WEBVTT

00:00:00.000 --> 00:00:02.124 Alright, good evening everyone.

00:00:02.124 --> 00:00:04.248 Saw Doctor Mcgibbon here.

00:00:04.250 --> 00:00:06.360 Welcome you to this smile.

00:00:06.360 --> 00:00:07.964 Shares addition of advances

00:00:07.964 --> 00:00:09.167 in prostate cancer.

00:00:09.170 --> 00:00:10.260 Thank you everyone for joining.

00:00:10.260 --> 00:00:13.135 We're going to get a start

00:00:13.135 --> 00:00:14.610 here sharp at 7:00 o'clock.

00:00:14.610 --> 00:00:18.019 Doctor Petra Lack will be going first.

00:00:18.020 --> 00:00:20.594 Medical ecology and Dr Portman from

00:00:20.594 --> 00:00:23.028 urology and then myself for each

00:00:23.028 --> 00:00:25.435 non college E and the Q&A will be

00:00:25.435 --> 00:00:26.880 a little bit different tonight.

00:00:26.880 --> 00:00:28.968 Doctor Patrick will speak first and

NOTE Confidence: 0.92239861625

00:00:28.968 --> 00:00:31.100 have his Q&A directly afterwards.

NOTE Confidence: 0.92239861625

00:00:31.100 --> 00:00:32.760 And then Doctor Portman,

NOTE Confidence: 0.92239861625

00:00:32.760 --> 00:00:36.419 I will have a separate UN A after this.

NOTE Confidence: 0.92239861625

00:00:36.420 --> 00:00:37.806 The first I'd like to introduce Dr.

NOTE Confidence: 0.92239861625

00:00:37.810 --> 00:00:38.265 Petrick,

NOTE Confidence: 0.92239861625

00:00:38.265 --> 00:00:41.905 who was a professor at Yale Medical Ecology,

NOTE Confidence: 0.92239861625

00:00:41.910 --> 00:00:44.135 and we talking tonight about

NOTE Confidence: 0.92239861625

00:00:44.135 --> 00:00:45.470 some advances there.

NOTE Confidence: 0.92239861625

00:00:45.470 --> 00:00:46.670 I'll take it away, Doctor Petrol.

NOTE Confidence: 0.98315007

00:00:47.970 --> 00:00:50.916 OK, thank you very much and

NOTE Confidence: 0.98315007

00:00:50.916 --> 00:00:52.880 sharing my screen here.

NOTE Confidence: 0.98315007

00:00:52.880 --> 00:00:54.150 Think you've got that correct?

NOTE Confidence: 0.97276536

00:00:55.290 --> 00:00:56.360 Yes, can see it nicely.

NOTE Confidence: 0.98353589

00:00:59.590 --> 00:01:01.326 OK, great and we got we have

NOTE Confidence: 0.98353589

00:01:01.326 --> 00:01:02.749 the first slide up correct.

NOTE Confidence: 0.796796025

00:01:05.220 --> 00:01:08.335 Uh, yes. Terrific so as we know

NOTE Confidence: 0.796796025

00:01:08.335 --> 00:01:10.607 I'm a medical oncologist and I

NOTE Confidence: 0.796796025

00:01:10.607 --> 00:01:12.983 take care of those patients who

NOTE Confidence: 0.796796025

00:01:12.983 --> 00:01:15.360 have advanced prostate cancer and.

NOTE Confidence: 0.796796025

00:01:15.360 --> 00:01:19.458 Prostate cancer is is the most common

NOTE Confidence: 0.796796025

00:01:19.458 --> 00:01:21.726 diagnosed cancer in men and the second

NOTE Confidence: 0.796796025

00:01:21.726 --> 00:01:23.729 leading cancer cause of death in men.

NOTE Confidence: 0.796796025

00:01:23.730 --> 00:01:25.530 And we really have two different

NOTE Confidence: 0.796796025

00:01:25.530 --> 00:01:26.430 types of disease.

NOTE Confidence: 0.796796025

00:01:26.430 --> 00:01:28.400 We have the early nonmetastatic

NOTE Confidence: 0.796796025

00:01:28.400 --> 00:01:30.898 localized disease which can be treated

NOTE Confidence: 0.796796025

00:01:30.898 --> 00:01:33.178 with radiation therapy and surgery.

NOTE Confidence: 0.796796025

00:01:33.180 --> 00:01:35.590 We have hormone sensitive disease,

NOTE Confidence: 0.796796025

00:01:35.590 --> 00:01:38.818 which is when a patient relapses

NOTE Confidence: 0.796796025

00:01:38.818 --> 00:01:42.618 either by PSA or relapses by a.

NOTE Confidence: 0.796796025

00:01:42.620 --> 00:01:43.196 Objective measurements,

NOTE Confidence: 0.796796025

00:01:43.196 --> 00:01:45.830 such as a bone scan or a lymph node.

NOTE Confidence: 0.796796025

00:01:45.830 --> 00:01:46.990 And then, of course,

NOTE Confidence: 0.796796025

00:01:46.990 --> 00:01:48.440 hormone therapy is the standard

NOTE Confidence: 0.796796025

00:01:48.440 --> 00:01:50.110 that we use for these patients,

NOTE Confidence: 0.796796025

00:01:50.110 --> 00:01:52.614 as we see from this flow sheet we

NOTE Confidence: 0.796796025

00:01:52.614 --> 00:01:55.169 can flow from localized disease to

NOTE Confidence: 0.796796025

00:01:55.169 --> 00:01:57.479 rising PSA to clinical metastases

NOTE Confidence: 0.796796025

00:01:57.479 --> 00:01:59.858 to eventually metastases that

NOTE Confidence: 0.796796025

00:01:59.858 --> 00:02:03.038 no longer respond to hormones.

NOTE Confidence: 0.796796025

00:02:03.040 --> 00:02:06.202 And we know that the Nobel Prize

NOTE Confidence: 0.796796025

00:02:06.202 --> 00:02:09.112 was awarded in 1966 to a gentleman

NOTE Confidence: 0.796796025

00:02:09.112 --> 00:02:10.246 in Charles Huggins,

NOTE Confidence: 0.796796025

00:02:10.250 --> 00:02:13.281 who described the fact that we could

NOTE Confidence: 0.796796025

00:02:13.281 --> 00:02:16.510 treat patients by depriving testosterone,

NOTE Confidence: 0.796796025

00:02:16.510 --> 00:02:18.385 and this unfortunately can control

00:02:18.385 --> 00:02:20.799 the disease for long periods of time,

00:02:20.800 --> 00:02:23.160 but unfortunately can't cure it.

00:02:23.160 --> 00:02:25.008 So what I focused my research and

00:02:25.008 --> 00:02:27.289 my career on is the treatment of

00:02:27.289 --> 00:02:29.074 resistant disease and that's really,

00:02:29.080 --> 00:02:33.742 really evolved over the last 10 to 15 years.

00:02:33.750 --> 00:02:36.096 So previously we we really didn't

00:02:36.096 --> 00:02:38.390 have treatments that were effective.

00:02:38.390 --> 00:02:41.711 And in in 2004 I was behind the approval

00:02:41.711 --> 00:02:45.258 of a drug called Docetaxel or taxotere,

00:02:45.260 --> 00:02:47.084 for the treatment of the most

00:02:47.084 --> 00:02:48.750 advanced form of prostate cancer,

00:02:48.750 --> 00:02:50.526 and we've really begun to understand

00:02:50.526 --> 00:02:52.369 the disease and evolve the disease.

