00:07:35.300 --> 00:07:38.060 chances are it's a more advanced

NOTE Confidence: 0.942869671111111

00:07:38.060 --> 00:07:40.990 tumor centrally located or that you

NOTE Confidence: 0.942869671111111

00:07:40.990 --> 00:07:43.500 may have metastatic disease already.

NOTE Confidence: 0.942869671111111

00:07:43.500 --> 00:07:45.972 We know that right now about half of

NOTE Confidence: 0.942869671111111

00:07:45.972 --> 00:07:48.620 patients who are diagnosed with lung cancer,

NOTE Confidence: 0.942869671111111

00:07:48.620 --> 00:07:50.560 the disease has already

NOTE Confidence: 0.942869671111111

00:07:50.560 --> 00:07:52.500 spread to distant sites.

NOTE Confidence: 0.942869671111111

00:07:52.500 --> 00:07:54.971 And so the five year survival if

NOTE Confidence: 0.942869671111111

00:07:54.971 --> 00:07:57.243 your lung cancer is caught late

NOTE Confidence: 0.942869671111111

00:07:57.243 --> 00:07:59.516 with distant spread is only 7%,

NOTE Confidence: 0.942869671111111

00:07:59.516 --> 00:08:02.148 but if you can catch lung cancer.

NOTE Confidence: 0.942869671111111

00:08:02.150 --> 00:08:03.266 When it's localized,

NOTE Confidence: 0.942869671111111

00:08:03.266 --> 00:08:05.870 meaning just within the lungs and maybe

NOTE Confidence: 0.942869671111111

00:08:05.934 --> 00:08:08.230 even not in any regional lymph nodes,

NOTE Confidence: 0.942869671111111

00:08:08.230 --> 00:08:09.427 but just localized.

NOTE Confidence: 0.942869671111111

00:08:09.427 --> 00:08:11.821 Lung cancer has a 5 year

NOTE Confidence: 0.942869671111111

00:08:11.821 --> 00:08:13.431 overall survival of 61%.

NOTE Confidence: 0.942869671111111

00:08:13.431 --> 00:08:15.679 So the goal of screening is to shift

NOTE Confidence: 0.942869671111111

00:08:15.679 --> 00:08:18.000 our population of patients for those

NOTE Confidence: 0.942869671111111

00:08:18.000 --> 00:08:20.405 with advanced disease to those with

NOTE Confidence: 0.942869671111111

00:08:20.405 --> 00:08:22.250 localized disease where we're much

NOTE Confidence: 0.942869671111111

00:08:22.250 --> 00:08:25.029 more likely to cure them with the

NOTE Confidence: 0.942869671111111

00:08:25.029 --> 00:08:27.194 therapies that we have available.

NOTE Confidence: 0.942869671111111

00:08:27.200 --> 00:08:29.405 You talked about how we are actually

NOTE Confidence: 0.942869671111111

00:08:29.405 --> 00:08:31.996 doing a great job in moving the needle.

NOTE Confidence: 0.942869671111111

00:08:32.000 --> 00:08:34.655 If you want to talk about where you can

NOTE Confidence: 0.942869671111111

00:08:34.655 --> 00:08:37.313 make a difference in terms of spending

NOTE Confidence: 0.942869671111111

00:08:37.313 --> 00:08:39.520 cancer money and Cancer Research,

NOTE Confidence: 0.942869671111111

00:08:39.520 --> 00:08:42.940 there is a lot of work to do in lung cancer.

NOTE Confidence: 0.942869671111111

00:08:42.940 --> 00:08:45.644 So back in the 70s when they first

NOTE Confidence: 0.942869671111111

00:08:45.644 --> 00:08:47.319 started tracking these numbers,

NOTE Confidence: 0.942869671111111

00:08:47.320 --> 00:08:49.165 the five year overall survival

NOTE Confidence: 0.942869671111111

00:08:49.165 --> 00:08:51.439 of lung cancer was about 12%.

NOTE Confidence: 0.942869671111111

00:08:51.439 --> 00:08:53.584 It didn't change much between

NOTE Confidence: 0.942869671111111

00:08:53.584 --> 00:08:56.458 then and 2000 and back in 2000,

NOTE Confidence: 0.942869671111111

00:08:56.460 --> 00:08:57.636 the five year.

NOTE Confidence: 0.942869671111111

00:08:57.636 --> 00:08:59.988 Survival of kind of all patients

NOTE Confidence: 0.942869671111111

00:08:59.988 --> 00:09:02.123 diagnosed with lung cancer was 15%.

NOTE Confidence: 0.942869671111111

00:09:02.123 --> 00:09:04.467 But in recent years we have really started

NOTE Confidence: 0.942869671111111

00:09:04.467 --> 00:09:06.618 to make a difference here and that's

NOTE Confidence: 0.942869671111111

00:09:06.618 --> 00:09:09.107 for a few reasons that we can touch on.

14

NOTE Confidence: 0.942869671111111

00:09:09.110 --> 00:09:11.414 But so the most recent set of data that

NOTE Confidence: 0.942869671111111

00:09:11.414 --> 00:09:13.556 we have that the five year survival

NOTE Confidence: 0.942869671111111

00:09:13.556 --> 00:09:15.807 on lung cancer is now up at 23%.

NOTE Confidence: 0.942869671111111

00:09:15.807 --> 00:09:18.726 And I expect that this will continue

NOTE Confidence: 0.942869671111111

00:09:18.726 --> 00:09:21.649 to improve for a variety of reasons.

NOTE Confidence: 0.942869671111111

00:09:21.650 --> 00:09:23.729 One of these is lung cancer screening.

NOTE Confidence: 0.942869671111111

00:09:23.730 --> 00:09:26.616 So even though we have a lot of room to go

NOTE Confidence: 0.942869671111111

00:09:26.616 --> 00:09:29.003 in terms of getting this widely adopted.

NOTE Confidence: 0.942869671111111

00:09:29.010 --> 00:09:31.716 By patients and providers having lung

NOTE Confidence: 0.942869671111111

00:09:31.716 --> 00:09:33.939 cancer screening more available to

NOTE Confidence: 0.942869671111111

00:09:33.939 --> 00:09:36.396 patients and having good uptake of that,

NOTE Confidence: 0.942869671111111

00:09:36.400 --> 00:09:39.011 we'll catch cancers at an earlier stage

NOTE Confidence: 0.942869671111111

00:09:39.011 --> 00:09:41.537 where we're more likely to cure them.

NOTE Confidence: 0.942869671111111

00:09:41.540 --> 00:09:43.646 And then we also have some

NOTE Confidence: 0.942869671111111

00:09:43.646 --> 00:09:45.050 really exciting other therapies

NOTE Confidence: 0.942869671111111

00:09:45.120 --> 00:09:46.940 now available for lung cancer.

NOTE Confidence: 0.942869671111111

00:09:46.940 --> 00:09:49.740 And these include both targeted

NOTE Confidence: 0.942869671111111

00:09:49.740 --> 00:09:51.420 therapies and immunotherapy.

NOTE Confidence: 0.942869671111111

00:09:51.420 --> 00:09:53.863 And those are making a big difference

NOTE Confidence: 0.942869671111111

00:09:53.863 --> 00:09:56.382 in terms of extending life expectancy

NOTE Confidence: 0.942869671111111

00:09:56.382 --> 00:09:59.630 and in some cases even curing patients.

NOTE Confidence: 0.942869671111111

00:09:59.630 --> 00:10:01.890 With advanced or metastatic disease,

NOTE Confidence: 0.942869671111111

00:10:01.890 --> 00:10:04.023 whereas in the past we would not have had

NOTE Confidence: 0.942869671111111

00:10:04.023 --> 00:10:06.188 great treatment options for those patients.

