

WEBVTT

NOTE duration:"01:23:28.3630000"

NOTE language:en-us

NOTE Confidence: 0.8524411

00:00:00.000 --> 00:00:01.895 You know, welcome to the

NOTE Confidence: 0.8524411

00:00:01.895 --> 00:00:03.790 folks who have signed in,

NOTE Confidence: 0.8524411

00:00:03.790 --> 00:00:06.373 and I think we have other individuals

NOTE Confidence: 0.8524411

00:00:06.373 --> 00:00:08.938 who are still logging on its 703.

NOTE Confidence: 0.8524411

00:00:08.940 --> 00:00:11.022 So why don't we get started

NOTE Confidence: 0.8524411

00:00:11.022 --> 00:00:12.990 and let me introduce myself?

NOTE Confidence: 0.8524411

00:00:12.990 --> 00:00:15.198 I'm doctor Charles Fuchs, Charlie Fuchs.

NOTE Confidence: 0.8524411

00:00:15.200 --> 00:00:17.769 I'm the Cancer Center director at Yale,

NOTE Confidence: 0.8524411

00:00:17.770 --> 00:00:20.955 as well as the physician in chief.

NOTE Confidence: 0.8524411

00:00:20.960 --> 00:00:22.910 At smaller cancer hospital and really

NOTE Confidence: 0.8524411

00:00:22.910 --> 00:00:24.879 appreciate all of you joining us,

NOTE Confidence: 0.8524411

00:00:24.880 --> 00:00:26.812 I think actually been in document

NOTE Confidence: 0.8524411

00:00:26.812 --> 00:00:29.333 given as you may have over heard

NOTE Confidence: 0.8524411

00:00:29.333 --> 00:00:31.655 our conversation just how much we

NOTE Confidence: 0.8524411

00:00:31.655 --> 00:00:33.656 appreciate the fact that on a you

NOTE Confidence: 0.8524411

00:00:33.656 --> 00:00:35.671 know after a long day and evening

NOTE Confidence: 0.8524411

00:00:35.671 --> 00:00:37.960 people are are willing to do it.

NOTE Confidence: 0.8524411

00:00:37.960 --> 00:00:39.928 'cause this is our first smile.

NOTE Confidence: 0.8524411

00:00:39.930 --> 00:00:42.219 Oh shares forum and thank you Renee.

NOTE Confidence: 0.8524411

00:00:42.220 --> 00:00:44.404 Go dead as well for pulling us

NOTE Confidence: 0.8524411

00:00:44.404 --> 00:00:46.863 together and I think it's a really

NOTE Confidence: 0.8524411

00:00:46.863 --> 00:00:49.029 a terrific opportunity for us to

NOTE Confidence: 0.8524411

00:00:49.104 --> 00:00:51.186 share what we're trying to do.

NOTE Confidence: 0.8524411

00:00:51.190 --> 00:00:53.410 Particularly in are really aggressive

NOTE Confidence: 0.8524411

00:00:53.410 --> 00:00:55.630 efforts to combat prostate cancer

NOTE Confidence: 0.8524411

00:00:55.695 --> 00:00:57.529 and to make it clear what we

NOTE Confidence: 0.8524411

00:00:57.529 --> 00:00:59.448 want to avail to the community.

NOTE Confidence: 0.8524411

00:00:59.450 --> 00:01:02.012 And I I just wanted to offer

NOTE Confidence: 0.8524411

00:01:02.012 --> 00:01:04.541 a few remarks before I turn it

NOTE Confidence: 0.8524411

00:01:04.541 --> 00:01:06.990 over to my colleagues and let me  
NOTE Confidence: 0.8524411

00:01:06.990 --> 00:01:10.788 if I may share my screen.  
NOTE Confidence: 0.8524411

00:01:10.790 --> 00:01:12.785 Can you guys see it by  
NOTE Confidence: 0.8524411

00:01:12.785 --> 00:01:14.117 Brewster Michael is this?  
NOTE Confidence: 0.8524411

00:01:14.120 --> 00:01:15.784 Is it show up excellent?  
NOTE Confidence: 0.8524411

00:01:15.784 --> 00:01:16.780 Yes oh great.  
NOTE Confidence: 0.8524411

00:01:16.780 --> 00:01:19.108 So you know I think it's a really  
NOTE Confidence: 0.8524411

00:01:19.108 --> 00:01:21.433 exciting time in cancer care and frankly  
NOTE Confidence: 0.8524411

00:01:21.433 --> 00:01:23.530 I think an opportunity that we're  
NOTE Confidence: 0.8524411

00:01:23.530 --> 00:01:26.043 really looking to make big impact in  
NOTE Confidence: 0.8524411

00:01:26.043 --> 00:01:28.096 lower Fairfield County and Westchester.  
NOTE Confidence: 0.8524411

00:01:28.096 --> 00:01:30.306 And in the Greenwich region.  
NOTE Confidence: 0.8524411

00:01:30.310 --> 00:01:32.734 Let me share a few little  
NOTE Confidence: 0.8524411

00:01:32.734 --> 00:01:34.770 background about who we are.  
NOTE Confidence: 0.8524411

00:01:34.770 --> 00:01:37.255 You know at the Yale Cancer Center  
NOTE Confidence: 0.8524411

00:01:37.255 --> 00:01:40.254 has really is a very long and storied

NOTE Confidence: 0.8524411

00:01:40.254 --> 00:01:42.704 history with the legacy of phenomenal

NOTE Confidence: 0.8524411

00:01:42.704 --> 00:01:45.299 science and research in cancer.

NOTE Confidence: 0.8524411

00:01:45.300 --> 00:01:47.953 As part of the war on Cancer

NOTE Confidence: 0.8524411

00:01:47.953 --> 00:01:50.160 Act in the early 70s,

NOTE Confidence: 0.8524411

00:01:50.160 --> 00:01:52.530 we were one of the original

NOTE Confidence: 0.8524411

00:01:52.530 --> 00:01:54.110 national cancerians to designated

NOTE Confidence: 0.8524411

00:01:54.177 --> 00:01:56.217 comprehensive Cancer Center as a

NOTE Confidence: 0.8524411

00:01:56.217 --> 00:01:58.766 designation that is only about 40

NOTE Confidence: 0.8524411

00:01:58.766 --> 00:02:00.976 institutions across the United States.

NOTE Confidence: 0.8524411

00:02:00.980 --> 00:02:04.165 And we have continued to carry that

NOTE Confidence: 0.8524411

00:02:04.165 --> 00:02:06.801 important designation and the only one

NOTE Confidence: 0.8524411

00:02:06.801 --> 00:02:09.189 in Connecticut since the early 70s.

NOTE Confidence: 0.8524411

00:02:09.190 --> 00:02:09.599 Really,

NOTE Confidence: 0.8524411

00:02:09.599 --> 00:02:11.644 a transformative event was the

NOTE Confidence: 0.8524411

00:02:11.644 --> 00:02:13.940 opening of Smilow Cancer Hospital,

NOTE Confidence: 0.8524411

00:02:13.940 --> 00:02:14.732 New Haven,  
NOTE Confidence: 0.8524411

00:02:14.732 --> 00:02:17.504 a 15 story dedicated hospital to cancer  
NOTE Confidence: 0.8524411

00:02:17.504 --> 00:02:19.989 care and innovation and research,  
NOTE Confidence: 0.8524411

00:02:19.990 --> 00:02:22.895 which is really been a real Center  
NOTE Confidence: 0.8524411

00:02:22.895 --> 00:02:24.740 for what we're doing.  
NOTE Confidence: 0.8524411

00:02:24.740 --> 00:02:25.928 But as well,  
NOTE Confidence: 0.8524411

00:02:25.928 --> 00:02:28.700 I think another important element in terms  
NOTE Confidence: 0.8524411

00:02:28.773 --> 00:02:31.869 of growing our clinical research operation.  
NOTE Confidence: 0.8524411

00:02:31.870 --> 00:02:33.991 Was the opening of a state of  
NOTE Confidence: 0.8524411

00:02:33.991 --> 00:02:35.991 the Art Center for experimental  
NOTE Confidence: 0.8524411

00:02:35.991 --> 00:02:38.546 therapeutics for patients who have,  
NOTE Confidence: 0.8524411

00:02:38.550 --> 00:02:39.726 to some extent,  
NOTE Confidence: 0.8524411

00:02:39.726 --> 00:02:41.294 tried the available therapies?  
NOTE Confidence: 0.8524411

00:02:41.300 --> 00:02:43.658 A center here in New Haven,  
NOTE Confidence: 0.8524411

00:02:43.660 --> 00:02:45.725 where individuals can get access  
NOTE Confidence: 0.8524411

00:02:45.725 --> 00:02:47.790 to exciting new drugs today

NOTE Confidence: 0.8524411

00:02:47.863 --> 00:02:50.299 are Cancer Center is over 450

NOTE Confidence: 0.8524411

00:02:50.299 --> 00:02:52.320 physicians and scientists and I'll

NOTE Confidence: 0.8524411

00:02:52.320 --> 00:02:54.264 talk about this in a moment.

NOTE Confidence: 0.8524411

00:02:54.270 --> 00:02:57.310 We have 15 care centers as we described

NOTE Confidence: 0.8524411

00:02:57.310 --> 00:02:58.990 across Connecticut Rhode Island,

NOTE Confidence: 0.8524411

00:02:58.990 --> 00:03:02.098 who where it's our faculty or staff.

NOTE Confidence: 0.8524411

00:03:02.100 --> 00:03:04.560 And where we are really committed

NOTE Confidence: 0.8524411

00:03:04.560 --> 00:03:06.200 to embedding destination expert

NOTE Confidence: 0.8524411

00:03:06.268 --> 00:03:08.098 state of the art care within,

NOTE Confidence: 0.8524411

00:03:08.100 --> 00:03:10.350 you know communities across the region.

NOTE Confidence: 0.8524411

00:03:10.350 --> 00:03:11.990 I should also point out

NOTE Confidence: 0.8524411

00:03:11.990 --> 00:03:13.630 that we renewed our official

NOTE Confidence: 0.88865113

00:03:13.693 --> 00:03:15.393 designation with the National

NOTE Confidence: 0.88865113

00:03:15.393 --> 00:03:17.093 Cancer and student 2018.

NOTE Confidence: 0.88865113

00:03:17.100 --> 00:03:19.648 And because of the great progress we've

NOTE Confidence: 0.88865113

00:03:19.648 --> 00:03:21.979 made in clinical care and research,  
NOTE Confidence: 0.88865113

00:03:21.980 --> 00:03:24.548 usually you get a 3% cost of  
NOTE Confidence: 0.88865113

00:03:24.548 --> 00:03:26.293 living increase in our granted  
NOTE Confidence: 0.88865113

00:03:26.293 --> 00:03:28.728 because of the progress we've made,  
NOTE Confidence: 0.88865113

00:03:28.730 --> 00:03:30.600 we got an unprecedented record.  
NOTE Confidence: 0.88865113

00:03:30.600 --> 00:03:33.408 73% increase in funding.  
NOTE Confidence: 0.88865113

00:03:33.410 --> 00:03:34.722 This is our vision,  
NOTE Confidence: 0.88865113

00:03:34.722 --> 00:03:36.362 a world leader in cancer  
NOTE Confidence: 0.88865113

00:03:36.362 --> 00:03:38.308 care research and education,  
NOTE Confidence: 0.88865113

00:03:38.310 --> 00:03:40.428 Yale Cancer Center and Smilow Cancer  
NOTE Confidence: 0.88865113

00:03:40.428 --> 00:03:41.840 Hospital delivers the transformative  
NOTE Confidence: 0.88865113

00:03:41.890 --> 00:03:43.478 scientific discoveries and care  
NOTE Confidence: 0.88865113

00:03:43.478 --> 00:03:45.463 innovations that leverage Yale University,  
NOTE Confidence: 0.88865113

00:03:45.470 --> 00:03:47.969 Yale, New Haven health to bring us  
NOTE Confidence: 0.88865113

00:03:47.969 --> 00:03:50.747 closer to a world free of cancer.  
NOTE Confidence: 0.88865113

00:03:50.750 --> 00:03:53.296 One patient at a time, that is,

NOTE Confidence: 0.88865113

00:03:53.296 --> 00:03:55.264 we are a diverse community across

NOTE Confidence: 0.88865113

00:03:55.264 --> 00:03:57.160 the region across disciplines,

NOTE Confidence: 0.88865113

00:03:57.160 --> 00:03:59.155 and that ultimately we will

NOTE Confidence: 0.88865113

00:03:59.155 --> 00:04:01.608 leverage all of that talent to

NOTE Confidence: 0.88865113

00:04:01.608 --> 00:04:03.906 ultimately bring to bear the best.

NOTE Confidence: 0.88865113

00:04:03.910 --> 00:04:06.820 Compassionate expert care to every patient

NOTE Confidence: 0.88865113

00:04:06.820 --> 00:04:09.150 residing throughout our catchment area.

NOTE Confidence: 0.88865113

00:04:09.150 --> 00:04:11.826 Our mission is to provide great

NOTE Confidence: 0.88865113

00:04:11.826 --> 00:04:14.905 care to conduct the full spectrum

NOTE Confidence: 0.88865113

00:04:14.905 --> 00:04:17.905 research to promote public health.

NOTE Confidence: 0.88865113

00:04:17.910 --> 00:04:19.940 To disseminate the innovations that

NOTE Confidence: 0.88865113

00:04:19.940 --> 00:04:23.121 we have here across the world and to

NOTE Confidence: 0.88865113

00:04:23.121 --> 00:04:25.627 train the next generation of leaders an

NOTE Confidence: 0.88865113

00:04:25.701 --> 00:04:28.095 you know one thing that's critically

NOTE Confidence: 0.88865113

00:04:28.095 --> 00:04:30.486 important is you know patients when

NOTE Confidence: 0.88865113



00:04:30.486 --> 00:04:32.058 they're diagnosed with cancer.

NOTE Confidence: 0.88865113

00:04:32.060 --> 00:04:35.116 They want to see the experts and we

NOTE Confidence: 0.88865113

00:04:35.116 --> 00:04:37.950 have experts in each of these domains.

NOTE Confidence: 0.88865113

00:04:37.950 --> 00:04:39.920 Tonight we're focused on genito,

NOTE Confidence: 0.88865113

00:04:39.920 --> 00:04:41.400 urinary cancers, prostate cancer,

NOTE Confidence: 0.88865113

00:04:41.400 --> 00:04:43.620 but you know across our entire

NOTE Confidence: 0.88865113

00:04:43.683 --> 00:04:45.419 region and across disciplines,

NOTE Confidence: 0.88865113

00:04:45.420 --> 00:04:46.996 we bring together physicians,

NOTE Confidence: 0.88865113

00:04:46.996 --> 00:04:48.374 scientists, nurses, pharmacists,

NOTE Confidence: 0.88865113

00:04:48.374 --> 00:04:49.850 social workers, everyone.

NOTE Confidence: 0.88865113

00:04:49.850 --> 00:04:51.932 To actually really create an umbrella

NOTE Confidence: 0.88865113

00:04:51.932 --> 00:04:54.225 that is focused on innovation in

NOTE Confidence: 0.88865113

00:04:54.225 --> 00:04:56.310 each of these particular cancers.

NOTE Confidence: 0.88865113

00:04:56.310 --> 00:04:58.632 The other thing we're committed to

NOTE Confidence: 0.88865113

00:04:58.632 --> 00:05:00.744 doing is given the extraordinary

NOTE Confidence: 0.88865113

00:05:00.744 --> 00:05:03.179 talent of Science at Yale.

NOTE Confidence: 0.88865113

00:05:03.180 --> 00:05:04.844 Is to leverage that,

NOTE Confidence: 0.88865113

00:05:04.844 --> 00:05:05.260 ultimately,

NOTE Confidence: 0.88865113

00:05:05.260 --> 00:05:07.215 to novel treatments and really

NOTE Confidence: 0.88865113

00:05:07.215 --> 00:05:09.820 moving the bar in cancer therapy.

NOTE Confidence: 0.88865113

00:05:09.820 --> 00:05:11.795 This is actually studies that

NOTE Confidence: 0.88865113

00:05:11.795 --> 00:05:15.218 came out of our Kansas led by Yale

NOTE Confidence: 0.88865113

00:05:15.218 --> 00:05:17.042 investigators by our physicians

NOTE Confidence: 0.88865113

00:05:17.042 --> 00:05:19.779 and faculty just in the past year.

NOTE Confidence: 0.88865113

00:05:19.780 --> 00:05:21.058 And, you know,

NOTE Confidence: 0.88865113

00:05:21.058 --> 00:05:23.188 we're talking about practice changing

NOTE Confidence: 0.88865113

00:05:23.188 --> 00:05:26.420 studies in colon cancer head and neck cancer,

NOTE Confidence: 0.88865113

00:05:26.420 --> 00:05:28.080 bladder cancer, gastric cancer,

NOTE Confidence: 0.88865113

00:05:28.080 --> 00:05:28.910 prostate cancer,

NOTE Confidence: 0.88865113

00:05:28.910 --> 00:05:29.740 lung cancer,

NOTE Confidence: 0.88865113

00:05:29.740 --> 00:05:31.818 and what's really interesting about

NOTE Confidence: 0.88865113

00:05:31.820 --> 00:05:34.406 these studies is beyond really informing.  
NOTE Confidence: 0.88865113

00:05:34.410 --> 00:05:36.300 How we practice medicine as you  
NOTE Confidence: 0.88865113

00:05:36.300 --> 00:05:37.560 see in the red,  
NOTE Confidence: 0.88865113

00:05:37.560 --> 00:05:39.288 they have led to food approvals  
NOTE Confidence: 0.88865113

00:05:39.288 --> 00:05:41.212 of new therapies with the Food  
NOTE Confidence: 0.88865113

00:05:41.212 --> 00:05:42.286 and Drug Administration.  
NOTE Confidence: 0.88865113

00:05:42.290 --> 00:05:44.174 Let me just put into context  
NOTE Confidence: 0.88865113

00:05:44.174 --> 00:05:45.116 most cancer centers.  
NOTE Confidence: 0.88865113

00:05:45.120 --> 00:05:47.040 If once every few years you  
NOTE Confidence: 0.88865113

00:05:47.040 --> 00:05:48.899 have one approval with the FDA,  
NOTE Confidence: 0.88865113

00:05:48.900 --> 00:05:50.336 A new drug approval,  
NOTE Confidence: 0.88865113

00:05:50.336 --> 00:05:53.433 that's a big deal to have four in one  
NOTE Confidence: 0.88865113

00:05:53.433 --> 00:05:56.160 year or soon to be 4 ones pending.  
NOTE Confidence: 0.88865113

00:05:56.160 --> 00:05:57.935 That's unprecedented in really reflected  
NOTE Confidence: 0.88865113

00:05:57.935 --> 00:06:00.837 with a great talent we have in our center,  
NOTE Confidence: 0.88865113

00:06:00.840 --> 00:06:04.128 and some of which you'll hear from tonight.

NOTE Confidence: 0.88865113  
00:06:04.130 --> 00:06:06.200 One thing we're committed to,  
NOTE Confidence: 0.88865113  
00:06:06.200 --> 00:06:08.270 as I mentioned to you,  
NOTE Confidence: 0.88865113  
00:06:08.270 --> 00:06:10.754 is providing this kind of  
NOTE Confidence: 0.88865113  
00:06:10.754 --> 00:06:12.889 expertise care innovation in each  
NOTE Confidence: 0.88865113  
00:06:12.889 --> 00:06:14.889 community that we reside in.  
NOTE Confidence: 0.88865113  
00:06:14.890 --> 00:06:17.788 We have these 15 centers across Connecticut,  
NOTE Confidence: 0.88865113  
00:06:17.790 --> 00:06:19.860 Rhode Island and soon Massachusetts.  
NOTE Confidence: 0.88865113  
00:06:19.860 --> 00:06:22.373 And one that's because we are committed  
NOTE Confidence: 0.88865113  
00:06:22.373 --> 00:06:24.955 to having a really destination Smilow  
NOTE Confidence: 0.88865113  
00:06:24.955 --> 00:06:27.823 Center for every patient within 30  
NOTE Confidence: 0.88865113  
00:06:27.823 --> 00:06:30.209 minutes and these are Yale Faculty.  
NOTE Confidence: 0.88865113  
00:06:30.210 --> 00:06:32.280 They are the staff nurses.  
NOTE Confidence: 0.84666485  
00:06:32.280 --> 00:06:34.950 The pharmacists are employed by us.  
NOTE Confidence: 0.84666485  
00:06:34.950 --> 00:06:36.966 We have uniform policies and procedures.  
NOTE Confidence: 0.84666485  
00:06:36.970 --> 00:06:39.378 We make sure that the most complex  
NOTE Confidence: 0.84666485

00:06:39.378 --> 00:06:41.472 clinical trials can be enabled in  
NOTE Confidence: 0.84666485

00:06:41.472 --> 00:06:43.789 each of these centers and it's allowed  
NOTE Confidence: 0.84666485

00:06:43.860 --> 00:06:46.412 us to really provide care to a large  
NOTE Confidence: 0.84666485

00:06:46.412 --> 00:06:48.286 proportion of patients across the region.  
NOTE Confidence: 0.84666485

00:06:48.286 --> 00:06:50.551 As I mentioned to you were really  
NOTE Confidence: 0.84666485

00:06:50.551 --> 00:06:51.947 committed to bringing clinical  
NOTE Confidence: 0.84666485

00:06:51.947 --> 00:06:54.100 trials to each of these sites.  
NOTE Confidence: 0.84666485

00:06:54.100 --> 00:06:56.764 In fact, this is the fastest growing part of  
NOTE Confidence: 0.84666485

00:06:56.764 --> 00:06:59.476 our clinical trial portfolio of new drugs,  
NOTE Confidence: 0.84666485

00:06:59.480 --> 00:07:01.895 where you know 25% of the patients  
NOTE Confidence: 0.84666485

00:07:01.895 --> 00:07:03.646 enrolled in clinical trials or  
NOTE Confidence: 0.84666485

00:07:03.646 --> 00:07:05.578 outside of New Haven at places.  
NOTE Confidence: 0.84666485

00:07:05.580 --> 00:07:06.352 Like Greenwich.  
NOTE Confidence: 0.84666485

00:07:06.352 --> 00:07:08.282 An obviously Greenwich is is  
NOTE Confidence: 0.84666485

00:07:08.282 --> 00:07:10.459 something that we're really proud of.  
NOTE Confidence: 0.84666485

00:07:10.460 --> 00:07:12.030 We've really we're now focused

NOTE Confidence: 0.84666485

00:07:12.030 --> 00:07:13.600 now into really expanding what

NOTE Confidence: 0.84666485

00:07:13.653 --> 00:07:14.937 we're doing in Greenwich.

NOTE Confidence: 0.84666485

00:07:14.940 --> 00:07:17.232 We really had our full launch

NOTE Confidence: 0.84666485

00:07:17.232 --> 00:07:19.173 of Smiley with Greenwich beyond

NOTE Confidence: 0.84666485

00:07:19.173 --> 00:07:21.525 what we had been doing in July.

NOTE Confidence: 0.84666485

00:07:21.530 --> 00:07:24.526 Of last year to expand clinical programs.

NOTE Confidence: 0.84666485

00:07:24.530 --> 00:07:26.238 Clinical trials outreach to

NOTE Confidence: 0.84666485

00:07:26.238 --> 00:07:28.373 really bring in all disciplines.

NOTE Confidence: 0.84666485

00:07:28.380 --> 00:07:30.520 We're committed now to building.

NOTE Confidence: 0.84666485

00:07:30.520 --> 00:07:33.088 In addition to the Bendheim Center,

NOTE Confidence: 0.84666485

00:07:33.090 --> 00:07:36.079 a new facility neck on the campus.

NOTE Confidence: 0.84666485

00:07:36.080 --> 00:07:38.648 In addition to the Bendheim Center,

NOTE Confidence: 0.84666485

00:07:38.650 --> 00:07:40.790 which we're just working on,

NOTE Confidence: 0.84666485

00:07:40.790 --> 00:07:43.352 the planning which includes an extensive

NOTE Confidence: 0.84666485

00:07:43.352 --> 00:07:44.633 multidisciplinary practice space,

NOTE Confidence: 0.84666485

00:07:44.640 --> 00:07:46.352 oppressed center infusion, radiation,  
NOTE Confidence: 0.84666485

00:07:46.352 --> 00:07:47.636 clinical Research Laboratory,  
NOTE Confidence: 0.84666485

00:07:47.640 --> 00:07:49.524 Arelia Boutique Healing Garden  
NOTE Confidence: 0.84666485

00:07:49.524 --> 00:07:51.879 State of the Art Center.  
NOTE Confidence: 0.84666485

00:07:51.880 --> 00:07:54.148 That the communities in Lower Fairfield  
NOTE Confidence: 0.84666485

00:07:54.148 --> 00:07:55.772 County, Westchester can leverage.  
NOTE Confidence: 0.84666485

00:07:55.772 --> 00:07:58.256 Finally, I would be remiss to  
NOTE Confidence: 0.84666485

00:07:58.256 --> 00:08:00.568 say look life is not the same.  
NOTE Confidence: 0.84666485

00:08:00.570 --> 00:08:03.559 We're doing this by zoom and Covid  
NOTE Confidence: 0.84666485

00:08:03.559 --> 00:08:06.618 certainly has been a shock to all of us,  
NOTE Confidence: 0.84666485

00:08:06.620 --> 00:08:07.682 but you know,  
NOTE Confidence: 0.84666485

00:08:07.682 --> 00:08:09.806 we have made throughout this time  
NOTE Confidence: 0.84666485

00:08:09.806 --> 00:08:11.908 since this started in February,  
NOTE Confidence: 0.84666485

00:08:11.910 --> 00:08:12.274 March.  
NOTE Confidence: 0.84666485

00:08:12.274 --> 00:08:14.458 We have remained steadfast an you  
NOTE Confidence: 0.84666485

00:08:14.458 --> 00:08:16.776 know one thing we've done throughout

NOTE Confidence: 0.84666485

00:08:16.776 --> 00:08:19.464 this is defined new ways to deliver,

NOTE Confidence: 0.84666485

00:08:19.470 --> 00:08:22.598 care to ensure that we continue to be

NOTE Confidence: 0.84666485

00:08:22.598 --> 00:08:25.726 steadfast at giving care to every patient.

NOTE Confidence: 0.84666485

00:08:25.730 --> 00:08:27.178 The expert compassionate care

NOTE Confidence: 0.84666485

00:08:27.178 --> 00:08:28.626 to ensure their safety,

NOTE Confidence: 0.84666485

00:08:28.630 --> 00:08:30.440 utmost to protect our staff.

NOTE Confidence: 0.84666485

00:08:30.440 --> 00:08:32.792 To make sure we have the capacity to

NOTE Confidence: 0.84666485

00:08:32.792 --> 00:08:35.306 care for covid patients but keep them

NOTE Confidence: 0.84666485

00:08:35.306 --> 00:08:37.653 separate from all our cancer patients

NOTE Confidence: 0.84666485

00:08:37.653 --> 00:08:40.565 and to really engage our entire community.

NOTE Confidence: 0.84666485

00:08:40.570 --> 00:08:41.656 To do that.

NOTE Confidence: 0.84666485

00:08:41.656 --> 00:08:44.190 And I think we've done it brilliantly.

NOTE Confidence: 0.84666485

00:08:44.190 --> 00:08:45.276 Care has continued.

NOTE Confidence: 0.84666485

00:08:45.276 --> 00:08:47.086 The clinical research is continued,

NOTE Confidence: 0.84666485

00:08:47.090 --> 00:08:48.538 and that's something that

NOTE Confidence: 0.84666485



00:08:48.538 --> 00:08:50.348 we want people to know.  
NOTE Confidence: 0.84666485

00:08:50.350 --> 00:08:52.160 It's safe to come back.  
NOTE Confidence: 0.84666485

00:08:52.160 --> 00:08:54.035 Don't don't short range yourself  
NOTE Confidence: 0.84666485

00:08:54.035 --> 00:08:55.535 on the opportunities to.  
NOTE Confidence: 0.84666485

00:08:55.540 --> 00:08:57.538 To get expert cancer care and  
NOTE Confidence: 0.84666485

00:08:57.538 --> 00:08:59.450 you know more to follow.  
NOTE Confidence: 0.84666485

00:08:59.450 --> 00:09:01.928 So I apologize for going so long,  
NOTE Confidence: 0.84666485

00:09:01.930 --> 00:09:04.506 but I'm just so proud of the people  
NOTE Confidence: 0.84666485

00:09:04.506 --> 00:09:06.908 that you're going to hear from tonight  
NOTE Confidence: 0.84666485

00:09:06.908 --> 00:09:09.837 and and the what we're doing in the  
NOTE Confidence: 0.84666485

00:09:09.837 --> 00:09:11.792 Kansas Center and appreciate whatever  
NOTE Confidence: 0.84666485

00:09:11.792 --> 00:09:14.360 one is doing to hear this out.  
NOTE Confidence: 0.84666485

00:09:14.360 --> 00:09:16.730 So let me turn it over to our to our  
NOTE Confidence: 0.84666485

00:09:16.799 --> 00:09:18.839 host who will obviously introduce  
NOTE Confidence: 0.84666485

00:09:18.839 --> 00:09:21.392 my other colleagues but were hosted  
NOTE Confidence: 0.84666485

00:09:21.392 --> 00:09:23.587 tonight by doctor Bruce McGibbon.