00:02:52.370 --> 00:02:54.250 Since that period of time.

00:02:54.250 --> 00:02:55.986 And now we have a variety of different

NOTE Confidence: 0.796796025

00:02:55.986 --> 00:02:57.750 treats for the treatments that are used,

NOTE Confidence: 0.796796025

00:02:57.750 --> 00:02:59.870 and this is sort of a complex map,

NOTE Confidence: 0.796796025

00:02:59.870 --> 00:03:02.723 but it shows us how much we improve survival,

NOTE Confidence: 0.796796025

00:03:02.730 --> 00:03:03.840 and now we're seeing patients

NOTE Confidence: 0.796796025

00:03:03.840 --> 00:03:05.200 who normally only lived a year.

NOTE Confidence: 0.796796025

00:03:05.200 --> 00:03:08.026 We've seen the live so several

NOTE Confidence: 0.796796025

00:03:08.026 --> 00:03:09.910 years with resistant disease.

NOTE Confidence: 0.796796025

00:03:09.910 --> 00:03:11.894 So I like to think of this disease

NOTE Confidence: 0.796796025

00:03:11.894 --> 00:03:13.660 in terms of classes of agents.

NOTE Confidence: 0.796796025

00:03:13.660 --> 00:03:15.812 We have immunotherapeutic agents,

NOTE Confidence: 0.796796025

00:03:15.812 --> 00:03:19.040 hormonal agents as well as cytotoxic

NOTE Confidence: 0.796796025

00:03:19.125 --> 00:03:21.277 agents such as chemotherapy,

NOTE Confidence: 0.796796025

00:03:21.280 --> 00:03:23.164 and now we're looking to agents

NOTE Confidence: 0.796796025

00:03:23.164 --> 00:03:25.040 that can damage DNA isotopes.

NOTE Confidence: 0.796796025

00:03:25.040 --> 00:03:27.049 You'll hear about a drug called F.

NOTE Confidence: 0.796796025

00:03:27.050 --> 00:03:30.426 Types may lutetium 166.

NOTE Confidence: 0.796796025

00:03:30.426 --> 00:03:31.270 Also,

NOTE Confidence: 0.796796025

00:03:31.270 --> 00:03:34.049 pop inhibitors are used for prostate cancer,

NOTE Confidence: 0.796796025

00:03:34.050 --> 00:03:36.120 and it's important that you talk

NOTE Confidence: 0.796796025

00:03:36.120 --> 00:03:38.120 to your oncologist and urologist

NOTE Confidence: 0.796796025

00:03:38.120 --> 00:03:39.770 was radiation oncologist.

NOTE Confidence: 0.796796025

00:03:39.770 --> 00:03:41.655 About the different options that

NOTE Confidence: 0.796796025

00:03:41.655 --> 00:03:43.540 are available to treat patients

NOTE Confidence: 0.796796025

00:03:43.607 --> 00:03:44.669 in this situation.

NOTE Confidence: 0.796796025

00:03:44.670 --> 00:03:46.882 We think about sequencing these drugs in

NOTE Confidence: 0.796796025

00:03:46.882 --> 00:03:49.328 terms of where the patient's disease is,

NOTE Confidence: 0.796796025

00:03:49.330 --> 00:03:50.950 whether they or hormone

NOTE Confidence: 0.796796025

00:03:50.950 --> 00:03:52.570 sensitive or hormone resistant,

NOTE Confidence: 0.796796025

00:03:52.570 --> 00:03:54.684 whether they have had chemotherapy or not,

NOTE Confidence: 0.796796025

00:03:54.690 --> 00:03:57.066 but we've now moved into a different era.

NOTE Confidence: 0.796796025

00:03:57.070 --> 00:03:58.279 For prostate cancer,

NOTE Confidence: 0.796796025

00:03:58.279 --> 00:04:01.740 we moved into the area of biological markers.

NOTE Confidence: 0.796796025

00:04:01.740 --> 00:04:04.162 And this is something you really do

NOTE Confidence: 0.796796025

00:04:04.162 --> 00:04:06.759 need to speak to your doctor about,

NOTE Confidence: 0.796796025

00:04:06.760 --> 00:04:09.604 because now we have biomarkers that

NOTE Confidence: 0.796796025

00:04:09.604 --> 00:04:12.181 can actually predict whether patients

NOTE Confidence: 0.796796025

00:04:12.181 --> 00:04:14.609 respond to different treatments.

NOTE Confidence: 0.796796025

00:04:14.610 --> 00:04:17.670 And prostate cancer presents a unique

NOTE Confidence: 0.796796025

00:04:17.670 --> 00:04:19.920 problem different from other tumors

NOTE Confidence: 0.796796025

00:04:19.920 --> 00:04:22.530 where you have soft tissue lesions

NOTE Confidence: 0.97796573625

00:04:22.603 --> 00:04:25.129 like lymph nodes or lung metastases,

NOTE Confidence: 0.97796573625

00:04:25.130 --> 00:04:27.008 or spread to the liver that

NOTE Confidence: 0.97796573625

00:04:27.008 --> 00:04:28.260 can be biopsied easily.

NOTE Confidence: 0.97796573625

00:04:28.260 --> 00:04:30.365 Most prostate cancer patients have

NOTE Confidence: 0.97796573625

00:04:30.365 --> 00:04:32.470 disease that's limited to bump.

NOTE Confidence: 0.97796573625

00:04:32.470 --> 00:04:34.918 And that leads to a series of different

NOTE Confidence: 0.97796573625

00:04:34.918 --> 00:04:37.089 issues in terms of obtaining tissue

NOTE Confidence: 0.97796573625

00:04:37.089 --> 00:04:39.333 to look at these advanced markers.

NOTE Confidence: 0.97796573625

00:04:39.340 --> 00:04:41.038 So we look at the plasma.

NOTE Confidence: 0.97796573625

00:04:41.040 --> 00:04:42.925 We look at some circulating

NOTE Confidence: 0.97796573625

00:04:42.925 --> 00:04:44.810 tumor cells in the blood.

NOTE Confidence: 0.97796573625

00:04:44.810 --> 00:04:46.736 In those cases where we can

NOTE Confidence: 0.97796573625

00:04:46.736 --> 00:04:48.020 actually biopsy a patient,

NOTE Confidence: 0.97796573625

00:04:48.020 --> 00:04:50.120 we actually go to the source

NOTE Confidence: 0.97796573625

00:04:50.120 --> 00:04:51.520 tissue to biopsy patients,

NOTE Confidence: 0.97796573625

00:04:51.520 --> 00:04:52.948 and this is something that you do

NOTE Confidence: 0.97796573625

00:04:52.948 --> 00:04:54.318 need to discuss with your doctor,

NOTE Confidence: 0.97796573625

00:04:54.320 --> 00:04:56.030 because this can make a big

NOTE Confidence: 0.97796573625

00:04:56.030 --> 00:04:57.170 difference in your treatment.

NOTE Confidence: 0.97796573625

00:04:57.170 --> 00:05:00.607 These biomarkers can be used to select

NOTE Confidence: 0.97796573625

00:05:00.607 --> 00:05:02.880 treatment for different patients.