NOTE Confidence: 0.874897541739131

00:10:07.190 --> 00:10:09.806 And so and I would imagine that the

NOTE Confidence: 0.874897541739131

00:10:09.806 --> 00:10:11.604 other place where you've really

NOTE Confidence: 0.874897541739131

00:10:11.604 --> 00:10:13.734 moved the needle is in terms

NOTE Confidence: 0.874897541739131

00:10:13.734 --> 00:10:16.050 of smoking cessation programs.

NOTE Confidence: 0.874897541739131

00:10:16.050 --> 00:10:17.947 Is that right? Is the number of

NOTE Confidence: 0.874897541739131

00:10:17.947 --> 00:10:19.949 smokers in the country going down?

NOTE Confidence: 0.874897541739131

00:10:19.950 --> 00:10:21.390 It certainly seems like that

16

00:10:21.390 --> 00:10:23.370 when you walk on the streets,

00:10:23.370 --> 00:10:25.090 you see fewer people smoking,

00:10:25.090 --> 00:10:27.380 you see more airplanes for

00:10:27.380 --> 00:10:29.670 example or are smoke free,

00:10:29.670 --> 00:10:32.970 many more restaurants are smoke free.

00:10:32.970 --> 00:10:35.000 Are we making a difference there too?

00:10:35.170 --> 00:10:37.514 Yes that that is an area where it's.

00:10:37.520 --> 00:10:40.040 And a great kind of public health

00:10:40.040 --> 00:10:41.989 education and we are having

00:10:41.989 --> 00:10:44.365 lower and lower rates of smokers.

00:10:44.370 --> 00:10:46.848 We are still diagnosing quite a

00:10:46.848 --> 00:10:49.070 few smoking related cancers though.

00:10:49.070 --> 00:10:51.786 There's about a 20 year lag between

00:10:51.786 --> 00:10:55.041 when someone is smoking and when we see

00:10:55.041 --> 00:10:56.938 those changes in lung cancer rates.

00:10:56.938 --> 00:10:59.380 And so you can see that they are

NOTE Confidence: 0.856766335

00:10:59.380 --> 00:11:00.876 falling probably primarily because

NOTE Confidence: 0.856766335

00:11:00.876 --> 00:11:03.529 of all the smoking cessation efforts.

NOTE Confidence: 0.856766335

00:11:03.530 --> 00:11:06.428 There are a lot of programs available

NOTE Confidence: 0.856766335

00:11:06.430 --> 00:11:08.480 at our hospital and elsewhere.

NOTE Confidence: 0.856766335

00:11:08.480 --> 00:11:10.586 Where patients can enroll in a

NOTE Confidence: 0.856766335

00:11:10.586 --> 00:11:12.439 smoking cessation clinic and they

NOTE Confidence: 0.856766335

00:11:12.439 --> 00:11:14.344 have additional resources to help

NOTE Confidence: 0.856766335

00:11:14.344 --> 00:11:16.650 people who are interested in quitting.

NOTE Confidence: 0.920866905

00:11:17.880 --> 00:11:22.176 And so you know, between the

NOTE Confidence: 0.920866905

00:11:22.176 --> 00:11:25.040 smoking prevention and screening,

NOTE Confidence: 0.920866905

00:11:25.040 --> 00:11:26.900 we're we're trying to pick these

NOTE Confidence: 0.920866905

00:11:26.900 --> 00:11:29.210 cancers up earlier and earlier and then

NOTE Confidence: 0.920866905

00:11:29.210 --> 00:11:31.238 we've got these great new treatments.

NOTE Confidence: 0.920866905

00:11:31.240 --> 00:11:35.712 So let's kind of take it. Bit by bit.

NOTE Confidence: 0.920866905

00:11:35.712 --> 00:11:37.656 So for patients who are picked

NOTE Confidence: 0.920866905

00:11:37.656 --> 00:11:39.855 up with screening where they

NOTE Confidence: 0.920866905

00:11:39.855 --> 00:11:42.100 have a relatively small tumor,

NOTE Confidence: 0.920866905

00:11:42.100 --> 00:11:43.279 they've been asymptomatic,

NOTE Confidence: 0.920866905

00:11:43.279 --> 00:11:46.454 tell us a little bit more about how

NOTE Confidence: 0.920866905

00:11:46.454 --> 00:11:48.918 the diagnosis is made and what they

NOTE Confidence: 0.920866905

00:11:48.918 --> 00:11:51.190 might expect in terms of treatment.

NOTE Confidence: 0.88792994

00:11:52.260 --> 00:11:54.630 Yes. So for an asymptomatic patient,

NOTE Confidence: 0.88792994

00:11:54.630 --> 00:11:56.863 typically their tumors tend to be found

NOTE Confidence: 0.88792994

00:11:56.863 --> 00:11:59.268 either on a lung cancer screening,

NOTE Confidence: 0.88792994

00:11:59.270 --> 00:12:02.150 CT scan or just incidentally,

NOTE Confidence: 0.88792994

00:12:02.150 --> 00:12:05.120 meaning it was a CT scan done for another

NOTE Confidence: 0.88792994

00:12:05.120 --> 00:12:07.930 reason that happened to see a lung nodule.

NOTE Confidence: 0.88792994

00:12:07.930 --> 00:12:10.306 Sometimes we catch them on X-ray,

NOTE Confidence: 0.88792994

00:12:10.310 --> 00:12:12.968 but most often on CT scan.

NOTE Confidence: 0.88792994

00:12:12.970 --> 00:12:15.670 And so for those patients,

NOTE Confidence: 0.88792994

00:12:15.670 --> 00:12:16.762 the treatment options,

NOTE Confidence: 0.88792994

00:12:16.762 --> 00:12:19.811 if it's a tumor localized just to the

NOTE Confidence: 0.88792994

00:12:19.811 --> 00:12:21.976 lung without lymph node involvement,

NOTE Confidence: 0.88792994

00:12:21.980 --> 00:12:24.470 they'll either get treated with surgery.

NOTE Confidence: 0.88792994

00:12:24.470 --> 00:12:25.914 Or radiation and the

NOTE Confidence: 0.88792994

00:12:25.914 --> 00:12:27.719 radiation that they get there.

NOTE Confidence: 0.88792994

00:12:27.720 --> 00:12:30.222 SBRT is targeted, it's very strong

NOTE Confidence: 0.88792994

00:12:30.222 --> 00:12:33.200 and so it really fries the area.

NOTE Confidence: 0.88792994

00:12:33.200 --> 00:12:34.730 When we're counseling patients one

NOTE Confidence: 0.88792994

00:12:34.730 --> 00:12:36.860 way or the other, I'm a surgeon,

NOTE Confidence: 0.88792994

00:12:36.860 --> 00:12:38.060 I have my bias.

NOTE Confidence: 0.88792994

00:12:38.060 --> 00:12:40.340 But I would say everyone tends to agree

NOTE Confidence: 0.88792994

00:12:40.340 --> 00:12:42.551 that if you can have surgery that

NOTE Confidence: 0.88792994

00:12:42.551 --> 00:12:44.620 that is a better treatment option.

NOTE Confidence: 0.88792994

00:12:44.620 --> 00:12:46.615 We're able to fully remove the tumor.

NOTE Confidence: 0.88792994

00:12:46.620 --> 00:12:48.986 We would sample all the lymph nodes

NOTE Confidence: 0.88792994

00:12:48.986 --> 00:12:51.292 and get someone a very accurate stage

NOTE Confidence: 0.88792994

00:12:51.292 --> 00:12:53.590 as well as tissue on the tumor.

NOTE Confidence: 0.88792994

00:12:53.590 --> 00:12:56.182 And this can typically be done

NOTE Confidence: 0.88792994

00:12:56.182 --> 00:12:57.478 with small incisions,

NOTE Confidence: 0.88792994

00:12:57.480 --> 00:13:00.798 a short hospital stay across the country.