NOTE Confidence: 0.84666485  
00:09:23.590 --> 00:09:26.369 Doctor McGibbon is a assistant professor of.  
NOTE Confidence: 0.84666485  
00:09:26.370 --> 00:09:28.318 Clinical therapeutic radiology, and.  
NOTE Confidence: 0.84666485  
00:09:28.318 --> 00:09:30.753 The medical director of radiation  
NOTE Confidence: 0.84666485  
00:09:30.753 --> 00:09:32.670 oncology at Greenwich Hospital.  
NOTE Confidence: 0.84666485  
00:09:32.670 --> 00:09:34.720 He received his medical degree  
NOTE Confidence: 0.84666485  
00:09:34.720 --> 00:09:36.770 from UCLA School of Medicine.  
NOTE Confidence: 0.84666485  
00:09:36.770 --> 00:09:38.858 An document is really been a  
NOTE Confidence: 0.84666485  
00:09:38.858 --> 00:09:40.250 leader in innovation in  
NOTE Confidence: 0.8206156  
00:09:40.318 --> 00:09:43.330 radiation oncology with expertise and breast,  
NOTE Confidence: 0.8206156  
00:09:43.330 --> 00:09:45.002 prostate, lung, rectal, head,  
NOTE Confidence: 0.8206156  
00:09:45.002 --> 00:09:47.510 neck and brain tumors and I  
NOTE Confidence: 0.8206156  
00:09:47.587 --> 00:09:50.227 think really is interest has been  
NOTE Confidence: 0.8206156  
00:09:50.227 --> 00:09:52.764 innovating therapy to look at how  
NOTE Confidence: 0.8206156  
00:09:52.764 --> 00:09:55.214 we can modify the course of therapy,  
NOTE Confidence: 0.8206156  
00:09:55.220 --> 00:09:58.034 how we can improve quality life  
NOTE Confidence: 0.8206156

00:09:58.034 --> 00:10:00.293 for people on therapy. And.  
NOTE Confidence: 0.8206156

00:10:00.293 --> 00:10:02.208 It really innovate because obviously  
NOTE Confidence: 0.8206156

00:10:02.208 --> 00:10:04.329 radiation is a critical part of  
NOTE Confidence: 0.8206156

00:10:04.329 --> 00:10:05.919 what we do in prostate cancer  
NOTE Confidence: 0.8206156

00:10:05.919 --> 00:10:07.568 as well as other diseases,  
NOTE Confidence: 0.8206156

00:10:07.570 --> 00:10:09.230 and that level of innovation,  
NOTE Confidence: 0.8206156

00:10:09.230 --> 00:10:11.210 I think is moving the field.  
NOTE Confidence: 0.8206156

00:10:11.210 --> 00:10:13.422 So Bruce, thank you for hosting this  
NOTE Confidence: 0.8206156

00:10:13.422 --> 00:10:15.384 for launching this form and really  
NOTE Confidence: 0.8206156

00:10:15.384 --> 00:10:17.280 excited to hear you and perspectives  
NOTE Confidence: 0.8206156

00:10:17.280 --> 00:10:19.158 of Doctor Lehman Doctor Petra  
NOTE Confidence: 0.854701

00:10:19.160 --> 00:10:21.477 lag. Thank you so much for the  
NOTE Confidence: 0.854701

00:10:21.477 --> 00:10:22.470 opening remarks introduction.  
NOTE Confidence: 0.854701

00:10:22.470 --> 00:10:24.612 We definitely very excited to have  
NOTE Confidence: 0.854701

00:10:24.612 --> 00:10:26.774 this this series and share some  
NOTE Confidence: 0.854701

00:10:26.774 --> 00:10:28.760 of the exciting things that are

NOTE Confidence: 0.854701  
00:10:28.760 --> 00:10:30.858 going on in the prostate area.  
NOTE Confidence: 0.854701  
00:10:30.860 --> 00:10:32.450 And as a teacher said,  
NOTE Confidence: 0.854701  
00:10:32.450 --> 00:10:35.852 there will be 3 talks with star Dr Liebman  
NOTE Confidence: 0.854701  
00:10:35.852 --> 00:10:39.116 and myself and then doctor Petra Lack.  
NOTE Confidence: 0.854701  
00:10:39.120 --> 00:10:41.208 We are inviting and encouraging questions,  
NOTE Confidence: 0.854701  
00:10:41.210 --> 00:10:44.010 even put them in through the chat portion.  
NOTE Confidence: 0.854701  
00:10:44.010 --> 00:10:45.354 Were down three talks.  
NOTE Confidence: 0.854701  
00:10:45.354 --> 00:10:48.188 Then I will go through and help moderate  
NOTE Confidence: 0.854701  
00:10:48.188 --> 00:10:50.414 those and see which speaker might  
NOTE Confidence: 0.854701  
00:10:50.414 --> 00:10:53.079 be the best fit to to answer them.  
NOTE Confidence: 0.854701  
00:10:53.080 --> 00:10:54.432 But first and foremost,  
NOTE Confidence: 0.854701  
00:10:54.432 --> 00:10:56.920 it's my pleasure to introduce Doctor Lehman.  
NOTE Confidence: 0.854701  
00:10:56.920 --> 00:10:59.293 He's an assistant professor of urology in  
NOTE Confidence: 0.854701  
00:10:59.293 --> 00:11:01.458 the clinical program leader for prostate,  
NOTE Confidence: 0.854701  
00:11:01.460 --> 00:11:02.426 near logic cancers,  
NOTE Confidence: 0.854701

00:11:02.426 --> 00:11:04.680 the cancer program at the smile cancer  
NOTE Confidence: 0.854701

00:11:04.741 --> 00:11:06.739 hospital received his MD from the  
NOTE Confidence: 0.854701

00:11:06.739 --> 00:11:08.944 University of Maryland and completed his  
NOTE Confidence: 0.854701

00:11:08.944 --> 00:11:10.969 general surgery and urology training.  
NOTE Confidence: 0.854701

00:11:10.970 --> 00:11:12.134 At Mount Sinai.  
NOTE Confidence: 0.854701

00:11:12.134 --> 00:11:15.440 He then went on to a two year.  
NOTE Confidence: 0.854701

00:11:15.440 --> 00:11:17.486 Your logic Oncology Fellowship at the  
NOTE Confidence: 0.854701

00:11:17.486 --> 00:11:19.192 University of California, San Francisco.  
NOTE Confidence: 0.854701

00:11:19.192 --> 00:11:20.897 His clinical interests include treating  
NOTE Confidence: 0.854701

00:11:20.897 --> 00:11:22.260 patients with prostate, bladder,  
NOTE Confidence: 0.854701

00:11:22.260 --> 00:11:23.620 testicular and kidney cancers.  
NOTE Confidence: 0.8870155

00:11:26.180 --> 00:11:27.760 OK, thank you so much, Bruce  
NOTE Confidence: 0.8870155

00:11:27.760 --> 00:11:29.050 for the introduction and I'm  
NOTE Confidence: 0.8870155

00:11:29.107 --> 00:11:30.772 thrilled to participate in this  
NOTE Confidence: 0.8870155

00:11:30.772 --> 00:11:31.850 exciting, innovative program.  
NOTE Confidence: 0.8870155

00:11:31.850 --> 00:11:35.280 So let me just try to share my screen

NOTE Confidence: 0.8870155

00:11:35.280 --> 00:11:38.432 here and we'll get started with our talk.

NOTE Confidence: 0.8870155

00:11:38.440 --> 00:11:41.478 OK, so I hopefully you can see

NOTE Confidence: 0.8870155

00:11:41.478 --> 00:11:43.849 everything you can re up here.

NOTE Confidence: 0.85442054

00:11:45.830 --> 00:11:47.216 Not yet, I don't see it yet.

NOTE Confidence: 0.8766038

00:11:56.560 --> 00:11:58.788 Bear with me one second, it's giving me a.

NOTE Confidence: 0.8575129

00:12:03.670 --> 00:12:04.870 OK, perfect great.

NOTE Confidence: 0.8575129

00:12:04.870 --> 00:12:08.058 Can you see me in full screen there?

NOTE Confidence: 0.8575129

00:12:08.060 --> 00:12:10.488 OK so so good evening everyone.

NOTE Confidence: 0.8575129

00:12:10.488 --> 00:12:13.386 I'm Michael Lehmann and I'm an assistant

NOTE Confidence: 0.8575129

00:12:13.386 --> 00:12:15.640 professor in the Department of Urology.

NOTE Confidence: 0.8575129

00:12:15.640 --> 00:12:18.632 I'm going to be speaking to you tonight

NOTE Confidence: 0.8575129

00:12:18.632 --> 00:12:21.121 about prostate cancer and really focusing

NOTE Confidence: 0.8575129

00:12:21.121 --> 00:12:23.617 on the early spectrum of disease,

NOTE Confidence: 0.8575129

00:12:23.620 --> 00:12:24.760 early diagnosis,

NOTE Confidence: 0.8575129

00:12:24.760 --> 00:12:27.610 screening and surgical treatment options.

NOTE Confidence: 0.8575129

00:12:27.610 --> 00:12:31.018 I have no relevant disclosures and I just  
NOTE Confidence: 0.8575129

00:12:31.018 --> 00:12:35.008 want to tell you a little bit about myself.  
NOTE Confidence: 0.8575129

00:12:35.010 --> 00:12:36.666 I'm a Urologic Oncologist.  
NOTE Confidence: 0.8575129

00:12:36.666 --> 00:12:39.682 I'm a urologist who specializes in the  
NOTE Confidence: 0.8575129

00:12:39.682 --> 00:12:41.966 treatment of urologic cancers, prostate,  
NOTE Confidence: 0.8575129

00:12:41.966 --> 00:12:43.710 bladder, kidney, testicular cancer.  
NOTE Confidence: 0.8575129

00:12:43.710 --> 00:12:46.320 My focus is our inpatient care,  
NOTE Confidence: 0.8575129

00:12:46.320 --> 00:12:48.056 helping patients navigate their  
NOTE Confidence: 0.8575129

00:12:48.056 --> 00:12:50.226 treatment and diagnosis for presumptive,  
NOTE Confidence: 0.8575129

00:12:50.230 --> 00:12:53.120 or, or diagnose, diagnose cancers.  
NOTE Confidence: 0.8575129

00:12:53.120 --> 00:12:54.748 And also more broadly,  
NOTE Confidence: 0.8575129

00:12:54.748 --> 00:12:56.783 understanding and improving how the  
NOTE Confidence: 0.8575129

00:12:56.783 --> 00:12:59.483 early Speck of the early phase of the  
NOTE Confidence: 0.8575129

00:12:59.483 --> 00:13:02.080 disease is managed in terms of diagnosis  
NOTE Confidence: 0.8575129

00:13:02.080 --> 00:13:04.444 and early treatment for prostate cancer.  
NOTE Confidence: 0.8575129

00:13:04.450 --> 00:13:06.529 So what I'm going to be talking

NOTE Confidence: 0.8575129

00:13:06.529 --> 00:13:08.336 to you tonight about are

NOTE Confidence: 0.8575129

00:13:08.336 --> 00:13:10.020 really four simple questions.

NOTE Confidence: 0.8575129

00:13:10.020 --> 00:13:11.760 Number one understanding who is

NOTE Confidence: 0.8575129

00:13:11.760 --> 00:13:13.500 at risk for prostate cancer.

NOTE Confidence: 0.8575129

00:13:13.500 --> 00:13:15.660 Understanding how prostate cancer

NOTE Confidence: 0.8575129

00:13:15.660 --> 00:13:16.740 is diagnosed.

NOTE Confidence: 0.8575129

00:13:16.740 --> 00:13:18.576 Going over some of the treatment

NOTE Confidence: 0.8575129

00:13:18.576 --> 00:13:19.800 options for prostate cancer,

NOTE Confidence: 0.8575129

00:13:19.800 --> 00:13:21.998 if it is detected focusing on the

NOTE Confidence: 0.8575129

00:13:21.998 --> 00:13:23.780 surgical treatment options which we offer,

NOTE Confidence: 0.8575129

00:13:23.780 --> 00:13:26.454 and a very brief overview about what

NOTE Confidence: 0.8575129

00:13:26.454 --> 00:13:29.286 our Department is doing at Yale to

NOTE Confidence: 0.8575129

00:13:29.286 --> 00:13:31.704 better understand and treat the disease.

NOTE Confidence: 0.8575129

00:13:31.710 --> 00:13:33.690 So just by way of introduction,

NOTE Confidence: 0.8575129

00:13:33.690 --> 00:13:34.878 what is the prostate?

NOTE Confidence: 0.8575129



00:13:34.878 --> 00:13:37.980 And as you can see in this diagram here,  
NOTE Confidence: 0.8575129

00:13:37.980 --> 00:13:39.630 it's really packed in tightly  
NOTE Confidence: 0.8575129

00:13:39.630 --> 00:13:40.950 in valuable real estate.  
NOTE Confidence: 0.8575129

00:13:40.950 --> 00:13:43.260 It sits between the bladder or urine  
NOTE Confidence: 0.8575129

00:13:43.260 --> 00:13:45.016 is stored, and the male urethra.  
NOTE Confidence: 0.8575129

00:13:45.016 --> 00:13:47.506 And so it has clearly close proximity to  
NOTE Confidence: 0.8575129

00:13:47.506 --> 00:13:49.858 other important structures like the rectum,  
NOTE Confidence: 0.8575129

00:13:49.860 --> 00:13:52.330 the nerves and blood vessels  
NOTE Confidence: 0.8575129

00:13:52.330 --> 00:13:54.306 responsible for erectile function.  
NOTE Confidence: 0.8575129

00:13:54.310 --> 00:13:56.648 It's a glance as a reproductive organ,  
NOTE Confidence: 0.8575129

00:13:56.650 --> 00:13:58.315 and its function is to  
NOTE Confidence: 0.8575129

00:13:58.315 --> 00:13:59.314 secrete prostatic fluid,  
NOTE Confidence: 0.8575129

00:13:59.320 --> 00:14:01.984 which is one of the components of semen.  
NOTE Confidence: 0.84573656

00:14:04.000 --> 00:14:05.670 So as the prostate enlarged,  
NOTE Confidence: 0.84573656

00:14:05.670 --> 00:14:07.340 prostate become can become apparent  
NOTE Confidence: 0.84573656

00:14:07.340 --> 00:14:09.010 to men for several reasons.

NOTE Confidence: 0.84573656

00:14:09.010 --> 00:14:11.008 The most common one is enlargement,

NOTE Confidence: 0.84573656

00:14:11.010 --> 00:14:12.685 and this happens commonly as

NOTE Confidence: 0.84573656

00:14:12.685 --> 00:14:14.689 people get older, the Glen simply

NOTE Confidence: 0.84573656

00:14:14.689 --> 00:14:16.354 enlarges and compresses the urethra.

NOTE Confidence: 0.84573656

00:14:16.360 --> 00:14:18.615 This is a common complaint

NOTE Confidence: 0.84573656

00:14:18.615 --> 00:14:20.419 that we hear about.

NOTE Confidence: 0.84573656

00:14:20.420 --> 00:14:22.185 Symptoms are well known to

NOTE Confidence: 0.84573656

00:14:22.185 --> 00:14:23.244 many frequent urination.

NOTE Confidence: 0.84573656

00:14:23.250 --> 00:14:25.728 I need to urinate at night urgency.

NOTE Confidence: 0.84573656

00:14:25.730 --> 00:14:27.500 A decreased force of stream,

NOTE Confidence: 0.84573656

00:14:27.500 --> 00:14:29.618 and an inability to hold urine.

NOTE Confidence: 0.84573656

00:14:29.620 --> 00:14:32.940 These may sound familiar.

NOTE Confidence: 0.84573656

00:14:32.940 --> 00:14:35.579 Cancer can also arise in the prostate,

NOTE Confidence: 0.84573656

00:14:35.580 --> 00:14:37.088 which is increasingly common

NOTE Confidence: 0.84573656

00:14:37.088 --> 00:14:39.350 in all men as they age,

NOTE Confidence: 0.84573656

00:14:39.350 --> 00:14:42.366 and you know the question often comes up.

NOTE Confidence: 0.84573656

00:14:42.370 --> 00:14:45.002 What is cancer and what is cancer

NOTE Confidence: 0.84573656

00:14:45.002 --> 00:14:47.247 and what we're referring to is

NOTE Confidence: 0.84573656

00:14:47.247 --> 00:14:48.318 uncontrolled cellular growth,

NOTE Confidence: 0.84573656

00:14:48.318 --> 00:14:50.103 which is capable of spreading

NOTE Confidence: 0.84573656

00:14:50.103 --> 00:14:51.790 or invading other tissues,

NOTE Confidence: 0.84573656

00:14:51.790 --> 00:14:54.830 and so that lives on the spectrum of

NOTE Confidence: 0.84573656

00:14:54.830 --> 00:14:56.761 prostate enlargement and other other

NOTE Confidence: 0.84573656

00:14:56.761 --> 00:14:59.330 things that can happen in the prostate.

NOTE Confidence: 0.84573656

00:14:59.330 --> 00:15:01.255 So that distinction between benign

NOTE Confidence: 0.84573656

00:15:01.255 --> 00:15:02.795 prostate and cancerous prostate.

NOTE Confidence: 0.84573656

00:15:02.800 --> 00:15:05.450 Is what we're focused on.

NOTE Confidence: 0.84573656

00:15:05.450 --> 00:15:07.410 Prostate cancer is common.

NOTE Confidence: 0.84573656

00:15:07.410 --> 00:15:09.860 It's the most commonly diagnosed

NOTE Confidence: 0.84573656

00:15:09.860 --> 00:15:12.690 non skin cancer in men with

NOTE Confidence: 0.84573656

00:15:12.690 --> 00:15:14.945 almost 200,000 new cases estimated

NOTE Confidence: 0.84573656

00:15:15.031 --> 00:15:17.287 to be detected in 2020 alone.

NOTE Confidence: 0.84573656

00:15:17.290 --> 00:15:19.384 It is also the second leading

NOTE Confidence: 0.84573656

00:15:19.384 --> 00:15:21.792 cancer killer in men with over

NOTE Confidence: 0.84573656

00:15:21.792 --> 00:15:23.664 30,000 anticipated deaths from

NOTE Confidence: 0.84573656

00:15:23.664 --> 00:15:25.960 prostate cancer alone this year.

NOTE Confidence: 0.8516112

00:15:28.140 --> 00:15:30.570 Survival is highly dependent on stage.

NOTE Confidence: 0.8516112

00:15:30.570 --> 00:15:32.575 Survival is very high for

NOTE Confidence: 0.8516112

00:15:32.575 --> 00:15:34.580 patients who are diagnosed with

NOTE Confidence: 0.8516112

00:15:34.655 --> 00:15:37.049 prostate cancer at an early stage,

NOTE Confidence: 0.8516112

00:15:37.050 --> 00:15:39.480 but decreases if the cancer has

NOTE Confidence: 0.8516112

00:15:39.480 --> 00:15:41.100 progressed regionally or distantly.

NOTE Confidence: 0.8516112

00:15:41.100 --> 00:15:42.720 Where survival is poor.

NOTE Confidence: 0.83647263

00:15:45.240 --> 00:15:47.620 There are clear risk factors for prostate

NOTE Confidence: 0.83647263

00:15:47.620 --> 00:15:50.044 cancer and we can think about this

NOTE Confidence: 0.83647263

00:15:50.044 --> 00:15:52.610 separated as the known fixed risk factors.

NOTE Confidence: 0.83647263

00:15:52.610 --> 00:15:54.920 Things you really can't help and some  
NOTE Confidence: 0.83647263

00:15:54.920 --> 00:15:57.528 of the things which may be modifiable.  
NOTE Confidence: 0.83647263

00:15:57.530 --> 00:15:59.630 Some of the known fixed risk  
NOTE Confidence: 0.83647263

00:15:59.630 --> 00:16:01.382 factors are age, prostate cancers,  
NOTE Confidence: 0.83647263

00:16:01.382 --> 00:16:03.839 more common as we get older race,  
NOTE Confidence: 0.83647263

00:16:03.840 --> 00:16:05.976 we know that African American ancestry  
NOTE Confidence: 0.83647263

00:16:05.976 --> 00:16:08.221 is associated with a greater risk  
NOTE Confidence: 0.83647263

00:16:08.221 --> 00:16:10.121 for prostate cancer detection and  
NOTE Confidence: 0.83647263

00:16:10.121 --> 00:16:12.290 poor outcome for prostate cancer.  
NOTE Confidence: 0.83647263

00:16:12.290 --> 00:16:14.822 There are also known genetic alterations  
NOTE Confidence: 0.83647263

00:16:14.822 --> 00:16:17.344 associated with the risk of prostate  
NOTE Confidence: 0.83647263

00:16:17.344 --> 00:16:19.642 cancer and family history having a  
NOTE Confidence: 0.83647263

00:16:19.642 --> 00:16:21.970 first degree family relative father,  
NOTE Confidence: 0.83647263

00:16:21.970 --> 00:16:24.610 a brother with prostate cancer  
NOTE Confidence: 0.83647263

00:16:24.610 --> 00:16:26.722 is a risk factor.  
NOTE Confidence: 0.83647263

00:16:26.730 --> 00:16:28.660 There are also commonly spoken

NOTE Confidence: 0.83647263

00:16:28.660 --> 00:16:30.204 about modifiable risk factors,

NOTE Confidence: 0.83647263

00:16:30.210 --> 00:16:32.150 including diet, lifestyle, and obesity.

NOTE Confidence: 0.83647263

00:16:32.150 --> 00:16:35.238 The link there is not as clearly understood,

NOTE Confidence: 0.83647263

00:16:35.240 --> 00:16:36.788 but our potential modifiable

NOTE Confidence: 0.83647263

00:16:36.788 --> 00:16:38.723 risk factors for the disease.

NOTE Confidence: 0.8427701

00:16:41.070 --> 00:16:42.925 How is prostate cancer diagnosed

NOTE Confidence: 0.8427701

00:16:42.925 --> 00:16:44.780 when prostate cancer is localized,

NOTE Confidence: 0.8427701

00:16:44.780 --> 00:16:47.489 there are seldom symptoms and so having

NOTE Confidence: 0.8427701

00:16:47.489 --> 00:16:49.760 urinary symptoms are not necessarily a

NOTE Confidence: 0.8427701

00:16:49.760 --> 00:16:52.196 sign that a man has prostate cancer.

NOTE Confidence: 0.8427701

00:16:52.200 --> 00:16:54.912 The primary way that it is detected is

NOTE Confidence: 0.8427701

00:16:54.912 --> 00:16:58.137 through a rectal examination or a blood test,

NOTE Confidence: 0.8427701

00:16:58.140 --> 00:17:00.690 and the blood test is something

NOTE Confidence: 0.8427701

00:17:00.690 --> 00:17:03.030 called the prostate specific antigen.

NOTE Confidence: 0.8427701

00:17:03.030 --> 00:17:05.655 Which is a protein marker that can

NOTE Confidence: 0.8427701

00:17:05.655 --> 00:17:08.389 be elevated in prostate cancer and  
NOTE Confidence: 0.8427701

00:17:08.389 --> 00:17:10.929 other conditions of the prostate.  
NOTE Confidence: 0.8427701

00:17:10.930 --> 00:17:14.010 When cancer has spread beyond the gland,  
NOTE Confidence: 0.8427701

00:17:14.010 --> 00:17:17.570 there are there can be symptoms that arise  
NOTE Confidence: 0.8427701

00:17:17.570 --> 00:17:19.358 including difficulty urinating blood  
NOTE Confidence: 0.8427701

00:17:19.358 --> 00:17:24.278 in the urine, bone pain, or fatigue.  
NOTE Confidence: 0.8427701

00:17:24.280 --> 00:17:25.428 So as I mentioned,  
NOTE Confidence: 0.8427701

00:17:25.428 --> 00:17:28.017 PSA is a blood test that we commonly  
NOTE Confidence: 0.8427701

00:17:28.017 --> 00:17:30.417 used screen men for prostate cancer.  
NOTE Confidence: 0.8427701

00:17:30.420 --> 00:17:32.125 It's exclusively made by cells  
NOTE Confidence: 0.8427701

00:17:32.125 --> 00:17:33.148 in the prostate.  
NOTE Confidence: 0.8427701

00:17:33.150 --> 00:17:35.190 It does not diagnose prostate cancer,  
NOTE Confidence: 0.8427701

00:17:35.190 --> 00:17:36.900 but it can raise suspicion.  
NOTE Confidence: 0.8427701

00:17:36.900 --> 00:17:38.742 It's not a perfect test because  
NOTE Confidence: 0.8427701

00:17:38.742 --> 00:17:40.650 there can be false positives.  
NOTE Confidence: 0.8427701

00:17:40.650 --> 00:17:42.355 The level can be elevated

NOTE Confidence: 0.8427701

00:17:42.355 --> 00:17:43.378 because of infection,

NOTE Confidence: 0.8427701

00:17:43.380 --> 00:17:44.840 inflammation of large prostate.

NOTE Confidence: 0.8427701

00:17:44.840 --> 00:17:47.653 But of course the reason we do the

NOTE Confidence: 0.8427701

00:17:47.653 --> 00:17:49.877 test is because if it is elevated does

NOTE Confidence: 0.8427701

00:17:49.948 --> 00:17:52.240 raise the specter of prostate cancer.

NOTE Confidence: 0.8329663

00:17:54.690 --> 00:17:55.982 The question often arises

NOTE Confidence: 0.8329663

00:17:55.982 --> 00:17:57.274 is prostate cancer helpful?

NOTE Confidence: 0.8329663

00:17:57.280 --> 00:17:58.950 Is screening for prostate cancer

NOTE Confidence: 0.8329663

00:17:58.950 --> 00:18:01.169 helpful at reducing the risk of death?

NOTE Confidence: 0.8329663

00:18:01.170 --> 00:18:04.350 And this is some evidence.

NOTE Confidence: 0.8329663

00:18:04.350 --> 00:18:05.280 That contrast,

NOTE Confidence: 0.8329663

00:18:05.280 --> 00:18:07.605 the change in metastatic disease

NOTE Confidence: 0.8329663

00:18:07.605 --> 00:18:09.566 at presentation following the

NOTE Confidence: 0.8329663

00:18:09.566 --> 00:18:11.069 widespread implementation of

NOTE Confidence: 0.8329663

00:18:11.069 --> 00:18:13.073 screening for prostate cancer.

NOTE Confidence: 0.8329663



00:18:13.080 --> 00:18:16.098 So the PSA tests really became  
NOTE Confidence: 0.8329663

00:18:16.098 --> 00:18:19.389 popularized in the early to mid 1990s,  
NOTE Confidence: 0.8329663

00:18:19.390 --> 00:18:22.300 and there has been a precipitous  
NOTE Confidence: 0.8329663

00:18:22.300 --> 00:18:24.240 decline in prostate cancer.  
NOTE Confidence: 0.8329663

00:18:24.240 --> 00:18:26.650 Itassis at presentation and death  
NOTE Confidence: 0.8329663

00:18:26.650 --> 00:18:29.060 that is largely attributed to  
NOTE Confidence: 0.8329663

00:18:29.138 --> 00:18:31.508 the integration of PSA testing.  
NOTE Confidence: 0.8129173

00:18:33.610 --> 00:18:35.690 What do the clinical guidelines  
NOTE Confidence: 0.8129173

00:18:35.690 --> 00:18:37.770 say for prostate cancer detection?  
NOTE Confidence: 0.8129173

00:18:37.770 --> 00:18:40.129 And so we think about these really  
NOTE Confidence: 0.8129173

00:18:40.129 --> 00:18:42.759 in a risk stratified approach,  
NOTE Confidence: 0.8129173

00:18:42.760 --> 00:18:45.568 there is not one one size fits all  
NOTE Confidence: 0.8129173

00:18:45.568 --> 00:18:48.588 approach for screening for prostate cancer,  
NOTE Confidence: 0.8129173

00:18:48.590 --> 00:18:50.850 the national comprehensive cancer network  
NOTE Confidence: 0.8129173

00:18:50.850 --> 00:18:54.300 tends to or advocates a graded approach.  
NOTE Confidence: 0.8129173

00:18:54.300 --> 00:18:56.232 There are clearly patients who are

NOTE Confidence: 0.8129173

00:18:56.232 --> 00:18:58.209 at high risk patients with African

NOTE Confidence: 0.8129173

00:18:58.209 --> 00:19:00.421 American ancestry or known rack up one

NOTE Confidence: 0.8129173

00:19:00.421 --> 00:19:02.693 and two germline mutations and in those

NOTE Confidence: 0.8129173

00:19:02.693 --> 00:19:05.576 patients who are in a high risk category,

NOTE Confidence: 0.8129173

00:19:05.576 --> 00:19:07.596 we recommend testing beginning at

NOTE Confidence: 0.8129173

00:19:07.596 --> 00:19:09.954 an earlier age beginning at the age

NOTE Confidence: 0.8129173

00:19:09.954 --> 00:19:12.608 of 40 with a baseline PSA level.

NOTE Confidence: 0.8129173

00:19:12.610 --> 00:19:14.927 For patients at average risk who do

NOTE Confidence: 0.8129173

00:19:14.927 --> 00:19:17.546 not have a known family history of

NOTE Confidence: 0.8129173

00:19:17.546 --> 00:19:20.572 baseline PSA test can begin at age 45

NOTE Confidence: 0.8129173

00:19:20.572 --> 00:19:23.044 and can be repeated every one to two

NOTE Confidence: 0.8129173

00:19:23.050 --> 00:19:26.026 years based on that baseline value.

NOTE Confidence: 0.8129173

00:19:26.030 --> 00:19:28.406 And often the question arises when

NOTE Confidence: 0.8129173

00:19:28.406 --> 00:19:30.799 should screening for prostate cancer and

NOTE Confidence: 0.8129173

00:19:30.799 --> 00:19:33.025 and there are differences in opinion,

NOTE Confidence: 0.8129173

00:19:33.030 --> 00:19:35.418 but in general we recommend screening

NOTE Confidence: 0.8129173

00:19:35.418 --> 00:19:37.815 until patients have a life expectancy

NOTE Confidence: 0.8129173

00:19:37.815 --> 00:19:39.645 of less than 10 years.

NOTE Confidence: 0.8129173

00:19:39.650 --> 00:19:45.059 But in some cases it may still be warranted.

NOTE Confidence: 0.8129173

00:19:45.060 --> 00:19:47.586 So what do you do if your PSA is

NOTE Confidence: 0.8129173

00:19:47.586 --> 00:19:49.200 abnormal and so he mentioned there's

NOTE Confidence: 0.8129173

00:19:49.256 --> 00:19:50.836 sort of a normal distribution,

NOTE Confidence: 0.8129173

00:19:50.840 --> 00:19:53.432 but if the PSA is in the normal range,

NOTE Confidence: 0.8129173

00:19:53.440 --> 00:19:54.592 continued testing is recommended

NOTE Confidence: 0.8129173

00:19:54.592 --> 00:19:55.456 for most patients,

NOTE Confidence: 0.8129173

00:19:55.460 --> 00:19:56.910 and that's often done with

NOTE Confidence: 0.8129173

00:19:56.910 --> 00:19:58.070 your primary care doctor,

NOTE Confidence: 0.8129173

00:19:58.070 --> 00:20:00.184 and we can usually be coupled in.

NOTE Confidence: 0.8129173

00:20:00.190 --> 00:20:02.330 To the.

NOTE Confidence: 0.8129173

00:20:02.330 --> 00:20:03.694 Into annual lab work.

NOTE Confidence: 0.8129173

00:20:03.694 --> 00:20:06.679 But what if that PSA level is higher

NOTE Confidence: 0.8129173

00:20:06.679 --> 00:20:09.710 than expected and there are options for

NOTE Confidence: 0.8129173

00:20:09.710 --> 00:20:12.279 determining what is the underlying cause?

NOTE Confidence: 0.8129173

00:20:12.280 --> 00:20:14.374 A simple first step is repeating

NOTE Confidence: 0.8129173

00:20:14.374 --> 00:20:16.581 the PSA and making making sure

NOTE Confidence: 0.8129173

00:20:16.581 --> 00:20:18.436 it's not an average value.

NOTE Confidence: 0.8129173

00:20:18.440 --> 00:20:20.600 There are also biomarkers or tests

NOTE Confidence: 0.8129173

00:20:20.600 --> 00:20:22.875 that are more specific to detecting

NOTE Confidence: 0.8129173

00:20:22.875 --> 00:20:25.185 prostate cancer as well as advanced

NOTE Confidence: 0.8129173

00:20:25.185 --> 00:20:26.962 imaging that can distinguish

NOTE Confidence: 0.8129173

00:20:26.962 --> 00:20:29.307 between malignant and benign tissue.

NOTE Confidence: 0.8129173

00:20:29.310 --> 00:20:31.596 But the gold standard to determine

NOTE Confidence: 0.8129173

00:20:31.596 --> 00:20:33.120 to distinguish between benign

NOTE Confidence: 0.8129173

00:20:33.180 --> 00:20:34.428 and prostatic cancer,

NOTE Confidence: 0.8129173

00:20:34.430 --> 00:20:36.800 is a biopsy of the prostate,

NOTE Confidence: 0.8129173

00:20:36.800 --> 00:20:39.568 and this is a procedure that is performed

NOTE Confidence: 0.8129173

00:20:39.568 --> 00:20:41.185 generally under local anesthesia  
NOTE Confidence: 0.8129173

00:20:41.185 --> 00:20:42.909 using ultrasound guidance where  
NOTE Confidence: 0.8129173

00:20:42.909 --> 00:20:45.477 samples are taken from the prostate  
NOTE Confidence: 0.8129173

00:20:45.477 --> 00:20:47.427 and examined under a microscope.  
NOTE Confidence: 0.8256148

00:20:49.440 --> 00:20:52.136 One of the innovations at Yale that Yale  
NOTE Confidence: 0.8256148

00:20:52.136 --> 00:20:54.815 has really been in the forefront of is  
NOTE Confidence: 0.8256148

00:20:54.815 --> 00:20:57.199 using prostate MRI to help distinguish  
NOTE Confidence: 0.8256148

00:20:57.199 --> 00:20:59.744 between benign and prostatic disease.  
NOTE Confidence: 0.8256148

00:20:59.750 --> 00:21:01.150 Benign and cancerous disease,  
NOTE Confidence: 0.8256148

00:21:01.150 --> 00:21:03.722 and what we have found an has  
NOTE Confidence: 0.8256148

00:21:03.722 --> 00:21:05.757 been seen in numerous published  
NOTE Confidence: 0.8256148

00:21:05.757 --> 00:21:07.385 studies and clinical trials.  
NOTE Confidence: 0.8256148

00:21:07.390 --> 00:21:09.340 Is that high resolution prostate  
NOTE Confidence: 0.8256148

00:21:09.340 --> 00:21:10.900 MRI significantly improves the  
NOTE Confidence: 0.8256148

00:21:10.900 --> 00:21:12.359 detection of prostate cancer.  
NOTE Confidence: 0.8256148

00:21:12.360 --> 00:21:13.503 If it's present.

NOTE Confidence: 0.8256148

00:21:13.503 --> 00:21:16.178 In many cases, it can be difficult

NOTE Confidence: 0.8256148

00:21:16.178 --> 00:21:18.470 to make the diagnosis and more.

NOTE Confidence: 0.8256148

00:21:18.470 --> 00:21:20.870 I can help distinguish and identify.

NOTE Confidence: 0.8256148

00:21:20.870 --> 00:21:24.190 Cancerous tumors give present.

NOTE Confidence: 0.8256148

00:21:24.190 --> 00:21:26.892 We also have the technology to take

NOTE Confidence: 0.8256148

00:21:26.892 --> 00:21:29.795 this previous MRI image and use a

NOTE Confidence: 0.8256148

00:21:29.795 --> 00:21:31.875 Fusion based technology where we

NOTE Confidence: 0.8256148

00:21:31.875 --> 00:21:34.514 actually guide are biopsies two areas

NOTE Confidence: 0.8256148

00:21:34.514 --> 00:21:37.076 of concern that are identified which

NOTE Confidence: 0.8256148

00:21:37.076 --> 00:21:38.700 significantly improves the detection

NOTE Confidence: 0.8256148

00:21:38.700 --> 00:21:41.250 yield for prostate cancer if present.