NOTE Confidence: 0.97796573625

00:05:02.880 --> 00:05:04.389 So for example,

NOTE Confidence: 0.97796573625

00:05:04.389 --> 00:05:08.720 if we find a mutation in DNA repair

NOTE Confidence: 0.97796573625

00:05:08.720 --> 00:05:11.387 such as BRACA one or Brock two,

NOTE Confidence: 0.97796573625

00:05:11.390 --> 00:05:13.640 that's about one in 10 patients

NOTE Confidence: 0.97796573625

00:05:13.640 --> 00:05:15.140 with advanced prostate cancer.

NOTE Confidence: 0.97796573625

00:05:15.140 --> 00:05:17.891 We see that we can actually design

NOTE Confidence: 0.97796573625

00:05:17.891 --> 00:05:20.047 drug administered drugs called PARP

NOTE Confidence: 0.97796573625

00:05:20.047 --> 00:05:22.317 inhibitors that can actually cause

NOTE Confidence: 0.97796573625

00:05:22.317 --> 00:05:24.900 tumor regression and improve survival.

NOTE Confidence: 0.97796573625

00:05:24.900 --> 00:05:27.085 We've all seen the advertisements

NOTE Confidence: 0.97796573625

00:05:27.085 --> 00:05:29.270 for immune therapy on television

NOTE Confidence: 0.97796573625

00:05:29.340 --> 00:05:30.928 for drugs like KEYTRUDA,

NOTE Confidence: 0.97796573625

00:05:30.930 --> 00:05:32.904 which I'm often asked whether these

NOTE Confidence: 0.97796573625

00:05:32.904 --> 00:05:35.189 drugs have activity in prostate cancer,

NOTE Confidence: 0.97796573625

00:05:35.190 --> 00:05:37.508 and the answer is, for the most part, no,

NOTE Confidence: 0.97796573625

00:05:37.508 --> 00:05:39.892 but there are a small number of patients,

NOTE Confidence: 0.97796573625

00:05:39.900 --> 00:05:43.043 maybe 2 to 3% who have something

NOTE Confidence: 0.97796573625

00:05:43.043 --> 00:05:44.390 called microsatellite instability,

NOTE Confidence: 0.97796573625

00:05:44.390 --> 00:05:46.030 and that's a marker for.

NOTE Confidence: 0.97796573625

00:05:46.030 --> 00:05:47.266 Response to pembrolizumab.

NOTE Confidence: 0.97796573625

00:05:47.266 --> 00:05:48.946 In fact, or KEYTRUDA.

NOTE Confidence: 0.97796573625

00:05:48.946 --> 00:05:49.802 In fact,

NOTE Confidence: 0.97796573625

00:05:49.802 --> 00:05:52.370 this is FDA approved in this

NOTE Confidence: 0.97796573625

00:05:52.458 --> 00:05:54.000 group of patients.

NOTE Confidence: 0.97796573625

00:05:54.000 --> 00:05:54.672 At Yale,

NOTE Confidence: 0.97796573625

00:05:54.672 --> 00:05:56.688 working on new treatments that are

NOTE Confidence: 0.97796573625

00:05:56.688 --> 00:05:59.146 are trying to target other parts of

NOTE Confidence: 0.97796573625

00:05:59.146 --> 00:06:01.298 the pathway that's involved in the

NOTE Confidence: 0.97796573625

00:06:01.298 --> 00:06:03.168 growth of prostate cancer cells,

NOTE Confidence: 0.97796573625

00:06:03.170 --> 00:06:04.748 and this is my friend and

NOTE Confidence: 0.97796573625

00:06:04.748 --> 00:06:05.800 colleague Doctor Craig Cruz,

NOTE Confidence: 0.97796573625

00:06:05.800 --> 00:06:08.502 who is a professor of chemistry at

NOTE Confidence: 0.97796573625

00:06:08.502 --> 00:06:11.128 Yale and when I first arrived yield

NOTE Confidence: 0.97796573625

00:06:11.130 --> 00:06:13.218 2012 cry came up to my office and said,

NOTE Confidence: 0.97796573625

00:06:13.220 --> 00:06:13.502 hey,

NOTE Confidence: 0.97796573625

00:06:13.502 --> 00:06:15.194 one of my best friends and

NOTE Confidence: 0.97796573625

00:06:15.194 --> 00:06:17.045 somebody who I developed a company

NOTE Confidence: 0.97796573625

00:06:17.045 --> 00:06:19.236 with a number of years ago died

NOTE Confidence: 0.97796573625

00:06:19.298 --> 00:06:21.138 from advanced prostate cancer.

NOTE Confidence: 0.97796573625

00:06:21.140 --> 00:06:23.866 What can we do to help this so we?

NOTE Confidence: 0.97796573625

00:06:23.866 --> 00:06:25.531 Banter back and forth several

NOTE Confidence: 0.97796573625

00:06:25.531 --> 00:06:26.197 different ideas,

NOTE Confidence: 0.97796573625

00:06:26.200 --> 00:06:28.160 and Craig was working on a very,

NOTE Confidence: 0.97796573625

00:06:28.160 --> 00:06:32.390 very unique drug called a approach.

NOTE Confidence: 0.97796573625

00:06:32.390 --> 00:06:36.422 No tech and what this project does is

NOTE Confidence: 0.97796573625

00:06:36.422 --> 00:06:40.026 it takes our own system of degrading

NOTE Confidence: 0.97796573625

00:06:40.026 --> 00:06:43.337 proteins that may be old and tired,

NOTE Confidence: 0.97796573625

00:06:43.340 --> 00:06:45.860 which your body normally turns proteins

NOTE Confidence: 0.97796573625

00:06:45.860 --> 00:06:48.470 over and takes these particular proteins

NOTE Confidence: 0.97796573625

00:06:48.470 --> 00:06:50.890 and then marks them for degradation.

NOTE Confidence: 0.97796573625

00:06:50.890 --> 00:06:53.200 And we've developed a way of

NOTE Confidence: 0.97796573625

00:06:53.271 --> 00:06:55.499 accelerating that process and

NOTE Confidence: 0.97796573625

00:06:55.499 --> 00:06:57.170 specifically targeting something

NOTE Confidence: 0.97796573625

00:06:57.170 --> 00:06:59.530 called the Android receptor,

NOTE Confidence: 0.97796573625

00:06:59.530 --> 00:07:02.180 which is expressed in practically

NOTE Confidence: 0.97796573625

00:07:02.180 --> 00:07:04.300 all prostate cancer specimens.

NOTE Confidence: 0.97796573625

00:07:04.300 --> 00:07:06.322 And we could actually degrade that

NOTE Confidence: 0.97796573625

00:07:06.322 --> 00:07:08.757 by having this pro tech bind to it.

NOTE Confidence: 0.97796573625

00:07:08.760 --> 00:07:10.704 And actually 400 of those molecules

NOTE Confidence: 0.97796573625

00:07:10.704 --> 00:07:12.930 will take out one Pro Tech 11

NOTE Confidence: 0.97796573625

00:07:12.930 --> 00:07:14.040 Andrew receptive one.

NOTE Confidence: 0.97796573625

00:07:14.040 --> 00:07:16.675 Excuse me the one 400 and receptors

NOTE Confidence: 0.97796573625

00:07:16.675 --> 00:07:19.339 can be taken up by can be taken

00:07:19.339 --> 00:07:20.937 out by one pro tech.

00:07:20.940 --> 00:07:22.508 And we actually are looking at this.

00:07:22.510 --> 00:07:23.895 And the molecule actually looks

00:07:23.895 --> 00:07:25.280 like a dumbbell that way,

00:07:25.280 --> 00:07:27.360 and that's why that dumbbell fall came from.