NOTE Confidence: 0.88792994

00:13:00.800 --> 00:13:01.616 And at Yale,

NOTE Confidence: 0.88792994

00:13:01.616 --> 00:13:03.520 we do the vast majority of these

NOTE Confidence: 0.88792994

00:13:03.587 --> 00:13:05.255 operations minimally, invasively.

NOTE Confidence: 0.88792994

00:13:05.255 --> 00:13:08.415 And so the recovery time is quite quick

NOTE Confidence: 0.88792994

00:13:08.415 --> 00:13:11.686 and patients get back to their normal life.

NOTE Confidence: 0.88792994

00:13:11.690 --> 00:13:13.655 Radiation is the other treatment

NOTE Confidence: 0.88792994

00:13:13.655 --> 00:13:15.227 option for these patients.

NOTE Confidence: 0.88792994

00:13:15.230 --> 00:13:17.000 And so that's typically used for

NOTE Confidence: 0.88792994

00:13:17.000 --> 00:13:18.809 patients who may not have enough

NOTE Confidence: 0.88792994

00:13:18.809 --> 00:13:20.797 lung reserve to have a portion of

NOTE Confidence: 0.88792994

00:13:20.797 --> 00:13:22.588 their lung removed with surgery.

NOTE Confidence: 0.88792994

00:13:22.590 --> 00:13:24.928 And so those patients can have radiation

NOTE Confidence: 0.88792994

00:13:24.928 --> 00:13:26.949 therapy and that's quite successful.

NOTE Confidence: 0.88792994

00:13:26.950 --> 00:13:28.678 For patients who can't have surgery,

NOTE Confidence: 0.85053855631579

00:13:29.250 --> 00:13:31.464 fantastic. Well, we are going to

NOTE Confidence: 0.85053855631579

00:13:31.464 --> 00:13:34.054 take a short break for a medical

NOTE Confidence: 0.85053855631579

00:13:34.054 --> 00:13:36.130 minute and when we come back.

NOTE Confidence: 0.85053855631579

00:13:36.130 --> 00:13:38.428 You'll learn more about the advances

NOTE Confidence: 0.85053855631579

00:13:38.428 --> 00:13:40.734 in treatment of lung cancer with

NOTE Confidence: 0.85053855631579

00:13:40.734 --> 00:13:42.559 my guest, doctor Gavitt Woodard.

NOTE Confidence: 0.778172244

00:13:43.260 --> 00:13:45.290 Funding for Yale Cancer answers

NOTE Confidence: 0.778172244

00:13:45.290 --> 00:13:47.320 comes from Smilo Cancer Hospital,

NOTE Confidence: 0.778172244

00:13:47.320 --> 00:13:49.485 where their Center for Gastrointestinal

NOTE Confidence: 0.778172244

00:13:49.485 --> 00:13:51.217 Cancers provides patients with

NOTE Confidence: 0.778172244

00:13:51.217 --> 00:13:53.039 gastric cancers a comprehensive,

NOTE Confidence: 0.778172244

00:13:53.040 --> 00:13:54.186 multidisciplinary approach to

NOTE Confidence: 0.778172244

00:13:54.186 --> 00:13:56.096 the treatment of their cancer,

NOTE Confidence: 0.778172244

00:13:56.100 --> 00:13:58.845 including clinical trials.

NOTE Confidence: 0.778172244

00:13:58.845 --> 00:14:02.070 Smilow cancerhospital.org.

NOTE Confidence: 0.778172244

00:14:02.070 --> 00:14:03.880 It's estimated that over 240,000

NOTE Confidence: 0.778172244

00:14:03.880 --> 00:14:06.656 men in the US will be diagnosed

NOTE Confidence: 0.778172244

00:14:06.656 --> 00:14:08.886 with prostate cancer this year,

NOTE Confidence: 0.778172244

00:14:08.890 --> 00:14:11.564 with over 3000 new cases being identified.

NOTE Confidence: 0.778172244

00:14:11.570 --> 00:14:12.626 Here in Connecticut,

NOTE Confidence: 0.778172244

00:14:12.626 --> 00:14:14.386 one in eight American men

NOTE Confidence: 0.778172244

00:14:14.386 --> 00:14:16.110 will develop prostate cancer.

NOTE Confidence: 0.778172244

00:14:16.110 --> 00:14:18.048 In the course of his lifetime,

NOTE Confidence: 0.778172244

00:14:18.050 --> 00:14:20.102 major advances in the detection and

NOTE Confidence: 0.778172244

00:14:20.102 --> 00:14:21.839 treatment of prostate cancer have

NOTE Confidence: 0.778172244

00:14:21.839 --> 00:14:23.079 dramatically decreased the number

NOTE Confidence: 0.778172244

00:14:23.079 --> 00:14:25.330 of men who die from the disease.

NOTE Confidence: 0.778172244

00:14:25.330 --> 00:14:27.115 Screening can be performed quickly

NOTE Confidence: 0.778172244

00:14:27.115 --> 00:14:28.931 and easily in a physician's

NOTE Confidence: 0.778172244

00:14:28.931 --> 00:14:30.836 office using two simple tests.

NOTE Confidence: 0.778172244

00:14:30.840 --> 00:14:33.276 A physical exam and a blood test.

NOTE Confidence: 0.778172244

00:14:33.280 --> 00:14:35.715 Clinical trials are currently underway

NOTE Confidence: 0.778172244

00:14:35.715 --> 00:14:37.663 at federally designated Comprehensive

NOTE Confidence: 0.778172244

00:14:37.663 --> 00:14:39.803 cancer centers such as Yale Cancer

NOTE Confidence: 0.778172244

00:14:39.803 --> 00:14:41.980 Center and its Milo Cancer Hospital,

NOTE Confidence: 0.778172244

00:14:41.980 --> 00:14:43.548 where doctors are also

NOTE Confidence: 0.778172244

00:14:43.548 --> 00:14:45.116 using the Artemis machine,

NOTE Confidence: 0.778172244

00:14:45.120 --> 00:14:47.028 which enables targeted biopsies

NOTE Confidence: 0.778172244

00:14:47.028 --> 00:14:48.459 to be performed.

NOTE Confidence: 0.778172244

00:14:48.460 --> 00:14:50.732 More information is available

NOTE Confidence: 0.778172244

00:14:50.732 --> 00:14:51.724 at yalecancercenter.org.

NOTE Confidence: 0.778172244

00:14:51.724 --> 00:14:54.268 You're listening to Connecticut public radio.

NOTE Confidence: 0.835227281666667

00:14:55.440 --> 00:14:57.600 Welcome back to Yale Cancer answers.

NOTE Confidence: 0.835227281666667

00:14:57.600 --> 00:14:59.442 This is doctor Anish Chappar and

NOTE Confidence: 0.835227281666667

00:14:59.442 --> 00:15:01.240 I'm joined tonight by my guest,

NOTE Confidence: 0.835227281666667

00:15:01.240 --> 00:15:02.497 Doctor Gavitt Woodard.

NOTE Confidence: 0.835227281666667

00:15:02.497 --> 00:15:05.011 We're talking about the care of

NOTE Confidence: 0.835227281666667

00:15:05.011 --> 00:15:07.398 patients with lung cancer in honor

NOTE Confidence: 0.835227281666667

00:15:07.398 --> 00:15:09.293 of lung Cancer Awareness Month.