NOTE Confidence: 0.87357587

00:21:43.610 --> 00:21:44.792 Like any procedure,

NOTE Confidence: 0.87357587

00:21:44.792 --> 00:21:46.762 there are risks of prostate

NOTE Confidence: 0.87357587

00:21:46.762 --> 00:21:48.928 biopsy and those can be thought

NOTE Confidence: 0.87357587

00:21:48.928 --> 00:21:50.884 of in a few different ways.

NOTE Confidence: 0.87357587

00:21:50.890 --> 00:21:53.068 One risk is a false positive,  
NOTE Confidence: 0.87357587

00:21:53.070 --> 00:21:55.200 meaning that the PSA is elevated  
NOTE Confidence: 0.87357587

00:21:55.200 --> 00:21:57.080 and there's not cancer there.  
NOTE Confidence: 0.87357587

00:21:57.080 --> 00:21:59.628 So a prostate biopsy may be unnecessary.  
NOTE Confidence: 0.87357587

00:21:59.630 --> 00:22:01.450 Cancer may not be present.  
NOTE Confidence: 0.87357587

00:22:01.450 --> 00:22:02.542 There are procedures,  
NOTE Confidence: 0.87357587

00:22:02.542 --> 00:22:03.996 specific risks, including infection,  
NOTE Confidence: 0.87357587

00:22:03.996 --> 00:22:07.006 seen in about 1 to 4% of patients.  
NOTE Confidence: 0.87357587

00:22:07.006 --> 00:22:09.071 The procedure may be uncomfortable  
NOTE Confidence: 0.87357587

00:22:09.071 --> 00:22:11.030 and also anxiety provoking.  
NOTE Confidence: 0.87357587

00:22:11.030 --> 00:22:14.194 There's also risk of over detecting small,  
NOTE Confidence: 0.87357587

00:22:14.200 --> 00:22:16.264 non aggressive cancers that  
NOTE Confidence: 0.87357587

00:22:16.264 --> 00:22:18.844 may not have become clinically  
NOTE Confidence: 0.87357587

00:22:18.844 --> 00:22:21.449 apparent if we did not detect them.  
NOTE Confidence: 0.87357587

00:22:21.450 --> 00:22:22.962 And treating indolent cancers  
NOTE Confidence: 0.87357587

00:22:22.962 --> 00:22:24.852 that are not dangerous can

NOTE Confidence: 0.87357587

00:22:24.852 --> 00:22:26.996 lead to lasting consequences

NOTE Confidence: 0.87357587

00:22:26.996 --> 00:22:28.700 including urinary incontinence,

NOTE Confidence: 0.87357587

00:22:28.700 --> 00:22:29.604 erectile dysfunction,

NOTE Confidence: 0.87357587

00:22:29.604 --> 00:22:30.960 and al toxicity.

NOTE Confidence: 0.8930211

00:22:33.710 --> 00:22:35.476 So what are the options if

NOTE Confidence: 0.8930211

00:22:35.476 --> 00:22:36.648 prostate cancer is found,

NOTE Confidence: 0.8930211

00:22:36.650 --> 00:22:38.120 particularly at an early stage,

NOTE Confidence: 0.8930211

00:22:38.120 --> 00:22:40.586 and I think the kind of the most important

NOTE Confidence: 0.8930211

00:22:40.586 --> 00:22:42.839 point is that all of these options must

NOTE Confidence: 0.8930211

00:22:42.839 --> 00:22:44.943 be tailored to the individual needs

NOTE Confidence: 0.8930211

00:22:44.943 --> 00:22:46.978 and characteristics of each patient.

NOTE Confidence: 0.8930211

00:22:46.980 --> 00:22:48.804 And I really speak about four

NOTE Confidence: 0.8930211

00:22:48.804 --> 00:22:50.729 options that are for for cancers

NOTE Confidence: 0.8930211

00:22:50.729 --> 00:22:52.997 that are found at a localized phase.

NOTE Confidence: 0.8930211

00:22:53.000 --> 00:22:54.908 The first is called active surveillance,

NOTE Confidence: 0.8930211



00:22:54.910 --> 00:22:57.358 which is a period of careful  
NOTE Confidence: 0.8930211

00:22:57.358 --> 00:22:58.990 monitoring of prostate cancer.  
NOTE Confidence: 0.8930211

00:22:58.990 --> 00:23:00.832 The second for cancers that are  
NOTE Confidence: 0.8930211

00:23:00.832 --> 00:23:02.060 more aggressive or surgical.  
NOTE Confidence: 0.8930211

00:23:02.060 --> 00:23:03.348 Removal of the prostate.  
NOTE Confidence: 0.8930211

00:23:03.348 --> 00:23:05.619 The third is radiation therapy to the  
NOTE Confidence: 0.8930211

00:23:05.619 --> 00:23:07.883 prostate on the last one is focal therapy,  
NOTE Confidence: 0.8930211

00:23:07.890 --> 00:23:10.578 where we attempt to treat a portion  
NOTE Confidence: 0.8930211

00:23:10.578 --> 00:23:13.078 of the prostate where we believe  
NOTE Confidence: 0.8930211

00:23:13.078 --> 00:23:15.193 that cancer to be localized.  
NOTE Confidence: 0.8930211

00:23:15.200 --> 00:23:16.820 Tonight I'm going to focus  
NOTE Confidence: 0.8930211

00:23:16.820 --> 00:23:18.440 really on these two options.  
NOTE Confidence: 0.8930211

00:23:18.440 --> 00:23:20.378 One careful monitoring of prostate cancer.  
NOTE Confidence: 0.8930211

00:23:20.380 --> 00:23:22.000 The second is surgical removal.  
NOTE Confidence: 0.8930211

00:23:22.000 --> 00:23:23.710 I'll touch briefly on focal therapy  
NOTE Confidence: 0.8930211

00:23:23.710 --> 00:23:25.992 just to give a definition because some

NOTE Confidence: 0.8930211

00:23:25.992 --> 00:23:28.158 people may be curious about that,

NOTE Confidence: 0.8930211

00:23:28.160 --> 00:23:30.855 and I'm going to leave you in

NOTE Confidence: 0.8930211

00:23:30.855 --> 00:23:33.052 doctor McGinnis capable hands to

NOTE Confidence: 0.8930211

00:23:33.052 --> 00:23:34.988 talked about radiation therapy.

NOTE Confidence: 0.8930211

00:23:34.990 --> 00:23:36.664 So a question often comes up

NOTE Confidence: 0.8930211

00:23:36.664 --> 00:23:38.580 about what is active surveillance,

NOTE Confidence: 0.8930211

00:23:38.580 --> 00:23:40.452 and I've just provided a working

NOTE Confidence: 0.8930211

00:23:40.452 --> 00:23:42.441 definition for us tonight as the

NOTE Confidence: 0.8930211

00:23:42.441 --> 00:23:44.136 careful monitoring of prostate cancer

NOTE Confidence: 0.8930211

00:23:44.136 --> 00:23:45.826 with the intention of preserving

NOTE Confidence: 0.8930211

00:23:45.826 --> 00:23:47.046 the window for cure.

NOTE Confidence: 0.8930211

00:23:47.050 --> 00:23:48.470 Should aggressive disease later

NOTE Confidence: 0.8930211

00:23:48.470 --> 00:23:50.955 be found and what that means is

NOTE Confidence: 0.8930211

00:23:50.955 --> 00:23:52.695 that we're finding a cancer that

NOTE Confidence: 0.8930211

00:23:52.695 --> 00:23:54.219 appears to be low grade.

NOTE Confidence: 0.8930211

00:23:54.220 --> 00:23:56.176 That appears to be not dangerous,  
NOTE Confidence: 0.8930211

00:23:56.180 --> 00:23:57.805 and watching it carefully should  
NOTE Confidence: 0.8930211

00:23:57.805 --> 00:23:59.105 it ever become aggressive?  
NOTE Confidence: 0.8930211

00:23:59.110 --> 00:24:01.066 Or we detect more aggressive features,  
NOTE Confidence: 0.8930211

00:24:01.070 --> 00:24:03.020 we would still have the ability  
NOTE Confidence: 0.8930211

00:24:03.020 --> 00:24:04.728 to offer curate, if local.  
NOTE Confidence: 0.8930211

00:24:04.728 --> 00:24:05.092 Therapy.  
NOTE Confidence: 0.8930211

00:24:05.092 --> 00:24:08.257 We also we of course have to think  
NOTE Confidence: 0.8930211

00:24:08.257 --> 00:24:10.907 about potential benefits and risks.  
NOTE Confidence: 0.8930211

00:24:10.910 --> 00:24:12.446 The benefits involved include  
NOTE Confidence: 0.8930211

00:24:12.446 --> 00:24:13.598 not having treatment,  
NOTE Confidence: 0.8930211

00:24:13.600 --> 00:24:15.910 avoiding potential side effects of treatment,  
NOTE Confidence: 0.8930211

00:24:15.910 --> 00:24:18.605 and the risk include monitoring a cancer,  
NOTE Confidence: 0.8930211

00:24:18.610 --> 00:24:21.620 having awareness of it and a very  
NOTE Confidence: 0.8930211

00:24:21.620 --> 00:24:24.958 low but potential risk of the cancer  
NOTE Confidence: 0.8930211

00:24:24.958 --> 00:24:27.892 progressing while it is being observed.

NOTE Confidence: 0.8930211

00:24:27.900 --> 00:24:29.976 So who is a candidate for

NOTE Confidence: 0.8930211

00:24:29.976 --> 00:24:31.014 monitoring prostate cancer?

NOTE Confidence: 0.8930211

00:24:31.020 --> 00:24:32.868 Who is detected when we think

NOTE Confidence: 0.8930211

00:24:32.868 --> 00:24:34.847 it's actually about half of the

NOTE Confidence: 0.8930211

00:24:34.847 --> 00:24:36.557 cancers we'd we diagnose are

NOTE Confidence: 0.8930211

00:24:36.557 --> 00:24:38.050 suitable potentially for active

NOTE Confidence: 0.8930211

00:24:38.050 --> 00:24:40.050 surveillance and not being treated.

NOTE Confidence: 0.8930211

00:24:40.050 --> 00:24:41.434 These are private predominantly

NOTE Confidence: 0.8930211

00:24:41.434 --> 00:24:43.164 men with low risk cancers,

NOTE Confidence: 0.8930211

00:24:43.170 --> 00:24:45.682 and we make that definition based on having

NOTE Confidence: 0.8930211

00:24:45.682 --> 00:24:48.370 a low PSA level and Gleason Pattern,

NOTE Confidence: 0.8930211

00:24:48.370 --> 00:24:50.105 which is an estimate of

NOTE Confidence: 0.8930211

00:24:50.105 --> 00:24:50.799 cancer aggressiveness.

NOTE Confidence: 0.8930211

00:24:50.800 --> 00:24:52.876 A small amount of prostate cancer,

NOTE Confidence: 0.8930211

00:24:52.880 --> 00:24:55.490 and no clear evidence of spread

NOTE Confidence: 0.8930211

00:24:55.490 --> 00:24:57.230 beyond the prostate gland.

NOTE Confidence: 0.8930211

00:24:57.230 --> 00:24:59.575 Clearly patients who are candidates

NOTE Confidence: 0.8930211

00:24:59.575 --> 00:25:01.920 for for active surveillance have

NOTE Confidence: 0.8930211

00:25:01.989 --> 00:25:04.221 to be well informed and able

NOTE Confidence: 0.8930211

00:25:04.221 --> 00:25:05.990 to attend frequent follow up.

NOTE Confidence: 0.8930211

00:25:05.990 --> 00:25:08.790 And what do we mean by actress rails?

NOTE Confidence: 0.8930211

00:25:08.790 --> 00:25:10.162 What does this mean?

NOTE Confidence: 0.8930211

00:25:10.162 --> 00:25:12.220 It's a protocol where we carefully

NOTE Confidence: 0.8930211

00:25:12.290 --> 00:25:14.516 monitor we put patients on a plan

NOTE Confidence: 0.8930211

00:25:14.516 --> 00:25:16.665 that involves PSA testing about every

NOTE Confidence: 0.8930211

00:25:16.665 --> 00:25:18.915 six months are repeat prostate biopsy

NOTE Confidence: 0.8930211

00:25:18.915 --> 00:25:21.240 to ensure that we have adequate Lee

NOTE Confidence: 0.8930211

00:25:21.240 --> 00:25:23.354 staged the cancer imaging of the

NOTE Confidence: 0.8930211

00:25:23.354 --> 00:25:25.234 prostate using prostate MRI's dimension.

NOTE Confidence: 0.8930211

00:25:25.240 --> 00:25:26.990 Because it can identify areas

NOTE Confidence: 0.8930211

00:25:26.990 --> 00:25:28.040 that are concerning.

NOTE Confidence: 0.8930211  
00:25:28.040 --> 00:25:31.127 For high grade disease and regular visits.  
NOTE Confidence: 0.8930211  
00:25:31.130 --> 00:25:33.026 And the intention here is to  
NOTE Confidence: 0.8930211  
00:25:33.026 --> 00:25:34.290 offer timely curatives treatment  
NOTE Confidence: 0.8181389  
00:25:34.343 --> 00:25:36.520 if more aggressive disease is later found.  
NOTE Confidence: 0.83987725  
00:25:39.680 --> 00:25:40.703 The second option,  
NOTE Confidence: 0.83987725  
00:25:40.703 --> 00:25:42.749 if cancer is more aggressive and  
NOTE Confidence: 0.83987725  
00:25:42.749 --> 00:25:44.709 really focusing here on those  
NOTE Confidence: 0.83987725  
00:25:44.709 --> 00:25:46.649 cancers that are classified as  
NOTE Confidence: 0.83987725  
00:25:46.649 --> 00:25:48.457 intermediate and high risk diseases,  
NOTE Confidence: 0.83987725  
00:25:48.460 --> 00:25:50.290 surgical treatment and our objective.  
NOTE Confidence: 0.83987725  
00:25:50.290 --> 00:25:52.276 There is to completely remove the  
NOTE Confidence: 0.83987725  
00:25:52.276 --> 00:25:54.689 prostate using a robotic assisted approach.  
NOTE Confidence: 0.83987725  
00:25:54.690 --> 00:25:56.706 And what is the robotics this  
NOTE Confidence: 0.83987725  
00:25:56.706 --> 00:25:58.556 contraption here that we're showing  
NOTE Confidence: 0.83987725  
00:25:58.556 --> 00:26:00.324 but essentially involves making  
NOTE Confidence: 0.83987725

00:26:00.324 --> 00:26:02.534 small laparoscopic incisions in the  
NOTE Confidence: 0.83987725

00:26:02.600 --> 00:26:04.442 abdomen and using the surgical robot  
NOTE Confidence: 0.83987725

00:26:04.442 --> 00:26:06.438 to help us more precisely dissect  
NOTE Confidence: 0.83987725

00:26:06.438 --> 00:26:08.358 out the prostate and reconstruct  
NOTE Confidence: 0.83987725

00:26:08.358 --> 00:26:10.679 the urethra and bladder afterwards.  
NOTE Confidence: 0.83987725

00:26:10.680 --> 00:26:13.416 Some of the advantages are less blood loss,  
NOTE Confidence: 0.83987725

00:26:13.420 --> 00:26:15.478 a quicker recovery and a shorter  
NOTE Confidence: 0.83987725

00:26:15.478 --> 00:26:16.164 hospital stay.  
NOTE Confidence: 0.8308582

00:26:18.330 --> 00:26:19.974 And Lastly, focal therapy,  
NOTE Confidence: 0.8308582

00:26:19.974 --> 00:26:22.440 which involves treating a portion of  
NOTE Confidence: 0.8308582

00:26:22.513 --> 00:26:24.547 the prostate gland where we believe  
NOTE Confidence: 0.8308582

00:26:24.547 --> 00:26:27.349 the cancer to be detected and at Yale,  
NOTE Confidence: 0.8308582

00:26:27.350 --> 00:26:29.230 were increasingly relying on MRI  
NOTE Confidence: 0.8308582

00:26:29.230 --> 00:26:31.110 to help make that determination.  
NOTE Confidence: 0.8308582

00:26:31.110 --> 00:26:33.854 Previously we used to decide how much of  
NOTE Confidence: 0.8308582

00:26:33.854 --> 00:26:36.971 the how much of the prostate to treat

NOTE Confidence: 0.8308582

00:26:36.971 --> 00:26:39.759 based on the distribution of biopsy cores.

NOTE Confidence: 0.8308582

00:26:39.760 --> 00:26:42.076 But because MRI so reliably identifies

NOTE Confidence: 0.8308582

00:26:42.076 --> 00:26:43.900 significant prostate cancer we use,

NOTE Confidence: 0.8308582

00:26:43.900 --> 00:26:46.420 we use that as our road map

NOTE Confidence: 0.8308582

00:26:46.420 --> 00:26:48.410 for the area to treat.

NOTE Confidence: 0.87735695

00:26:52.450 --> 00:26:54.388 And Lastly, I'll end with talking

NOTE Confidence: 0.87735695

00:26:54.388 --> 00:26:56.694 about what we're doing at Yale to

NOTE Confidence: 0.87735695

00:26:56.694 --> 00:26:58.279 improve the diagnosis and treatment

NOTE Confidence: 0.87735695

00:26:58.279 --> 00:27:00.248 of early stage prostate cancer.

NOTE Confidence: 0.87735695

00:27:00.250 --> 00:27:02.284 I think probably the most significant

NOTE Confidence: 0.87735695

00:27:02.284 --> 00:27:04.300 change has been changed in the

NOTE Confidence: 0.87735695

00:27:04.300 --> 00:27:05.800 entire paradigm of detection through

NOTE Confidence: 0.87735695

00:27:05.800 --> 00:27:08.038 the use of image guided diagnosis,

NOTE Confidence: 0.87735695

00:27:08.040 --> 00:27:10.343 and here is sort of a more

NOTE Confidence: 0.87735695

00:27:10.343 --> 00:27:11.741 detailed picture describing how

NOTE Confidence: 0.87735695



00:27:11.741 --> 00:27:13.466 we actually do that diagnosis,  
NOTE Confidence: 0.87735695

00:27:13.470 --> 00:27:17.205 how we how we make that Fusion biopsy occur.  
NOTE Confidence: 0.87735695

00:27:17.210 --> 00:27:20.026 And this is really a two step process,  
NOTE Confidence: 0.87735695

00:27:20.030 --> 00:27:21.725 which I'll highlight briefly where  
NOTE Confidence: 0.87735695

00:27:21.725 --> 00:27:23.900 we obtain an MRI image before,  
NOTE Confidence: 0.87735695

00:27:23.900 --> 00:27:26.084 which is highlighted here and we work  
NOTE Confidence: 0.87735695

00:27:26.084 --> 00:27:27.855 with our radiology colleagues to  
NOTE Confidence: 0.87735695

00:27:27.855 --> 00:27:29.780 identify areas that are suspicious  
NOTE Confidence: 0.87735695

00:27:29.780 --> 00:27:30.935 for prostate cancer.  
NOTE Confidence: 0.87735695

00:27:30.940 --> 00:27:33.046 Then, as the biopsy is occurring,  
NOTE Confidence: 0.87735695

00:27:33.050 --> 00:27:34.810 the urologist creates a 3D  
NOTE Confidence: 0.87735695

00:27:34.810 --> 00:27:36.218 representation of the prostate,  
NOTE Confidence: 0.87735695

00:27:36.220 --> 00:27:37.144 using an ultrasound,  
NOTE Confidence: 0.87735695

00:27:37.144 --> 00:27:39.751 and in the final step we merge those  
NOTE Confidence: 0.87735695

00:27:39.751 --> 00:27:41.686 two imaging modalities together and  
NOTE Confidence: 0.87735695

00:27:41.686 --> 00:27:43.959 help identify the area of concern.

NOTE Confidence: 0.87735695  
00:27:43.960 --> 00:27:45.396 So in this picture,  
NOTE Confidence: 0.87735695  
00:27:45.396 --> 00:27:47.191 this Red Square represents the  
NOTE Confidence: 0.87735695  
00:27:47.191 --> 00:27:49.377 area we believe to be cancerous.  
NOTE Confidence: 0.87735695  
00:27:49.380 --> 00:27:51.294 And the Fusion Biopsy Machine is  
NOTE Confidence: 0.87735695  
00:27:51.294 --> 00:27:53.736 going to help us direct our biopsies  
NOTE Confidence: 0.87735695  
00:27:53.736 --> 00:27:56.291 with right to this zone to determine  
NOTE Confidence: 0.87735695  
00:27:56.358 --> 00:27:58.508 whether or not cancerous present.  
NOTE Confidence: 0.8695392  
00:28:00.890 --> 00:28:02.640 And this really does work.  
NOTE Confidence: 0.8695392  
00:28:02.640 --> 00:28:05.232 We have found in our data which has been  
NOTE Confidence: 0.8695392  
00:28:05.232 --> 00:28:07.518 seen at several other institutions.  
NOTE Confidence: 0.8695392  
00:28:07.520 --> 00:28:09.270 This yields to about a.  
NOTE Confidence: 0.8695392  
00:28:09.270 --> 00:28:12.056 This results in about a 30% greater yield  
NOTE Confidence: 0.8695392  
00:28:12.056 --> 00:28:14.492 of high risk prostate cancer if present,  
NOTE Confidence: 0.8695392  
00:28:14.500 --> 00:28:17.652 and also allows us to reduce the number  
NOTE Confidence: 0.8695392  
00:28:17.652 --> 00:28:21.529 of low risk cancers that we are detecting.  
NOTE Confidence: 0.8695392

00:28:21.530 --> 00:28:24.082 And the last thing that I'll touch on  
NOTE Confidence: 0.8695392

00:28:24.082 --> 00:28:26.846 briefly is the use of technology and  
NOTE Confidence: 0.8695392

00:28:26.846 --> 00:28:29.330 Genomic classifiers for patients who have  
NOTE Confidence: 0.8695392

00:28:29.330 --> 00:28:31.829 who are found to have prostate cancer.  
NOTE Confidence: 0.8695392

00:28:31.830 --> 00:28:33.774 To help give us more prognostic  
NOTE Confidence: 0.8695392

00:28:33.774 --> 00:28:35.876 information and help us make the  
NOTE Confidence: 0.8695392

00:28:35.876 --> 00:28:37.360 determination of whether cancers  
NOTE Confidence: 0.8695392

00:28:37.360 --> 00:28:39.560 are aggressive or not aggressive.  
NOTE Confidence: 0.8695392

00:28:39.560 --> 00:28:42.416 And here are the results of two Genomic  
NOTE Confidence: 0.8695392

00:28:42.416 --> 00:28:44.602 Classifiers which work by looking at  
NOTE Confidence: 0.8695392

00:28:44.602 --> 00:28:46.708 gene expression levels within a tumor  
NOTE Confidence: 0.8695392

00:28:46.774 --> 00:28:49.448 taken through biopsy to help us make  
NOTE Confidence: 0.8695392

00:28:49.448 --> 00:28:51.366 that determination about whether the  
NOTE Confidence: 0.8695392

00:28:51.366 --> 00:28:53.664 cancer is aggressive or non aggressive.  
NOTE Confidence: 0.8695392

00:28:53.670 --> 00:28:55.848 And this has very practical utility  
NOTE Confidence: 0.8695392

00:28:55.848 --> 00:28:58.742 and helping us decide if a patient is

NOTE Confidence: 0.8695392

00:28:58.742 --> 00:29:00.462 a candidate for active surveillance

NOTE Confidence: 0.8695392

00:29:00.462 --> 00:29:02.651 to really be more certain that

NOTE Confidence: 0.8695392

00:29:02.651 --> 00:29:04.974 their prostate cancer is low risk,

NOTE Confidence: 0.8695392

00:29:04.974 --> 00:29:08.178 or if it's more aggressive too.

NOTE Confidence: 0.8695392

00:29:08.180 --> 00:29:10.518 Point them in the direction of more,

NOTE Confidence: 0.8695392

00:29:10.520 --> 00:29:11.519 more definitive therapy.

NOTE Confidence: 0.863401

00:29:13.670 --> 00:29:15.894 So I think I'll end there before I

NOTE Confidence: 0.863401

00:29:15.894 --> 00:29:18.330 run over and conclude by saying that

NOTE Confidence: 0.863401

00:29:18.330 --> 00:29:20.730 prostate cancer is common in all men.

NOTE Confidence: 0.863401

00:29:20.730 --> 00:29:22.836 There are risks and benefits to

NOTE Confidence: 0.863401

00:29:22.836 --> 00:29:24.570 screening for prostate cancer that

NOTE Confidence: 0.863401

00:29:24.570 --> 00:29:26.425 are that are clear and the decision

NOTE Confidence: 0.863401

00:29:26.425 --> 00:29:28.351 to be screen should really occur

NOTE Confidence: 0.863401

00:29:28.351 --> 00:29:30.355 within the context of a careful

NOTE Confidence: 0.863401

00:29:30.360 --> 00:29:32.922 discussion with the primary care doctor

NOTE Confidence: 0.863401

00:29:32.922 --> 00:29:35.320 or physician who knows you well.  
NOTE Confidence: 0.863401

00:29:35.320 --> 00:29:37.270 There are recent advances in  
NOTE Confidence: 0.863401

00:29:37.270 --> 00:29:39.220 image guided diagnosis which have  
NOTE Confidence: 0.863401

00:29:39.284 --> 00:29:41.696 changed the paradigm for the early  
NOTE Confidence: 0.863401

00:29:41.696 --> 00:29:43.304 detection of prostate cancer.  
NOTE Confidence: 0.863401

00:29:43.310 --> 00:29:44.912 And the treatment for detecting cancer  
NOTE Confidence: 0.863401

00:29:44.912 --> 00:29:46.693 should be based on careful consideration  
NOTE Confidence: 0.863401

00:29:46.693 --> 00:29:48.685 of all the options including monitoring  
NOTE Confidence: 0.863401

00:29:48.685 --> 00:29:50.374 or active surveillance for candidates  
NOTE Confidence: 0.863401

00:29:50.374 --> 00:29:51.989 to avoid treatment in situations  
NOTE Confidence: 0.863401

00:29:51.989 --> 00:29:55.268 where it is unlikely to benefit.  
NOTE Confidence: 0.863401

00:29:55.270 --> 00:29:56.950 In terms of treatment modalities  
NOTE Confidence: 0.863401

00:29:56.950 --> 00:29:58.630 surgery radiation therapy and focal  
NOTE Confidence: 0.863401

00:29:58.679 --> 00:30:00.309 therapy are all effective option.  
NOTE Confidence: 0.863401

00:30:00.310 --> 00:30:02.185 For men with localized prostate  
NOTE Confidence: 0.863401

00:30:02.185 --> 00:30:04.639 cancers and are all offered at Yale.

NOTE Confidence: 0.863401  
00:30:04.640 --> 00:30:05.344 And Lastly,  
NOTE Confidence: 0.863401  
00:30:05.344 --> 00:30:07.456 there are improvements that are constantly  
NOTE Confidence: 0.863401  
00:30:07.456 --> 00:30:09.698 being iterated upon and constantly underway.  
NOTE Confidence: 0.863401  
00:30:09.700 --> 00:30:11.866 In terms of the accuracy of  
NOTE Confidence: 0.863401  
00:30:11.866 --> 00:30:12.949 diagnosis and treatment.  
NOTE Confidence: 0.863401  
00:30:12.950 --> 00:30:14.750 So I will end there.  
NOTE Confidence: 0.863401  
00:30:14.750 --> 00:30:18.747 Thank you for your time and consideration.  
NOTE Confidence: 0.863401  
00:30:18.750 --> 00:30:20.178 Thank you for the invitation Bruce.  
NOTE Confidence: 0.8235814  
00:30:21.740 --> 00:30:25.548 Thanks very much. So is with excellent.  
NOTE Confidence: 0.8235814  
00:30:25.550 --> 00:30:29.940 China. Share my screen next year.  
NOTE Confidence: 0.90053207  
00:30:45.980 --> 00:30:49.250 Let's see, can you see my  
NOTE Confidence: 0.90053207  
00:30:49.250 --> 00:30:51.420 screen? There try again.  
NOTE Confidence: 0.9145432  
00:31:02.200 --> 00:31:04.900 Can you see the screen now?  
NOTE Confidence: 0.9145432  
00:31:04.900 --> 00:31:07.440 OK perfect alright very good.  
NOTE Confidence: 0.67484164  
00:31:09.890 --> 00:31:11.309 Start this lunch.  
NOTE Confidence: 0.92695737

00:31:16.770 --> 00:31:21.580 OK. So my talk tonight would be and advances

NOTE Confidence: 0.92695737

00:31:21.580 --> 00:31:23.540 in radiation therapy, prostate cancer.

NOTE Confidence: 0.92695737

00:31:23.540 --> 00:31:26.420 Just to reiterate on the medical director for

NOTE Confidence: 0.92695737

00:31:26.485 --> 00:31:28.870 radiation oncology at Greenwich Hospital.

NOTE Confidence: 0.92695737

00:31:28.870 --> 00:31:31.534 I came down here about a year ago when

NOTE Confidence: 0.92695737

00:31:31.534 --> 00:31:33.860 smile came down to enhance services

NOTE Confidence: 0.92695737

00:31:33.860 --> 00:31:36.713 here in Greenwich and before that I was

NOTE Confidence: 0.92695737

00:31:36.713 --> 00:31:39.051 up in the Trumbull site for 10 years.

NOTE Confidence: 0.92695737

00:31:39.051 --> 00:31:41.457 And there's a lot of exciting

NOTE Confidence: 0.92695737

00:31:41.457 --> 00:31:43.180 stuff that's going on an.

NOTE Confidence: 0.92695737

00:31:43.180 --> 00:31:45.056 In this space radiation,

NOTE Confidence: 0.92695737

00:31:45.056 --> 00:31:47.870 so highlight some of those things.

NOTE Confidence: 0.92695737

00:31:47.870 --> 00:31:50.210 The first thing I want to

NOTE Confidence: 0.92695737

00:31:50.210 --> 00:31:51.770 show is really just.

NOTE Confidence: 0.92695737

00:31:51.770 --> 00:31:54.794 A schematic, let me see if I can.

NOTE Confidence: 0.92695737

00:31:54.800 --> 00:31:57.088 Start the slideshow Gamuda

NOTE Confidence: 0.8271356

00:31:59.410 --> 00:32:01.657 is having trouble planning to the cartoon,

NOTE Confidence: 0.8271356

00:32:01.660 --> 00:32:04.228 but that's OK if you look at this.

NOTE Confidence: 0.8271356

00:32:04.230 --> 00:32:06.150 This picture on the lower right.

NOTE Confidence: 0.8271356

00:32:06.150 --> 00:32:08.751 This is a picture of the machine that we

NOTE Confidence: 0.8271356

00:32:08.751 --> 00:32:11.604 have at Greenwich that's made by Co variant,

NOTE Confidence: 0.8271356

00:32:11.610 --> 00:32:13.215 which is the market leader

NOTE Confidence: 0.8271356

00:32:13.215 --> 00:32:14.178 and British equipment.

NOTE Confidence: 0.8271356

00:32:14.180 --> 00:32:17.069 It's called the true beam and this part here.

NOTE Confidence: 0.8271356

00:32:17.070 --> 00:32:19.462 Hope you can see my cursor is where

NOTE Confidence: 0.8271356

00:32:19.462 --> 00:32:21.691 the patient lies an this I'll see

NOTE Confidence: 0.8271356

00:32:21.691 --> 00:32:23.658 shaped object is really the radiation

NOTE Confidence: 0.8271356

00:32:23.658 --> 00:32:26.362 machine with some of the power of it

NOTE Confidence: 0.8271356

00:32:26.362 --> 00:32:28.620 coming from behind and the this area.

NOTE Confidence: 0.8271356

00:32:28.620 --> 00:32:30.370 Here is the treatment head

NOTE Confidence: 0.8271356

00:32:30.370 --> 00:32:31.420 and their radiation.

NOTE Confidence: 0.8271356



00:32:31.420 --> 00:32:33.796 Comes down in this direction and we can  
NOTE Confidence: 0.8271356

00:32:33.796 --> 00:32:35.718 spin this machine around the patient  
NOTE Confidence: 0.8271356

00:32:35.718 --> 00:32:38.346 and we can move this this couch that  
NOTE Confidence: 0.8271356

00:32:38.346 --> 00:32:40.350 we can approach the treatment site  
NOTE Confidence: 0.8271356

00:32:40.350 --> 00:32:42.300 from many different angles and with  
NOTE Confidence: 0.8271356

00:32:42.300 --> 00:32:44.220 using a lot of different shapes.  
NOTE Confidence: 0.8141377

00:32:46.500 --> 00:32:48.705 If we look here, actually come back.  
NOTE Confidence: 0.8141377

00:32:48.710 --> 00:32:50.290 If you look at that,  
NOTE Confidence: 0.8141377

00:32:50.290 --> 00:32:51.870 this portion is treatment head.  
NOTE Confidence: 0.8141377

00:32:51.870 --> 00:32:53.914 If we zoom in in your to  
NOTE Confidence: 0.8141377

00:32:53.914 --> 00:32:55.660 look up into that head,  
NOTE Confidence: 0.8141377

00:32:55.660 --> 00:32:58.188 you would see an object looks like this.  
NOTE Confidence: 0.8141377

00:32:58.190 --> 00:33:00.718 It's called an LLC or a multileaf collimator.  
NOTE Confidence: 0.8141377

00:33:00.720 --> 00:33:02.460 And what this is is a  
NOTE Confidence: 0.8141377

00:33:02.460 --> 00:33:04.200 bunch of very thin leaves,  
NOTE Confidence: 0.8141377

00:33:04.200 --> 00:33:05.604 metal leaves and satisfied.