00:07:27.360 --> 00:07:30.250 A tag was seen before

00:07:30.250 --> 00:07:33.355 we have an area that binds to the protein

00:07:33.355 --> 00:07:36.400 and that basically brings the enzymes to

00:07:36.400 --> 00:07:39.420 the protein and then causes the cancer

00:07:39.420 --> 00:07:43.600 cells to to have this protein degraded.

00:07:43.600 --> 00:07:45.670 We've actually found that there may

00:07:45.670 --> 00:07:47.750 be specific mutations in the target,

00:07:47.750 --> 00:07:49.595 the and receptor that affected

00:07:49.595 --> 00:07:51.860 or affected by this pro tech,

00:07:51.860 --> 00:07:53.948 and this is a patient that was actually

NOTE Confidence: 0.988268196

00:07:53.948 --> 00:07:55.828 treated at the Nevada Cancer Center.

NOTE Confidence: 0.988268196

00:07:55.830 --> 00:07:57.524 We've been collaborating with them on this

NOTE Confidence: 0.988268196

00:07:57.524 --> 00:07:59.469 project as well as a company called ARVINAS,

NOTE Confidence: 0.988268196

00:07:59.470 --> 00:08:02.200 which is one of Craig's companies and

NOTE Confidence: 0.988268196

00:08:02.200 --> 00:08:05.196 they make this drug called RV 100.

NOTE Confidence: 0.988268196

00:08:05.196 --> 00:08:08.434 As you can see, where those arrows are,

NOTE Confidence: 0.988268196

00:08:08.434 --> 00:08:11.652 that was a lymph node that track and this

NOTE Confidence: 0.988268196

00:08:11.652 --> 00:08:14.594 patient's PSA went down by 97% and he had

NOTE Confidence: 0.988268196

00:08:14.594 --> 00:08:17.110 had a number of different prior treatments,

NOTE Confidence: 0.988268196

00:08:17.110 --> 00:08:19.329 so we're very excited about these drugs

NOTE Confidence: 0.988268196

00:08:19.329 --> 00:08:21.724 were bringing out a next generation product

NOTE Confidence: 0.988268196

00:08:21.724 --> 00:08:23.794 which will be available for clinical

NOTE Confidence: 0.988268196

00:08:23.858 --> 00:08:26.194 trials both in New Haven and in Greenwich.

NOTE Confidence: 0.988268196

00:08:26.200 --> 00:08:27.952 Another drug which will be available

NOTE Confidence: 0.988268196

00:08:27.952 --> 00:08:29.598 probably next year is something

NOTE Confidence: 0.988268196

00:08:29.598 --> 00:08:32.630 called nutition PSA 116 and this is

NOTE Confidence: 0.988268196

00:08:32.630 --> 00:08:34.820 a way of specifically specifically

NOTE Confidence: 0.988268196

00:08:34.910 --> 00:08:37.510 targeting prostate cancer cells.

NOTE Confidence: 0.988268196

00:08:37.510 --> 00:08:38.862 This molecule, called PSA,

NOTE Confidence: 0.988268196

00:08:38.862 --> 00:08:40.890 is expressed on the surface of

NOTE Confidence: 0.988268196

00:08:40.957 --> 00:08:44.180 cancer cells and this will bind to

NOTE Confidence: 0.988268196

00:08:44.180 --> 00:08:46.532 the cancer cell and then deliver

NOTE Confidence: 0.988268196

00:08:46.532 --> 00:08:48.480 radiation therapy directly to that.

NOTE Confidence: 0.988268196

00:08:48.480 --> 00:08:51.018 And this approach has shown a

NOTE Confidence: 0.988268196

00:08:51.018 --> 00:08:53.259 survival benefit compared to what's

NOTE Confidence: 0.988268196

00:08:53.259 --> 00:08:55.574 called standard of care alone.

NOTE Confidence: 0.988268196

00:08:55.580 --> 00:08:58.596 So conclusion will moved into the area of

NOTE Confidence: 0.988268196

00:08:58.596 --> 00:09:00.649 molecular treatment for prostate cancer.

NOTE Confidence: 0.988268196

00:09:00.650 --> 00:09:02.414 You have to look at all these

NOTE Confidence: 0.988268196

00:09:02.414 --> 00:09:03.673 particular mutations and you need

NOTE Confidence: 0.988268196

00:09:03.673 --> 00:09:05.269 to speak to your doctor about this.

NOTE Confidence: 0.988268196

00:09:05.270 --> 00:09:07.244 The other reason why it's important

NOTE Confidence: 0.988268196

00:09:07.244 --> 00:09:09.367 is some of these genetic mutations

NOTE Confidence: 0.988268196

00:09:09.367 --> 00:09:11.816 are passed down to the family and

NOTE Confidence: 0.988268196

00:09:11.816 --> 00:09:13.112 it's important that you speak to

NOTE Confidence: 0.988268196

00:09:13.112 --> 00:09:14.520 your doctor about when you should

NOTE Confidence: 0.988268196

00:09:14.520 --> 00:09:15.480 see the genetic counselor.

NOTE Confidence: 0.988268196

00:09:15.480 --> 00:09:17.388 Other people we're seeing activity with

NOTE Confidence: 0.988268196

00:09:17.388 --> 00:09:19.671 this RRV woman zero drug and then again

NOTE Confidence: 0.988268196

00:09:19.671 --> 00:09:21.543 you need to talk to your physician

NOTE Confidence: 0.988268196

00:09:21.543 --> 00:09:23.478 about whether drugs like alacran,

NOTE Confidence: 0.988268196

00:09:23.480 --> 00:09:24.804 recap rip are important.

NOTE Confidence: 0.988268196

00:09:24.804 --> 00:09:27.204 Before your care so answer some questions

NOTE Confidence: 0.988268196

00:09:27.204 --> 00:09:29.640 that may be coming from the audience.

NOTE Confidence: 0.975794439090909

00:09:35.040 --> 00:09:37.238 So for the questions, if you can

NOTE Confidence: 0.975794439090909

00:09:37.238 --> 00:09:39.514 type them into the Q&A section,

NOTE Confidence: 0.975794439090909

00:09:39.514 --> 00:09:42.174 then we can read them.

NOTE Confidence: 0.975794439090909

00:09:42.180 --> 00:09:43.168 Get them answered there.

NOTE Confidence: 0.975794439090909

00:09:43.168 --> 00:09:44.650 Don't see any popping up yet,

NOTE Confidence: 0.975794439090909

00:09:44.650 --> 00:09:46.042 but will give it a minute in case

NOTE Confidence: 0.975794439090909

00:09:46.042 --> 00:09:47.329 we want to type something in.

NOTE Confidence: 0.98850917

00:10:06.250 --> 00:10:07.110 No questions.

NOTE Confidence: 0.9875696

00:10:10.830 --> 00:10:12.480 I can't see my chat here, let's see.

NOTE Confidence: 0.98569794

00:10:14.020 --> 00:10:15.910 Any questions yet? Let's see.

NOTE Confidence: 0.982491128888889

00:10:19.120 --> 00:10:20.600 Great not thank you so

NOTE Confidence: 0.982491128888889

00:10:20.600 --> 00:10:21.784 much for your attention.