NOTE Confidence: 0.835227281666667

00:15:09.300 --> 00:15:10.472 So before the break,

NOTE Confidence: 0.835227281666667

00:15:10.472 --> 00:15:12.230 we were talking about a number

NOTE Confidence: 0.835227281666667

00:15:12.296 --> 00:15:14.138 of advances that have been made,

NOTE Confidence: 0.835227281666667

00:15:14.140 --> 00:15:17.090 everything from smoking cessation to

NOTE Confidence: 0.835227281666667

00:15:17.090 --> 00:15:20.040 advances in lung cancer screening.

NOTE Confidence: 0.835227281666667

00:15:20.040 --> 00:15:23.448 And we started talking a little bit about

NOTE Confidence: 0.835227281666667

00:15:23.448 --> 00:15:26.200 how patients with early lung cancer.

NOTE Confidence: 0.835227281666667

00:15:26.200 --> 00:15:28.885 Can get treated with minimally

NOTE Confidence: 0.835227281666667

00:15:28.885 --> 00:15:32.266 invasive surgery and often have really

NOTE Confidence: 0.835227281666667

00:15:32.266 --> 00:15:35.296 excellent five year survival rates.

NOTE Confidence: 0.835227281666667

00:15:35.300 --> 00:15:37.510 Now before the break, Gavin,

NOTE Confidence: 0.835227281666667

00:15:37.510 --> 00:15:39.700 you were telling us that another

NOTE Confidence: 0.835227281666667

00:15:39.700 --> 00:15:41.698 major advance has been for

NOTE Confidence: 0.835227281666667

00:15:41.698 --> 00:15:43.558 patients with advanced disease.

NOTE Confidence: 0.835227281666667

00:15:43.560 --> 00:15:46.500 So for those patients who may

NOTE Confidence: 0.835227281666667

00:15:46.500 --> 00:15:48.460 present symptomatically who may

NOTE Confidence: 0.835227281666667

00:15:48.546 --> 00:15:51.118 have distant metastatic disease,

NOTE Confidence: 0.835227281666667

00:15:51.120 --> 00:15:53.936 we have something for them too and that's

NOTE Confidence: 0.835227281666667

00:15:53.936 --> 00:15:56.510 advances in targeted and immunotherapy.

NOTE Confidence: 0.835227281666667

00:15:56.510 --> 00:15:59.057 So can you tell us a little bit more,

NOTE Confidence: 0.835227281666667

00:15:59.060 --> 00:16:00.896 maybe paint a picture for US,

NOTE Confidence: 0.835227281666667

00:16:00.900 --> 00:16:02.980 patients with advanced cancer,

NOTE Confidence: 0.835227281666667

00:16:02.980 --> 00:16:04.020 First off,

NOTE Confidence: 0.835227281666667

00:16:04.020 --> 00:16:06.120 what are the symptoms that they might

NOTE Confidence: 0.835227281666667

00:16:06.120 --> 00:16:08.085 present with that people should be aware

NOTE Confidence: 0.835227281666667

00:16:08.085 --> 00:16:10.359 of so that they can see their doctor?

NOTE Confidence: 0.886742155555555

00:16:11.110 --> 00:16:13.906 So patients with advanced cancer can

NOTE Confidence: 0.886742155555555

00:16:13.906 --> 00:16:16.766 with advanced lung cancer can present

NOTE Confidence: 0.886742155555555

00:16:16.766 --> 00:16:19.526 with a variety of different symptoms.

NOTE Confidence: 0.886742155555555

00:16:19.530 --> 00:16:22.421 We think of cough sometimes coughing up

NOTE Confidence: 0.886742155555555

00:16:22.421 --> 00:16:25.341 blood often it could be something like

NOTE Confidence: 0.886742155555555

00:16:25.341 --> 00:16:28.225 pain or back pain, chest wall pain.

NOTE Confidence: 0.886742155555555

00:16:28.225 --> 00:16:30.350 Those are things that typically

NOTE Confidence: 0.886742155555555

00:16:30.350 --> 00:16:32.739 bring people to medical attention.

NOTE Confidence: 0.881612548125

00:16:33.630 --> 00:16:37.333 And so after that presumably a chest

NOTE Confidence: 0.881612548125

00:16:37.333 --> 00:16:41.789 X-ray plus or minus CT scan is done and.

NOTE Confidence: 0.881612548125

00:16:41.790 --> 00:16:44.880 Let's say lung cancer is found.

NOTE Confidence: 0.881612548125

00:16:44.880 --> 00:16:47.166 Tell us about the most common

NOTE Confidence: 0.881612548125

00:16:47.166 --> 00:16:49.539 places where lung cancer spreads to.

NOTE Confidence: 0.881612548125

00:16:49.540 --> 00:16:51.640 You had mentioned that patients

NOTE Confidence: 0.881612548125

00:16:51.640 --> 00:16:53.740 with advanced disease often present

NOTE Confidence: 0.881612548125

00:16:53.803 --> 00:16:55.331 with distant metastatic disease

NOTE Confidence: 0.881612548125

00:16:55.331 --> 00:16:57.623 at the time that they present

NOTE Confidence: 0.881612548125

00:16:57.690 --> 00:16:59.318 initially to their doctor.

NOTE Confidence: 0.881612548125

00:16:59.320 --> 00:17:01.975 So if a lung cancer was going to spread,

NOTE Confidence: 0.881612548125

00:17:01.980 --> 00:17:03.250 where does it go? It

NOTE Confidence: 0.887383380833334

00:17:03.260 --> 00:17:05.486 can go to a variety of places

NOTE Confidence: 0.887383380833334

00:17:05.486 --> 00:17:07.780 it has a preference for.

NOTE Confidence: 0.887383380833334

00:17:07.780 --> 00:17:10.336 Sometimes we get solitary brain meds,

NOTE Confidence: 0.887383380833334

00:17:10.340 --> 00:17:11.732 the adrenal glands.

NOTE Confidence: 0.887383380833334

00:17:11.732 --> 00:17:13.588 Bones or even local

NOTE Confidence: 0.887383380833334

00:17:13.588 --> 00:17:15.540 spread within lymph nodes.

NOTE Confidence: 0.887383380833334

00:17:15.540 --> 00:17:17.843 But sometimes if those lymph nodes are

NOTE Confidence: 0.887383380833334

00:17:17.843 --> 00:17:20.580 outside of the field that we think of

NOTE Confidence: 0.887383380833334

00:17:20.580 --> 00:17:22.820 as typically being treated with surgery,

NOTE Confidence: 0.887383380833334

00:17:22.820 --> 00:17:24.535 even just spread within certain

00:17:24.535 --> 00:17:26.250 lymph nodes can be distant

00:17:26.315 --> 00:17:28.091 enough that we think of them

00:17:28.091 --> 00:17:29.750 as more advanced lung cancer.

00:17:29.980 --> 00:17:32.670 How are these patients treated? Sure.

00:17:32.680 --> 00:17:35.050 So the three main lines of

00:17:35.050 --> 00:17:37.764 systemic therapy that we have for

00:17:37.764 --> 00:17:39.872 patients are classic cytotoxic

00:17:39.872 --> 00:17:42.600 chemotherapy and that's been around.

00:17:42.600 --> 00:17:43.608 For many years.

00:17:43.608 --> 00:17:45.624 But then the newer therapies that

00:17:45.624 --> 00:17:48.130 we have which are typically better

00:17:48.130 --> 00:17:50.230 tolerated with fewer side effects

00:17:50.300 --> 00:17:53.018 are things like targeted therapy and

00:17:53.018 --> 00:17:54.830 immunotherapy like you mentioned.

00:17:54.830 --> 00:17:58.370 So targeted therapy means that

00:17:58.370 --> 00:18:00.824 the patient's tumor has a mutation

NOTE Confidence: 0.885575070952381

00:18:00.824 --> 00:18:04.544 where we have a drug that is matched

NOTE Confidence: 0.885575070952381

00:18:04.544 --> 00:18:07.039 specifically to address that mutation

NOTE Confidence: 0.885575070952381

00:18:07.039 --> 00:18:10.993 or that pathway and about 40% of lung

NOTE Confidence: 0.885575070952381

00:18:10.993 --> 00:18:13.598 cancers have a targetable mutation.