NOTE Confidence: 0.8141377

00:33:05.604 --> 00:33:07.710 They usually made of tungsten or

NOTE Confidence: 0.8141377

00:33:07.770 --> 00:33:09.696 tungsten alloy that are very thick

NOTE Confidence: 0.8141377

00:33:09.696 --> 00:33:11.836 there about 3 inches thick but very

NOTE Confidence: 0.8141377

00:33:11.836 --> 00:33:14.334 narrow and as you can see this as this

NOTE Confidence: 0.8141377

00:33:14.334 --> 00:33:16.296 strange Oval oblong shape and we.

NOTE Confidence: 0.8141377

00:33:16.300 --> 00:33:18.148 Create any shape we want within

NOTE Confidence: 0.8141377

00:33:18.148 --> 00:33:20.130 that to conform to the target,

NOTE Confidence: 0.8141377

00:33:20.130 --> 00:33:21.725 and people often ask you

NOTE Confidence: 0.8141377

00:33:21.725 --> 00:33:23.320 when they come for radiation,

NOTE Confidence: 0.8141377

00:33:23.320 --> 00:33:25.126 whereas there was there lead blanket

NOTE Confidence: 0.8141377

00:33:25.126 --> 00:33:27.470 like they get in the dentist office.

NOTE Confidence: 0.8141377

00:33:27.470 --> 00:33:29.384 We explain that there's no lead

NOTE Confidence: 0.8141377

00:33:29.384 --> 00:33:31.285 blanket on you because the radiation

NOTE Confidence: 0.8141377

00:33:31.285 --> 00:33:33.549 that we use is in the Mega Voltage

NOTE Confidence: 0.8141377

00:33:33.614 --> 00:33:36.008 range of energy and at the dentist

NOTE Confidence: 0.8141377

00:33:36.008 --> 00:33:37.367 offices kilovoltage SAR radiation  
NOTE Confidence: 0.8141377

00:33:37.367 --> 00:33:39.329 is 1000 times more powerful and  
NOTE Confidence: 0.8141377

00:33:39.329 --> 00:33:41.179 they go through or left blank.  
NOTE Confidence: 0.8141377

00:33:41.180 --> 00:33:42.038 It no problem.  
NOTE Confidence: 0.8141377

00:33:42.038 --> 00:33:44.040 So what we have instead is the  
NOTE Confidence: 0.8141377

00:33:44.111 --> 00:33:46.659 equivalent of a very thick lead blanket.  
NOTE Confidence: 0.8141377

00:33:46.660 --> 00:33:47.566 About 3 inches.  
NOTE Confidence: 0.8141377

00:33:47.566 --> 00:33:49.076 That's up in Heaven machine,  
NOTE Confidence: 0.8141377

00:33:49.080 --> 00:33:50.700 so that's really what's creating  
NOTE Confidence: 0.8141377

00:33:50.700 --> 00:33:52.919 not only the shaping for how we're  
NOTE Confidence: 0.8141377

00:33:52.919 --> 00:33:54.539 trying to get to the target,  
NOTE Confidence: 0.8141377

00:33:54.540 --> 00:33:57.010 but how we're protecting you.  
NOTE Confidence: 0.8141377

00:33:57.010 --> 00:33:59.761 In the Roman this is there have  
NOTE Confidence: 0.8141377

00:33:59.761 --> 00:34:01.350 been advances in the.  
NOTE Confidence: 0.8141377

00:34:01.350 --> 00:34:03.036 In the speed that these leaves  
NOTE Confidence: 0.8141377

00:34:03.036 --> 00:34:05.027 can move and how thin they can

NOTE Confidence: 0.8141377

00:34:05.027 --> 00:34:06.910 be in how broad the fields are.

NOTE Confidence: 0.8481395

00:34:09.040 --> 00:34:10.528 If we look at instead of

NOTE Confidence: 0.8481395

00:34:10.528 --> 00:34:12.070 from the side of machine,

NOTE Confidence: 0.8481395

00:34:12.070 --> 00:34:14.536 if we look in the lower right corner here.

NOTE Confidence: 0.8481395

00:34:14.540 --> 00:34:16.727 If you look face on at the machine you

NOTE Confidence: 0.8481395

00:34:16.727 --> 00:34:18.937 see here again as the treatment head,

NOTE Confidence: 0.8481395

00:34:18.940 --> 00:34:20.996 but on the sides there are two arms

NOTE Confidence: 0.8481395

00:34:20.996 --> 00:34:22.973 that can extend and this has what's

NOTE Confidence: 0.8481395

00:34:22.973 --> 00:34:25.540 called a cone beam CT and it comes out

NOTE Confidence: 0.8481395

00:34:25.540 --> 00:34:27.696 when you first put the patient on the

NOTE Confidence: 0.8481395

00:34:27.696 --> 00:34:29.720 table and it spins around and we get

NOTE Confidence: 0.8481395

00:34:29.783 --> 00:34:32.135 really what looks like a cat scan image.

NOTE Confidence: 0.8481395

00:34:32.140 --> 00:34:34.453 And so if you look at this image here

NOTE Confidence: 0.8481395

00:34:34.453 --> 00:34:36.728 with this is what's called an axial

NOTE Confidence: 0.8481395

00:34:36.728 --> 00:34:39.008 slices a slice through a man's pelvis.

NOTE Confidence: 0.8481395

00:34:39.010 --> 00:34:40.022 From side to side,  
NOTE Confidence: 0.8481395

00:34:40.022 --> 00:34:41.540 let's say along the Beltline and  
NOTE Confidence: 0.8481395

00:34:41.596 --> 00:34:42.994 when you look at these images  
NOTE Confidence: 0.8481395

00:34:42.994 --> 00:34:44.579 this they seem to be reversed,  
NOTE Confidence: 0.8481395

00:34:44.580 --> 00:34:46.302 in that it's likely looking someone  
NOTE Confidence: 0.8481395

00:34:46.302 --> 00:34:47.937 from their feet towards their heads  
NOTE Confidence: 0.8481395

00:34:47.937 --> 00:34:49.689 so the left side of the screen is  
NOTE Confidence: 0.8481395

00:34:49.737 --> 00:34:51.438 actually the right side of the person  
NOTE Confidence: 0.8481395

00:34:51.438 --> 00:34:53.430 and the left side is the right side.  
NOTE Confidence: 0.8481395

00:34:53.430 --> 00:34:55.110 And this down here is the back  
NOTE Confidence: 0.8481395

00:34:55.110 --> 00:34:56.210 and here's the front.  
NOTE Confidence: 0.8481395

00:34:56.210 --> 00:34:58.234 These objects on the side are the hips.  
NOTE Confidence: 0.8481395

00:34:58.240 --> 00:35:00.121 This is the pubic bone he ran right in  
NOTE Confidence: 0.8481395

00:35:00.121 --> 00:35:02.029 the center with these circles around.  
NOTE Confidence: 0.8481395

00:35:02.030 --> 00:35:03.530 This is the prostate.  
NOTE Confidence: 0.8481395

00:35:03.530 --> 00:35:04.655 In the process,

NOTE Confidence: 0.8481395

00:35:04.660 --> 00:35:06.436 he has 123 White appearing objects,

NOTE Confidence: 0.8481395

00:35:06.440 --> 00:35:08.378 which are actually fiducials or markers

NOTE Confidence: 0.8481395

00:35:08.378 --> 00:35:10.581 are helping us to track the prostate

NOTE Confidence: 0.8481395

00:35:10.581 --> 00:35:13.170 and behind it is the rectum and if we

NOTE Confidence: 0.8481395

00:35:13.170 --> 00:35:15.074 scrolled up then on top like Doctor

NOTE Confidence: 0.8481395

00:35:15.074 --> 00:35:16.790 Lehman was pointing out his picture

NOTE Confidence: 0.8481395

00:35:16.790 --> 00:35:19.064 is the bladder and So what we can

NOTE Confidence: 0.8481395

00:35:19.064 --> 00:35:20.877 do is take a planning scan before

NOTE Confidence: 0.8481395

00:35:20.937 --> 00:35:22.777 someone ever comes to treatment.

NOTE Confidence: 0.8481395

00:35:22.780 --> 00:35:25.052 We do a planning scan where we create

NOTE Confidence: 0.8481395

00:35:25.052 --> 00:35:27.109 a certain trem position and we start

NOTE Confidence: 0.8481395

00:35:27.109 --> 00:35:29.526 to map out how we're going to design

NOTE Confidence: 0.8481395

00:35:29.526 --> 00:35:31.689 these beams and then when they come

NOTE Confidence: 0.8481395

00:35:31.690 --> 00:35:33.874 for the daily treatments we can take

NOTE Confidence: 0.8481395

00:35:33.874 --> 00:35:35.909 this cone between image and fuse it.

NOTE Confidence: 0.8481395

00:35:35.910 --> 00:35:37.390 With the treatment planning image  
NOTE Confidence: 0.8481395

00:35:37.390 --> 00:35:40.042 and see just how on target we are and  
NOTE Confidence: 0.8481395

00:35:40.042 --> 00:35:42.075 make adjustments and on that day for  
NOTE Confidence: 0.8481395

00:35:42.075 --> 00:35:44.182 example for prostate case we can check  
NOTE Confidence: 0.8481395

00:35:44.182 --> 00:35:46.270 whether the bladder filling is is suitable,  
NOTE Confidence: 0.8481395

00:35:46.270 --> 00:35:48.321 that there's any gas in the rectum  
NOTE Confidence: 0.8481395

00:35:48.321 --> 00:35:50.408 that is too much for that day.  
NOTE Confidence: 0.8481395

00:35:50.410 --> 00:35:53.020 Is there any tip or role of the pelvis  
NOTE Confidence: 0.8481395

00:35:53.020 --> 00:35:55.239 mean to account for and ultimately  
NOTE Confidence: 0.8481395

00:35:55.239 --> 00:35:57.440 we use these gold markers too?  
NOTE Confidence: 0.8481395

00:35:57.440 --> 00:35:59.421 To do some fine fine tuning what  
NOTE Confidence: 0.8481395

00:35:59.421 --> 00:36:00.645 I'm bout millimeter submillimeter  
NOTE Confidence: 0.8481395

00:36:00.645 --> 00:36:02.892 accuracy and so in this view here  
NOTE Confidence: 0.8481395

00:36:02.892 --> 00:36:04.994 the picture which is in the top left  
NOTE Confidence: 0.8481395

00:36:04.994 --> 00:36:06.770 in the lower right is the original  
NOTE Confidence: 0.8481395

00:36:06.770 --> 00:36:08.730 cat scan and the top right and

NOTE Confidence: 0.8481395

00:36:08.792 --> 00:36:10.738 lower left are the cone beam CT.

NOTE Confidence: 0.8481395

00:36:10.740 --> 00:36:12.616 So you can see that the image

NOTE Confidence: 0.8481395

00:36:12.616 --> 00:36:14.423 quality is not exactly the same

NOTE Confidence: 0.8481395

00:36:14.423 --> 00:36:16.600 but it's very very very close

NOTE Confidence: 0.8481395

00:36:16.669 --> 00:36:18.377 and so this is what this is.

NOTE Confidence: 0.8481395

00:36:18.380 --> 00:36:20.920 One of the key things it's allowed us to be

NOTE Confidence: 0.8481395

00:36:20.980 --> 00:36:23.578 much more accurate with radiation treatment.

NOTE Confidence: 0.8481395

00:36:23.580 --> 00:36:25.904 And to really be be confident that

NOTE Confidence: 0.8481395

00:36:25.904 --> 00:36:28.766 we're on target each day so when we tell

NOTE Confidence: 0.8481395

00:36:28.766 --> 00:36:31.028 people when you come in get treated,

NOTE Confidence: 0.8481395

00:36:31.030 --> 00:36:32.974 we will not treat you unless

NOTE Confidence: 0.8481395

00:36:32.974 --> 00:36:34.270 we're totally satisfied that

NOTE Confidence: 0.8292764

00:36:34.330 --> 00:36:35.239 we're on target.

NOTE Confidence: 0.8292764

00:36:35.240 --> 00:36:37.508 We can get you off the table,

NOTE Confidence: 0.8292764

00:36:37.510 --> 00:36:39.130 reposition, do whatever we need to

NOTE Confidence: 0.8292764



00:36:39.130 --> 00:36:41.444 do to make sure that we're totally  
NOTE Confidence: 0.8292764

00:36:41.444 --> 00:36:43.016 satisfied before your treatment.  
NOTE Confidence: 0.8292764

00:36:43.020 --> 00:36:45.288 So that's been a very nice advance,  
NOTE Confidence: 0.8292764

00:36:45.290 --> 00:36:47.061 and our ability to to put higher  
NOTE Confidence: 0.8292764

00:36:47.061 --> 00:36:49.127 doses to the targets while maintaining  
NOTE Confidence: 0.8292764

00:36:49.127 --> 00:36:50.795 or improving side effects.  
NOTE Confidence: 0.8292764

00:36:50.800 --> 00:36:53.384 Along with that and going back to that,  
NOTE Confidence: 0.8292764

00:36:53.390 --> 00:36:54.698 Mercier that Multileaf Collimator.  
NOTE Confidence: 0.8292764

00:36:54.698 --> 00:36:56.973 We have been able to advance really  
NOTE Confidence: 0.8292764

00:36:56.973 --> 00:36:58.786 the style of the radiation that spit  
NOTE Confidence: 0.8292764

00:36:58.786 --> 00:37:00.918 out by the machine is ultimately the  
NOTE Confidence: 0.8292764

00:37:00.918 --> 00:37:02.752 radiation is going to positive dose  
NOTE Confidence: 0.8292764

00:37:02.752 --> 00:37:04.928 or an energy and that issue and we  
NOTE Confidence: 0.8292764

00:37:04.928 --> 00:37:07.081 would love to minimize the normal  
NOTE Confidence: 0.8292764

00:37:07.081 --> 00:37:08.896 tissue that's getting that dose.  
NOTE Confidence: 0.8292764

00:37:08.900 --> 00:37:10.838 But X Rays are X Rays,

NOTE Confidence: 0.8292764  
00:37:10.840 --> 00:37:13.440 so they'll enter you and go straight through,  
NOTE Confidence: 0.8292764  
00:37:13.440 --> 00:37:15.378 depositing those all the way along.  
NOTE Confidence: 0.8292764  
00:37:15.380 --> 00:37:16.676 They lose their powers.  
NOTE Confidence: 0.8292764  
00:37:16.676 --> 00:37:17.648 They go through,  
NOTE Confidence: 0.8292764  
00:37:17.650 --> 00:37:19.918 but they're still going through and through,  
NOTE Confidence: 0.8292764  
00:37:19.920 --> 00:37:22.264 so we have to be creative and work  
NOTE Confidence: 0.8292764  
00:37:22.264 --> 00:37:24.309 with our physics crew to figure  
NOTE Confidence: 0.8292764  
00:37:24.309 --> 00:37:26.391 out how to make this better.  
NOTE Confidence: 0.8292764  
00:37:26.400 --> 00:37:28.648 So on the left side of the screen  
NOTE Confidence: 0.8292764  
00:37:28.648 --> 00:37:30.385 you have something which was  
NOTE Confidence: 0.8292764  
00:37:30.385 --> 00:37:32.225 in advance in our field,  
NOTE Confidence: 0.8292764  
00:37:32.230 --> 00:37:34.814 maybe 2025 years ago is called 3D conformal.  
NOTE Confidence: 0.8292764  
00:37:34.820 --> 00:37:37.088 And what you did in this case,  
NOTE Confidence: 0.8292764  
00:37:37.090 --> 00:37:39.449 this is someone who is being treated.  
NOTE Confidence: 0.8292764  
00:37:39.450 --> 00:37:41.871 For cancer of the esophagus and so this is  
NOTE Confidence: 0.8292764

00:37:41.871 --> 00:37:44.484 the heart and the black areas of the lungs.

NOTE Confidence: 0.8292764

00:37:44.490 --> 00:37:46.303 And this is the spinal cord here

NOTE Confidence: 0.8292764

00:37:46.303 --> 00:37:48.408 and in the center of the target.

NOTE Confidence: 0.8292764

00:37:48.410 --> 00:37:50.650 And the color is called the Copler Wash,

NOTE Confidence: 0.8292764

00:37:50.650 --> 00:37:52.075 and it's corresponds to certain

NOTE Confidence: 0.8292764

00:37:52.075 --> 00:37:54.092 amount of dose is being used to

NOTE Confidence: 0.8292764

00:37:54.092 --> 00:37:55.688 the reddish color is higher dose,

NOTE Confidence: 0.8292764

00:37:55.690 --> 00:37:57.090 and the teal is medium,

NOTE Confidence: 0.8292764

00:37:57.090 --> 00:37:58.770 and the blue is lower dose.

NOTE Confidence: 0.8292764

00:37:58.770 --> 00:38:00.618 And in this case they took one

NOTE Confidence: 0.8292764

00:38:00.618 --> 00:38:02.282 beam coming in from the front

NOTE Confidence: 0.8292764

00:38:02.282 --> 00:38:04.172 and one being from the back and

NOTE Confidence: 0.8292764

00:38:04.233 --> 00:38:05.991 actually two beams from the side

NOTE Confidence: 0.8292764

00:38:05.991 --> 00:38:08.481 he see his little Speck of blue.

NOTE Confidence: 0.8292764

00:38:08.481 --> 00:38:11.103 That's all the way over here.

NOTE Confidence: 0.8292764

00:38:11.110 --> 00:38:12.970 And you can see it's concentrating

NOTE Confidence: 0.8292764

00:38:12.970 --> 00:38:14.210 those fairly well here,

NOTE Confidence: 0.8292764

00:38:14.210 --> 00:38:17.310 but you have a lot of dose to the heart,

NOTE Confidence: 0.8292764

00:38:17.310 --> 00:38:17.930 for example,

NOTE Confidence: 0.8292764

00:38:17.930 --> 00:38:20.100 and coming back by the spinal cord.

NOTE Confidence: 0.8292764

00:38:20.100 --> 00:38:21.650 And this fundamentally was limiting.

NOTE Confidence: 0.8292764

00:38:21.650 --> 00:38:24.130 How much dose that we could really deliver?

NOTE Confidence: 0.8292764

00:38:24.130 --> 00:38:25.990 Then you come to the right,

NOTE Confidence: 0.8292764

00:38:25.990 --> 00:38:27.796 which is a much more modern

NOTE Confidence: 0.8292764

00:38:27.796 --> 00:38:29.000 technique called intensity modulated

NOTE Confidence: 0.8292764

00:38:29.056 --> 00:38:30.328 radiation therapy for IMRT.

NOTE Confidence: 0.8292764

00:38:30.330 --> 00:38:32.034 In this is really using the

NOTE Confidence: 0.8292764

00:38:32.034 --> 00:38:33.740 full power of the machine.

NOTE Confidence: 0.8292764

00:38:33.740 --> 00:38:35.630 This is is figuring out which well

NOTE Confidence: 0.8292764

00:38:35.630 --> 00:38:37.769 I should say using multiple angles,

NOTE Confidence: 0.8292764

00:38:37.770 --> 00:38:40.698 not just one 2, three or four angles.

NOTE Confidence: 0.8292764

00:38:40.700 --> 00:38:42.152 We can in fact treat people  
NOTE Confidence: 0.8292764

00:38:42.152 --> 00:38:43.800 with a full 360 degree arc,  
NOTE Confidence: 0.8292764

00:38:43.800 --> 00:38:45.090 treating all the way around,  
NOTE Confidence: 0.8292764

00:38:45.090 --> 00:38:46.730 and we can also use that M else  
NOTE Confidence: 0.8292764

00:38:46.730 --> 00:38:48.462 or that multi leave collimator to  
NOTE Confidence: 0.8292764

00:38:48.462 --> 00:38:50.358 change the shape and the intensity  
NOTE Confidence: 0.8292764

00:38:50.413 --> 00:38:52.309 of the beam at each of those angles.  
NOTE Confidence: 0.8292764

00:38:52.310 --> 00:38:54.116 And so we put all that together.  
NOTE Confidence: 0.8292764

00:38:54.120 --> 00:38:55.919 You get a much more refined dose,  
NOTE Confidence: 0.8292764

00:38:55.920 --> 00:38:57.726 distributions you have the same same colors.  
NOTE Confidence: 0.8292764

00:38:57.730 --> 00:38:59.438 Here we can see there's nothing off  
NOTE Confidence: 0.8292764

00:38:59.438 --> 00:39:01.337 on the sides is really very little.  
NOTE Confidence: 0.8292764

00:39:01.340 --> 00:39:03.146 If anything touching that spinal canal there.  
NOTE Confidence: 0.8292764

00:39:03.150 --> 00:39:04.740 There's still a little bit in  
NOTE Confidence: 0.8292764

00:39:04.740 --> 00:39:05.800 the heart because the  
NOTE Confidence: 0.83610845

00:39:05.860 --> 00:39:07.085 heart is right next to

NOTE Confidence: 0.83610845

00:39:07.085 --> 00:39:08.310 solve this in this case,

NOTE Confidence: 0.83610845

00:39:08.310 --> 00:39:09.600 but it's much more concentrated,

NOTE Confidence: 0.83610845

00:39:09.600 --> 00:39:12.099 so again you have a safer treatment.

NOTE Confidence: 0.83610845

00:39:12.100 --> 00:39:13.660 More accurate and allows us if

NOTE Confidence: 0.83610845

00:39:13.660 --> 00:39:15.610 needed to to go to higher dose.

NOTE Confidence: 0.7962728

00:39:17.970 --> 00:39:20.244 Another technique which is become much

NOTE Confidence: 0.7962728

00:39:20.244 --> 00:39:22.558 more common and popular in the last,

NOTE Confidence: 0.7962728

00:39:22.560 --> 00:39:25.440 maybe 5 to 8 years is called stereotactic

NOTE Confidence: 0.7962728

00:39:25.440 --> 00:39:27.545 body radiation therapy or SBRT and

NOTE Confidence: 0.7962728

00:39:27.545 --> 00:39:29.970 this goes by bunch of different names,

NOTE Confidence: 0.7962728

00:39:29.970 --> 00:39:32.794 SP, Arty, of course is one of them.

NOTE Confidence: 0.7962728

00:39:32.800 --> 00:39:34.560 Saber is another or stereotactic

NOTE Confidence: 0.7962728

00:39:34.560 --> 00:39:35.616 ablative radiation therapy,

NOTE Confidence: 0.7962728

00:39:35.620 --> 00:39:38.287 an one machine that's become quite famous

NOTE Confidence: 0.7962728

00:39:38.287 --> 00:39:40.243 that uses definitions called cyber

NOTE Confidence: 0.7962728

00:39:40.243 --> 00:39:42.493 knife so lot people seen advertisements  
NOTE Confidence: 0.7962728

00:39:42.493 --> 00:39:44.465 for cyber knife on billboards or  
NOTE Confidence: 0.7962728

00:39:44.465 --> 00:39:46.601 on the radio or what have you.  
NOTE Confidence: 0.7962728

00:39:46.601 --> 00:39:49.338 And there are many machines that we  
NOTE Confidence: 0.7962728

00:39:49.338 --> 00:39:52.420 can do SB art, but the core of it.  
NOTE Confidence: 0.7962728

00:39:52.420 --> 00:39:55.020 This is kind of a wordy exclamation here,  
NOTE Confidence: 0.7962728

00:39:55.020 --> 00:39:57.747 but really what it is is you're using hyper  
NOTE Confidence: 0.7962728

00:39:57.747 --> 00:40:00.319 precise treatment over a very limited number.  
NOTE Confidence: 0.7962728

00:40:00.320 --> 00:40:02.024 Treatments instead of I'll talk a  
NOTE Confidence: 0.7962728

00:40:02.024 --> 00:40:04.100 little bit more about this in a minute,  
NOTE Confidence: 0.7962728

00:40:04.100 --> 00:40:05.450 but instead of bringing people  
NOTE Confidence: 0.7962728

00:40:05.450 --> 00:40:06.800 for multiple weeks of treatment,  
NOTE Confidence: 0.7962728

00:40:06.800 --> 00:40:08.780 you bring them for three.  
NOTE Confidence: 0.7962728

00:40:08.780 --> 00:40:09.892 Four or five treatments,  
NOTE Confidence: 0.7962728

00:40:09.892 --> 00:40:10.726 usually 5 treatments.  
NOTE Confidence: 0.7962728

00:40:10.730 --> 00:40:12.962 In the case of prostate and get all

NOTE Confidence: 0.7962728

00:40:12.962 --> 00:40:14.601 the treatment done and just those

NOTE Confidence: 0.7962728

00:40:14.601 --> 00:40:16.776 five now to get the power of five

NOTE Confidence: 0.7962728

00:40:16.776 --> 00:40:18.226 treatments in what would usually

NOTE Confidence: 0.7962728

00:40:18.226 --> 00:40:19.644 be a multi week treatment.

NOTE Confidence: 0.7962728

00:40:19.644 --> 00:40:21.276 Those trees have to be much

NOTE Confidence: 0.7962728

00:40:21.276 --> 00:40:22.450 more powerful per session.

NOTE Confidence: 0.7962728

00:40:22.450 --> 00:40:24.445 So that means that our burden of

NOTE Confidence: 0.7962728

00:40:24.445 --> 00:40:25.858 being extra accurate and really

NOTE Confidence: 0.7962728

00:40:25.858 --> 00:40:27.622 precise goes up even more and see

NOTE Confidence: 0.7962728

00:40:27.622 --> 00:40:29.705 if you see these pictures down here.

NOTE Confidence: 0.7962728

00:40:29.710 --> 00:40:31.774 Now we have an IMRT plan of prostate

NOTE Confidence: 0.7962728

00:40:31.774 --> 00:40:33.773 so to look at the anatomy again

NOTE Confidence: 0.7962728

00:40:33.773 --> 00:40:35.560 here the hips on the side.

NOTE Confidence: 0.7962728

00:40:35.560 --> 00:40:36.394 Pubic bone rectum.

NOTE Confidence: 0.7962728

00:40:36.394 --> 00:40:38.340 Here I'm going to talk a little

NOTE Confidence: 0.7962728



00:40:38.403 --> 00:40:39.627 later about what this.  
NOTE Confidence: 0.7962728

00:40:39.630 --> 00:40:43.059 Pink object is but here we have the prostate.  
NOTE Confidence: 0.7962728

00:40:43.060 --> 00:40:45.172 And you can see if that same kind  
NOTE Confidence: 0.7962728

00:40:45.172 --> 00:40:47.536 of color wash that there's really no  
NOTE Confidence: 0.7962728

00:40:47.536 --> 00:40:49.680 significant doses off on the side.  
NOTE Confidence: 0.7962728

00:40:49.680 --> 00:40:51.570 It's all concentrated right in here,  
NOTE Confidence: 0.7962728

00:40:51.570 --> 00:40:54.396 and the image on the right is an image,  
NOTE Confidence: 0.7962728

00:40:54.400 --> 00:40:56.266 as if we were looking straight  
NOTE Confidence: 0.7962728

00:40:56.266 --> 00:40:57.870 through from front to back,  
NOTE Confidence: 0.7962728

00:40:57.870 --> 00:41:00.078 and so here in yellow is the bladder  
NOTE Confidence: 0.7962728

00:41:00.078 --> 00:41:01.959 was the rector right behind?  
NOTE Confidence: 0.7962728

00:41:01.960 --> 00:41:03.850 This is the base of penis.  
NOTE Confidence: 0.7962728

00:41:03.850 --> 00:41:05.430 Here we have going here.  
NOTE Confidence: 0.7962728

00:41:05.430 --> 00:41:06.363 And so again,  
NOTE Confidence: 0.7962728

00:41:06.363 --> 00:41:08.914 you can see very little dose going to  
NOTE Confidence: 0.7962728

00:41:08.914 --> 00:41:11.100 the rectum. The bladder is nicely spared.

NOTE Confidence: 0.7962728

00:41:11.100 --> 00:41:13.068 Lot normal tissues will be spared.

NOTE Confidence: 0.7962728

00:41:13.070 --> 00:41:15.698 Using IMRT or SBRT.

NOTE Confidence: 0.80739486

00:41:18.180 --> 00:41:19.848 One thing that gets certainly a

NOTE Confidence: 0.80739486

00:41:19.848 --> 00:41:22.354 lot of press and a lot of interest

NOTE Confidence: 0.80739486

00:41:22.354 --> 00:41:23.686 from patients is Cyberknife,

NOTE Confidence: 0.80739486

00:41:23.690 --> 00:41:25.825 which we talked about there and protons.

NOTE Confidence: 0.80739486

00:41:25.830 --> 00:41:27.360 I'll skip over to siren,

NOTE Confidence: 0.80739486

00:41:27.360 --> 00:41:28.648 siren mentioned cyber knife.

NOTE Confidence: 0.80739486

00:41:28.648 --> 00:41:31.225 If you look at this machine you can

NOTE Confidence: 0.80739486

00:41:31.225 --> 00:41:32.983 see the shape is totally different

NOTE Confidence: 0.80739486

00:41:32.983 --> 00:41:35.010 than the one I showed you before,

NOTE Confidence: 0.80739486

00:41:35.010 --> 00:41:36.540 but with the true beam.

NOTE Confidence: 0.80739486

00:41:36.540 --> 00:41:38.484 This portion here is actually a

NOTE Confidence: 0.80739486

00:41:38.484 --> 00:41:40.111 miniaturized version of that machine

NOTE Confidence: 0.80739486

00:41:40.111 --> 00:41:42.043 and it's attached to a robot arm.

NOTE Confidence: 0.80739486

00:41:42.050 --> 00:41:43.555 Actually a similar robot to  
NOTE Confidence: 0.80739486

00:41:43.555 --> 00:41:45.410 what's used to help build cars,  
NOTE Confidence: 0.80739486

00:41:45.410 --> 00:41:48.236 and it allows this this race machine to be.  
NOTE Confidence: 0.80739486

00:41:48.240 --> 00:41:50.070 Manipulated in a lot of different  
NOTE Confidence: 0.80739486

00:41:50.070 --> 00:41:51.290 spaces throughout the room,  
NOTE Confidence: 0.80739486

00:41:51.290 --> 00:41:52.815 and ultimately it comes out  
NOTE Confidence: 0.80739486

00:41:52.815 --> 00:41:54.340 as a little pencil beam.  
NOTE Confidence: 0.80739486

00:41:54.340 --> 00:41:55.904 Instead of having that  
NOTE Confidence: 0.80739486

00:41:55.904 --> 00:41:57.077 multileaf collimator idea.  
NOTE Confidence: 0.80739486

00:41:57.080 --> 00:41:58.139 And this machine.  
NOTE Confidence: 0.80739486

00:41:58.139 --> 00:42:00.257 The reason it's become somewhat synonymous  
NOTE Confidence: 0.80739486

00:42:00.257 --> 00:42:02.052 with certain radiation treatments for  
NOTE Confidence: 0.80739486

00:42:02.052 --> 00:42:04.528 prostate is it was the earliest machine  
NOTE Confidence: 0.80739486

00:42:04.528 --> 00:42:06.526 used to treat prostate with Esport.  
NOTE Confidence: 0.80739486

00:42:06.530 --> 00:42:09.330 Now the fields advance so that our machine,  
NOTE Confidence: 0.80739486

00:42:09.330 --> 00:42:11.430 the true beam and many others

NOTE Confidence: 0.80739486

00:42:11.430 --> 00:42:12.830 can do us party,

NOTE Confidence: 0.80739486

00:42:12.830 --> 00:42:14.930 but you'll still see some offices

NOTE Confidence: 0.80739486

00:42:14.930 --> 00:42:16.330 and some some advertisements.

NOTE Confidence: 0.80739486

00:42:16.330 --> 00:42:18.430 Just calling it cyber knife instead

NOTE Confidence: 0.80739486

00:42:18.430 --> 00:42:19.830 of the stereotactic treatment.

NOTE Confidence: 0.80739486

00:42:19.830 --> 00:42:22.980 But it's very nice machine for what it does.

NOTE Confidence: 0.80739486

00:42:22.980 --> 00:42:25.080 It's not a very flexible machine,

NOTE Confidence: 0.80739486

00:42:25.080 --> 00:42:27.348 they can't do broader treatments or.