NOTE Confidence: 0.965948872105263

00:10:27.140 --> 00:10:28.932 OK, and I don't regret for you go

NOTE Confidence: 0.965948872105263

00:10:28.932 --> 00:10:31.371 if I if anyone wants to to reach

NOTE Confidence: 0.965948872105263

00:10:31.371 --> 00:10:32.558 you for consultation. Otherwise,

NOTE Confidence: 0.965948872105263

00:10:32.558 --> 00:10:34.302 what's a good way to get in touch?

NOTE Confidence: 0.980916824

00:10:34.540 --> 00:10:36.458 Best ways to cut? Contact me through

NOTE Confidence: 0.980916824

00:10:36.458 --> 00:10:38.249 Greenwich Hospital will be happy to see you.

NOTE Confidence: 0.98763446

00:10:40.500 --> 00:10:41.960 See, one question is just

NOTE Confidence: 0.98763446

00:10:41.960 --> 00:10:45.400 popping up here although. His

NOTE Confidence: 0.841811158333333

00:10:45.410 --> 00:10:46.890 medications like extending ZYTIGA

NOTE Confidence: 0.841811158333333

00:10:46.890 --> 00:10:49.729 or you be you or you be core.

NOTE Confidence: 0.841811158333333

00:10:49.730 --> 00:10:52.397 These are all week all next generation

NOTE Confidence: 0.841811158333333

00:10:52.397 --> 00:10:54.724 into antigens and there are certain

NOTE Confidence: 0.841811158333333

00:10:54.724 --> 00:10:56.788 points points in the disease process

NOTE Confidence: 0.841811158333333

00:10:56.788 --> 00:10:58.531 which it may be appropriate for you

NOTE Confidence: 0.841811158333333

00:10:58.531 --> 00:11:00.357 to have these drugs and you should

NOTE Confidence: 0.841811158333333

00:11:00.357 --> 00:11:01.929 speak to your physician about them,

NOTE Confidence: 0.841811158333333

00:11:01.930 --> 00:11:03.400 but they do have significant

NOTE Confidence: 0.841811158333333

00:11:03.400 --> 00:11:04.576 activity in this disease.

NOTE Confidence: 0.98417167

00:11:14.660 --> 00:11:15.569 Terrific, thank you.

NOTE Confidence: 0.83039936

00:11:16.890 --> 00:11:19.626 Thank you very much all right.

NOTE Confidence: 0.83039936

00:11:19.630 --> 00:11:22.906 Let's move on here to Doctor Portman,

NOTE Confidence: 0.83039936

00:11:22.910 --> 00:11:25.795 who's assistant professor of Urology

NOTE Confidence: 0.83039936

00:11:25.795 --> 00:11:27.998 for Yale, take away Doctor Portman.

NOTE Confidence: 0.982645688

00:11:31.040 --> 00:11:32.060 And see if Doctor Patrick.

NOTE Confidence: 0.982645688

00:11:32.060 --> 00:11:34.384 You could stop sharing your screen and

NOTE Confidence: 0.982645688

00:11:34.390 --> 00:11:36.050 I'm trying to get out of here, let's see.

NOTE Confidence: 0.987579546666667

00:11:51.020 --> 00:11:51.950 One moment, sorry.

NOTE Confidence: 0.97657678

00:11:55.670 --> 00:12:00.340 The prom got it perfect.

NOTE Confidence: 0.97657678

00:12:00.340 --> 00:12:01.408 Alright doctor Portland

NOTE Confidence: 0.9832108

00:12:02.480 --> 00:12:03.190 OK.

NOTE Confidence: 0.99051225

00:12:25.340 --> 00:12:29.767 OK. So my name is Gerald Portman and

NOTE Confidence: 0.99051225

00:12:29.767 --> 00:12:32.259 I'm a assistant professor of clinical

NOTE Confidence: 0.99051225

00:12:32.259 --> 00:12:34.989 neurology at the at Yale Medicine,

NOTE Confidence: 0.99051225

00:12:34.990 --> 00:12:37.574 and today I'm going to be giving a

NOTE Confidence: 0.99051225

00:12:37.574 --> 00:12:39.725 brief overview over screening and

NOTE Confidence: 0.99051225

00:12:39.725 --> 00:12:42.115 treatment of localized prostate cancer.

NOTE Confidence: 0.99051225

00:12:42.120 --> 00:12:45.277 So prostate cancer, what is what do

NOTE Confidence: 0.99051225

00:12:45.277 --> 00:12:49.379 we need to know about prostate cancer?

NOTE Confidence: 0.99051225

00:12:49.380 --> 00:12:52.220 I have no disclosures.

NOTE Confidence: 0.99051225

00:12:52.220 --> 00:12:54.392 A quick overview about what we're

NOTE Confidence: 0.99051225

00:12:54.392 --> 00:12:57.360 going to go over today is number one.

NOTE Confidence: 0.99051225

00:12:57.360 --> 00:13:00.041 What is the prostate two who should

NOTE Confidence: 0.99051225

00:13:00.041 --> 00:13:02.470 be screened for prostate cancer?

NOTE Confidence: 0.99051225

00:13:02.470 --> 00:13:04.792 Three, what happens if the screening

NOTE Confidence: 0.99051225

00:13:04.792 --> 00:13:07.622 tests come back as abnormal and four?

NOTE Confidence: 0.99051225

00:13:07.622 --> 00:13:09.227 What are some treatment options

NOTE Confidence: 0.99051225

00:13:09.227 --> 00:13:10.600 for localized prostate cancer?

NOTE Confidence: 0.98905272

00:13:13.080 --> 00:13:15.480 So where is the prostate located?

NOTE Confidence: 0.98905272

00:13:15.480 --> 00:13:17.097 As you can see on this diagram,

NOTE Confidence: 0.98905272

00:13:17.100 --> 00:13:19.690 it's located below the bladder and it's

NOTE Confidence: 0.98905272

00:13:19.690 --> 00:13:21.100 between the bladder and the urethra.

NOTE Confidence: 0.98905272

00:13:21.100 --> 00:13:23.264 The urethra actually goes

NOTE Confidence: 0.98905272

00:13:23.264 --> 00:13:24.887 through the prostate.

NOTE Confidence: 0.98905272

00:13:24.890 --> 00:13:26.890 And the prostate is a

NOTE Confidence: 0.98905272

00:13:26.890 --> 00:13:28.090 male reproductive organ.

NOTE Confidence: 0.98905272

00:13:28.090 --> 00:13:29.950 The secrets of fluid.

NOTE Confidence: 0.98905272

00:13:29.950 --> 00:13:33.360 That's one of the components of semen.

NOTE Confidence: 0.98905272

00:13:33.360 --> 00:13:34.948 The ejaculatory duct actually

NOTE Confidence: 0.98905272

00:13:34.948 --> 00:13:36.536 go through the prostate.

NOTE Confidence: 0.98905272

00:13:36.540 --> 00:13:39.066 And that's where semen emission happens.

NOTE Confidence: 0.98932041

00:13:41.280 --> 00:13:43.390 Some problems that can arise

NOTE Confidence: 0.98932041

00:13:43.390 --> 00:13:45.078 from the prostate include

NOTE Confidence: 0.98932041

00:13:45.080 --> 00:13:46.832 enlargement of the prostate.

NOTE Confidence: 0.98932041

00:13:46.832 --> 00:13:48.584 As men get older.

NOTE Confidence: 0.98932041

00:13:48.590 --> 00:13:51.296 Which is called BPH or benign

NOTE Confidence: 0.98932041

00:13:51.296 --> 00:13:52.198 prostatic hyperplasia.