NOTE Confidence: 0.885575070952381

00:18:13.600 --> 00:18:16.420 The issue with targeted therapy is

NOTE Confidence: 0.885575070952381

00:18:16.420 --> 00:18:19.270 that it's seen as a way of delaying

NOTE Confidence: 0.885575070952381

00:18:19.270 --> 00:18:22.339 progression or maybe getting a good response.

NOTE Confidence: 0.885575070952381

00:18:22.340 --> 00:18:25.742 But eventually the vast majority of

NOTE Confidence: 0.885575070952381

00:18:25.742 --> 00:18:28.672 these patients get a mutation that

NOTE Confidence: 0.885575070952381

00:18:28.672 --> 00:18:31.360 allows them to overcome the drug.

NOTE Confidence: 0.885575070952381

00:18:31.360 --> 00:18:33.448 And so we will get a good response

NOTE Confidence: 0.885575070952381

00:18:33.448 --> 00:18:35.080 for a number of years.

NOTE Confidence: 0.885575070952381

00:18:35.080 --> 00:18:37.824 Until then they have a mutation that

NOTE Confidence: 0.885575070952381

00:18:37.824 --> 00:18:40.460 then makes the drug stop working.

NOTE Confidence: 0.885575070952381

00:18:40.460 --> 00:18:42.444 And so we have to look for other

NOTE Confidence: 0.885575070952381

00:18:42.444 --> 00:18:43.610 lines of treatment.

NOTE Confidence: 0.885575070952381

00:18:43.610 --> 00:18:44.760 To them at that point,

NOTE Confidence: 0.885575070952381

00:18:44.760 --> 00:18:47.433 but it's been a great way to prolong the

NOTE Confidence: 0.885575070952381

00:18:47.433 --> 00:18:49.781 life and stop disease progression in

NOTE Confidence: 0.885575070952381

00:18:49.781 --> 00:18:52.758 patients where there is that sort of match.

NOTE Confidence: 0.885575070952381

00:18:52.760 --> 00:18:56.054 The number one match that we have is EGFR.

NOTE Confidence: 0.885575070952381

00:18:56.060 --> 00:18:58.025 That's the most common targetable

NOTE Confidence: 0.885575070952381

00:18:58.025 --> 00:18:59.597 mutation that we have.

NOTE Confidence: 0.885575070952381

00:18:59.600 --> 00:19:01.790 And then now there's recently been

NOTE Confidence: 0.885575070952381

00:19:01.790 --> 00:19:04.002 a drug approved for patients who

NOTE Confidence: 0.885575070952381

00:19:04.002 --> 00:19:06.608 have OK rash G12C mutation and that

NOTE Confidence: 0.885575070952381

00:19:06.608 --> 00:19:09.688 accounts for about 13% of all cancers.

NOTE Confidence: 0.70993502625

00:19:10.200 --> 00:19:13.888 So 13% have a K Ras mutation or.

NOTE Confidence: 0.70993502625

00:19:13.890 --> 00:19:18.154 Is it 13% who have any targetable mutation,

NOTE Confidence: 0.850257476666667

00:19:18.210 --> 00:19:21.920 so 40% have any targetable mutation. So

NOTE Confidence: 0.918433490909091

00:19:21.930 --> 00:19:23.220 that's pretty good. So what

NOTE Confidence: 0.918433490909091

00:19:23.220 --> 00:19:25.760 do we do for the other 60%,

NOTE Confidence: 0.853666872

00:19:25.850 --> 00:19:27.850 right? Well, that's the question.

NOTE Confidence: 0.853666872

00:19:27.850 --> 00:19:31.294 And so immunotherapy has been a

NOTE Confidence: 0.853666872

00:19:31.294 --> 00:19:34.190 great breakthrough in this area.

NOTE Confidence: 0.853666872

00:19:34.190 --> 00:19:38.134 So basically tumors have a way of avoiding

NOTE Confidence: 0.853666872

00:19:38.134 --> 00:19:41.558 a patient's own immune system and often

NOTE Confidence: 0.853666872

00:19:41.558 --> 00:19:44.089 that's done through expression of PDL.

NOTE Confidence: 0.853666872

00:19:44.090 --> 00:19:47.090 One which kind of cloaks the tumor and

NOTE Confidence: 0.853666872

00:19:47.090 --> 00:19:49.960 allows it to hide from immune cells,

NOTE Confidence: 0.853666872

00:19:49.960 --> 00:19:52.786 new lines of immunotherapy work by

NOTE Confidence: 0.853666872

00:19:52.786 --> 00:19:55.229 uncloaking the tumors and allowing

NOTE Confidence: 0.853666872

00:19:55.229 --> 00:19:57.624 the patient's own immune system

NOTE Confidence: 0.853666872

00:19:57.624 --> 00:20:00.090 to see these cancers there,

NOTE Confidence: 0.853666872

00:20:00.090 --> 00:20:01.740 which they recognize as oh,

NOTE Confidence: 0.853666872

00:20:01.740 --> 00:20:04.716 this is not a normal cell and attack.

NOTE Confidence: 0.853666872

00:20:04.720 --> 00:20:06.916 And that immunotherapy is where we

NOTE Confidence: 0.853666872

00:20:06.916 --> 00:20:09.975 have really seen a lot of these kind

NOTE Confidence: 0.853666872

00:20:09.975 --> 00:20:12.255 of miracle cancer cures where someone

NOTE Confidence: 0.853666872

00:20:12.328 --> 00:20:14.608 with widespread advanced disease.

NOTE Confidence: 0.853666872

00:20:14.610 --> 00:20:17.165 Responds to the drug and you know,

NOTE Confidence: 0.853666872

00:20:17.170 --> 00:20:19.786 the disease melts away and there are some

NOTE Confidence: 0.853666872

00:20:19.786 --> 00:20:21.832 patients who are living now for going

NOTE Confidence: 0.853666872

00:20:21.832 --> 00:20:24.440 on 10 years on some of these treatments.

NOTE Confidence: 0.86380106125

00:20:25.660 --> 00:20:28.180 And so tell us more about these treatments.

NOTE Confidence: 0.86380106125

00:20:28.180 --> 00:20:31.028 I mean, do you have to take this

NOTE Confidence: 0.86380106125

00:20:31.028 --> 00:20:33.778 drug kind of for the rest of

NOTE Confidence: 0.86380106125

00:20:33.778 --> 00:20:36.295 your life until you develop a

NOTE Confidence: 0.86380106125

00:20:36.295 --> 00:20:38.695 mutation where it stops working?

NOTE Confidence: 0.86380106125

00:20:38.700 --> 00:20:40.836 What are the side effects of these drugs?

NOTE Confidence: 0.86380106125

00:20:40.840 --> 00:20:43.136 Does this mean that you're in the hospital

NOTE Confidence: 0.86380106125

00:20:43.136 --> 00:20:44.959 getting an IV infusion every day?

NOTE Confidence: 0.86380106125

00:20:44.960 --> 00:20:47.858 Are these oral therapies that you take?

NOTE Confidence: 0.86380106125

00:20:47.860 --> 00:20:49.840 Do you lose your hair?

NOTE Confidence: 0.86380106125

00:20:49.840 --> 00:20:52.180 Tell us more. Great

NOTE Confidence: 0.78404621

00:20:52.190 --> 00:20:56.565 question. These tend to be oral therapies.