NOTE Confidence: 0.80739486

00:42:27.350 --> 00:42:29.996 It's not good for longer durations,

NOTE Confidence: 0.80739486

00:42:30.000 --> 00:42:33.536 but it's it's very good for small treatments.

NOTE Confidence: 0.80739486

00:42:33.540 --> 00:42:34.866 Protons is Holder.

NOTE Confidence: 0.80739486

00:42:34.866 --> 00:42:35.750 Exciting thing.

NOTE Confidence: 0.80739486

00:42:35.750 --> 00:42:37.172 Protons are very,

NOTE Confidence: 0.80739486

00:42:37.172 --> 00:42:39.542 very expensive machines that are

NOTE Confidence: 0.80739486

00:42:39.542 --> 00:42:42.634 growing in number in the US were

NOTE Confidence: 0.80739486

00:42:42.634 --> 00:42:45.193 still fairly limited because of their  
NOTE Confidence: 0.80739486

00:42:45.193 --> 00:42:48.119 cost and to install onto to maintain.  
NOTE Confidence: 0.80739486

00:42:48.120 --> 00:42:51.466 And they have a different physics property  
NOTE Confidence: 0.80739486

00:42:51.466 --> 00:42:54.939 in terms of how they deposit dose.  
NOTE Confidence: 0.80739486

00:42:54.940 --> 00:42:57.320 And before I am RT came along  
NOTE Confidence: 0.80739486

00:42:57.320 --> 00:42:59.687 Protons really had a dose advantage  
NOTE Confidence: 0.80739486

00:42:59.687 --> 00:43:01.387 in treating prostate cancer  
NOTE Confidence: 0.80739486

00:43:01.387 --> 00:43:04.078 compared to the older 3D technique.  
NOTE Confidence: 0.80739486

00:43:04.080 --> 00:43:06.186 But once we got I Marty,  
NOTE Confidence: 0.80739486

00:43:06.190 --> 00:43:08.654 and that's where teen is other things.  
NOTE Confidence: 0.80739486

00:43:08.660 --> 00:43:11.180 Now we're really able with machines like  
NOTE Confidence: 0.80739486

00:43:11.180 --> 00:43:13.895 the true beam to give the same kind  
NOTE Confidence: 0.80739486

00:43:13.895 --> 00:43:16.399 of dose deposit as Proton Machine does.  
NOTE Confidence: 0.80739486

00:43:16.400 --> 00:43:18.512 So we're not right now for  
NOTE Confidence: 0.80739486

00:43:18.512 --> 00:43:19.568 protons versus photons.  
NOTE Confidence: 0.80739486

00:43:19.570 --> 00:43:22.018 We're not really seeing any significant

NOTE Confidence: 0.80739486

00:43:22.018 --> 00:43:24.284 difference in the outcomes and on

NOTE Confidence: 0.80739486

00:43:24.284 --> 00:43:26.258 the cure rate on the side effects,

NOTE Confidence: 0.80739486

00:43:26.260 --> 00:43:29.176 but but it is an area of active research

NOTE Confidence: 0.80739486

00:43:29.176 --> 00:43:31.623 because there are some exciting physics

NOTE Confidence: 0.80739486

00:43:31.623 --> 00:43:34.089 properties of machine and and as a.

NOTE Confidence: 0.80739486

00:43:34.090 --> 00:43:36.412 Radiation feel we're looking to see

NOTE Confidence: 0.80739486

00:43:36.412 --> 00:43:38.765 which which cancer types might benefit

NOTE Confidence: 0.80739486

00:43:38.765 --> 00:43:41.327 from that which don't really need it,

NOTE Confidence: 0.80739486

00:43:41.330 --> 00:43:43.616 and how to harness that power.

NOTE Confidence: 0.80739486

00:43:43.620 --> 00:43:45.520 But for now, for prostate,

NOTE Confidence: 0.80739486

00:43:45.520 --> 00:43:45.891 really,

NOTE Confidence: 0.80739486

00:43:45.891 --> 00:43:48.117 there's no no advantage protons or

NOTE Confidence: 0.80739486

00:43:48.117 --> 00:43:50.090 photons or photons over Protons.

NOTE Confidence: 0.7532284

00:43:52.160 --> 00:43:54.887 So diving a little bit more into the you

NOTE Confidence: 0.7532284

00:43:54.887 --> 00:43:57.392 know how we use radiation, prostate cancer.

NOTE Confidence: 0.7532284

00:43:57.392 --> 00:43:59.884 There really are three settings I'm going  
NOTE Confidence: 0.7532284

00:43:59.884 --> 00:44:02.496 to touch on two of them. One is intact.  
NOTE Confidence: 0.7532284

00:44:02.496 --> 00:44:04.106 Prostate may have been diagnosed.  
NOTE Confidence: 0.7532284

00:44:04.110 --> 00:44:05.730 No surgery is taking place.  
NOTE Confidence: 0.7532284

00:44:05.730 --> 00:44:07.844 You're deciding whether to do surgery that  
NOTE Confidence: 0.7532284

00:44:07.844 --> 00:44:09.600 really options doctor Lehman mentioned.  
NOTE Confidence: 0.7532284

00:44:09.600 --> 00:44:11.220 Is it active surveillance surgery,  
NOTE Confidence: 0.7532284

00:44:11.220 --> 00:44:15.250 radiation or focal therapy? And.  
NOTE Confidence: 0.7532284

00:44:15.250 --> 00:44:16.925 There are within this round  
NOTE Confidence: 0.7532284

00:44:16.925 --> 00:44:18.600 there really two major options.  
NOTE Confidence: 0.7532284

00:44:18.600 --> 00:44:20.275 One is external beam radiation  
NOTE Confidence: 0.7532284

00:44:20.275 --> 00:44:21.950 which is used in conversations.  
NOTE Confidence: 0.7532284

00:44:21.950 --> 00:44:23.625 I've been showing where there's  
NOTE Confidence: 0.7532284

00:44:23.625 --> 00:44:24.965 nothing inserted that's radioactive.  
NOTE Confidence: 0.7532284

00:44:24.970 --> 00:44:26.806 You're just getting X Rays or  
NOTE Confidence: 0.7532284

00:44:26.806 --> 00:44:28.650 protons fired from a distance,

NOTE Confidence: 0.7532284

00:44:28.650 --> 00:44:30.660 and then you have breaky therapy,

NOTE Confidence: 0.7532284

00:44:30.660 --> 00:44:33.005 which is usually a radioactive seed implant.

NOTE Confidence: 0.7532284

00:44:33.010 --> 00:44:35.348 Most of the prostate radiation being done.

NOTE Confidence: 0.7532284

00:44:35.350 --> 00:44:37.695 the US these days is external beam,

NOTE Confidence: 0.7532284

00:44:37.700 --> 00:44:39.445 although there are some some

NOTE Confidence: 0.7532284

00:44:39.445 --> 00:44:41.190 specially sentence that you break

NOTE Confidence: 0.7532284

00:44:41.253 --> 00:44:43.245 you therapy and within the external

NOTE Confidence: 0.7532284

00:44:43.245 --> 00:44:45.200 beam world there really are three.

NOTE Confidence: 0.7532284

00:44:45.200 --> 00:44:47.558 Basic approach is there is that I am RT

NOTE Confidence: 0.7532284

00:44:47.558 --> 00:44:49.842 have been referring to which for this

NOTE Confidence: 0.7532284

00:44:49.842 --> 00:44:52.050 settings usually 40 to 45 treatments.

NOTE Confidence: 0.7532284

00:44:52.050 --> 00:44:53.946 Those are done as 15 minutes per day,

NOTE Confidence: 0.7532284

00:44:53.950 --> 00:44:55.062 five days a week.

NOTE Confidence: 0.7532284

00:44:55.062 --> 00:44:56.730 So you're talking about 8 to

NOTE Confidence: 0.7532284

00:44:56.791 --> 00:44:57.939 9 weeks of therapy.

NOTE Confidence: 0.7532284



00:44:57.940 --> 00:44:59.220 Then you have something which  
NOTE Confidence: 0.7532284

00:44:59.220 --> 00:45:01.100 is a bit of a mouthful,  
NOTE Confidence: 0.7532284

00:45:01.100 --> 00:45:02.248 but it's called moderately  
NOTE Confidence: 0.7532284

00:45:02.248 --> 00:45:03.109 hypofractionated by Marty.  
NOTE Confidence: 0.7532284

00:45:03.110 --> 00:45:04.832 This is using a little bit  
NOTE Confidence: 0.7532284

00:45:04.832 --> 00:45:05.980 higher dose per day,  
NOTE Confidence: 0.7532284

00:45:05.980 --> 00:45:07.124 but shortening the treatment  
NOTE Confidence: 0.7532284

00:45:07.124 --> 00:45:08.554 to 20 to 28 sessions,  
NOTE Confidence: 0.7532284

00:45:08.560 --> 00:45:10.657 and then you have this party that I was  
NOTE Confidence: 0.7532284

00:45:10.657 --> 00:45:12.859 just mentioning with the five treatments.  
NOTE Confidence: 0.8106178

00:45:14.920 --> 00:45:16.828 I won't speak tonight about and  
NOTE Confidence: 0.8106178

00:45:16.828 --> 00:45:18.100 less people have questions.  
NOTE Confidence: 0.8106178

00:45:18.100 --> 00:45:20.326 I'm happy to answer in the Q&A,  
NOTE Confidence: 0.8106178

00:45:20.330 --> 00:45:22.544 but I don't have any slides on how we're  
NOTE Confidence: 0.8106178

00:45:22.544 --> 00:45:24.459 using radiation after prostatectomy,  
NOTE Confidence: 0.8106178

00:45:24.460 --> 00:45:25.870 although that's an exciting area

NOTE Confidence: 0.8106178

00:45:25.870 --> 00:45:28.071 where if there seems to be prostate

NOTE Confidence: 0.8106178

00:45:28.071 --> 00:45:29.547 cancer recurrence after surgery,

NOTE Confidence: 0.8106178

00:45:29.550 --> 00:45:31.782 we can often come in and try to

NOTE Confidence: 0.8106178

00:45:31.782 --> 00:45:33.481 salvage things with some radiation

NOTE Confidence: 0.8106178

00:45:33.481 --> 00:45:35.266 dose and the other setting.

NOTE Confidence: 0.8106178

00:45:35.270 --> 00:45:39.455 I will talk about is all ago meta static.

NOTE Confidence: 0.8106178

00:45:39.460 --> 00:45:41.805 It really well. This is for news.

NOTE Confidence: 0.8106178

00:45:41.810 --> 00:45:43.730 Metastatic cancer is where it has

NOTE Confidence: 0.8106178

00:45:43.730 --> 00:45:45.490 spread beyond the prostate usually.

NOTE Confidence: 0.8106178

00:45:45.490 --> 00:45:46.874 What type of bones?

NOTE Confidence: 0.8106178

00:45:46.874 --> 00:45:49.336 In the case of prostate cancer and

NOTE Confidence: 0.8106178

00:45:49.336 --> 00:45:51.513 all ago means really just a few.

NOTE Confidence: 0.8106178

00:45:51.520 --> 00:45:54.535 So instead of there being 15 or 20 spots,

NOTE Confidence: 0.8106178

00:45:54.540 --> 00:45:56.215 maybe there's only one spot

NOTE Confidence: 0.8106178

00:45:56.215 --> 00:45:57.890 in about one or two.

NOTE Confidence: 0.8106178

00:45:57.890 --> 00:45:59.750 And is there something we can  
NOTE Confidence: 0.8106178

00:45:59.750 --> 00:46:01.910 do to go after those spots?  
NOTE Confidence: 0.8106178

00:46:01.910 --> 00:46:02.714 Just very limited?  
NOTE Confidence: 0.8106178

00:46:02.714 --> 00:46:04.590 So I speak from about this moderately  
NOTE Confidence: 0.8106178

00:46:04.638 --> 00:46:05.930 hypofractionated radiation.  
NOTE Confidence: 0.8106178

00:46:05.930 --> 00:46:07.620 So this is something that  
NOTE Confidence: 0.8106178

00:46:07.620 --> 00:46:09.610 was used more in the UK,  
NOTE Confidence: 0.8106178

00:46:09.610 --> 00:46:09.980 Canada.  
NOTE Confidence: 0.8106178

00:46:09.980 --> 00:46:12.200 Some other European countries and is  
NOTE Confidence: 0.8106178

00:46:12.200 --> 00:46:14.261 relatively new Comer to the USA Lot  
NOTE Confidence: 0.8106178

00:46:14.261 --> 00:46:16.280 brand new and like I was mentioning,  
NOTE Confidence: 0.8106178

00:46:16.280 --> 00:46:18.592 the whole idea is you know can we  
NOTE Confidence: 0.8106178

00:46:18.592 --> 00:46:21.406 bring men for fewer than 8 to 9 weeks  
NOTE Confidence: 0.8106178

00:46:21.406 --> 00:46:23.620 while still having a great toxicity  
NOTE Confidence: 0.8106178

00:46:23.620 --> 00:46:25.640 profile to integrate cure rate.  
NOTE Confidence: 0.8106178

00:46:25.640 --> 00:46:27.428 And the short answer is yes,

NOTE Confidence: 0.8106178

00:46:27.430 --> 00:46:28.602 you can do that.

NOTE Confidence: 0.8106178

00:46:28.602 --> 00:46:30.067 The side effect profile between

NOTE Confidence: 0.8106178

00:46:30.067 --> 00:46:32.108 that long course and I'll call this

NOTE Confidence: 0.8106178

00:46:32.108 --> 00:46:34.009 the medium course is very similar.

NOTE Confidence: 0.8106178

00:46:34.010 --> 00:46:35.678 It might have a slightly worse

NOTE Confidence: 0.8106178

00:46:35.678 --> 00:46:37.300 set of urinary side effects,

NOTE Confidence: 0.8106178

00:46:37.300 --> 00:46:39.172 meaning a little more urgency or

NOTE Confidence: 0.8106178

00:46:39.172 --> 00:46:41.024 frequency of urination or a little

NOTE Confidence: 0.8106178

00:46:41.024 --> 00:46:42.674 bit more of a burning sensation,

NOTE Confidence: 0.8106178

00:46:42.680 --> 00:46:44.180 at least temporarily during treatment.

NOTE Confidence: 0.8106178

00:46:44.180 --> 00:46:45.792 But overall very similar.

NOTE Confidence: 0.8106178

00:46:45.792 --> 00:46:47.404 And the bowel issues.

NOTE Confidence: 0.8106178

00:46:47.410 --> 00:46:49.804 Any loose stools or things that nature

NOTE Confidence: 0.8106178

00:46:49.804 --> 00:46:52.477 that we sometimes get looks to be identical.

NOTE Confidence: 0.8106178

00:46:52.480 --> 00:46:54.293 So it seems like for most men

NOTE Confidence: 0.8106178

00:46:54.293 --> 00:46:56.434 that it's a very nice trade off  
NOTE Confidence: 0.8106178

00:46:56.434 --> 00:46:58.372 in terms of more convenient but  
NOTE Confidence: 0.8106178

00:46:58.437 --> 00:47:00.527 not really trading anything in  
NOTE Confidence: 0.8106178

00:47:00.527 --> 00:47:02.617 exchange for being more convenient.  
NOTE Confidence: 0.8106178

00:47:02.620 --> 00:47:04.648 And in fact the NCCN guidelines.  
NOTE Confidence: 0.8106178

00:47:04.650 --> 00:47:04.983 Again,  
NOTE Confidence: 0.8106178

00:47:04.983 --> 00:47:06.648 the Doctor Lehman was referring  
NOTE Confidence: 0.8106178

00:47:06.648 --> 00:47:08.716 to earlier when you look at  
NOTE Confidence: 0.8106178

00:47:08.716 --> 00:47:10.056 this section for radiation,  
NOTE Confidence: 0.8106178

00:47:10.060 --> 00:47:11.650 they now updated that to say  
NOTE Confidence: 0.8106178

00:47:11.650 --> 00:47:13.611 that this this medium version is  
NOTE Confidence: 0.8106178

00:47:13.611 --> 00:47:14.883 moderately hypofractionated is  
NOTE Confidence: 0.8106178

00:47:14.883 --> 00:47:16.579 really the preferred approach.  
NOTE Confidence: 0.8106178

00:47:16.580 --> 00:47:18.970 For external being for treating  
NOTE Confidence: 0.8106178

00:47:18.970 --> 00:47:20.404 intact prostate cancer.  
NOTE Confidence: 0.8106178

00:47:20.410 --> 00:47:22.684 Interesting Lee with kovid you know

NOTE Confidence: 0.8106178

00:47:22.684 --> 00:47:25.327 we have been looking for ways of

NOTE Confidence: 0.8106178

00:47:25.327 --> 00:47:27.439 course to make things safer for

NOTE Confidence: 0.8106178

00:47:27.439 --> 00:47:29.686 patients and one of those things is

NOTE Confidence: 0.8106178

00:47:29.686 --> 00:47:31.614 keeping you out of medical centers.

NOTE Confidence: 0.8106178

00:47:31.614 --> 00:47:33.726 So this has been another reason

NOTE Confidence: 0.8106178

00:47:33.726 --> 00:47:36.077 why there's been a much more rapid

NOTE Confidence: 0.8106178

00:47:36.077 --> 00:47:37.662 adoption of this technique than

NOTE Confidence: 0.8106178

00:47:37.722 --> 00:47:39.657 we normally see because patients,

NOTE Confidence: 0.8106178

00:47:39.660 --> 00:47:41.460 family members and physicians and

NOTE Confidence: 0.8106178

00:47:41.460 --> 00:47:43.260 medical centers all been really

NOTE Confidence: 0.8106178

00:47:43.322 --> 00:47:44.210 aligned to your.

NOTE Confidence: 0.8106178

00:47:44.210 --> 00:47:47.010 How can we make this safer and shorter?

NOTE Confidence: 0.8106178

00:47:47.010 --> 00:47:49.460 And so this this data that's around,

NOTE Confidence: 0.8106178

00:47:49.460 --> 00:47:50.716 you know it's really.

NOTE Confidence: 0.8106178

00:47:50.716 --> 00:47:52.286 Really great tab on hand.

NOTE Confidence: 0.8106178

00:47:52.290 --> 00:47:54.106 Now we know we have to bring you  
NOTE Confidence: 0.8106178

00:47:54.106 --> 00:47:55.990 free to 9 weeks except in very  
NOTE Confidence: 0.8106178

00:47:55.990 --> 00:47:57.848 selected cases we can get the job  
NOTE Confidence: 0.8106178

00:47:57.848 --> 00:47:59.576 done in more like 4 to 5 weeks  
NOTE Confidence: 0.8106178

00:47:59.580 --> 00:48:01.274 or four to five and a half.  
NOTE Confidence: 0.84053385

00:48:04.220 --> 00:48:05.730 All of the meta static,  
NOTE Confidence: 0.84053385

00:48:05.730 --> 00:48:08.740 so this is a little bit of a busy slide,  
NOTE Confidence: 0.84053385

00:48:08.740 --> 00:48:10.245 but I'll break it down  
NOTE Confidence: 0.84053385

00:48:10.245 --> 00:48:11.750 into the top and bottom.  
NOTE Confidence: 0.84053385

00:48:11.750 --> 00:48:12.950 So like those mentioned,  
NOTE Confidence: 0.84053385

00:48:12.950 --> 00:48:13.850 although metastatic is,  
NOTE Confidence: 0.84053385

00:48:13.850 --> 00:48:15.360 it is spread somewhere else,  
NOTE Confidence: 0.84053385

00:48:15.360 --> 00:48:17.160 but to a very limited degree.  
NOTE Confidence: 0.84053385

00:48:17.160 --> 00:48:19.869 And years ago this is something where we say,  
NOTE Confidence: 0.84053385

00:48:19.870 --> 00:48:21.676 Well, you know it's already escaped,  
NOTE Confidence: 0.84053385

00:48:21.680 --> 00:48:22.952 were really just.

NOTE Confidence: 0.84053385

00:48:22.952 --> 00:48:24.952 You know, kind of playing defense

NOTE Confidence: 0.84053385

00:48:24.952 --> 00:48:27.169 here and see what we can do now.

NOTE Confidence: 0.84053385

00:48:27.170 --> 00:48:28.724 I think here from Doctor Patrylak

NOTE Confidence: 0.84053385

00:48:28.724 --> 00:48:30.420 about how we're getting more aggressive

NOTE Confidence: 0.84053385

00:48:30.420 --> 00:48:31.945 with meseck disease in general,

NOTE Confidence: 0.84053385

00:48:31.950 --> 00:48:33.612 but when we look at all

NOTE Confidence: 0.84053385

00:48:33.612 --> 00:48:35.040 going to stack would say,

NOTE Confidence: 0.84053385

00:48:35.040 --> 00:48:35.853 you know what?

NOTE Confidence: 0.84053385

00:48:35.853 --> 00:48:37.208 What about getting more aggressive

NOTE Confidence: 0.84053385

00:48:37.208 --> 00:48:38.409 with disease that's around?

NOTE Confidence: 0.84053385

00:48:38.410 --> 00:48:40.258 And so we have to really good

NOTE Confidence: 0.84053385

00:48:40.258 --> 00:48:41.994 trials and looked at that one

NOTE Confidence: 0.84053385

00:48:41.994 --> 00:48:43.469 was called the Stampede trial.

NOTE Confidence: 0.84053385

00:48:43.470 --> 00:48:44.880 Just came out recently and

NOTE Confidence: 0.84053385

00:48:44.880 --> 00:48:46.839 it showed that if we go back,

NOTE Confidence: 0.84053385



00:48:46.840 --> 00:48:49.088 even if you have spots outside the prostate,

NOTE Confidence: 0.84053385

00:48:49.090 --> 00:48:51.610 their limited if we go back and treat

NOTE Confidence: 0.84053385

00:48:51.610 --> 00:48:53.450 the prostate for 20 treatments.

NOTE Confidence: 0.84053385

00:48:53.450 --> 00:48:56.649 We can have an overall survival benefit.

NOTE Confidence: 0.84053385

00:48:56.650 --> 00:48:58.234 And you know that was something

NOTE Confidence: 0.84053385

00:48:58.234 --> 00:48:59.880 have been possibly for many years.

NOTE Confidence: 0.84053385

00:48:59.880 --> 00:49:02.024 But now we have the data says yes,

NOTE Confidence: 0.84053385

00:49:02.030 --> 00:49:03.380 we absolutely can do that,

NOTE Confidence: 0.84053385

00:49:03.380 --> 00:49:05.165 and it's actually a little bit lower

NOTE Confidence: 0.84053385

00:49:05.165 --> 00:49:07.097 dose that then we would use for

NOTE Confidence: 0.84053385

00:49:07.097 --> 00:49:08.487 an earlier stage prostate cancer.

NOTE Confidence: 0.84053385

00:49:08.490 --> 00:49:10.104 So we know that men tolerate

NOTE Confidence: 0.84053385

00:49:10.104 --> 00:49:11.180 it really quite well.

NOTE Confidence: 0.84053385

00:49:11.180 --> 00:49:12.788 And it has the survival benefit.

NOTE Confidence: 0.84053385

00:49:12.790 --> 00:49:15.877 So we're starting off with that a lot more.

NOTE Confidence: 0.84053385

00:49:15.880 --> 00:49:17.545 And the other question is, well,

NOTE Confidence: 0.84053385

00:49:17.545 --> 00:49:19.195 if you're going to the prostate,

NOTE Confidence: 0.84053385

00:49:19.200 --> 00:49:20.868 what about those two bone spots?

NOTE Confidence: 0.84053385

00:49:20.870 --> 00:49:21.974 What should you do?

NOTE Confidence: 0.84053385

00:49:21.974 --> 00:49:23.354 An are feeling was well,

NOTE Confidence: 0.84053385

00:49:23.360 --> 00:49:25.576 I think it makes sense to treat those,

NOTE Confidence: 0.84053385

00:49:25.580 --> 00:49:27.236 but we didn't have the data.

NOTE Confidence: 0.84053385

00:49:27.240 --> 00:49:28.620 Now we have some data.

NOTE Confidence: 0.84053385

00:49:28.620 --> 00:49:30.010 It's called the Oriole trial,

NOTE Confidence: 0.84053385

00:49:30.010 --> 00:49:31.914 and by going after those several spots

NOTE Confidence: 0.84053385

00:49:31.914 --> 00:49:33.889 with more aggressive treatment like that SPR,

NOTE Confidence: 0.84053385

00:49:33.890 --> 00:49:35.546 so very focused high dose treatment,

NOTE Confidence: 0.84053385

00:49:35.550 --> 00:49:37.206 we are able to show a

NOTE Confidence: 0.84053385

00:49:37.206 --> 00:49:38.034 progression free survival,

NOTE Confidence: 0.84053385

00:49:38.040 --> 00:49:39.696 meaning that you're not just alive,

NOTE Confidence: 0.84053385

00:49:39.700 --> 00:49:42.535 but things are being held in check.

NOTE Confidence: 0.84053385

00:49:42.540 --> 00:49:44.530 So very exciting application of  
NOTE Confidence: 0.84053385

00:49:44.530 --> 00:49:46.520 this fancier version of radiation,  
NOTE Confidence: 0.84053385

00:49:46.520 --> 00:49:49.934 really trying to help out in  
NOTE Confidence: 0.84053385

00:49:49.934 --> 00:49:52.210 the oligo metastatic setting.  
NOTE Confidence: 0.84053385

00:49:52.210 --> 00:49:54.594 Next time we talk about space or gel.  
NOTE Confidence: 0.84053385

00:49:54.600 --> 00:49:56.214 So this was that purple object  
NOTE Confidence: 0.84053385

00:49:56.214 --> 00:49:57.890 was referring to on priceline.  
NOTE Confidence: 0.84053385

00:49:57.890 --> 00:50:00.410 We have been looking into field for years.  
NOTE Confidence: 0.84053385

00:50:00.410 --> 00:50:02.210 Something to help protect the rectum.  
NOTE Confidence: 0.84053385

00:50:02.210 --> 00:50:04.610 Because if you look at this figure here,  
NOTE Confidence: 0.84053385

00:50:04.610 --> 00:50:06.410 which is against some of the  
NOTE Confidence: 0.84053385

00:50:06.410 --> 00:50:07.310 one doctor Lehman,  
NOTE Confidence: 0.84053385

00:50:07.310 --> 00:50:09.110 it showed you have the rectum  
NOTE Confidence: 0.84053385

00:50:09.110 --> 00:50:10.010 in the prostate.  
NOTE Confidence: 0.84053385

00:50:10.010 --> 00:50:11.912 This is looking like slicing from  
NOTE Confidence: 0.84053385

00:50:11.912 --> 00:50:13.910 straight from the front to the back.

NOTE Confidence: 0.84053385

00:50:13.910 --> 00:50:15.764 They recommend process usually touch each

NOTE Confidence: 0.84053385

00:50:15.764 --> 00:50:17.510 other and seeing different view here.

NOTE Confidence: 0.84053385

00:50:17.510 --> 00:50:19.547 So any dose were going to prostate

NOTE Confidence: 0.84053385

00:50:19.547 --> 00:50:21.109 at least the front bar.

NOTE Confidence: 0.84053385

00:50:21.110 --> 00:50:23.210 The rectum will get that same dose.

NOTE Confidence: 0.84053385

00:50:23.210 --> 00:50:25.324 So the higher we went with the

NOTE Confidence: 0.84053385

00:50:25.324 --> 00:50:27.180 curative dose to the higher the

NOTE Confidence: 0.84053385

00:50:27.180 --> 00:50:29.245 rectum got its dose and we were

NOTE Confidence: 0.84053385

00:50:29.315 --> 00:50:31.499 really looking to bring that down.

NOTE Confidence: 0.84053385

00:50:31.500 --> 00:50:33.642 And finally we have a product

NOTE Confidence: 0.84053385

00:50:33.642 --> 00:50:35.070 called space or gel.

NOTE Confidence: 0.84053385

00:50:35.070 --> 00:50:36.558 It's a biodegradable gel.

NOTE Confidence: 0.84053385

00:50:36.558 --> 00:50:38.790 It's inserted by the urologist between

NOTE Confidence: 0.83168614

00:50:38.857 --> 00:50:40.427 the prostate in the rectum.

NOTE Confidence: 0.83168614

00:50:40.430 --> 00:50:42.500 It stays there for three months

NOTE Confidence: 0.83168614

00:50:42.500 --> 00:50:44.310 and then dissolves back to  
NOTE Confidence: 0.83168614

00:50:44.310 --> 00:50:46.140 water over another three months.  
NOTE Confidence: 0.83168614

00:50:46.140 --> 00:50:47.331 Very well tolerated.  
NOTE Confidence: 0.83168614

00:50:47.331 --> 00:50:50.636 It's done using a little bit of anesthesia  
NOTE Confidence: 0.83168614

00:50:50.636 --> 00:50:53.336 and it has really helped tremendously  
NOTE Confidence: 0.83168614

00:50:53.336 --> 00:50:56.367 to get our dose the rectum down.  
NOTE Confidence: 0.83168614

00:50:56.370 --> 00:50:58.050 And the last time for me is just  
NOTE Confidence: 0.83168614

00:50:58.050 --> 00:50:59.884 just to point out quickly those  
NOTE Confidence: 0.83168614

00:50:59.884 --> 00:51:01.579 gold fiducials I've shown earlier,  
NOTE Confidence: 0.83168614

00:51:01.580 --> 00:51:03.764 again with this cone beam CT look here,  
NOTE Confidence: 0.83168614

00:51:03.770 --> 00:51:04.974 we often use gold,  
NOTE Confidence: 0.83168614

00:51:04.974 --> 00:51:06.780 but other products are there about  
NOTE Confidence: 0.83168614

00:51:06.839 --> 00:51:08.428 the size of a grain of rice,  
NOTE Confidence: 0.83168614

00:51:08.430 --> 00:51:10.124 and so we ask our colleagues at  
NOTE Confidence: 0.83168614

00:51:10.124 --> 00:51:11.837 Doctor Lehman to do is before  
NOTE Confidence: 0.83168614

00:51:11.837 --> 00:51:13.077 coming for radiation planning.

NOTE Confidence: 0.83168614

00:51:13.080 --> 00:51:14.872 Will have them put in three or

NOTE Confidence: 0.83168614

00:51:14.872 --> 00:51:16.558 four of these gold markers and

NOTE Confidence: 0.83168614

00:51:16.558 --> 00:51:18.553 the jail as part of 1 procedure.

NOTE Confidence: 0.83168614

00:51:18.560 --> 00:51:21.376 And then they come to us for that

NOTE Confidence: 0.83168614

00:51:21.376 --> 00:51:23.907 radiation planning and we take it from there.

NOTE Confidence: 0.83168614

00:51:23.910 --> 00:51:25.891 That's all my slides in the app

NOTE Confidence: 0.83168614

00:51:25.891 --> 00:51:28.360 and he can answer questions later.

NOTE Confidence: 0.8295886

00:51:30.730 --> 00:51:33.710 I appreciate your attention,

NOTE Confidence: 0.8295886

00:51:33.710 --> 00:51:36.328 let me. Stop showing slide.

NOTE Confidence: 0.8185657

00:51:41.560 --> 00:51:43.008 Stop sharing very good.

NOTE Confidence: 0.8185657

00:51:43.008 --> 00:51:45.634 So let me introduce radio happy induced

NOTE Confidence: 0.8185657

00:51:45.634 --> 00:51:48.287 doctor Petra Lack is our last speaker.

NOTE Confidence: 0.8185657

00:51:48.290 --> 00:51:50.160 He's a professor of Medicine

NOTE Confidence: 0.8185657

00:51:50.160 --> 00:51:51.656 and urology and Co.

NOTE Confidence: 0.8185657

00:51:51.660 --> 00:51:53.868 Leader of the cancer signaling networks

NOTE Confidence: 0.8185657

00:51:53.868 --> 00:51:56.520 research program at the Yale Cancer Center.

NOTE Confidence: 0.8185657

00:51:56.520 --> 00:51:58.974 He received his medical degree from

NOTE Confidence: 0.8185657

00:51:58.974 --> 00:52:00.992 Case Western Reserve University and

NOTE Confidence: 0.8185657

00:52:00.992 --> 00:52:02.876 joined the Yale faculty in 2012.

NOTE Confidence: 0.8185657

00:52:02.880 --> 00:52:05.232 He is a pioneer in the research

NOTE Confidence: 0.8185657

00:52:05.232 --> 00:52:07.582 and development of new drugs and

NOTE Confidence: 0.8185657

00:52:07.582 --> 00:52:09.400 treatments for prostate, bladder,

NOTE Confidence: 0.8185657

00:52:09.400 --> 00:52:11.560 kidney and testicular cancer.