NOTE Confidence: 0.986898094

00:13:54.370 --> 00:13:56.782 And these can lead to symptoms

NOTE Confidence: 0.986898094

00:13:56.782 --> 00:13:58.390 such as frequent urination.

NOTE Confidence: 0.986898094

00:13:58.390 --> 00:14:00.520 The needs of get up at

NOTE Confidence: 0.986898094

00:14:00.520 --> 00:14:01.940 night to urinate urgency.

NOTE Confidence: 0.986898094

00:14:01.940 --> 00:14:04.460 Decreased force of urinary stream.

NOTE Confidence: 0.986898094

00:14:04.460 --> 00:14:06.038 Such weak stream.

NOTE Confidence: 0.986898094

00:14:06.038 --> 00:14:09.194 And the inability to hold urine.

NOTE Confidence: 0.986898094

00:14:09.200 --> 00:14:10.865 None of these symptoms mean

NOTE Confidence: 0.986898094

00:14:10.865 --> 00:14:12.530 that you have prostate cancer.

NOTE Confidence: 0.986898094

00:14:12.530 --> 00:14:14.635 These symptoms are often associated

NOTE Confidence: 0.986898094

00:14:14.635 --> 00:14:16.319 with benign prostatic enlargement.

NOTE Confidence: 0.987281251818182

00:14:18.860 --> 00:14:21.314 Other problems that can arise in

NOTE Confidence: 0.987281251818182

00:14:21.314 --> 00:14:23.530 the prostate or prostate cancer.

NOTE Confidence: 0.987281251818182

00:14:23.530 --> 00:14:29.460 Uhm, which is also more common as men age.

NOTE Confidence: 0.987281251818182

00:14:29.460 --> 00:14:31.698 And cancer is defined as the

NOTE Confidence: 0.987281251818182

00:14:31.698 --> 00:14:33.652 uncontrolled growth of cells capable

NOTE Confidence: 0.987281251818182

00:14:33.652 --> 00:14:36.886 of spreading a tumor cells into other

NOTE Confidence: 0.987281251818182

23

00:14:36.886 --> 00:14:39.799 tissues or invading local tissues.

NOTE Confidence: 0.983558901428572

00:14:42.500 --> 00:14:44.064 So prostate cancer as

NOTE Confidence: 0.983558901428572

00:14:44.064 --> 00:14:45.237 Doctor Patrick mentioned,

NOTE Confidence: 0.983558901428572

00:14:45.240 --> 00:14:48.328 is the most commonly diagnosed cancer in men.

NOTE Confidence: 0.983558901428572

00:14:48.330 --> 00:14:50.585 The median the average age

NOTE Confidence: 0.983558901428572

00:14:50.585 --> 00:14:53.290 at diagnosis is 66 years old.

NOTE Confidence: 0.983558901428572

00:14:53.290 --> 00:14:55.005 It's the second leading cause

NOTE Confidence: 0.983558901428572

00:14:55.005 --> 00:14:57.030 of cancer related death in men.

NOTE Confidence: 0.983558901428572

00:14:57.030 --> 00:15:01.065 About one in 41 men will die of

NOTE Confidence: 0.983558901428572

00:15:01.065 --> 00:15:03.722 prostate cancer and today there are

NOTE Confidence: 0.983558901428572

00:15:03.722 --> 00:15:06.066 about 2.9 million prostate cancer

NOTE Confidence: 0.983558901428572

00:15:06.066 --> 00:15:08.880 survivors alive in the United States.

NOTE Confidence: 0.983558901428572

00:15:08.880 --> 00:15:10.550 Most prostate cancers will not

NOTE Confidence: 0.983558901428572

00:15:10.550 --> 00:15:12.840 spread or cause harm to patients,

NOTE Confidence: 0.983558901428572

00:15:12.840 --> 00:15:14.802 and that's why it's important for

NOTE Confidence: 0.983558901428572

00:15:14.802 --> 00:15:16.557 us to understand which treatment

NOTE Confidence: 0.983558901428572

00:15:16.557 --> 00:15:18.457 options are available and tailor

NOTE Confidence: 0.983558901428572

00:15:18.457 --> 00:15:20.510 them to the individual patient.

NOTE Confidence: 0.987625017

00:15:23.030 --> 00:15:25.082 So this just shows some background

NOTE Confidence: 0.987625017

00:15:25.082 --> 00:15:26.450 process that we mentioned.

NOTE Confidence: 0.987625017

00:15:26.450 --> 00:15:29.960 Prostate is the number one

NOTE Confidence: 0.987625017

00:15:29.960 --> 00:15:32.660 cause of new cancer diagnosis.

NOTE Confidence: 0.968227227142857

00:15:34.850 --> 00:15:37.738 And it's the second leading cause of of

NOTE Confidence: 0.968227227142857

00:15:37.738 --> 00:15:40.137 cancer related death after lung cancer.

NOTE Confidence: 0.986125537

00:15:43.710 --> 00:15:45.635 Localized prostate cancer has a

NOTE Confidence: 0.986125537

00:15:45.635 --> 00:15:47.560 very good five year survival,

NOTE Confidence: 0.986125537

00:15:47.560 --> 00:15:50.710 about more than 99% of patients will

NOTE Confidence: 0.986125537

00:15:50.710 --> 00:15:53.940 be alive within five years after a

NOTE Confidence: 0.986125537

00:15:53.940 --> 00:15:56.270 diagnosis of localized prostate cancer.

NOTE Confidence: 0.986125537

00:15:56.270 --> 00:15:57.962 If there's spreads of the regional

NOTE Confidence: 0.986125537

00:15:57.962 --> 00:15:59.962 lymph nodes, there's also a very

NOTE Confidence: 0.986125537

00:15:59.962 --> 00:16:01.752 good five year for survival.

NOTE Confidence: 0.986125537

00:16:01.760 --> 00:16:04.760 Uh, with distant metastatic disease,

NOTE Confidence: 0.986125537

00:16:04.760 --> 00:16:07.405 a diagnosis. The survival is

NOTE Confidence: 0.986125537

00:16:07.405 --> 00:16:10.540 is much poorer with about 30%,

NOTE Confidence: 0.986125537

00:16:10.540 --> 00:16:12.619 but it this has been getting better

NOTE Confidence: 0.986125537

00:16:12.619 --> 00:16:14.752 as Doctor Petra lack has been

NOTE Confidence: 0.986125537

00:16:14.752 --> 00:16:16.320 discussing with newer treatments.

NOTE Confidence: 0.9896568

00:16:18.800 --> 00:16:21.114 So who? What are some of the

NOTE Confidence: 0.9896568

00:16:21.114 --> 00:16:22.870 risk factors for prostate cancer?

NOTE Confidence: 0.9896568

00:16:22.870 --> 00:16:24.816 So there are known fixed risk factors

NOTE Confidence: 0.9896568

00:16:24.816 --> 00:16:26.920 that patients can change about themselves,

NOTE Confidence: 0.9896568

00:16:26.920 --> 00:16:30.021 such as age. Of prostate cancer is

NOTE Confidence: 0.9896568

00:16:30.021 --> 00:16:33.169 more likely as men get older race.

NOTE Confidence: 0.9896568

00:16:33.170 --> 00:16:36.058 It's a African American men are more likely

NOTE Confidence: 0.9896568

00:16:36.058 --> 00:16:39.250 to have high risk prostate cancer genetics.