NOTE Confidence: 0.78404621

00:20:56.570 --> 00:20:59.090 They can be taken for shorter or

NOTE Confidence: 0.78404621

00:20:59.090 --> 00:21:01.513 longer periods of time and that has

NOTE Confidence: 0.78404621

00:21:01.513 --> 00:21:03.630 been something that is actively

NOTE Confidence: 0.78404621

00:21:03.630 --> 00:21:06.330 being studied is how much treatment

NOTE Confidence: 0.78404621

00:21:06.409 --> 00:21:08.829 do you really need specifically

NOTE Confidence: 0.78404621

00:21:08.829 --> 00:21:10.765 for the immunotherapy drugs,

NOTE Confidence: 0.78404621

00:21:10.770 --> 00:21:12.856 there is data that in patients who

NOTE Confidence: 0.78404621

00:21:12.856 --> 00:21:15.307 even just get a short amount of these,

NOTE Confidence: 0.78404621

00:21:15.310 --> 00:21:17.518 it's enough to train the immune

NOTE Confidence: 0.78404621

00:21:17.518 --> 00:21:20.217 system to go after tumor even when

NOTE Confidence: 0.78404621

00:21:20.217 --> 00:21:22.898 the patient is no longer on therapy.

00:21:22.900 --> 00:21:25.414 There have been two major immunotherapy

00:21:25.414 --> 00:21:28.154 trials that have come out in the

00:21:28.154 --> 00:21:30.464 last year that relate to our surgical

00:21:30.533 --> 00:21:31.839 patient population.

00:21:31.840 --> 00:21:34.680 This is one of them's empower O1O

00:21:34.680 --> 00:21:37.340 and the other one is Checkmate 816.

00:21:37.340 --> 00:21:39.732 And what they boil down to are in

00:21:39.732 --> 00:21:41.499 patients who can have surgery.

00:21:41.500 --> 00:21:44.698 When should we be giving immunotherapy

00:21:44.700 --> 00:21:47.316 both at one trial and power gave it

00:21:47.316 --> 00:21:49.617 after surgery and the other trial

00:21:49.617 --> 00:21:51.582 checkmate gave it before surgery,

00:21:51.590 --> 00:21:53.300 but they both had really dramatic.

00:21:53.300 --> 00:21:56.084 Results in terms of extending disease

00:21:56.084 --> 00:21:58.710 free survival for these patients.

00:21:58.710 --> 00:22:00.958 And so now we have all of these

NOTE Confidence: 0.78404621

00:22:00.958 --> 00:22:03.018 new treatment options that weren't

NOTE Confidence: 0.78404621

00:22:03.018 --> 00:22:03.970 available before,

NOTE Confidence: 0.78404621

00:22:03.970 --> 00:22:06.242 but now are changing the way that we

NOTE Confidence: 0.78404621

00:22:06.242 --> 00:22:08.228 think about lung cancer treatments.

NOTE Confidence: 0.78404621

00:22:08.230 --> 00:22:11.222 So it remains to be seen you know

NOTE Confidence: 0.78404621

00:22:11.222 --> 00:22:13.625 whether patients should be getting

NOTE Confidence: 0.78404621

00:22:13.625 --> 00:22:16.245 immunotherapy before surgery or after,

NOTE Confidence: 0.78404621

00:22:16.250 --> 00:22:18.068 but in patients who have stage

NOTE Confidence: 0.78404621

00:22:18.068 --> 00:22:19.830 two and stage three disease,

NOTE Confidence: 0.78404621

00:22:19.830 --> 00:22:21.860 this is definitely now part of the

NOTE Confidence: 0.78404621

00:22:21.860 --> 00:22:23.979 treatment regimen for some of these patients.

NOTE Confidence: 0.917957127142857

00:22:24.440 --> 00:22:27.317 And so for the patients who present

NOTE Confidence: 0.917957127142857

00:22:27.317 --> 00:22:29.018 with distant metastatic disease

NOTE Confidence: 0.917957127142857

00:22:29.018 --> 00:22:31.400 where we're using more and more

NOTE Confidence: 0.917957127142857

00:22:31.400 --> 00:22:33.360 of these targeted therapies,

36

NOTE Confidence: 0.917957127142857

00:22:33.360 --> 00:22:35.403 immunotherapy and seeing

NOTE Confidence: 0.917957127142857

00:22:35.403 --> 00:22:37.446 really good response,

NOTE Confidence: 0.917957127142857

00:22:37.450 --> 00:22:41.220 is there a role then for surgery if

NOTE Confidence: 0.917957127142857

00:22:41.220 --> 00:22:43.020 you've gotten a really good response?

NOTE Confidence: 0.917957127142857

00:22:43.020 --> 00:22:45.810 Normally we always used to think

NOTE Confidence: 0.917957127142857

00:22:45.810 --> 00:22:48.759 that surgery was reserved only for

NOTE Confidence: 0.917957127142857

00:22:48.759 --> 00:22:51.279 patients who had localized disease,

NOTE Confidence: 0.917957127142857

00:22:51.280 --> 00:22:54.664 but is it beginning to have a role after?

NOTE Confidence: 0.917957127142857

00:22:54.670 --> 00:22:57.840 Neoadjuvant therapy for people who

NOTE Confidence: 0.917957127142857

00:22:57.840 --> 00:23:00.376 have distant metastatic disease.

NOTE Confidence: 0.8972588036

00:23:01.800 --> 00:23:04.024 You should come to some of our tumor

NOTE Confidence: 0.8972588036

00:23:04.024 --> 00:23:05.485 board discussions because these are

NOTE Confidence: 0.8972588036

00:23:05.485 --> 00:23:07.466 exactly some of the scenarios that we

NOTE Confidence: 0.8972588036

00:23:07.523 --> 00:23:09.518 talk about all the time. Right now.

NOTE Confidence: 0.8972588036

00:23:09.518 --> 00:23:12.171 We are not considering that some sort

NOTE Confidence: 0.8972588036

00:23:12.171 --> 00:23:15.238 of great response to immunotherapy or

NOTE Confidence: 0.8972588036

00:23:15.238 --> 00:23:17.843 targeted therapy would make someone

NOTE Confidence: 0.8972588036

00:23:17.921 --> 00:23:20.486 who wasn't a surgical candidate

NOTE Confidence: 0.8972588036

00:23:20.486 --> 00:23:23.051 suddenly become a surgical candidate.

NOTE Confidence: 0.8972588036

00:23:23.060 --> 00:23:25.058 But there are certainly exceptions to

NOTE Confidence: 0.8972588036

00:23:25.058 --> 00:23:27.545 this when someone has maybe gone many

NOTE Confidence: 0.8972588036

00:23:27.545 --> 00:23:29.375 years without disease progression in

NOTE Confidence: 0.8972588036

00:23:29.375 --> 00:23:31.637 other places and there's a single site.

NOTE Confidence: 0.8972588036

00:23:31.640 --> 00:23:33.806 A disease that starts to grow,

NOTE Confidence: 0.8972588036

00:23:33.810 --> 00:23:35.286 we will go in and resect.

NOTE Confidence: 0.8972588036

00:23:35.290 --> 00:23:36.870 These kind of oligo recurrences

NOTE Confidence: 0.8972588036

00:23:36.870 --> 00:23:38.450 is what we call them.

NOTE Confidence: 0.8972588036

00:23:38.450 --> 00:23:40.490 But so a single site or one or

NOTE Confidence: 0.8972588036

00:23:40.490 --> 00:23:42.423 two sites that may be enlarging

NOTE Confidence: 0.8972588036

00:23:42.423 --> 00:23:44.451 whenever all the other sites of

NOTE Confidence: 0.8972588036

00:23:44.523 --> 00:23:46.755 disease seem to be well controlled.