NOTE Confidence: 0.8185657

00:52:11.560 --> 00:52:13.415 For patients fighting these types of cancers,

NOTE Confidence: 0.8185657

00:52:13.420 --> 00:52:14.875 he finds recent developments in

NOTE Confidence: 0.8185657

00:52:14.875 --> 00:52:16.330 the field of immunotherapy it

NOTE Confidence: 0.8185657

00:52:16.384 --> 00:52:17.768 to be particularly promising.

NOTE Confidence: 0.8185657

00:52:17.770 --> 00:52:19.384 And he's a national leader in

NOTE Confidence: 0.8185657

00:52:19.384 --> 00:52:20.856 clinical trials for men with

NOTE Confidence: 0.8185657

00:52:20.856 --> 00:52:22.200 prostate and bladder cancer,

NOTE Confidence: 0.8185657

00:52:22.200 --> 00:52:24.560 so I'll turn it over to Doctor Patrylak.

NOTE Confidence: 0.80367947

00:52:27.350 --> 00:52:29.825 Thanks Bruce. So I guess we have to share

NOTE Confidence: 0.80367947

00:52:29.825 --> 00:52:32.735 a screen here just while we're doing that.

NOTE Confidence: 0.80367947

00:52:32.740 --> 00:52:34.320 Was that Carnoustie in your

NOTE Confidence: 0.80367947

00:52:34.320 --> 00:52:37.400 last slide look like Scotland?

NOTE Confidence: 0.80367947

00:52:37.400 --> 00:52:39.860 Andrews OK, I was close. I was closed.

NOTE Confidence: 0.80367947

00:52:39.860 --> 00:52:42.030 I had the good pleasure of playing

NOTE Confidence: 0.80367947

00:52:42.098 --> 00:52:43.994 on Saturday and Sunday with the

NOTE Confidence: 0.80367947

00:52:43.994 --> 00:52:46.442 young man who was 63rd in the world

NOTE Confidence: 0.80367947

00:52:46.442 --> 00:52:49.014 who missed the cut at the US Open.

NOTE Confidence: 0.80367947

00:52:49.014 --> 00:52:52.178 An man that's on another level so.

NOTE Confidence: 0.80367947

00:52:52.180 --> 00:52:53.636 But it was a lot of fun.

NOTE Confidence: 0.80367947

00:52:53.640 --> 00:52:56.420 So how do I just hit the share screen here?

NOTE Confidence: 0.80367947

00:52:56.420 --> 00:52:57.470 Yes, exactly.

NOTE Confidence: 0.90864664

00:53:00.840 --> 00:53:02.541 If I can not get too many

NOTE Confidence: 0.90864664

00:53:02.541 --> 00:53:03.510 things here, let's see.

NOTE Confidence: 0.84481245



00:53:08.850 --> 00:53:10.670 Ann, you're all set. You  
NOTE Confidence: 0.84481245

00:53:10.670 --> 00:53:13.566 can just OK. I just go ahead terrific.  
NOTE Confidence: 0.84481245

00:53:13.570 --> 00:53:15.550 OK, so it's really great hearing  
NOTE Confidence: 0.84481245

00:53:15.550 --> 00:53:17.347 the two lectures from Doctor  
NOTE Confidence: 0.84481245

00:53:17.347 --> 00:53:19.007 McGibbon and Doctor Lehman.  
NOTE Confidence: 0.84481245

00:53:19.010 --> 00:53:21.000 Good friends and colleagues and  
NOTE Confidence: 0.84481245

00:53:21.000 --> 00:53:23.985 what I really would like to focus on  
NOTE Confidence: 0.84481245

00:53:23.985 --> 00:53:26.569 since this is a talk that's for the  
NOTE Confidence: 0.84481245

00:53:26.569 --> 00:53:28.789 community and for patients is how  
NOTE Confidence: 0.84481245

00:53:28.789 --> 00:53:30.989 we think about prostate cancer from  
NOTE Confidence: 0.84481245

00:53:30.989 --> 00:53:32.804 a medical oncology standpoint and.  
NOTE Confidence: 0.8526395

00:53:35.360 --> 00:53:37.268 What I'd like to talk about  
NOTE Confidence: 0.8526395

00:53:37.268 --> 00:53:39.580 first is how we all interact,  
NOTE Confidence: 0.8526395

00:53:39.580 --> 00:53:41.340 and it's important that your  
NOTE Confidence: 0.8526395

00:53:41.340 --> 00:53:42.748 urologist and Oncologist communicate,  
NOTE Confidence: 0.8526395

00:53:42.750 --> 00:53:44.790 and we at Yale like to look at

NOTE Confidence: 0.8526395

00:53:44.790 --> 00:53:47.775 this in terms that we call the

NOTE Confidence: 0.8526395

00:53:47.775 --> 00:53:48.735 multidisciplinary approach,

NOTE Confidence: 0.8526395

00:53:48.740 --> 00:53:50.144 which involves all treating

NOTE Confidence: 0.8526395

00:53:50.144 --> 00:53:51.197 clinicians for you.

NOTE Confidence: 0.8526395

00:53:51.200 --> 00:53:52.955 For the patience urologist medical

NOTE Confidence: 0.8526395

00:53:52.955 --> 00:53:54.014 Oncologist, Radiation Oncologist,

NOTE Confidence: 0.8526395

00:53:54.014 --> 00:53:56.830 and also your primary care docs as well.

NOTE Confidence: 0.8526395

00:53:56.830 --> 00:53:58.930 Because some of these treatments that

NOTE Confidence: 0.8526395

00:53:58.930 --> 00:54:01.027 you're going to receive have implications

NOTE Confidence: 0.8526395

00:54:01.027 --> 00:54:03.239 in terms of your bone health in

NOTE Confidence: 0.8526395

00:54:03.239 --> 00:54:05.339 terms of your cardiovascular health.

NOTE Confidence: 0.8526395

00:54:05.340 --> 00:54:07.900 And it's important that we were able to

NOTE Confidence: 0.8526395

00:54:07.900 --> 00:54:10.676 focus on that to give you the best care.

NOTE Confidence: 0.8526395

00:54:10.680 --> 00:54:13.272 And that's actually been proven in

NOTE Confidence: 0.8526395

00:54:13.272 --> 00:54:15.000 two different institutions where

NOTE Confidence: 0.8526395

00:54:15.066 --> 00:54:17.126 they have multi display clinics.  
NOTE Confidence: 0.8526395

00:54:17.130 --> 00:54:20.140 Doesn't have to be a physical clinic,  
NOTE Confidence: 0.8526395

00:54:20.140 --> 00:54:22.720 but the conditions should be communicating.  
NOTE Confidence: 0.8526395

00:54:22.720 --> 00:54:25.436 So Jefferson they found that there was  
NOTE Confidence: 0.8526395

00:54:25.436 --> 00:54:28.566 a better survival rate for patients with  
NOTE Confidence: 0.8526395

00:54:28.566 --> 00:54:30.926 advanced prostate cancer compared to  
NOTE Confidence: 0.8526395

00:54:30.926 --> 00:54:33.900 patients who were in the general population.  
NOTE Confidence: 0.8526395

00:54:33.900 --> 00:54:36.050 Jefferson uses a multidisciplinary approach,  
NOTE Confidence: 0.8526395

00:54:36.050 --> 00:54:38.630 same thing with University of Colorado.  
NOTE Confidence: 0.8526395

00:54:38.630 --> 00:54:40.830 Both institutions have demonstrated this.  
NOTE Confidence: 0.8526395

00:54:40.830 --> 00:54:43.161 That's why it's so important for physicians  
NOTE Confidence: 0.8526395

00:54:43.161 --> 00:54:45.049 to work together to communicate.  
NOTE Confidence: 0.8526395

00:54:45.050 --> 00:54:46.830 So we want to optimize  
NOTE Confidence: 0.8526395

00:54:46.830 --> 00:54:47.898 their patients outcomes.  
NOTE Confidence: 0.8526395

00:54:47.900 --> 00:54:49.680 We want to improve access  
NOTE Confidence: 0.8526395

00:54:49.680 --> 00:54:50.748 to specialty therapies.

NOTE Confidence: 0.8526395

00:54:50.750 --> 00:54:52.525 We want efficacy and patient

NOTE Confidence: 0.8526395

00:54:52.525 --> 00:54:53.590 and clinician schedules.

NOTE Confidence: 0.8526395

00:54:53.590 --> 00:54:54.878 We want to coordinate,

NOTE Confidence: 0.8526395

00:54:54.878 --> 00:54:56.810 care and want to improve provider

NOTE Confidence: 0.8526395

00:54:56.870 --> 00:54:58.710 communication with the patients through

NOTE Confidence: 0.8526395

00:54:58.710 --> 00:55:01.070 the entire course of the patient.

NOTE Confidence: 0.8526395

00:55:01.070 --> 00:55:03.224 Survivorship and that includes the team

NOTE Confidence: 0.8526395

00:55:03.224 --> 00:55:05.685 of nurses and nurse practitioners that

NOTE Confidence: 0.8526395

00:55:05.685 --> 00:55:08.080 work with each individual physician.

NOTE Confidence: 0.8526395

00:55:08.080 --> 00:55:10.864 So what's my role as a medical Oncologist?

NOTE Confidence: 0.8526395

00:55:10.870 --> 00:55:12.970 The management of your logical cancer.

NOTE Confidence: 0.8526395

00:55:12.970 --> 00:55:15.010 So what I do is I'll assess the

NOTE Confidence: 0.8526395

00:55:15.010 --> 00:55:17.368 need for additional therapy in the

NOTE Confidence: 0.8526395

00:55:17.368 --> 00:55:19.598 treatment of your logical malignancy.

NOTE Confidence: 0.8526395

00:55:19.600 --> 00:55:21.798 So if Doctor McGibbon has a patient

NOTE Confidence: 0.8526395

00:55:21.798 --> 00:55:23.596 who has localized prostate cancer  
NOTE Confidence: 0.8526395

00:55:23.596 --> 00:55:25.176 as you mentioned before,  
NOTE Confidence: 0.8526395

00:55:25.180 --> 00:55:26.920 whether this is Olga metastatic  
NOTE Confidence: 0.8526395

00:55:26.920 --> 00:55:28.312 disease or localized disease,  
NOTE Confidence: 0.8526395

00:55:28.320 --> 00:55:30.306 and they need hormone therapy or  
NOTE Confidence: 0.8526395

00:55:30.306 --> 00:55:32.424 the treatment in addition to their  
NOTE Confidence: 0.8526395

00:55:32.424 --> 00:55:34.259 hormones to their radiation therapy,  
NOTE Confidence: 0.8526395

00:55:34.260 --> 00:55:36.348 we administer that same thing with  
NOTE Confidence: 0.8526395

00:55:36.348 --> 00:55:38.314 Doctor Lehman. We help decide where.  
NOTE Confidence: 0.8526395

00:55:38.314 --> 00:55:39.894 Whether the patient needs additional  
NOTE Confidence: 0.8526395

00:55:39.894 --> 00:55:41.049 treatment post operatively,  
NOTE Confidence: 0.8526395

00:55:41.050 --> 00:55:42.630 such as a lymph node,  
NOTE Confidence: 0.8526395

00:55:42.630 --> 00:55:44.555 positive patient after they've had  
NOTE Confidence: 0.8526395

00:55:44.555 --> 00:55:46.876 their prostate cancer out and we  
NOTE Confidence: 0.8526395

00:55:46.876 --> 00:55:48.531 want to integrate the specialist  
NOTE Confidence: 0.8526395

00:55:48.531 --> 00:55:50.220 to deliver the best care.

NOTE Confidence: 0.8526395

00:55:50.220 --> 00:55:51.524 As we're seeing now,

NOTE Confidence: 0.8526395

00:55:51.524 --> 00:55:53.154 the pathologist is also playing

NOTE Confidence: 0.8526395

00:55:53.154 --> 00:55:55.617 an extremely important role in the

NOTE Confidence: 0.8526395

00:55:55.617 --> 00:55:57.692 management of advanced prostate cancer

NOTE Confidence: 0.8526395

00:55:57.753 --> 00:55:59.783 and will talk about why you should

NOTE Confidence: 0.8526395

00:55:59.783 --> 00:56:01.818 be asking your doctor about whether

NOTE Confidence: 0.8526395

00:56:01.818 --> 00:56:03.748 you have molecular marker testing

NOTE Confidence: 0.8526395

00:56:03.748 --> 00:56:05.929 that for your prostate disease.

NOTE Confidence: 0.8526395

00:56:05.930 --> 00:56:07.565 Why Glenn at Greenwich Hospital

NOTE Confidence: 0.8526395

00:56:07.565 --> 00:56:08.546 Yale Cancer Center.

NOTE Confidence: 0.8526395

00:56:08.550 --> 00:56:10.506 We have access to personalized care.

NOTE Confidence: 0.8526395

00:56:10.510 --> 00:56:11.524 We interact Urology,

NOTE Confidence: 0.8526395

00:56:11.524 --> 00:56:13.214 radiation oncology and pathology and

NOTE Confidence: 0.8526395

00:56:13.214 --> 00:56:14.759 medical oncology all work together.

NOTE Confidence: 0.8526395

00:56:14.760 --> 00:56:16.762 We have a weekly tumor board and

NOTE Confidence: 0.8526395

00:56:16.762 --> 00:56:19.395 one of the jokes that we had rather  
NOTE Confidence: 0.8526395

00:56:19.395 --> 00:56:21.630 than having a multi spring clinic,  
NOTE Confidence: 0.8526395

00:56:21.630 --> 00:56:23.305 we have multiple display office  
NOTE Confidence: 0.8526395

00:56:23.305 --> 00:56:25.549 where Doctor Lehman is down the Hall.  
NOTE Confidence: 0.8526395

00:56:25.550 --> 00:56:26.858 From the Doctor Kohlberg,  
NOTE Confidence: 0.8526395

00:56:26.858 --> 00:56:28.782 one of our surgeons, doctor Kenny.  
NOTE Confidence: 0.8526395

00:56:28.782 --> 00:56:31.230 We're all in the same place and we  
NOTE Confidence: 0.8526395

00:56:31.302 --> 00:56:34.046 often can't converse late at night to help.  
NOTE Confidence: 0.8526395

00:56:34.050 --> 00:56:37.530 Best take care of our patients.  
NOTE Confidence: 0.8569542

00:56:37.530 --> 00:56:38.481 What's the problem?  
NOTE Confidence: 0.8569542

00:56:38.481 --> 00:56:41.375 We know that prostate cancer is one of the  
NOTE Confidence: 0.8569542

00:56:41.375 --> 00:56:43.524 most commonly diagnosed a cancers in men,  
NOTE Confidence: 0.8569542

00:56:43.530 --> 00:56:45.426 it's 28% of all cancer diagnosis.  
NOTE Confidence: 0.8569542

00:56:45.430 --> 00:56:47.691 There is a bit of discordance because  
NOTE Confidence: 0.8569542

00:56:47.691 --> 00:56:49.897 it's only about 10% of cancer deaths.  
NOTE Confidence: 0.8569542

00:56:49.897 --> 00:56:51.542 It's the second leading cause

NOTE Confidence: 0.8569542

00:56:51.542 --> 00:56:53.009 of cancer death in men,

NOTE Confidence: 0.8569542

00:56:53.010 --> 00:56:55.302 but 30,000 men will die from

NOTE Confidence: 0.8569542

00:56:55.302 --> 00:56:56.830 metastatic disease every year.

NOTE Confidence: 0.8569542

00:56:56.830 --> 00:56:59.196 I think it's important to note in

NOTE Confidence: 0.8569542

00:56:59.196 --> 00:57:01.899 this I don't want to scare anybody,

NOTE Confidence: 0.8569542

00:57:01.900 --> 00:57:04.532 but it's important to note that this disease

NOTE Confidence: 0.8569542

00:57:04.532 --> 00:57:07.326 is not curable once it spreads outside,

NOTE Confidence: 0.8569542

00:57:07.330 --> 00:57:09.135 but it's controllable and we

NOTE Confidence: 0.8569542

00:57:09.135 --> 00:57:11.365 can have patients live 510 years

NOTE Confidence: 0.8569542

00:57:11.365 --> 00:57:13.115 with good quality of life.

NOTE Confidence: 0.8569542

00:57:13.120 --> 00:57:14.443 Good functional activity.

NOTE Confidence: 0.8569542

00:57:14.443 --> 00:57:17.089 And able to see their grandchildren

NOTE Confidence: 0.8569542

00:57:17.089 --> 00:57:19.271 graduate from college or to enjoy

NOTE Confidence: 0.8569542

00:57:19.271 --> 00:57:21.450 their retirement to do other things.

NOTE Confidence: 0.8569542

00:57:21.450 --> 00:57:24.831 So it's important again to define what

NOTE Confidence: 0.8569542



00:57:24.831 --> 00:57:28.848 the goals of care are for our patients.  
NOTE Confidence: 0.8569542

00:57:28.850 --> 00:57:30.896 We're moving into a new era  
NOTE Confidence: 0.8569542

00:57:30.896 --> 00:57:31.919 in prostate cancer,  
NOTE Confidence: 0.8569542

00:57:31.920 --> 00:57:34.688 and this is different than the way we've  
NOTE Confidence: 0.8569542

00:57:34.688 --> 00:57:37.379 been thinking about the disease in the past.  
NOTE Confidence: 0.8569542

00:57:37.380 --> 00:57:39.080 Breast cancer and lung cancer.  
NOTE Confidence: 0.8569542

00:57:39.080 --> 00:57:41.040 The tissue biopsies are obtained  
NOTE Confidence: 0.8569542

00:57:41.040 --> 00:57:43.345 are often looked or interrogated for  
NOTE Confidence: 0.8569542

00:57:43.345 --> 00:57:45.326 molecular markers such as her two neu  
NOTE Confidence: 0.8569542

00:57:45.326 --> 00:57:47.945 and a woman with breast cancer and alk.  
NOTE Confidence: 0.8569542

00:57:47.950 --> 00:57:49.154 EGFR in lung cancer.  
NOTE Confidence: 0.8569542

00:57:49.154 --> 00:57:51.768 These are all terms that if if you  
NOTE Confidence: 0.8569542

00:57:51.768 --> 00:57:53.618 have gone through this disease  
NOTE Confidence: 0.8569542

00:57:53.618 --> 00:57:55.110 process you'll you'll know,  
NOTE Confidence: 0.8569542

00:57:55.110 --> 00:57:56.810 but but again, prostate cancer,  
NOTE Confidence: 0.8569542

00:57:56.810 --> 00:57:59.946 we really did not have molecular markers.

NOTE Confidence: 0.8569542

00:57:59.950 --> 00:58:02.054 Now we do one of the big problems

NOTE Confidence: 0.8569542

00:58:02.054 --> 00:58:04.093 with this disease is majority of

NOTE Confidence: 0.8569542

00:58:04.093 --> 00:58:05.898 patients have disease in bone,

NOTE Confidence: 0.8569542

00:58:05.900 --> 00:58:07.778 so it's difficult to obtain tissue,

NOTE Confidence: 0.8569542

00:58:07.780 --> 00:58:08.716 sometimes through biopsy,

NOTE Confidence: 0.8569542

00:58:08.716 --> 00:58:10.276 and we can do that,

NOTE Confidence: 0.8569542

00:58:10.280 --> 00:58:13.410 but but it may be a little bit more work.

NOTE Confidence: 0.8569542

00:58:13.410 --> 00:58:14.658 We're developing newer treat

NOTE Confidence: 0.8569542

00:58:14.658 --> 00:58:15.906 ways of doing this,

NOTE Confidence: 0.8569542

00:58:15.910 --> 00:58:18.094 and this includes looking at plasma DNA,

NOTE Confidence: 0.8569542

00:58:18.100 --> 00:58:19.060 circulating tumor cells,

NOTE Confidence: 0.8569542

00:58:19.060 --> 00:58:21.300 and then novel ways of imaging such

NOTE Confidence: 0.8569542

00:58:21.353 --> 00:58:23.569 as pet scans or or novel agents that

NOTE Confidence: 0.8569542

00:58:23.569 --> 00:58:25.620 potentially can detect the disease earlier.

NOTE Confidence: 0.8403606

00:58:27.670 --> 00:58:29.710 This slide reminds me the fact

NOTE Confidence: 0.8403606

00:58:29.710 --> 00:58:31.700 that all cancer is genetic,  
NOTE Confidence: 0.8403606

00:58:31.700 --> 00:58:33.758 but not all cancer is hereditary  
NOTE Confidence: 0.8403606

00:58:33.758 --> 00:58:35.584 because they can be mutations  
NOTE Confidence: 0.8403606

00:58:35.584 --> 00:58:37.882 in the germline that are passed  
NOTE Confidence: 0.8403606

00:58:37.882 --> 00:58:40.164 down to patients and Bracha is  
NOTE Confidence: 0.8403606

00:58:40.164 --> 00:58:41.939 one that is really important,  
NOTE Confidence: 0.8403606

00:58:41.940 --> 00:58:43.770 not only for treatment but  
NOTE Confidence: 0.8403606

00:58:43.770 --> 00:58:45.234 is also for prognosis.  
NOTE Confidence: 0.8403606

00:58:45.240 --> 00:58:47.904 An again why we want to think about  
NOTE Confidence: 0.8403606

00:58:47.904 --> 00:58:49.360 the integrative approach because  
NOTE Confidence: 0.8403606

00:58:49.360 --> 00:58:51.514 if you identify Bracha germ lines  
NOTE Confidence: 0.8403606

00:58:51.514 --> 00:58:53.914 in a prostate cancer patient and  
NOTE Confidence: 0.8403606

00:58:53.914 --> 00:58:56.245 that's about 2% of all patients  
NOTE Confidence: 0.8403606

00:58:56.245 --> 00:58:58.120 with localized disease and 10%.  
NOTE Confidence: 0.8403606

00:58:58.120 --> 00:58:59.980 Of patients with disease that spread,  
NOTE Confidence: 0.8403606

00:58:59.980 --> 00:59:01.780 you also want to taking care

NOTE Confidence: 0.8403606

00:59:01.780 --> 00:59:03.390 of the family as well.

NOTE Confidence: 0.8403606

00:59:03.390 --> 00:59:05.560 The sister, the daughter of the Suns,

NOTE Confidence: 0.8403606

00:59:05.560 --> 00:59:07.730 those and the mother, and the father.

NOTE Confidence: 0.8403606

00:59:07.730 --> 00:59:09.620 All those are involved in germline

NOTE Confidence: 0.8403606

00:59:09.620 --> 00:59:11.837 mutations and need to be assessed in

NOTE Confidence: 0.8403606

00:59:11.837 --> 00:59:13.923 terms of their risk for other cancers.

NOTE Confidence: 0.8403606

00:59:13.930 --> 00:59:16.760 So again, it's it's large.

NOTE Confidence: 0.8403606

00:59:16.760 --> 00:59:19.976 It's a family that you're taking care of.

NOTE Confidence: 0.8403606

00:59:19.980 --> 00:59:21.989 Braka is now in the news because

NOTE Confidence: 0.8403606

00:59:21.989 --> 00:59:24.099 there are two FDA approved drugs.

NOTE Confidence: 0.8403606

00:59:24.100 --> 00:59:26.319 Elaborate or cap rate for this disease.

NOTE Confidence: 0.8403606

00:59:26.320 --> 00:59:28.222 This is a gene mutation that's

NOTE Confidence: 0.8403606

00:59:28.222 --> 00:59:29.490 involved in DNA repair.

NOTE Confidence: 0.8403606

00:59:29.490 --> 00:59:31.236 Why is the enable reportedly repair

NOTE Confidence: 0.8403606

00:59:31.236 --> 00:59:32.980 important when you divide yourselves,

NOTE Confidence: 0.8403606

00:59:32.980 --> 00:59:35.199 you make another copy of the DNA.  
NOTE Confidence: 0.8403606

00:59:35.200 --> 00:59:37.728 If that copy is not the same copy,  
NOTE Confidence: 0.8403606

00:59:37.730 --> 00:59:40.266 or if there are mistakes of that copy,  
NOTE Confidence: 0.8403606

00:59:40.270 --> 00:59:42.520 you can't edit it out.  
NOTE Confidence: 0.8403606

00:59:42.520 --> 00:59:44.698 If you can edit it out,  
NOTE Confidence: 0.8403606

00:59:44.700 --> 00:59:46.148 those mistakes can translate  
NOTE Confidence: 0.8403606

00:59:46.148 --> 00:59:47.596 themselves into mutated proteins,  
NOTE Confidence: 0.8403606

00:59:47.600 --> 00:59:49.730 so prostate cancer tends to be  
NOTE Confidence: 0.8403606

00:59:49.730 --> 00:59:51.960 more aggressive if you have Braca,  
NOTE Confidence: 0.8403606

00:59:51.960 --> 00:59:54.138 and also, as I mentioned before,  
NOTE Confidence: 0.8403606

00:59:54.140 --> 00:59:56.565 you've gotta look for other  
NOTE Confidence: 0.8403606

00:59:56.565 --> 00:59:58.990 cancers and other family members.  
NOTE Confidence: 0.8403606

00:59:58.990 --> 01:00:00.358 This slide looked.  
NOTE Confidence: 0.8403606

01:00:00.358 --> 01:00:02.638 Demonstrates the relative risk of  
NOTE Confidence: 0.8403606

01:00:02.638 --> 01:00:04.952 different cancers in those patients who  
NOTE Confidence: 0.8403606

01:00:04.952 --> 01:00:07.670 have brocker one or Braca two mutations.

NOTE Confidence: 0.8403606

01:00:07.670 --> 01:00:10.600 These include.

NOTE Confidence: 0.8403606

01:00:10.600 --> 01:00:11.848 Breast cancer, Melanoma,

NOTE Confidence: 0.8403606

01:00:11.848 --> 01:00:12.680 pancreatic cancer,

NOTE Confidence: 0.8403606

01:00:12.680 --> 01:00:14.969 no varian cancer.

NOTE Confidence: 0.8403606

01:00:14.970 --> 01:00:17.182 The other marker that we're looking for

NOTE Confidence: 0.8403606

01:00:17.182 --> 01:00:19.910 as well is microsatellite instability,

NOTE Confidence: 0.8403606

01:00:19.910 --> 01:00:22.794 and this is something that's involved in,

NOTE Confidence: 0.8403606

01:00:22.800 --> 01:00:24.282 again, DNA repair.

NOTE Confidence: 0.8403606

01:00:24.282 --> 01:00:28.260 And a way that we correct the DNA,

NOTE Confidence: 0.8403606

01:00:28.260 --> 01:00:30.798 corrects errors and and of course

NOTE Confidence: 0.8403606

01:00:30.798 --> 01:00:31.644 mutated proteins.

NOTE Confidence: 0.8403606

01:00:31.650 --> 01:00:34.018 So if something is unstable or if you

NOTE Confidence: 0.8403606

01:00:34.018 --> 01:00:37.169 have a patient's microsatellite instability,

NOTE Confidence: 0.8403606

01:00:37.170 --> 01:00:41.678 the proteins that come from that particular.

NOTE Confidence: 0.8403606

01:00:41.680 --> 01:00:43.172 Transcription can be mutated

NOTE Confidence: 0.8403606

01:00:43.172 --> 01:00:45.037 and then if there mutated,  
NOTE Confidence: 0.8403606

01:00:45.040 --> 01:00:47.644 the body recognizes them as being abnormal,  
NOTE Confidence: 0.8403606

01:00:47.650 --> 01:00:48.886 and if they're unstable,  
NOTE Confidence: 0.8403606

01:00:48.886 --> 01:00:51.289 you've got a higher rate of having  
NOTE Confidence: 0.8403606

01:00:51.289 --> 01:00:53.237 these particular mutated proteins.  
NOTE Confidence: 0.8403606

01:00:53.240 --> 01:00:55.478 That makes you likely to respond  
NOTE Confidence: 0.8403606

01:00:55.478 --> 01:00:56.224 to immunotherapy,  
NOTE Confidence: 0.8403606

01:00:56.230 --> 01:00:58.270 and there's an FDA approved drug  
NOTE Confidence: 0.8403606

01:00:58.270 --> 01:01:00.510 pembrolizumab that is that can be  
NOTE Confidence: 0.8403606

01:01:00.510 --> 01:01:02.565 administered patients with prostate cancer.  
NOTE Confidence: 0.8403606

01:01:02.570 --> 01:01:02.942 Unfortunately,  
NOTE Confidence: 0.8403606

01:01:02.942 --> 01:01:06.056 it's only about 3% of all patients.  
NOTE Confidence: 0.8403606

01:01:06.056 --> 01:01:07.140 But remember,  
NOTE Confidence: 0.8403606

01:01:07.140 --> 01:01:07.984 10% Baraka,  
NOTE Confidence: 0.8403606

01:01:07.984 --> 01:01:10.510 10 to 20% DNA repair mutations  
NOTE Confidence: 0.8403606

01:01:10.510 --> 01:01:12.570 and in 3% with microsatellite

NOTE Confidence: 0.8403606  
01:01:12.570 --> 01:01:14.570 instability you should be asking  
NOTE Confidence: 0.8403606  
01:01:14.570 --> 01:01:16.400 your doctor these questions.  
NOTE Confidence: 0.8403606  
01:01:16.400 --> 01:01:20.082 Do I have these particular mutations because  
NOTE Confidence: 0.8403606  
01:01:20.082 --> 01:01:23.168 the treatments can be life changing.  
NOTE Confidence: 0.8403606  
01:01:23.170 --> 01:01:23.864 So generally,  
NOTE Confidence: 0.8403606  
01:01:23.864 --> 01:01:25.946 how do we treat advanced prostate  
NOTE Confidence: 0.8403606  
01:01:25.946 --> 01:01:28.148 cancer while taking testosterone away?  
NOTE Confidence: 0.8403606  
01:01:28.150 --> 01:01:29.374 Prostate cancer cells die.  
NOTE Confidence: 0.8403606  
01:01:29.374 --> 01:01:32.275 This is done by giving a drug that  
NOTE Confidence: 0.8403606  
01:01:32.275 --> 01:01:34.275 interferes with testosterone production.  
NOTE Confidence: 0.8403606  
01:01:34.280 --> 01:01:37.336 This can either an antagonist or an agonist.  
NOTE Confidence: 0.8403606  
01:01:37.340 --> 01:01:39.518 You may have heard of drugs  
NOTE Confidence: 0.8403606  
01:01:39.518 --> 01:01:41.550 such as Leuprolide dega relics.  
NOTE Confidence: 0.8403606  
01:01:41.550 --> 01:01:43.746 All of these drugs will lower  
NOTE Confidence: 0.8403606  
01:01:43.746 --> 01:01:45.210 testosterone levels and this  
NOTE Confidence: 0.80054474



01:01:45.277 --> 01:01:46.917 is called Andrew blockade.  
NOTE Confidence: 0.80054474

01:01:46.920 --> 01:01:48.448 As I mentioned before,  
NOTE Confidence: 0.80054474

01:01:48.448 --> 01:01:50.358 this will control the disease,  
NOTE Confidence: 0.80054474

01:01:50.360 --> 01:01:53.810 but it will not cure it.  
NOTE Confidence: 0.80054474

01:01:53.810 --> 01:01:55.670 The target is still there.  
NOTE Confidence: 0.80054474

01:01:55.670 --> 01:01:57.114 That's the androgen receptor.  
NOTE Confidence: 0.80054474

01:01:57.114 --> 01:02:00.509 Imagine if you will a lock and key situation.  
NOTE Confidence: 0.80054474

01:02:00.510 --> 01:02:03.107 The Receptor is the is the keyhole.  
NOTE Confidence: 0.80054474

01:02:03.110 --> 01:02:06.374 Testosterone is the key and if you turn  
NOTE Confidence: 0.80054474

01:02:06.374 --> 01:02:10.250 that key then the cells divide and can grow.  
NOTE Confidence: 0.80054474

01:02:10.250 --> 01:02:12.682 Now what we do, of course is with  
NOTE Confidence: 0.80054474

01:02:12.682 --> 01:02:14.680 the androgen deprivation therapy.  
NOTE Confidence: 0.80054474

01:02:14.680 --> 01:02:16.152 Take the keys away,  
NOTE Confidence: 0.80054474

01:02:16.152 --> 01:02:19.155 but prostate cancer can be smart and it  
NOTE Confidence: 0.80054474

01:02:19.155 --> 01:02:21.682 can learn to make its own testosterone,  
NOTE Confidence: 0.80054474

01:02:21.690 --> 01:02:24.140 or it can change that keyhole such

NOTE Confidence: 0.80054474

01:02:24.140 --> 01:02:26.119 that different ligands are different.

NOTE Confidence: 0.80054474

01:02:26.120 --> 01:02:28.696 Keys can fit in and activate it,

NOTE Confidence: 0.80054474

01:02:28.700 --> 01:02:31.316 so this is one way that

NOTE Confidence: 0.80054474

01:02:31.316 --> 01:02:32.624 patients become resistant.