NOTE Confidence: 0.9896568

00:16:39.250 --> 00:16:42.400 Certain mutations such as BRCA,

NOTE Confidence: 0.9896568

00:16:42.400 --> 00:16:43.912 which was discussed before,

NOTE Confidence: 0.9896568

00:16:43.912 --> 00:16:46.644 can lead to an increased risk of

NOTE Confidence: 0.9896568

00:16:46.644 --> 00:16:48.583 prostate cancer and family history.

NOTE Confidence: 0.9896568

00:16:48.583 --> 00:16:50.869 Having the first degree relatives such

NOTE Confidence: 0.9896568

00:16:50.869 --> 00:16:53.600 as a brother or father with prostate

NOTE Confidence: 0.9896568

00:16:53.600 --> 00:16:55.500 cancer increases a person's risk.

NOTE Confidence: 0.9896568

00:16:55.500 --> 00:16:58.005 There are newer risk factors

NOTE Confidence: 0.9896568

00:16:58.005 --> 00:17:00.009 that are less understood.

NOTE Confidence: 0.9896568

00:17:00.010 --> 00:17:01.936 Uh, these are modifiable risk factors

NOTE Confidence: 0.9896568

00:17:01.936 --> 00:17:04.030 that are being defined more recently,

NOTE Confidence: 0.9896568

00:17:04.030 --> 00:17:06.343 such as diet,

NOTE Confidence: 0.9896568

00:17:06.343 --> 00:17:08.656 lifestyle and obesity.

NOTE Confidence: 0.9896568

00:17:08.660 --> 00:17:11.444 There is more research going into right now.

NOTE Confidence: 0.9896568

00:17:11.450 --> 00:17:14.314 A plant based diet may have some benefits

NOTE Confidence: 0.9896568

00:17:14.314 --> 00:17:16.799 in reducing certain types of cancers.

NOTE Confidence: 0.9896568

00:17:16.800 --> 00:17:19.920 It's unclear what this does to.

00:17:19.920 --> 00:17:23.466 Prostate cancer, in the long run.

00:17:23.470 --> 00:17:25.786 So how is prostate cancer detected?

00:17:25.790 --> 00:17:27.410 Localized prostate cancer is

00:17:27.410 --> 00:17:29.840 screened for using a digital rectal

00:17:29.912 --> 00:17:34.030 examination and a PSA blood test.

00:17:34.030 --> 00:17:35.578 Localized prostate cancer.

00:17:35.578 --> 00:17:37.126 Usually during screening

00:17:37.126 --> 00:17:39.190 does not cause symptoms,

00:17:39.190 --> 00:17:39.574 however,

00:17:39.574 --> 00:17:41.494 advanced prostate cancer can be

00:17:41.494 --> 00:17:43.904 diagnosed due to symptoms such as

00:17:43.904 --> 00:17:46.052 difficulty urinating blood in the urine,

00:17:46.052 --> 00:17:47.370 bone pain, and fatigue.

00:17:49.730 --> 00:17:51.366 So what is PSA?

00:17:51.366 --> 00:17:53.820 PSA is a protein that's made

NOTE Confidence: 0.949456535714286

00:17:53.922 --> 00:17:56.530 exclusively by the prostate.

NOTE Confidence: 0.949456535714286

00:17:56.530 --> 00:18:00.210 And a blood test is used to detect the level.

NOTE Confidence: 0.949456535714286

00:18:00.210 --> 00:18:02.442 Uh, the level can be high for many

NOTE Confidence: 0.949456535714286

00:18:02.442 --> 00:18:04.280 reasons other than prostate cancer,

NOTE Confidence: 0.949456535714286

00:18:04.280 --> 00:18:06.410 such as an enlarged prostate infection,

NOTE Confidence: 0.949456535714286

00:18:06.410 --> 00:18:07.982 inflammation, and it also

NOTE Confidence: 0.949456535714286

00:18:07.982 --> 00:18:10.340 does go up with age usually.

NOTE Confidence: 0.926740204

00:18:13.930 --> 00:18:16.300 So some facts about PSA.

NOTE Confidence: 0.926740204

00:18:16.300 --> 00:18:18.088 It's not a perfect test because

NOTE Confidence: 0.926740204

00:18:18.088 --> 00:18:20.678 a lot of men with a high PSA

NOTE Confidence: 0.926740204

00:18:20.678 --> 00:18:22.333 do not have prostate cancer.

NOTE Confidence: 0.926740204

00:18:22.340 --> 00:18:24.600 Some men with normal PSA

NOTE Confidence: 0.926740204

00:18:24.600 --> 00:18:26.408 can have prostate cancer.

NOTE Confidence: 0.926740204

00:18:26.410 --> 00:18:29.434 And PSA screening can lead to detection

NOTE Confidence: 0.926740204

00:18:29.434 --> 00:18:32.622 of some low grade cancers that may

NOTE Confidence: 0.926740204

00:18:32.622 --> 00:18:34.728 not need to be treated because

NOTE Confidence: 0.926740204

00:18:34.728 --> 00:18:37.187 they may not affect the patient.

NOTE Confidence: 0.926740204

00:18:37.190 --> 00:18:38.240 During their lifetime.

NOTE Confidence: 0.98800305375

00:18:41.230 --> 00:18:43.505 So who should be screened

NOTE Confidence: 0.98800305375

00:18:43.505 --> 00:18:44.870 for prostate cancer?

NOTE Confidence: 0.98800305375

00:18:44.870 --> 00:18:47.190 The average person person should

NOTE Confidence: 0.98800305375

00:18:47.190 --> 00:18:49.510 undergo screening according to the

NOTE Confidence: 0.98800305375

00:18:49.583 --> 00:18:50.870 American Urological Association

NOTE Confidence: 0.98800305375

00:18:50.870 --> 00:18:53.873 between the ages of 55 and 70,

NOTE Confidence: 0.98800305375

00:18:53.880 --> 00:18:59.262 and this is done by getting an A PSA.

NOTE Confidence: 0.98800305375

00:18:59.270 --> 00:19:01.220 And a digital rectal examination

NOTE Confidence: 0.98800305375

00:19:01.220 --> 00:19:04.083 every one to two years there are

NOTE Confidence: 0.98800305375

00:19:04.083 --> 00:19:06.591 certain high risk patients that can

NOTE Confidence: 0.98800305375

00:19:06.591 --> 00:19:08.362 benefit from earlier screening and

NOTE Confidence: 0.98800305375

00:19:08.362 --> 00:19:10.929 to get a baseline PSA at age 40,

NOTE Confidence: 0.98800305375

00:19:10.930 --> 00:19:14.320 such as African American patients and

NOTE Confidence: 0.98800305375

00:19:14.320 --> 00:19:17.730 patients with certain mutations such as BRCA.

NOTE Confidence: 0.98800305375

00:19:17.730 --> 00:19:20.054 After age 75 uh.

NOTE Confidence: 0.98800305375

00:19:20.054 --> 00:19:22.378 Most urologists recommend the

NOTE Confidence: 0.98800305375

00:19:22.378 --> 00:19:25.161 cessation of screening if the

NOTE Confidence: 0.98800305375

00:19:25.161 --> 00:19:28.240 PSA has been normal because a.