NOTE Confidence: 0.933395325

00:23:47.790 --> 00:23:51.031 And then you know as we think

NOTE Confidence: 0.933395325

00:23:51.031 --> 00:23:53.809 about these patients living longer,

NOTE Confidence: 0.933395325

00:23:53.810 --> 00:23:55.672 talk to us a little bit more

NOTE Confidence: 0.933395325

00:23:55.672 --> 00:23:56.970 about their quality of life.

NOTE Confidence: 0.933395325

00:23:56.970 --> 00:24:00.309 I mean clearly they would have gone

NOTE Confidence: 0.933395325

00:24:00.309 --> 00:24:02.791 through perhaps multiple rounds of

NOTE Confidence: 0.933395325

00:24:02.791 --> 00:24:05.216 systemic therapy and perhaps radiation

NOTE Confidence: 0.933395325

00:24:05.216 --> 00:24:07.847 if there was a metastases that

NOTE Confidence: 0.933395325

00:24:07.847 --> 00:24:10.879 were painful or so on and so forth.

NOTE Confidence: 0.933395325

00:24:10.879 --> 00:24:13.224 But ultimately do they have

NOTE Confidence: 0.933395325

00:24:13.224 --> 00:24:15.650 a good quality of life,

NOTE Confidence: 0.933395325

00:24:15.650 --> 00:24:17.819 what what are we doing in terms of improving?

NOTE Confidence: 0.933395325

00:24:17.820 --> 00:24:19.610 Quality of life long term,

NOTE Confidence: 0.933395325

00:24:19.610 --> 00:24:21.590 because it sounds like these patients,

NOTE Confidence: 0.933395325

00:24:21.590 --> 00:24:23.750 nowadays more than ever before,

NOTE Confidence: 0.933395325

00:24:23.750 --> 00:24:25.019 are living longer.

NOTE Confidence: 0.933395325

00:24:25.019 --> 00:24:27.134 But are they living better?

NOTE Confidence: 0.933395325

00:24:27.140 --> 00:24:27.390 Yeah,

NOTE Confidence: 0.892182396666667

00:24:27.400 --> 00:24:28.688 that's a good question.

NOTE Confidence: 0.892182396666667

00:24:28.688 --> 00:24:31.236 And it's nice to finally be at a

NOTE Confidence: 0.892182396666667

00:24:31.236 --> 00:24:33.140 place in lung cancer when we can

NOTE Confidence: 0.892182396666667

00:24:33.140 --> 00:24:35.022 start to think about survivorship

NOTE Confidence: 0.892182396666667

00:24:35.022 --> 00:24:37.338 and what that means for patients,

NOTE Confidence: 0.892182396666667

00:24:37.340 --> 00:24:38.988 because in the past,

NOTE Confidence: 0.892182396666667

00:24:38.988 --> 00:24:41.460 this wasn't a major problem that

NOTE Confidence: 0.892182396666667

00:24:41.546 --> 00:24:43.616 people were focused on knowing.

NOTE Confidence: 0.892182396666667

00:24:43.616 --> 00:24:46.108 You know, a lot of these newer

NOTE Confidence: 0.892182396666667

00:24:46.108 --> 00:24:47.560 therapies are expensive.

NOTE Confidence: 0.892182396666667

00:24:47.560 --> 00:24:49.618 And so the financial toxicity of

NOTE Confidence: 0.892182396666667

00:24:49.618 --> 00:24:52.463 cancer is 1 new area of research that

NOTE Confidence: 0.892182396666667

00:24:52.463 --> 00:24:55.280 is coming up and people are studying.

40

NOTE Confidence: 0.892182396666667

00:24:55.280 --> 00:24:57.260 Certainly we want to ensure that.

NOTE Confidence: 0.892182396666667

00:24:57.260 --> 00:24:59.774 Patients are living with the best

NOTE Confidence: 0.892182396666667

00:24:59.774 --> 00:25:01.906 quality of life possible though typically

NOTE Confidence: 0.892182396666667

00:25:01.906 --> 00:25:03.502 you know some of these newer drugs,

NOTE Confidence: 0.892182396666667

00:25:03.510 --> 00:25:05.570 immunotherapy and targeted therapy,

NOTE Confidence: 0.892182396666667

00:25:05.570 --> 00:25:08.145 the side effect profile is

NOTE Confidence: 0.892182396666667

00:25:08.145 --> 00:25:10.310 you know fairly minimal,

NOTE Confidence: 0.892182396666667

00:25:10.310 --> 00:25:13.734 sometimes some pulmonary toxicity,

NOTE Confidence: 0.892182396666667

00:25:13.734 --> 00:25:14.590 diarrhea,

NOTE Confidence: 0.892182396666667

00:25:14.590 --> 00:25:17.350 those tend to be frequent common

NOTE Confidence: 0.892182396666667

00:25:17.350 --> 00:25:20.030 complications of these other therapies.

NOTE Confidence: 0.892182396666667

00:25:20.030 --> 00:25:22.232 But patients in general are living

NOTE Confidence: 0.892182396666667

00:25:22.232 --> 00:25:24.263 pretty well and it's certainly

NOTE Confidence: 0.892182396666667

00:25:24.263 --> 00:25:26.239 better than the alternative

NOTE Confidence: 0.741916188

00:25:26.970 --> 00:25:28.950 and what. About people's family,

NOTE Confidence: 0.741916188

00:25:28.950 --> 00:25:30.450 I'm sure that you know,

NOTE Confidence: 0.741916188

00:25:30.450 --> 00:25:32.514 especially as we see more and

NOTE Confidence: 0.741916188

00:25:32.514 --> 00:25:34.950 more lung cancer in never smokers,

NOTE Confidence: 0.741916188

00:25:34.950 --> 00:25:36.630 people are starting to ask

NOTE Confidence: 0.741916188

00:25:36.630 --> 00:25:38.023 themselves, well, why me?

NOTE Confidence: 0.741916188

00:25:38.023 --> 00:25:40.129 Why did I get lung cancer?

NOTE Confidence: 0.741916188

00:25:40.130 --> 00:25:41.970 Is there a genetic link?

NOTE Confidence: 0.741916188

00:25:41.970 --> 00:25:44.917 And what is the implication of having

NOTE Confidence: 0.741916188

00:25:44.917 --> 00:25:47.809 lung cancer on future generations?

NOTE Confidence: 0.741916188

00:25:47.810 --> 00:25:50.370 Does it increase the risk for your children,

NOTE Confidence: 0.741916188

00:25:50.370 --> 00:25:52.476 particularly if you were never smoker?

NOTE Confidence: 0.927877154

00:25:53.560 --> 00:25:56.052 Yeah, I think that this is something

NOTE Confidence: 0.927877154

00:25:56.052 --> 00:25:58.839 we don't have an answer to right now.

NOTE Confidence: 0.927877154

00:25:58.840 --> 00:26:01.784 So the the quick answer is that right

NOTE Confidence: 0.927877154

00:26:01.784 --> 00:26:04.715 now there are no genes like a bracca,

NOTE Confidence: 0.927877154

00:26:04.720 --> 00:26:06.478 you know breast cancer equivalent for

42

NOTE Confidence: 0.927877154

00:26:06.478 --> 00:26:08.500 lung cancer that have been identified.

NOTE Confidence: 0.927877154

00:26:08.500 --> 00:26:11.758 However, there is probably some familial

NOTE Confidence: 0.927877154

00:26:11.758 --> 00:26:14.900 component especially in patients who are

NOTE Confidence: 0.927877154

00:26:14.900 --> 00:26:17.576 never smokers to developing lung cancer.

NOTE Confidence: 0.927877154

00:26:17.580 --> 00:26:19.830 We see this in particular

NOTE Confidence: 0.927877154

00:26:19.830 --> 00:26:21.124 among Asian patients,

NOTE Confidence: 0.927877154

00:26:21.124 --> 00:26:24.078 so within it and never smoking Asian.