NOTE Confidence: 0.80054474

01:02:32.630 --> 01:02:34.928 And this slide shows the Natural

NOTE Confidence: 0.80054474

01:02:34.928 --> 01:02:36.460 History of what happens.

NOTE Confidence: 0.80054474

01:02:36.460 --> 01:02:38.763 And we have the initial diagnosis that

NOTE Confidence: 0.80054474

01:02:38.763 --> 01:02:41.273 may be made and treatment by Doctor

NOTE Confidence: 0.80054474

01:02:41.273 --> 01:02:44.007 Leaf and or Doctor McGibbon and then

NOTE Confidence: 0.80054474

01:02:44.007 --> 01:02:45.959 patients certainly can progress.

NOTE Confidence: 0.80054474

01:02:45.960 --> 01:02:48.360 We may want to administer hormone

NOTE Confidence: 0.80054474

01:02:48.360 --> 01:02:51.277 therapy and then over a period of time.

NOTE Confidence: 0.80054474

01:02:51.280 --> 01:02:52.420 This will respond.

NOTE Confidence: 0.80054474

01:02:52.420 --> 01:02:54.700 The PS days will drop rapidly.

NOTE Confidence: 0.80054474

01:02:54.700 --> 01:02:55.903 Symptoms will improve,

NOTE Confidence: 0.80054474

01:02:55.903 --> 01:02:57.908 but then you develop something

NOTE Confidence: 0.80054474

01:02:57.908 --> 01:02:59.616 called the castration resistant

NOTE Confidence: 0.80054474

01:02:59.616 --> 01:03:01.716 state where the testosterone is

NOTE Confidence: 0.80054474

01:03:01.716 --> 01:03:04.417 left less than 50 and patients then

NOTE Confidence: 0.80054474

01:03:04.417 --> 01:03:06.481 begin to have progression by bone.

NOTE Confidence: 0.80054474

01:03:06.490 --> 01:03:10.858 Or progression by PSA or in soft tissue.

NOTE Confidence: 0.80054474

01:03:10.860 --> 01:03:12.960 How do we treat that?

NOTE Confidence: 0.80054474

01:03:12.960 --> 01:03:14.970 We have a variety of different

NOTE Confidence: 0.80054474

01:03:14.970 --> 01:03:17.140 agents that we can administer.

NOTE Confidence: 0.80054474

01:03:17.140 --> 01:03:18.855 I mentioned before for MSI

NOTE Confidence: 0.80054474

01:03:18.855 --> 01:03:20.227 high pembrolizumab is something

NOTE Confidence: 0.80054474

01:03:20.227 --> 01:03:21.320 that's administered,

NOTE Confidence: 0.80054474

01:03:21.320 --> 01:03:23.805 but there are proper drugs such as

NOTE Confidence: 0.80054474

01:03:23.805 --> 01:03:25.771 Sipuleucel T which is otherwise

NOTE Confidence: 0.80054474

01:03:25.771 --> 01:03:27.016 known as Provenge.

NOTE Confidence: 0.80054474

01:03:27.020 --> 01:03:28.588 That's an immunotherapeutic agent

NOTE Confidence: 0.80054474

01:03:28.588 --> 01:03:30.548 that we administered to patients

NOTE Confidence: 0.80054474

01:03:30.548 --> 01:03:32.719 that will make patients live longer,

NOTE Confidence: 0.80054474

01:03:32.720 --> 01:03:35.198 but generally does not result in a

NOTE Confidence: 0.80054474

01:03:35.198 --> 01:03:38.797 drop in PSA or a improvement in soft tissue.

NOTE Confidence: 0.80054474

01:03:38.800 --> 01:03:41.080 We think it just simply slows

NOTE Confidence: 0.80054474

01:03:41.080 --> 01:03:42.220 the disease down.

NOTE Confidence: 0.80054474

01:03:42.220 --> 01:03:44.490 There are other hormonal agents.

NOTE Confidence: 0.80054474

01:03:44.490 --> 01:03:46.850 Enzalutamide or Extendi Apalutamide are

NOTE Confidence: 0.80054474

01:03:46.850 --> 01:03:49.210 ludum I'd Abiraterone Uhrzeit Eager.

NOTE Confidence: 0.80054474

01:03:49.210 --> 01:03:51.874 These are all FDA approved their

NOTE Confidence: 0.80054474

01:03:51.874 --> 01:03:54.228 cytotoxic agents such as docetaxel

NOTE Confidence: 0.80054474

01:03:54.228 --> 01:03:56.683 or cabazitaxel than their DNA

NOTE Confidence: 0.80054474

01:03:56.683 --> 01:03:59.590 damaging agents such as radium 223,

NOTE Confidence: 0.80054474

01:03:59.590 --> 01:04:03.748 and then elaborate benro cap rip.

NOTE Confidence: 0.80054474

01:04:03.750 --> 01:04:05.794 The real trick here is how do

NOTE Confidence: 0.80054474

01:04:05.794 --> 01:04:06.670 you sequence these?  
NOTE Confidence: 0.80054474

01:04:06.670 --> 01:04:07.838 Because these treatments do  
NOTE Confidence: 0.80054474

01:04:07.838 --> 01:04:09.590 wear off after periods of time,  
NOTE Confidence: 0.80054474

01:04:09.590 --> 01:04:11.216 and you know the numbers that  
NOTE Confidence: 0.80054474

01:04:11.216 --> 01:04:12.800 I have your average numbers,  
NOTE Confidence: 0.80054474

01:04:12.800 --> 01:04:14.788 but there's some patients who may get  
NOTE Confidence: 0.80054474

01:04:14.788 --> 01:04:17.177 years worth of benefit out of these drugs.  
NOTE Confidence: 0.80054474

01:04:17.180 --> 01:04:17.848 And again,  
NOTE Confidence: 0.80054474

01:04:17.848 --> 01:04:20.186 how do we select them and understand  
NOTE Confidence: 0.80054474

01:04:20.186 --> 01:04:22.554 who is the best patient to  
NOTE Confidence: 0.80054474

01:04:22.554 --> 01:04:24.126 receive a particular treatment?  
NOTE Confidence: 0.80054474

01:04:24.130 --> 01:04:26.290 What are the things that we're working on?  
NOTE Confidence: 0.80054474

01:04:26.290 --> 01:04:28.642 Yale is a new class of drugs  
NOTE Confidence: 0.80054474

01:04:28.642 --> 01:04:30.060 called a pro tec.  
NOTE Confidence: 0.80054474

01:04:30.060 --> 01:04:33.042 And this is a way of overcoming  
NOTE Confidence: 0.80054474

01:04:33.042 --> 01:04:35.040 resistance to hormonal therapy.

NOTE Confidence: 0.80054474  
01:04:35.040 --> 01:04:38.204 So we have proteins in our body.  
NOTE Confidence: 0.80054474  
01:04:38.210 --> 01:04:41.624 We dispose those proteins as they  
NOTE Confidence: 0.80054474  
01:04:41.624 --> 01:04:44.750 become older as they become.  
NOTE Confidence: 0.80054474  
01:04:44.750 --> 01:04:47.070 You know not viable and there is a  
NOTE Confidence: 0.80054474  
01:04:47.070 --> 01:04:49.299 system that basically is a garbage  
NOTE Confidence: 0.80054474  
01:04:49.299 --> 01:04:51.269 scavenger or protein and that's  
NOTE Confidence: 0.80054474  
01:04:51.269 --> 01:04:53.538 called the ubiquitin ligase system.  
NOTE Confidence: 0.80054474  
01:04:53.540 --> 01:04:55.340 And basically what this system does  
NOTE Confidence: 0.80054474  
01:04:55.340 --> 01:04:57.938 is it recognizes a protein that may be old,  
NOTE Confidence: 0.80054474  
01:04:57.940 --> 01:04:59.191 it tags it.  
NOTE Confidence: 0.80054474  
01:04:59.191 --> 01:05:01.276 And then it degrades it.  
NOTE Confidence: 0.84072715  
01:05:01.280 --> 01:05:03.518 Sort of like a garbage collector.  
NOTE Confidence: 0.84072715  
01:05:03.520 --> 01:05:05.760 Well, Craig Cruz at Yale has developed  
NOTE Confidence: 0.84072715  
01:05:05.760 --> 01:05:08.390 a drug that accelerates that process.  
NOTE Confidence: 0.84072715  
01:05:08.390 --> 01:05:10.838 It's called a protease and a pro  
NOTE Confidence: 0.84072715

01:05:10.838 --> 01:05:13.066 tec combined to a disease causing  
NOTE Confidence: 0.84072715

01:05:13.066 --> 01:05:15.388 proteins such as the Andrew Receptor  
NOTE Confidence: 0.84072715

01:05:15.462 --> 01:05:17.946 and then accelerate that process an  
NOTE Confidence: 0.84072715

01:05:17.946 --> 01:05:20.356 degrade that protein more rapidly than  
NOTE Confidence: 0.84072715

01:05:20.356 --> 01:05:22.967 it would be in a normal situation.  
NOTE Confidence: 0.84072715

01:05:22.970 --> 01:05:25.301 And in fact, one protag molecule can  
NOTE Confidence: 0.84072715

01:05:25.301 --> 01:05:27.460 degrade 400 engine receptor proteins.  
NOTE Confidence: 0.84072715

01:05:27.460 --> 01:05:29.770 So this is a completely new  
NOTE Confidence: 0.84072715

01:05:29.770 --> 01:05:30.925 way of approaching.  
NOTE Confidence: 0.84072715

01:05:30.930 --> 01:05:33.642 Prostate cancer and will right now in phase  
NOTE Confidence: 0.84072715

01:05:33.642 --> 01:05:36.138 one trials of this particular compound.  
NOTE Confidence: 0.84072715

01:05:36.140 --> 01:05:38.190 We presented our preliminary data  
NOTE Confidence: 0.84072715

01:05:38.190 --> 01:05:41.174 at Asco this year. And we did it.  
NOTE Confidence: 0.84072715

01:05:41.174 --> 01:05:43.740 We were doing a dose finding study.  
NOTE Confidence: 0.84072715

01:05:43.740 --> 01:05:45.870 We are looking also at different  
NOTE Confidence: 0.84072715

01:05:45.870 --> 01:05:47.290 correlates from that issue.

NOTE Confidence: 0.84072715

01:05:47.290 --> 01:05:47.984 In fact,

NOTE Confidence: 0.84072715

01:05:47.984 --> 01:05:49.719 we've actually demonstrated that the

NOTE Confidence: 0.84072715

01:05:49.719 --> 01:05:51.886 androgen receptor is downregulated in human

NOTE Confidence: 0.84072715

01:05:51.886 --> 01:05:54.022 tissue after we administer the Protag.

NOTE Confidence: 0.84072715

01:05:54.030 --> 01:05:55.775 The first patient was entered

NOTE Confidence: 0.84072715

01:05:55.775 --> 01:05:57.940 at Yale in August of 2019,

NOTE Confidence: 0.84072715

01:05:57.940 --> 01:05:59.710 and we reported at the

NOTE Confidence: 0.84072715

01:05:59.710 --> 01:06:01.126 Asco meeting this year,

NOTE Confidence: 0.84072715

01:06:01.130 --> 01:06:03.122 which is the annual meeting that

NOTE Confidence: 0.84072715

01:06:03.122 --> 01:06:05.294 we had two responding patients in

NOTE Confidence: 0.84072715

01:06:05.294 --> 01:06:07.622 patients who had mutations that were

NOTE Confidence: 0.84072715

01:06:07.622 --> 01:06:10.000 susceptible to that particular pro tech.

NOTE Confidence: 0.84072715

01:06:10.000 --> 01:06:12.618 And the drug is called ARV 110,

NOTE Confidence: 0.84072715

01:06:12.620 --> 01:06:15.350 so we're very excited about these

NOTE Confidence: 0.84072715

01:06:15.350 --> 01:06:17.613 preliminary findings were moving forward

NOTE Confidence: 0.84072715



01:06:17.613 --> 01:06:20.203 with this in a more expanded study.  
NOTE Confidence: 0.84072715

01:06:20.210 --> 01:06:21.685 But this is something about  
NOTE Confidence: 0.84072715

01:06:21.685 --> 01:06:22.865 the uniqueness of Yale.  
NOTE Confidence: 0.84072715

01:06:22.870 --> 01:06:25.299 We're able to go from the laboratory  
NOTE Confidence: 0.84072715

01:06:25.299 --> 01:06:27.768 to the patient and take some of  
NOTE Confidence: 0.84072715

01:06:27.768 --> 01:06:29.808 these new drugs and move forward.  
NOTE Confidence: 0.84072715

01:06:29.810 --> 01:06:32.120 Two of the other things that we're  
NOTE Confidence: 0.84072715

01:06:32.120 --> 01:06:34.379 working on right now in collaboration  
NOTE Confidence: 0.84072715

01:06:34.379 --> 01:06:36.785 with other institutions are some of  
NOTE Confidence: 0.84072715

01:06:36.785 --> 01:06:39.129 these newer molecules called bites.  
NOTE Confidence: 0.84072715

01:06:39.130 --> 01:06:42.610 And with a bite is is an antibody.  
NOTE Confidence: 0.84072715

01:06:42.610 --> 01:06:43.915 As you know,  
NOTE Confidence: 0.84072715

01:06:43.915 --> 01:06:46.090 an antibody recognizes farm proteins,  
NOTE Confidence: 0.84072715

01:06:46.090 --> 01:06:46.932 foreign viruses,  
NOTE Confidence: 0.84072715

01:06:46.932 --> 01:06:49.879 and there's a specific binding site on  
NOTE Confidence: 0.84072715

01:06:49.879 --> 01:06:53.048 that antibody that is used for recognition.

NOTE Confidence: 0.84072715

01:06:53.050 --> 01:06:53.429 Well,

NOTE Confidence: 0.84072715

01:06:53.429 --> 01:06:55.703 there's a bispecific or two part

NOTE Confidence: 0.84072715

01:06:55.703 --> 01:06:58.489 antibody that is designed to Recognise

NOTE Confidence: 0.84072715

01:06:58.489 --> 01:07:00.585 something called prostate specific

NOTE Confidence: 0.84072715

01:07:00.585 --> 01:07:03.391 membrane antigen or prostate stem cell

NOTE Confidence: 0.84072715

01:07:03.391 --> 01:07:05.707 antigen and then bring that closer

NOTE Confidence: 0.84072715

01:07:05.707 --> 01:07:10.279 to the immune cell and then cause a.

NOTE Confidence: 0.84072715

01:07:10.280 --> 01:07:12.485 A reaction and basically healthy

NOTE Confidence: 0.84072715

01:07:12.485 --> 01:07:14.690 immune cell kill cancer cells.

NOTE Confidence: 0.84072715

01:07:14.690 --> 01:07:17.455 These are one of the new generation

NOTE Confidence: 0.84072715

01:07:17.455 --> 01:07:19.580 of therapeutics that we're moving

NOTE Confidence: 0.84072715

01:07:19.580 --> 01:07:22.597 forward with at Yale and then also

NOTE Confidence: 0.84072715

01:07:22.597 --> 01:07:25.043 collaboration with our colleagues in

NOTE Confidence: 0.84072715

01:07:25.043 --> 01:07:27.473 radiation oncology in nuclear medicine.

NOTE Confidence: 0.84072715

01:07:27.480 --> 01:07:30.434 But start looking at drugs that that

NOTE Confidence: 0.84072715

01:07:30.434 --> 01:07:32.138 basically target something called  
NOTE Confidence: 0.84072715

01:07:32.138 --> 01:07:34.714 PS may and link antibodies or small  
NOTE Confidence: 0.84072715

01:07:34.714 --> 01:07:37.155 molecules to radioactive isotopes that  
NOTE Confidence: 0.84072715

01:07:37.155 --> 01:07:39.875 will delight directly deliver isotopes.  
NOTE Confidence: 0.84072715

01:07:39.880 --> 01:07:40.248 Two,  
NOTE Confidence: 0.84072715

01:07:40.248 --> 01:07:42.456 the cancer cells there are bone  
NOTE Confidence: 0.84072715

01:07:42.456 --> 01:07:44.310 targeted isotopes like radium 223,  
NOTE Confidence: 0.84072715

01:07:44.310 --> 01:07:46.548 Witch Doctor McGibbons collaborates and I  
NOTE Confidence: 0.84072715

01:07:46.548 --> 01:07:48.740 collaborate on to administer to patients,  
NOTE Confidence: 0.84072715

01:07:48.740 --> 01:07:50.852 but that only targets bone and  
NOTE Confidence: 0.84072715

01:07:50.852 --> 01:07:52.714 we're looking to target more  
NOTE Confidence: 0.84072715

01:07:52.714 --> 01:07:55.006 extensive areas such as soft tissue,  
NOTE Confidence: 0.84072715

01:07:55.010 --> 01:07:56.850 perhaps liver metastases as well,  
NOTE Confidence: 0.84072715

01:07:56.850 --> 01:07:59.244 and there are drugs that are  
NOTE Confidence: 0.84072715

01:07:59.244 --> 01:08:02.148 about to be approved by the FDA  
NOTE Confidence: 0.84072715

01:08:02.148 --> 01:08:04.183 that are targeting and focusing

NOTE Confidence: 0.84072715

01:08:04.183 --> 01:08:06.389 on this particular area.

NOTE Confidence: 0.84072715

01:08:06.390 --> 01:08:07.455 So in conclusion,

NOTE Confidence: 0.84072715

01:08:07.455 --> 01:08:09.230 we're excited about what we're

NOTE Confidence: 0.84072715

01:08:09.230 --> 01:08:11.444 seeing at this Cancer Center on

NOTE Confidence: 0.84072715

01:08:11.444 --> 01:08:13.244 the leadership of doctor folks,

NOTE Confidence: 0.84072715

01:08:13.250 --> 01:08:15.777 and we thank him greatly for these

NOTE Confidence: 0.84072715

01:08:15.777 --> 01:08:18.340 opportunities that we have to treat our

NOTE Confidence: 0.84072715

01:08:18.340 --> 01:08:20.464 patients and bring new drugs forward.

NOTE Confidence: 0.8488874

01:08:20.470 --> 01:08:22.270 But the multidiscipline approach is,

NOTE Confidence: 0.8488874

01:08:22.270 --> 01:08:24.797 I think, the best way to improve

NOTE Confidence: 0.8488874

01:08:24.797 --> 01:08:25.880 prostate cancer survival.

NOTE Confidence: 0.8488874

01:08:25.880 --> 01:08:27.640 All of advanced prostate cancer

NOTE Confidence: 0.8488874

01:08:27.640 --> 01:08:29.400 patients now should be sequenced

NOTE Confidence: 0.8488874

01:08:29.459 --> 01:08:31.274 prior to starting treatment to

NOTE Confidence: 0.8488874

01:08:31.274 --> 01:08:33.089 evaluate these patients for markers

NOTE Confidence: 0.8488874

01:08:33.148 --> 01:08:34.908 to treat their advanced disease.  
NOTE Confidence: 0.8488874

01:08:34.910 --> 01:08:37.577 And right now we are looking at.  
NOTE Confidence: 0.8488874

01:08:37.580 --> 01:08:39.920 New agents in new targets and  
NOTE Confidence: 0.8488874

01:08:39.920 --> 01:08:41.900 finding the optimal sequence of  
NOTE Confidence: 0.8488874

01:08:41.900 --> 01:08:43.635 these drugs to move forward.  
NOTE Confidence: 0.8488874

01:08:43.640 --> 01:08:46.300 One other study which I didn't mention,  
NOTE Confidence: 0.8488874

01:08:46.300 --> 01:08:48.568 which I'm very, very proud of.  
NOTE Confidence: 0.8488874

01:08:48.570 --> 01:08:51.242 2004, I was behind the approval of docetaxel  
NOTE Confidence: 0.8488874

01:08:51.242 --> 01:08:53.498 for castrate resistant prostate cancer,  
NOTE Confidence: 0.8488874

01:08:53.500 --> 01:08:55.012 were now combining docetaxel  
NOTE Confidence: 0.8488874

01:08:55.012 --> 01:08:56.524 with Pember Lizum app,  
NOTE Confidence: 0.8488874

01:08:56.530 --> 01:08:58.430 which is an immunotherapy agent.  
NOTE Confidence: 0.8488874

01:08:58.430 --> 01:09:00.602 And that's going in that's going  
NOTE Confidence: 0.8488874

01:09:00.602 --> 01:09:02.512 forth in an international randomized  
NOTE Confidence: 0.8488874

01:09:02.512 --> 01:09:04.870 trial which were helping to lead.  
NOTE Confidence: 0.8488874

01:09:04.870 --> 01:09:07.198 So there are very many opportunities

NOTE Confidence: 0.8488874

01:09:07.198 --> 01:09:07.974 we welcome.

NOTE Confidence: 0.8488874

01:09:07.980 --> 01:09:09.180 Your input and questions and I

NOTE Confidence: 0.8488874

01:09:09.180 --> 01:09:10.440 thank you for your attention.

NOTE Confidence: 0.80295223

01:09:14.070 --> 01:09:17.088 Excellent thank you doctor. Pepper Jack.

NOTE Confidence: 0.80295223

01:09:17.090 --> 01:09:19.658 Now is a great time if anyone has

NOTE Confidence: 0.80295223

01:09:19.658 --> 01:09:22.222 a question they can type it in to

NOTE Confidence: 0.80295223

01:09:22.222 --> 01:09:24.040 the Q&A portion C1. One question.

NOTE Confidence: 0.80295223

01:09:24.040 --> 01:09:26.950 There's so far to get to in a second,

NOTE Confidence: 0.80295223

01:09:26.950 --> 01:09:29.176 but I would just ask question my

NOTE Confidence: 0.80295223

01:09:29.176 --> 01:09:31.081 own for Sanford. For Doctor Lehman,

NOTE Confidence: 0.80295223

01:09:31.081 --> 01:09:32.666 the for image guided biopsy,

NOTE Confidence: 0.80295223

01:09:32.670 --> 01:09:35.130 I'm just curious what.

NOTE Confidence: 0.80295223

01:09:35.130 --> 01:09:37.174 This was a man comes you with

NOTE Confidence: 0.80295223

01:09:37.174 --> 01:09:38.354 an elevated PSA. How?

NOTE Confidence: 0.80295223

01:09:38.354 --> 01:09:39.874 What percentage of the time

NOTE Confidence: 0.80295223

01:09:39.874 --> 01:09:41.965 are you getting an MRI if one  
NOTE Confidence: 0.80295223

01:09:41.965 --> 01:09:43.310 hasn't been done and how?  
NOTE Confidence: 0.80295223

01:09:43.310 --> 01:09:45.270 From using MRI guided biopsy as the first  
NOTE Confidence: 0.80295223

01:09:45.270 --> 01:09:47.389 5C as opposed to traditional biopsy?  
NOTE Confidence: 0.80295223

01:09:47.390 --> 01:09:49.148 Without that as your first bias?  
NOTE Confidence: 0.87393636

01:09:50.150 --> 01:09:51.670 Thank you so much, Bruce.  
NOTE Confidence: 0.87393636

01:09:51.670 --> 01:09:52.850 That's an excellent question,  
NOTE Confidence: 0.87393636

01:09:52.850 --> 01:09:55.290 so we we're really trying to do an  
NOTE Confidence: 0.87393636

01:09:55.290 --> 01:09:56.820 MRI guided biopsy whenever possible.  
NOTE Confidence: 0.87393636

01:09:56.820 --> 01:09:59.236 The rationale for that is that number one.  
NOTE Confidence: 0.87393636

01:09:59.240 --> 01:10:00.588 It improves the diagnostic.  
NOTE Confidence: 0.87393636

01:10:00.588 --> 01:10:01.936 Accuracy of that biopsy.  
NOTE Confidence: 0.87393636

01:10:01.940 --> 01:10:04.292 Historically, 40% of men who had an  
NOTE Confidence: 0.87393636

01:10:04.292 --> 01:10:06.077 initial negative biopsy biopsy showed  
NOTE Confidence: 0.87393636

01:10:06.077 --> 01:10:08.213 no cancer underwent a second biopsy,  
NOTE Confidence: 0.87393636

01:10:08.220 --> 01:10:09.930 so the the rationale behind

NOTE Confidence: 0.87393636

01:10:09.930 --> 01:10:12.410 that is by getting an MRI first.

NOTE Confidence: 0.87393636

01:10:12.410 --> 01:10:14.498 If the biopsy shows no cancer,

NOTE Confidence: 0.87393636

01:10:14.500 --> 01:10:16.606 we can be much more confident

NOTE Confidence: 0.87393636

01:10:16.606 --> 01:10:18.408 in telling that individual you

NOTE Confidence: 0.87393636

01:10:18.408 --> 01:10:20.078 do not have prostate cancer,

NOTE Confidence: 0.87393636

01:10:20.080 --> 01:10:21.480 so we are successful.

NOTE Confidence: 0.87393636

01:10:21.480 --> 01:10:24.268 Probably 90% of our biopsies are MRI guided.

NOTE Confidence: 0.84928304

01:10:25.460 --> 01:10:27.146 Excellent and for men who do

NOTE Confidence: 0.84928304

01:10:27.146 --> 01:10:28.270 active surveillance and he

NOTE Confidence: 0.84928304

01:10:28.327 --> 01:10:29.707 said doing a repeat biopsy.

NOTE Confidence: 0.84928304

01:10:29.710 --> 01:10:32.540 How far out do you should do that one year,

NOTE Confidence: 0.84928304

01:10:32.540 --> 01:10:34.226 year and a half two years?

NOTE Confidence: 0.84928304

01:10:34.230 --> 01:10:35.650 When is that? Repeat biopsy.

NOTE Confidence: 0.84928304

01:10:35.650 --> 01:10:37.963 Yeah, so we we tried to do the first

NOTE Confidence: 0.84928304

01:10:37.963 --> 01:10:40.248 biopsy within one year of the of the

NOTE Confidence: 0.84928304



01:10:40.248 --> 01:10:42.343 diagnosis just to be sure that we  
NOTE Confidence: 0.84928304

01:10:42.343 --> 01:10:44.131 have not under staged the disease.  
NOTE Confidence: 0.84928304

01:10:44.140 --> 01:10:45.550 And based on that biopsy,  
NOTE Confidence: 0.84928304

01:10:45.550 --> 01:10:47.814 if it looks if it still looks reassuring,  
NOTE Confidence: 0.84928304

01:10:47.820 --> 01:10:49.472 we will do the second biopsy about  
NOTE Confidence: 0.84928304

01:10:49.472 --> 01:10:51.570 one to two years later and spaced  
NOTE Confidence: 0.84928304

01:10:51.570 --> 01:10:52.906 out subsequently after that.  
NOTE Confidence: 0.84928304

01:10:52.910 --> 01:10:55.534 You know, in the early days of active  
NOTE Confidence: 0.84928304

01:10:55.534 --> 01:10:57.017 surveillance there was a lot of.  
NOTE Confidence: 0.84928304

01:10:57.020 --> 01:10:58.655 Uncertainty about how safe it  
NOTE Confidence: 0.84928304

01:10:58.655 --> 01:10:59.963 would be to wait,  
NOTE Confidence: 0.84928304

01:10:59.970 --> 01:11:01.758 but the evidence is really emerged  
NOTE Confidence: 0.84928304

01:11:01.758 --> 01:11:03.743 to support pulling back on how  
NOTE Confidence: 0.84928304

01:11:03.743 --> 01:11:05.215 intensely we're monitoring patients,  
NOTE Confidence: 0.84928304

01:11:05.220 --> 01:11:07.436 and so we will frequently go at two  
NOTE Confidence: 0.84928304

01:11:07.436 --> 01:11:09.918 or three or even longer your interval

NOTE Confidence: 0.84928304

01:11:09.918 --> 01:11:11.778 if everything else looks good.

NOTE Confidence: 0.8314409

01:11:12.650 --> 01:11:15.306 Excellent thank you. Look at the list here.

NOTE Confidence: 0.8314409

01:11:15.310 --> 01:11:17.894 As someone asked a question me whether the

NOTE Confidence: 0.8314409

01:11:17.894 --> 01:11:20.185 treatments that I have mentioned are also

NOTE Confidence: 0.8314409

01:11:20.185 --> 01:11:22.280 ones used for salvage radiation therapy.

NOTE Confidence: 0.8314409

01:11:22.280 --> 01:11:24.020 So salvage rayshon therapy is the

NOTE Confidence: 0.8314409

01:11:24.020 --> 01:11:26.768 term used if we're at if we're using

NOTE Confidence: 0.8314409

01:11:26.768 --> 01:11:27.914 radiation after prostatectomy.

NOTE Confidence: 0.8314409

01:11:27.920 --> 01:11:30.244 So in that case you've done prostatectomy.

NOTE Confidence: 0.8314409

01:11:30.250 --> 01:11:32.567 PSA should go to an undetectable level.

NOTE Confidence: 0.8314409

01:11:32.570 --> 01:11:34.230 'cause of that point you've

NOTE Confidence: 0.8314409

01:11:34.230 --> 01:11:35.890 removed all sources of PSA.

NOTE Confidence: 0.8314409

01:11:35.890 --> 01:11:39.310 But if we see it creeping back up even at

NOTE Confidence: 0.8314409

01:11:39.400 --> 01:11:43.160 that point to a very low level like .1 or .2.

NOTE Confidence: 0.8314409

01:11:43.160 --> 01:11:44.695 Then we know there's a

NOTE Confidence: 0.8314409

01:11:44.695 --> 01:11:45.616 prostate cancer problem.  
NOTE Confidence: 0.8314409

01:11:45.620 --> 01:11:47.150 We see whether some radiation,  
NOTE Confidence: 0.8314409

01:11:47.150 --> 01:11:48.986 every pelvis can be of help,  
NOTE Confidence: 0.8314409

01:11:48.990 --> 01:11:50.525 and in that thing that's  
NOTE Confidence: 0.8314409

01:11:50.525 --> 01:11:51.446 called salvage radiation,  
NOTE Confidence: 0.8314409

01:11:51.450 --> 01:11:53.602 and it is very similar to the treatments  
NOTE Confidence: 0.8314409

01:11:53.602 --> 01:11:55.556 that I was describing before we  
NOTE Confidence: 0.8314409

01:11:55.556 --> 01:11:57.584 treat was called the prostate bed,  
NOTE Confidence: 0.8314409

01:11:57.590 --> 01:11:59.426 which is, as you may imagine,  
NOTE Confidence: 0.8314409

01:11:59.430 --> 01:12:01.733 where the prostate was an 'cause that's  
NOTE Confidence: 0.8314409

01:12:01.733 --> 01:12:04.340 still the highest risk area for to come back.  
NOTE Confidence: 0.8314409

01:12:04.340 --> 01:12:04.956 And then,  
NOTE Confidence: 0.8314409

01:12:04.956 --> 01:12:06.188 depending on the features,  
NOTE Confidence: 0.8314409

01:12:06.190 --> 01:12:07.720 what the Gleason grade was.  
NOTE Confidence: 0.8314409

01:12:07.720 --> 01:12:09.712 Again, how aggressive looked under the  
NOTE Confidence: 0.8314409

01:12:09.712 --> 01:12:11.668 microscope and whether they are lymph

NOTE Confidence: 0.8314409

01:12:11.668 --> 01:12:13.663 nodes involved or what would the margins.

NOTE Confidence: 0.8314409

01:12:13.670 --> 01:12:15.434 Features like that or how quickly

NOTE Confidence: 0.8314409

01:12:15.434 --> 01:12:17.658 the PSC is coming up after surgery,

NOTE Confidence: 0.8314409

01:12:17.660 --> 01:12:19.756 so there's some other features we use to

NOTE Confidence: 0.8314409

01:12:19.756 --> 01:12:21.932 see if there's something else we should

NOTE Confidence: 0.8314409

01:12:21.932 --> 01:12:24.420 do so sometimes will add some radiation,

NOTE Confidence: 0.8314409

01:12:24.420 --> 01:12:26.331 at least a medium dose of radiation

NOTE Confidence: 0.8314409

01:12:26.331 --> 01:12:28.213 to the pelvic lymph nodes sometimes

NOTE Confidence: 0.8314409

01:12:28.213 --> 01:12:30.217 will get doctor Petra lack involved

NOTE Confidence: 0.8314409

01:12:30.217 --> 01:12:32.422 to see if some of that anti

NOTE Confidence: 0.8314409

01:12:32.422 --> 01:12:33.936 testosterone therapy would be a

NOTE Confidence: 0.8314409

01:12:33.936 --> 01:12:36.078 helper and really just in last year.