NOTE Confidence: 0.927877154

00:26:24.080 --> 00:26:25.006 Patient population,

NOTE Confidence: 0.927877154

00:26:25.006 --> 00:26:27.784 they have a very high predominance

NOTE Confidence: 0.927877154

00:26:27.784 --> 00:26:30.546 of EGFR mutations and there are

NOTE Confidence: 0.927877154

00:26:30.546 --> 00:26:32.746 some families where everyone in

NOTE Confidence: 0.927877154

00:26:32.746 --> 00:26:35.060 the family is developing these

NOTE Confidence: 0.927877154

00:26:35.060 --> 00:26:37.748 kind of slow growing EGFR mutated

NOTE Confidence: 0.927877154

00:26:37.750 --> 00:26:39.960 lung adenocarcinomas and that is

NOTE Confidence: 0.927877154

00:26:39.960 --> 00:26:42.170 something that people are studying.

NOTE Confidence: 0.927877154

00:26:42.170 --> 00:26:44.205 But the exact genetic link

NOTE Confidence: 0.927877154

00:26:44.205 --> 00:26:46.240 has not yet been identified.

NOTE Confidence: 0.868584627826087

00:26:46.550 --> 00:26:48.200 Yeah, that certainly sounds like

NOTE Confidence: 0.868584627826087

00:26:48.200 --> 00:26:50.728 it's going to be a very interesting

NOTE Confidence: 0.868584627826087

00:26:50.728 --> 00:26:52.763 area of investigation and Speaking

NOTE Confidence: 0.868584627826087

00:26:52.763 --> 00:26:55.090 of which in our last minute.

NOTE Confidence: 0.868584627826087

00:26:55.090 --> 00:26:57.736 Or So what are the most exciting

NOTE Confidence: 0.868584627826087

00:26:57.736 --> 00:26:59.922 clinical trials on the horizon

NOTE Confidence: 0.868584627826087

00:26:59.922 --> 00:27:02.098 that you're watching? So for me as

NOTE Confidence: 0.861584180588235

00:27:02.110 --> 00:27:03.892 a surgeon, the things that impact

NOTE Confidence: 0.861584180588235

00:27:03.892 --> 00:27:05.869 us the most are these trials

NOTE Confidence: 0.861584180588235

00:27:05.869 --> 00:27:07.684 of when we're giving therapy,

NOTE Confidence: 0.861584180588235

00:27:07.690 --> 00:27:10.426 whether we're giving it before surgery

NOTE Confidence: 0.861584180588235

00:27:10.426 --> 00:27:13.996 or after surgery and what is the best

NOTE Confidence: 0.861584180588235

00:27:13.996 --> 00:27:16.498 approach for patients that can result

NOTE Confidence: 0.861584180588235

00:27:16.580 --> 00:27:18.681 in the most prolonged, you know,

NOTE Confidence: 0.861584180588235

00:27:18.681 --> 00:27:21.183 disease free survival and overall survival.

NOTE Confidence: 0.861584180588235

00:27:21.190 --> 00:27:23.129 And so though there are currently not

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00:27:23.129 --> 00:27:25.409 studies that are putting these head-to-head,

NOTE Confidence: 0.861584180588235

00:27:25.410 --> 00:27:27.138 there's a study coming out soon,

NOTE Confidence: 0.861584180588235

00:27:27.140 --> 00:27:29.840 then Adeem 2 trial looking at

NOTE Confidence: 0.861584180588235

00:27:29.840 --> 00:27:31.190 giving immunotherapy both.

NOTE Confidence: 0.861584180588235

00:27:31.190 --> 00:27:32.635 Before and after surgery and

NOTE Confidence: 0.861584180588235

00:27:32.635 --> 00:27:34.521 those will be helpful in guiding

NOTE Confidence: 0.861584180588235

00:27:34.521 --> 00:27:36.049 our treatments for patients

NOTE Confidence: 0.919056112

00:27:36.920 --> 00:27:40.140 and do we anticipate more

NOTE Confidence: 0.919056112

00:27:40.140 --> 00:27:42.369 targeted therapies for

NOTE Confidence: 0.919056112

00:27:42.369 --> 00:27:46.084 mutations once cancers kind of.

NOTE Confidence: 0.919056112

00:27:46.090 --> 00:27:47.902 Overcome the therapies that

NOTE Confidence: 0.919056112

00:27:47.902 --> 00:27:49.714 we've already given them,

NOTE Confidence: 0.919056112

00:27:49.720 --> 00:27:51.820 what progress is being made there?

NOTE Confidence: 0.863675755

00:27:52.090 --> 00:27:55.090 Yes, there's a lot of research into this.

NOTE Confidence: 0.863675755

00:27:55.090 --> 00:27:57.426 You know, it impacts a lot of patients.

NOTE Confidence: 0.863675755

00:27:57.430 --> 00:27:59.305 People are very excited for

NOTE Confidence: 0.863675755

00:27:59.305 --> 00:28:00.430 these targeted therapies.

NOTE Confidence: 0.863675755

00:28:00.430 --> 00:28:02.386 And so there are, you know,

NOTE Confidence: 0.863675755

00:28:02.390 --> 00:28:04.910 dozens of drugs currently in development.

NOTE Confidence: 0.863675755

00:28:04.910 --> 00:28:06.668 The other thing that we're probably

NOTE Confidence: 0.863675755

00:28:06.668 --> 00:28:09.591 going to see is the movement of these

NOTE Confidence: 0.863675755

00:28:09.591 --> 00:28:11.283 targeted therapies and immunotherapy,

NOTE Confidence: 0.863675755

00:28:11.290 --> 00:28:13.257 which have first been shown to be

NOTE Confidence: 0.863675755

00:28:13.257 --> 00:28:15.268 very effective in stage four patients.

NOTE Confidence: 0.863675755

00:28:15.270 --> 00:28:16.594 They're now being studied.

NOTE Confidence: 0.863675755

00:28:16.594 --> 00:28:18.580 In stage two and stage three

NOTE Confidence: 0.863675755

00:28:18.646 --> 00:28:20.668 patients and eventually I think we

NOTE Confidence: 0.863675755

00:28:20.668 --> 00:28:22.473 can expect that these therapies

NOTE Confidence: 0.863675755

00:28:22.473 --> 00:28:24.428 will eventually trickle into the

00:28:24.428 --> 00:28:26.378 even earlier stage one patient

00:28:26.378 --> 00:28:28.268 population where there probably is

00:28:28.268 --> 00:28:31.098 a benefit to some of those patients

00:28:31.098 --> 00:28:33.183 to receiving an additional therapy.

00:28:33.870 --> 00:28:35.590 Doctor Gavitt Woodard is an

00:28:35.590 --> 00:28:36.966 assistant professor of surgery

00:28:36.966 --> 00:28:38.950 at the Yale School of Medicine.

00:28:38.950 --> 00:28:40.970 If you have questions,

00:28:40.970 --> 00:28:42.945 the address is canceranswers@yale.edu,

00:28:42.945 --> 00:28:45.675 and past editions of the program

00:28:45.675 --> 00:28:48.045 are available in audio and written

00:28:48.045 --> 00:28:48.970 form at yalecancercenter.org.

00:28:48.970 --> 00:28:51.370 We hope you'll join us next week to

00:28:51.370 --> 00:28:53.196 learn more about the fight against

00:28:53.196 --> 00:28:55.010 cancer here on Connecticut Public Radio.

00:28:55.010 --> 00:28:57.572 Funding for Yale Cancer Answers is

NOTE Confidence: 0.895997422

00:28:57.572 --> 00:29:00.000 provided by Smilow Cancer Hospital.