NOTE Confidence: 0.8314409

01:12:36.080 --> 01:12:38.368 So I think we're having a appreciation that

NOTE Confidence: 0.8314409

01:12:38.368 --> 01:12:40.688 going a little bigger in that setting,

NOTE Confidence: 0.8314409

01:12:40.690 --> 01:12:42.718 adding some dose to the pelvic

NOTE Confidence: 0.8314409

01:12:42.718 --> 01:12:44.470 nodes and adding some anti.  
NOTE Confidence: 0.8314409

01:12:44.470 --> 01:12:47.206 Awesome therapy can really be a big helper,  
NOTE Confidence: 0.8314409

01:12:47.210 --> 01:12:49.275 but the fundamentals of using that I  
NOTE Confidence: 0.8314409

01:12:49.275 --> 01:12:52.020 am RT and coming for daily treatments.  
NOTE Confidence: 0.8314409

01:12:52.020 --> 01:12:54.740 Those are the same as some of that  
NOTE Confidence: 0.8314409

01:12:54.740 --> 01:12:56.818 earlier intact prostate an for us.  
NOTE Confidence: 0.8314409

01:12:56.820 --> 01:12:58.752 You know those N CCM guidelines  
NOTE Confidence: 0.8314409

01:12:58.752 --> 01:13:00.829 typically recommend 37 to 39 daily  
NOTE Confidence: 0.8314409

01:13:00.829 --> 01:13:02.644 treatments for that salvage setting.  
NOTE Confidence: 0.8314409

01:13:02.650 --> 01:13:04.504 There are some trials that are  
NOTE Confidence: 0.8314409

01:13:04.504 --> 01:13:06.665 ongoing looking at a shorter course  
NOTE Confidence: 0.8314409

01:13:06.665 --> 01:13:09.245 using that same kind of moderately  
NOTE Confidence: 0.8314409

01:13:09.245 --> 01:13:10.711 hypofractionated idea to come  
NOTE Confidence: 0.8314409

01:13:10.711 --> 01:13:12.594 for more like 25 or 28 sessions,  
NOTE Confidence: 0.8314409

01:13:12.600 --> 01:13:15.184 but I would say that's best done at  
NOTE Confidence: 0.8314409

01:13:15.184 --> 01:13:17.879 this point in a clinical trial setting.

NOTE Confidence: 0.8314409

01:13:17.880 --> 01:13:19.968 And we'll see where that where that goes.

NOTE Confidence: 0.80135024

01:13:22.730 --> 01:13:24.602 Looks like I got two questions.

NOTE Confidence: 0.80135024

01:13:24.602 --> 01:13:26.990 Two questions there for doctor Petra.

NOTE Confidence: 0.80135024

01:13:26.990 --> 01:13:29.610 OK so. There's sort of work together.

NOTE Confidence: 0.80135024

01:13:29.610 --> 01:13:31.416 One is. It sounds like you're

NOTE Confidence: 0.80135024

01:13:31.416 --> 01:13:32.952 sequencing advanced cancers does make

NOTE Confidence: 0.80135024

01:13:32.952 --> 01:13:34.620 sense to sequence in earlier stage.

NOTE Confidence: 0.80135024

01:13:34.620 --> 01:13:36.060 That's a great question.

NOTE Confidence: 0.80135024

01:13:36.060 --> 01:13:37.860 The guidelines are now saying

NOTE Confidence: 0.80135024

01:13:37.860 --> 01:13:39.835 that you should be checking

NOTE Confidence: 0.80135024

01:13:39.835 --> 01:13:41.770 pretty much everybody for bracket.

NOTE Confidence: 0.80135024

01:13:41.770 --> 01:13:43.440 It's insidious, it pops up.

NOTE Confidence: 0.80135024

01:13:43.440 --> 01:13:45.596 I've seen it pop up in patients

NOTE Confidence: 0.80135024

01:13:45.596 --> 01:13:47.100 without a family history.

NOTE Confidence: 0.80135024

01:13:47.100 --> 01:13:49.362 And of course you can get

NOTE Confidence: 0.80135024

01:13:49.362 --> 01:13:50.493 spontaneous germline mutations  
NOTE Confidence: 0.80135024

01:13:50.493 --> 01:13:52.666 as well that develop in there.  
NOTE Confidence: 0.80135024

01:13:52.670 --> 01:13:54.022 Passed on later on.  
NOTE Confidence: 0.80135024

01:13:54.022 --> 01:13:56.440 So yes, you need to look for  
NOTE Confidence: 0.80135024

01:13:56.440 --> 01:13:58.665 the germline early and then the  
NOTE Confidence: 0.80135024

01:13:58.665 --> 01:14:00.720 family should be cancelled so.  
NOTE Confidence: 0.80135024

01:14:00.720 --> 01:14:04.409 The question is, when do you test?  
NOTE Confidence: 0.80135024

01:14:04.410 --> 01:14:06.696 These markers for a patient with  
NOTE Confidence: 0.80135024

01:14:06.696 --> 01:14:09.393 advanced disease and also when does some  
NOTE Confidence: 0.80135024

01:14:09.393 --> 01:14:11.969 at it when the somatic mutations develop,  
NOTE Confidence: 0.80135024

01:14:11.970 --> 01:14:13.860 that is phenomenally good question,  
NOTE Confidence: 0.80135024

01:14:13.860 --> 01:14:16.506 which we don't have an answer too.  
NOTE Confidence: 0.80135024

01:14:16.510 --> 01:14:20.540 So the what I tend to do is I will  
NOTE Confidence: 0.80135024

01:14:20.663 --> 01:14:24.457 try to do a tissue biopsy first.  
NOTE Confidence: 0.80135024

01:14:24.460 --> 01:14:25.471 If it's bone,  
NOTE Confidence: 0.80135024

01:14:25.471 --> 01:14:26.819 if it's not available,

NOTE Confidence: 0.80135024

01:14:26.820 --> 01:14:29.844 or if it's if it's archival and very old.

NOTE Confidence: 0.80135024

01:14:29.850 --> 01:14:33.298 I often do a liquid biopsy to assess

NOTE Confidence: 0.80135024

01:14:33.298 --> 01:14:36.656 whether there is semantic mutation or not.

NOTE Confidence: 0.80135024

01:14:36.660 --> 01:14:38.956 I do when I do P testing,

NOTE Confidence: 0.80135024

01:14:38.960 --> 01:14:40.862 it's usually when a patient changes

NOTE Confidence: 0.80135024

01:14:40.862 --> 01:14:42.580 the characteristics of their disease.

NOTE Confidence: 0.80135024

01:14:42.580 --> 01:14:44.560 If they have a rapid acceleration,

NOTE Confidence: 0.80135024

01:14:44.560 --> 01:14:46.534 if they have the development of

NOTE Confidence: 0.80135024

01:14:46.534 --> 01:14:47.850 Patrick Metastatic liver metastases,

NOTE Confidence: 0.80135024

01:14:47.850 --> 01:14:49.495 something to suggest that disease

NOTE Confidence: 0.80135024

01:14:49.495 --> 01:14:51.140 is changed in some way.

NOTE Confidence: 0.80135024

01:14:51.140 --> 01:14:53.345 There really are no guidelines for re

NOTE Confidence: 0.80135024

01:14:53.345 --> 01:14:55.714 testing at this point an it's really

NOTE Confidence: 0.80135024

01:14:55.714 --> 01:14:57.748 limited by insurance and what people

NOTE Confidence: 0.80135024

01:14:57.815 --> 01:15:00.020 will pay for at this particular time,

NOTE Confidence: 0.80135024



01:15:00.020 --> 01:15:02.744 but it's a phenomenal question because

NOTE Confidence: 0.80135024

01:15:02.744 --> 01:15:05.520 when we're giving drugs to patients.

NOTE Confidence: 0.80135024

01:15:05.520 --> 01:15:07.494 You're giving these drugs, and it's

NOTE Confidence: 0.80135024

01:15:07.494 --> 01:15:09.110 basically evolution within your body.

NOTE Confidence: 0.80135024

01:15:09.110 --> 01:15:11.060 You kill off the sensitive cells.

NOTE Confidence: 0.80135024

01:15:11.060 --> 01:15:12.690 Then resistant ones are left,

NOTE Confidence: 0.80135024

01:15:12.690 --> 01:15:14.320 and does that change overtime.

NOTE Confidence: 0.80135024

01:15:14.320 --> 01:15:16.602 And do you revert back to a

NOTE Confidence: 0.80135024

01:15:16.602 --> 01:15:17.580 different phenotype again,

NOTE Confidence: 0.80135024

01:15:17.580 --> 01:15:19.536 we really don't know the question.

NOTE Confidence: 0.80135024

01:15:19.540 --> 01:15:21.822 One of the things that we're working

NOTE Confidence: 0.80135024

01:15:21.822 --> 01:15:23.595 on right now, Yale and Joakim,

NOTE Confidence: 0.80135024

01:15:23.595 --> 01:15:25.450 who works with our group is a

NOTE Confidence: 0.80135024

01:15:25.513 --> 01:15:27.357 really dynamic junior attending.

NOTE Confidence: 0.80135024

01:15:27.360 --> 01:15:30.664 He's looking at trying to induce brokenness.

NOTE Confidence: 0.80135024

01:15:30.670 --> 01:15:32.847 And what do I mean by that?

NOTE Confidence: 0.80135024

01:15:32.850 --> 01:15:33.162 Well,

NOTE Confidence: 0.80135024

01:15:33.162 --> 01:15:34.410 as I said before,

NOTE Confidence: 0.80135024

01:15:34.410 --> 01:15:36.954 10 to 20% have brought us some attic

NOTE Confidence: 0.80135024

01:15:36.954 --> 01:15:39.158 or somatic or germline mutations.

NOTE Confidence: 0.80135024

01:15:39.160 --> 01:15:41.687 If you deprive cancer cells of oxygen,

NOTE Confidence: 0.80135024

01:15:41.690 --> 01:15:43.475 they become hypoxic an they

NOTE Confidence: 0.80135024

01:15:43.475 --> 01:15:45.680 can't repair the DNA as well.

NOTE Confidence: 0.80135024

01:15:45.680 --> 01:15:47.846 So if you're effectively introducing brockus,

NOTE Confidence: 0.80135024

01:15:47.850 --> 01:15:49.956 anjo actually did a randomized trial

NOTE Confidence: 0.80135024

01:15:49.956 --> 01:15:52.143 where he showed that the progression

NOTE Confidence: 0.80135024

01:15:52.143 --> 01:15:54.642 was about seven months less if you

NOTE Confidence: 0.80135024

01:15:54.642 --> 01:15:56.889 deplete oxygen or give it what's

NOTE Confidence: 0.80135024

01:15:56.889 --> 01:15:58.709 called an anti angiogenesis agent,

NOTE Confidence: 0.80135024

01:15:58.710 --> 01:16:01.237 and he presented this year at Asco.

NOTE Confidence: 0.80135024

01:16:01.240 --> 01:16:03.050 We're now trying to correlate

NOTE Confidence: 0.80135024

01:16:03.050 --> 01:16:04.860 that with the molecular markers,

NOTE Confidence: 0.80135024

01:16:04.860 --> 01:16:06.835 but it's really an exciting

NOTE Confidence: 0.80135024

01:16:06.835 --> 01:16:09.214 area because now we're going to

NOTE Confidence: 0.80135024

01:16:09.214 --> 01:16:11.206 try to engineer the cells too.

NOTE Confidence: 0.80135024

01:16:11.210 --> 01:16:12.368 Indu sprocket nest.

NOTE Confidence: 0.84766334

01:16:15.780 --> 01:16:17.436 That's great I see a question.

NOTE Confidence: 0.84766334

01:16:17.440 --> 01:16:19.120 Here it says, is this presentation

NOTE Confidence: 0.84766334

01:16:19.120 --> 01:16:21.040 going to be available to watch again?

NOTE Confidence: 0.84766334

01:16:21.040 --> 01:16:23.370 Would answer is yes and.

NOTE Confidence: 0.84766334

01:16:23.370 --> 01:16:26.042 Renee may be able to to speak more

NOTE Confidence: 0.84766334

01:16:26.042 --> 01:16:28.310 about how to how to find that.

NOTE Confidence: 0.84766334

01:16:28.310 --> 01:16:30.278 I know that after this talk,

NOTE Confidence: 0.84766334

01:16:30.280 --> 01:16:32.248 if you have any additional questions,

NOTE Confidence: 0.84766334

01:16:32.250 --> 01:16:34.402 by the way, you can email to cancer

NOTE Confidence: 0.84766334

01:16:34.402 --> 01:16:36.530 answers at Yale.edu's cancer answers.

NOTE Confidence: 0.84766334

01:16:36.530 --> 01:16:38.180 All one word at yale.edu.

NOTE Confidence: 0.84766334

01:16:38.180 --> 01:16:39.820 But yes, this will be

NOTE Confidence: 0.84766334

01:16:39.820 --> 01:16:41.132 available in the figure.

NOTE Confidence: 0.84766334

01:16:41.140 --> 01:16:44.956 How to let you know how that so.

NOTE Confidence: 0.84766334

01:16:44.960 --> 01:16:46.940 It looks like there's another one

NOTE Confidence: 0.84766334

01:16:46.940 --> 01:16:48.630 for doctor Petra Lack here.

NOTE Confidence: 0.84766334

01:16:48.630 --> 01:16:50.754 What time frame you expect the

NOTE Confidence: 0.84766334

01:16:50.754 --> 01:16:52.170 medications currently in trial

NOTE Confidence: 0.84766334

01:16:52.235 --> 01:16:53.975 stages to be released and more

NOTE Confidence: 0.8393882

01:16:53.980 --> 01:16:54.648 broadly used.

NOTE Confidence: 0.8393882

01:16:54.648 --> 01:16:56.318 That's a great question again,

NOTE Confidence: 0.8393882

01:16:56.320 --> 01:16:59.540 so I know that that.

NOTE Confidence: 0.8393882

01:16:59.540 --> 01:17:01.070 This is a really difficult area.

NOTE Confidence: 0.8393882

01:17:01.070 --> 01:17:02.942 I mean, clearly we want to

NOTE Confidence: 0.8393882

01:17:02.942 --> 01:17:04.760 demonstrate that a drug is safe.

NOTE Confidence: 0.8393882

01:17:04.760 --> 01:17:06.472 And also effective and

NOTE Confidence: 0.8393882

01:17:06.472 --> 01:17:08.612 trials take quite some time.  
NOTE Confidence: 0.8393882

01:17:08.620 --> 01:17:12.044 So if you go back to tax appear,  
NOTE Confidence: 0.8393882

01:17:12.050 --> 01:17:15.060 the first patient was treated in 1996.  
NOTE Confidence: 0.8393882

01:17:15.060 --> 01:17:18.056 The phase three trial opened in 1999,  
NOTE Confidence: 0.8393882

01:17:18.060 --> 01:17:21.484 closed in 2002 and was mature in 2004.  
NOTE Confidence: 0.8393882

01:17:21.490 --> 01:17:24.486 So that's eight years from the time  
NOTE Confidence: 0.8393882

01:17:24.486 --> 01:17:27.400 that the drug first one to the  
NOTE Confidence: 0.8393882

01:17:27.400 --> 01:17:30.500 patient to the time it move forward.  
NOTE Confidence: 0.8393882

01:17:30.500 --> 01:17:33.254 So that that's a long process  
NOTE Confidence: 0.8393882

01:17:33.254 --> 01:17:35.090 and patients can't wait.  
NOTE Confidence: 0.8393882

01:17:35.090 --> 01:17:37.799 There are now accelerated approvals of drugs  
NOTE Confidence: 0.8393882

01:17:37.799 --> 01:17:40.518 based upon what we call phase two data.  
NOTE Confidence: 0.8393882

01:17:40.520 --> 01:17:42.944 In other words, if.  
NOTE Confidence: 0.8393882

01:17:42.944 --> 01:17:45.368 The drug shows efficacy.  
NOTE Confidence: 0.8393882

01:17:45.370 --> 01:17:47.260 Or it looks like it's effective  
NOTE Confidence: 0.8393882

01:17:47.260 --> 01:17:49.548 in a small trial that the FDA

NOTE Confidence: 0.8393882

01:17:49.548 --> 01:17:51.148 sense says puts a certain.

NOTE Confidence: 0.81718457

01:17:53.450 --> 01:17:56.506 Response rate, so we just in bladder cancer.

NOTE Confidence: 0.81718457

01:17:56.510 --> 01:17:59.023 We just gotta drug Holden Ford of

NOTE Confidence: 0.81718457

01:17:59.023 --> 01:18:01.370 Doughton approved an accelerated basis in

NOTE Confidence: 0.81718457

01:18:01.370 --> 01:18:04.163 December an so that's December of 2019.

NOTE Confidence: 0.81718457

01:18:04.170 --> 01:18:06.576 The phase two trial opened about

NOTE Confidence: 0.81718457

01:18:06.576 --> 01:18:09.318 two years before that and the phase

NOTE Confidence: 0.81718457

01:18:09.318 --> 01:18:11.442 one trials were open in 2012,

NOTE Confidence: 0.81718457

01:18:11.450 --> 01:18:13.748 so it's still a long process.

NOTE Confidence: 0.81718457

01:18:13.750 --> 01:18:16.810 But it's now available to patients.

NOTE Confidence: 0.81718457

01:18:16.810 --> 01:18:18.539 It's a little bit shorter than we'd

NOTE Confidence: 0.81718457

01:18:18.539 --> 01:18:20.891 have to go through the face through the

NOTE Confidence: 0.81718457

01:18:20.891 --> 01:18:23.119 phase three was confirm atory the phase

NOTE Confidence: 0.81718457

01:18:23.119 --> 01:18:25.261 three data was just announced and press

NOTE Confidence: 0.81718457

01:18:25.261 --> 01:18:27.316 release about three or four days ago,

NOTE Confidence: 0.81718457

01:18:27.320 --> 01:18:28.488 and that was positive.  
NOTE Confidence: 0.81718457

01:18:28.488 --> 01:18:30.243 So you know, I encourage everybody  
NOTE Confidence: 0.81718457

01:18:30.243 --> 01:18:31.989 to get involved in clinical trials.  
NOTE Confidence: 0.81718457

01:18:31.990 --> 01:18:34.326 If available, talk to your doctors about it.  
NOTE Confidence: 0.81718457

01:18:34.330 --> 01:18:36.297 We try to make a trial available  
NOTE Confidence: 0.81718457

01:18:36.297 --> 01:18:37.540 for every disease state,  
NOTE Confidence: 0.81718457

01:18:37.540 --> 01:18:39.255 so if you've come in and you've  
NOTE Confidence: 0.81718457

01:18:39.255 --> 01:18:41.338 been on one treatment treatment a,  
NOTE Confidence: 0.81718457

01:18:41.340 --> 01:18:43.740 then you go on treatment B and we  
NOTE Confidence: 0.81718457

01:18:43.740 --> 01:18:45.945 always try to talk to you about  
NOTE Confidence: 0.81718457

01:18:45.945 --> 01:18:47.480 trials at a given point.  
NOTE Confidence: 0.81718457

01:18:47.480 --> 01:18:48.162 And again,  
NOTE Confidence: 0.81718457

01:18:48.162 --> 01:18:50.208 we appreciate all the patients who  
NOTE Confidence: 0.81718457

01:18:50.208 --> 01:18:51.939 have volunteered for this overtime,  
NOTE Confidence: 0.81718457

01:18:51.940 --> 01:18:53.998 because you know, it's it's a.  
NOTE Confidence: 0.81718457

01:18:54.000 --> 01:18:54.963 It's a hard.

NOTE Confidence: 0.81718457

01:18:54.963 --> 01:18:58.110 It's not easy an you know it's an unknown.

NOTE Confidence: 0.81718457

01:18:58.110 --> 01:18:59.680 These patients are pioneers and

NOTE Confidence: 0.81718457

01:18:59.680 --> 01:19:01.890 they're helping us not only themselves,

NOTE Confidence: 0.81718457

01:19:01.890 --> 01:19:02.232 potentially,

NOTE Confidence: 0.81718457

01:19:02.232 --> 01:19:04.284 but other patients in the future.

NOTE Confidence: 0.7886185

01:19:10.480 --> 01:19:12.818 As she had one more question for

NOTE Confidence: 0.7886185

01:19:12.818 --> 01:19:14.345 Doctor Lehman, actually I know

NOTE Confidence: 0.7886185

01:19:14.345 --> 01:19:16.811 this is mainly a cancer top by you

NOTE Confidence: 0.7886185

01:19:16.811 --> 01:19:18.826 touched on benign prostate enlarge.

NOTE Confidence: 0.7886185

01:19:18.830 --> 01:19:21.310 I know a lot of men that come have a

NOTE Confidence: 0.7886185

01:19:21.387 --> 01:19:23.949 lot of questions about that and drugs

NOTE Confidence: 0.7886185

01:19:23.949 --> 01:19:26.610 like Flomax but also there are lot

NOTE Confidence: 0.7886185

01:19:26.610 --> 01:19:28.848 of things like the loud procedures,

NOTE Confidence: 0.7886185

01:19:28.850 --> 01:19:30.999 green light laser and one using steam

NOTE Confidence: 0.7886185

01:19:30.999 --> 01:19:33.190 energy and in various things what?

NOTE Confidence: 0.7886185



01:19:33.190 --> 01:19:35.381 What do you counsel men who are  
NOTE Confidence: 0.7886185

01:19:35.381 --> 01:19:36.747 struggling with their primary  
NOTE Confidence: 0.7886185

01:19:36.747 --> 01:19:38.913 care doctor they've been on Flomax  
NOTE Confidence: 0.7886185

01:19:38.913 --> 01:19:40.470 some medicines not really.  
NOTE Confidence: 0.7886185

01:19:40.470 --> 01:19:42.360 Cutting out what how you talking  
NOTE Confidence: 0.7886185

01:19:42.360 --> 01:19:44.055 and having counseling about options  
NOTE Confidence: 0.7886185

01:19:44.055 --> 01:19:45.567 include procedures for that?  
NOTE Confidence: 0.7886185

01:19:45.570 --> 01:19:46.250 Thanks for  
NOTE Confidence: 0.82090205

01:19:46.250 --> 01:19:48.630 his. Yeah it's very much interwoven right?  
NOTE Confidence: 0.82090205

01:19:48.630 --> 01:19:50.758 So the so men become very often  
NOTE Confidence: 0.82090205

01:19:50.758 --> 01:19:52.709 become aware of their prostate.  
NOTE Confidence: 0.82090205

01:19:52.710 --> 01:19:54.365 Having urinary symptoms is almost  
NOTE Confidence: 0.82090205

01:19:54.365 --> 01:19:56.867 universal and so that is relevant to  
NOTE Confidence: 0.82090205

01:19:56.867 --> 01:19:59.231 the question of prostate cancer because  
NOTE Confidence: 0.82090205

01:19:59.231 --> 01:20:00.988 there's awareness of the prostate.  
NOTE Confidence: 0.82090205

01:20:00.990 --> 01:20:02.625 That question about could this

NOTE Confidence: 0.82090205

01:20:02.625 --> 01:20:06.000 be cancer always looms large, so.

NOTE Confidence: 0.82090205

01:20:06.000 --> 01:20:07.758 So I think it is important

NOTE Confidence: 0.82090205

01:20:07.758 --> 01:20:08.930 to beginning at beginning,

NOTE Confidence: 0.82090205

01:20:08.930 --> 01:20:09.806 having those conversations

NOTE Confidence: 0.82090205

01:20:09.806 --> 01:20:10.974 clearly make the distinction.

NOTE Confidence: 0.82090205

01:20:10.980 --> 01:20:12.738 But for people who do have

NOTE Confidence: 0.82090205

01:20:12.738 --> 01:20:13.617 benign urinary symptoms,

NOTE Confidence: 0.82090205

01:20:13.620 --> 01:20:15.336 you know the first line treatments

NOTE Confidence: 0.82090205

01:20:15.336 --> 01:20:16.825 are usually medications to help

NOTE Confidence: 0.82090205

01:20:16.825 --> 01:20:18.310 essentially open up the prostate.

NOTE Confidence: 0.82090205

01:20:18.310 --> 01:20:19.770 Let more urine pass out,

NOTE Confidence: 0.82090205

01:20:19.770 --> 01:20:21.235 and that helps you know

NOTE Confidence: 0.82090205

01:20:21.235 --> 01:20:22.407 significant number of men.

NOTE Confidence: 0.82090205

01:20:22.410 --> 01:20:24.188 But there are some who have symptoms

NOTE Confidence: 0.82090205

01:20:24.188 --> 01:20:26.218 that do not respond to medications,

NOTE Confidence: 0.82090205

01:20:26.220 --> 01:20:28.032 and I'm often shocked at how  
NOTE Confidence: 0.82090205

01:20:28.032 --> 01:20:29.569 many people don't realize or  
NOTE Confidence: 0.82090205

01:20:29.569 --> 01:20:31.195 something else that you can do.  
NOTE Confidence: 0.82090205

01:20:31.200 --> 01:20:32.660 We've made great strides here,  
NOTE Confidence: 0.82090205

01:20:32.660 --> 01:20:34.438 and we have a few people who  
NOTE Confidence: 0.82090205

01:20:34.438 --> 01:20:35.981 specialized really in this field  
NOTE Confidence: 0.82090205

01:20:35.981 --> 01:20:37.437 of minimally invasive treatment.  
NOTE Confidence: 0.82090205

01:20:37.440 --> 01:20:39.300 Prostate for benign. Prostate cancer.  
NOTE Confidence: 0.82090205

01:20:39.300 --> 01:20:40.413 For benign prostate.  
NOTE Confidence: 0.82090205

01:20:40.413 --> 01:20:41.897 Simple so not cancerous.  
NOTE Confidence: 0.82090205

01:20:41.900 --> 01:20:43.388 Disease of the prostate.  
NOTE Confidence: 0.82090205

01:20:43.388 --> 01:20:45.620 One person is named Daniel Kellner,  
NOTE Confidence: 0.82090205

01:20:45.620 --> 01:20:47.534 whose outstanding and has really become  
NOTE Confidence: 0.82090205

01:20:47.534 --> 01:20:50.126 a leader in a laser approach where  
NOTE Confidence: 0.82090205

01:20:50.126 --> 01:20:52.622 they essentially treat very very large  
NOTE Confidence: 0.82090205

01:20:52.622 --> 01:20:54.550 prostates which are not cancerous.

NOTE Confidence: 0.82090205

01:20:54.550 --> 01:20:57.154 But removing the center portion of it,

NOTE Confidence: 0.82090205

01:20:57.160 --> 01:20:59.864 which has a very minimal long term side

NOTE Confidence: 0.82090205

01:20:59.864 --> 01:21:02.206 effects and can make really profound

NOTE Confidence: 0.82090205

01:21:02.206 --> 01:21:04.594 differences in the quality of life.

NOTE Confidence: 0.82090205

01:21:04.600 --> 01:21:06.455 For men who are struggling

NOTE Confidence: 0.82090205

01:21:06.455 --> 01:21:07.568 with urinary issues.

NOTE Confidence: 0.781646

01:21:08.980 --> 01:21:10.736 And tastic, thank you.

NOTE Confidence: 0.781646

01:21:10.736 --> 01:21:12.492 It looks like there's

NOTE Confidence: 0.781646

01:21:12.492 --> 01:21:14.699 one more for doctor pet.

NOTE Confidence: 0.781646

01:21:14.700 --> 01:21:16.460 Relax, this is nothing

NOTE Confidence: 0.781646

01:21:16.460 --> 01:21:17.780 nice nuanced question.

NOTE Confidence: 0.781646

01:21:17.780 --> 01:21:19.980 So are there trials for

NOTE Confidence: 0.781646

01:21:19.980 --> 01:21:22.280 nonmetastatic castrate resistant so

NOTE Confidence: 0.781646

01:21:22.280 --> 01:21:26.635 castrate yes right now we are sort of

NOTE Confidence: 0.781646

01:21:26.635 --> 01:21:29.484 in a Limbo period right now because

NOTE Confidence: 0.781646

01:21:29.484 --> 01:21:32.987 we were working with a vaccine trial.  
NOTE Confidence: 0.781646

01:21:32.990 --> 01:21:34.880 Which was basically PSA vaccine that  
NOTE Confidence: 0.781646

01:21:34.880 --> 01:21:36.770 we're combining with the checkpoint.  
NOTE Confidence: 0.781646

01:21:36.770 --> 01:21:39.898 There are trials I right now I'm sort  
NOTE Confidence: 0.781646

01:21:39.898 --> 01:21:42.775 of in between. Studies the standard.  
NOTE Confidence: 0.781646

01:21:42.775 --> 01:21:44.900 There are three standard FDA  
NOTE Confidence: 0.781646

01:21:44.900 --> 01:21:46.470 approved drugs right now.  
NOTE Confidence: 0.781646

01:21:46.470 --> 01:21:48.852 One is apalutamide, one is enzalutamide  
NOTE Confidence: 0.781646

01:21:48.852 --> 01:21:51.439 and the third is Darrell Odom.  
NOTE Confidence: 0.781646

01:21:51.440 --> 01:21:55.017 I'd so those are drugs you would  
NOTE Confidence: 0.781646

01:21:55.017 --> 01:21:57.680 consider for this situation.  
NOTE Confidence: 0.781646

01:21:57.680 --> 01:21:58.577 At this point,  
NOTE Confidence: 0.781646

01:21:58.577 --> 01:22:00.670 now we don't know if sequential used  
NOTE Confidence: 0.781646

01:22:00.733 --> 01:22:02.701 to these drugs is is going to give  
NOTE Confidence: 0.781646

01:22:02.701 --> 01:22:04.955 you any more benefit if you fail one,  
NOTE Confidence: 0.781646

01:22:04.960 --> 01:22:07.746 then go on to the other but.

NOTE Confidence: 0.781646  
01:22:07.750 --> 01:22:08.382 Stay tuned,  
NOTE Confidence: 0.781646  
01:22:08.382 --> 01:22:09.646 hopefully they'll be something  
NOTE Confidence: 0.781646  
01:22:09.646 --> 01:22:11.575 opened with the next six months  
NOTE Confidence: 0.781646  
01:22:11.575 --> 01:22:13.105 where we're still recovering from  
NOTE Confidence: 0.781646  
01:22:13.105 --> 01:22:14.928 Covid in getting our trials going,  
NOTE Confidence: 0.781646  
01:22:14.930 --> 01:22:16.796 so it's been a slow process,  
NOTE Confidence: 0.781646  
01:22:16.800 --> 01:22:18.048 but it's moving forward.  
NOTE Confidence: 0.7623922  
01:22:23.980 --> 01:22:24.530 Excellent.  
NOTE Confidence: 0.7869821  
01:22:27.320 --> 01:22:29.198 See, we're almost finished with our  
NOTE Confidence: 0.7869821  
01:22:29.198 --> 01:22:31.143 time with or any other questions  
NOTE Confidence: 0.7869821  
01:22:31.143 --> 01:22:33.039 on his paws from own case.  
NOTE Confidence: 0.7869821  
01:22:33.040 --> 01:22:35.266 Anyone is gonna be typed in here.  
NOTE Confidence: 0.8013975  
01:22:45.360 --> 01:22:46.332 Lorraine Renee, are you?  
NOTE Confidence: 0.8013975  
01:22:46.332 --> 01:22:47.790 Do you have any more specific  
NOTE Confidence: 0.8013975  
01:22:47.842 --> 01:22:49.222 guidance about how this is going  
NOTE Confidence: 0.8013975

01:22:49.222 --> 01:22:50.730 to be available to watch again?  
NOTE Confidence: 0.8522735

01:22:53.450 --> 01:22:56.055 You are so the video will be posted  
NOTE Confidence: 0.8522735

01:22:56.060 --> 01:22:57.038 to yalecancercenter.org and  
NOTE Confidence: 0.8522735

01:22:57.040 --> 01:22:58.340 will also share it  
NOTE Confidence: 0.8522735

01:22:58.340 --> 01:23:00.298 out on social media to all  
NOTE Confidence: 0.8522735

01:23:00.300 --> 01:23:01.600 smilow cancer hospital pages.  
NOTE Confidence: 0.82850975

01:23:03.480 --> 01:23:05.090 One of the things I usually  
NOTE Confidence: 0.82850975

01:23:05.090 --> 01:23:06.910 when we open up new trials,  
NOTE Confidence: 0.82850975

01:23:06.910 --> 01:23:08.625 I'll put that on Twitter so those  
NOTE Confidence: 0.82850975

01:23:08.625 --> 01:23:11.026 of us who would want to follow the  
NOTE Confidence: 0.82850975

01:23:11.026 --> 01:23:12.626 Yellow Cancer Center on Twitter  
NOTE Confidence: 0.82850975

01:23:12.686 --> 01:23:14.625 as well as my own Twitter account,  
NOTE Confidence: 0.82850975

01:23:14.630 --> 01:23:16.918 which is part of the yellow Cancer Center.  
NOTE Confidence: 0.82850975

01:23:16.920 --> 01:23:18.068 I also tried to.  
NOTE Confidence: 0.87295663

01:23:20.850 --> 01:23:22.195 Let people know that new  
NOTE Confidence: 0.87295663

01:23:22.195 --> 01:23:23.540 findings that are coming out.

NOTE Confidence: 0.82466024

01:23:26.000 --> 01:23:28.363 Excellent.