NOTE Confidence: 0.98800305375

00:19:28.240 --> 00:19:29.290 Prostate cancer,

NOTE Confidence: 0.98800305375

00:19:29.290 --> 00:19:31.390 for the most part,

NOTE Confidence: 0.98800305375

00:19:31.390 --> 00:19:33.882 is very slow growing and some of

NOTE Confidence: 0.98800305375

00:19:33.882 --> 00:19:35.836 the treatments can have adverse

NOTE Confidence: 0.98800305375

00:19:35.836 --> 00:19:37.861 effects where low grade tumors

NOTE Confidence: 0.98800305375

00:19:37.861 --> 00:19:39.989 may not affect the patient.

NOTE Confidence: 0.98800305375

00:19:39.990 --> 00:19:40.929 During their lifetime.

NOTE Confidence: 0.959590761

00:19:43.740 --> 00:19:48.590 So since the advent of PSA in the late 80s,

NOTE Confidence: 0.959590761

00:19:48.590 --> 00:19:51.467 early 90s there there has been less

NOTE Confidence: 0.959590761

00:19:51.467 --> 00:19:53.244 metastatic disease at diagnosis

NOTE Confidence: 0.959590761

00:19:53.244 --> 00:19:55.589 and more prostate cancers being

NOTE Confidence: 0.959590761

00:19:55.589 --> 00:19:57.970 diagnosed at an earlier stage.

NOTE Confidence: 0.959590761

00:19:57.970 --> 00:20:00.382 So that's why most urologists do

NOTE Confidence: 0.959590761

00:20:00.382 --> 00:20:02.959 believe that screening is very helpful.

NOTE Confidence: 0.94605346875

00:20:05.930 --> 00:20:09.885 And normal PSA is usually defined by

NOTE Confidence: 0.94605346875

00:20:09.885 --> 00:20:14.536 level A4 or less by most laboratories.

NOTE Confidence: 0.94605346875

00:20:14.540 --> 00:20:17.636 However, there is such a thing

NOTE Confidence: 0.94605346875

00:20:17.636 --> 00:20:20.190 called as age adjusted PSA.

NOTE Confidence: 0.94605346875

00:20:20.190 --> 00:20:22.090 So patient who's 45 should

NOTE Confidence: 0.94605346875

00:20:22.090 --> 00:20:24.820 not be having a PSA for that.

NOTE Confidence: 0.94605346875

00:20:24.820 --> 00:20:26.250 That would be considered high

NOTE Confidence: 0.94605346875

00:20:26.250 --> 00:20:27.680 for someone of that age.

NOTE Confidence: 0.94605346875

00:20:27.680 --> 00:20:30.026 It should be probably less than

NOTE Confidence: 0.94605346875

00:20:30.030 --> 00:20:31.890 2.5 or even lower than that,

NOTE Confidence: 0.94605346875

00:20:31.890 --> 00:20:35.978 and a patient who's in their 70s.

NOTE Confidence: 0.94605346875

00:20:35.980 --> 00:20:38.396 With a PSA of 6 does not necessarily

NOTE Confidence: 0.94605346875

00:20:38.396 --> 00:20:40.979 need a prostate biopsy right away.

NOTE Confidence: 0.94605346875

00:20:40.980 --> 00:20:43.480 Uh, because.

NOTE Confidence: 0.94605346875

00:20:43.480 --> 00:20:45.528 A PSA goes up with age and that

NOTE Confidence: 0.94605346875

00:20:45.528 --> 00:20:47.595 can be considered normal as long

NOTE Confidence: 0.94605346875

00:20:47.595 --> 00:20:49.821 as there's no increase in how

NOTE Confidence: 0.94605346875

00:20:49.889 --> 00:20:51.975 fast the PSA has been going on.

NOTE Confidence: 0.946207984444445

00:20:54.370 --> 00:20:57.196 So what what happens if the PSA is abnormal?

NOTE Confidence: 0.946207984444445

00:20:57.200 --> 00:20:59.564 The gold standard that has been

NOTE Confidence: 0.946207984444445

00:20:59.564 --> 00:21:01.739 used since the advent of PSA.

NOTE Confidence: 0.946207984444445

00:21:01.740 --> 00:21:05.436 When the PSA comes back at abnormal is

NOTE Confidence: 0.946207984444445

00:21:05.436 --> 00:21:08.598 prostate biopsy and this is done with a

NOTE Confidence: 0.946207984444445

00:21:08.598 --> 00:21:11.222 transrectal ultrasound and a needle where

NOTE Confidence: 0.946207984444445

00:21:11.222 --> 00:21:14.030 samples are taken from the prostate.

NOTE Confidence: 0.946207984444445

00:21:14.030 --> 00:21:16.544 However, in more recent years there's

NOTE Confidence: 0.946207984444445

00:21:16.544 --> 00:21:19.309 a newer options that are available,

NOTE Confidence: 0.946207984444445

00:21:19.310 --> 00:21:22.946 such as certain prostate cancer biomarkers

NOTE Confidence: 0.946207984444445

00:21:22.950 --> 00:21:26.107 such as 4K score or excess MDX,

NOTE Confidence: 0.946207984444445

00:21:26.110 --> 00:21:27.880 and these can give a percentage

NOTE Confidence: 0.946207984444445

00:21:27.880 --> 00:21:30.080 chance that a patient has clinically

NOTE Confidence: 0.946207984444445

00:21:30.080 --> 00:21:31.517 significant prostate cancer.

NOTE Confidence: 0.946207984444445

00:21:31.520 --> 00:21:34.208 So the patient and the doctor can

NOTE Confidence: 0.946207984444445

00:21:34.208 --> 00:21:35.904 decide together whether prostate

NOTE Confidence: 0.946207984444445

00:21:35.904 --> 00:21:39.369 biopsy is warranted and prostate MRI.

NOTE Confidence: 0.946207984444445

00:21:39.369 --> 00:21:42.932 This has been used over the last

NOTE Confidence: 0.946207984444445

00:21:42.932 --> 00:21:44.444 eight to nine years.

NOTE Confidence: 0.946207984444445

00:21:44.450 --> 00:21:47.019 And Yale has been at the forefront

NOTE Confidence: 0.946207984444445

00:21:47.019 --> 00:21:49.074 of utilizing prostate MRI to help

NOTE Confidence: 0.946207984444445

00:21:49.074 --> 00:21:50.981 detect any concerning lesions

NOTE Confidence: 0.946207984444445

00:21:50.981 --> 00:21:53.666 in the prostate on imaging.

NOTE Confidence: 0.946207984444445

00:21:53.670 --> 00:21:55.848 So this is an example of an MRI of

NOTE Confidence: 0.946207984444445

00:21:55.848 --> 00:21:58.230 the prostate and the picture on the

NOTE Confidence: 0.946207984444445

00:21:58.230 --> 00:22:02.400 left shows you a normal prostate and.

NOTE Confidence: 0.946207984444445

00:22:02.400 --> 00:22:05.229 This white area.

NOTE Confidence: 0.946207984444445

00:22:05.230 --> 00:22:06.945 Is the peripheral zone of the prostate

NOTE Confidence: 0.946207984444445

00:22:06.945 --> 00:22:10.350 where 80% of prostate cancer is is found,

NOTE Confidence: 0.946207984444445

00:22:10.350 --> 00:22:12.968 and this Gray area is the transitional

NOTE Confidence: 0.946207984444445

00:22:12.968 --> 00:22:15.359 zone where prostatic enlargement occurs.

NOTE Confidence: 0.946207984444445

00:22:15.360 --> 00:22:17.820 You see on the right here.

NOTE Confidence: 0.946207984444445

00:22:17.820 --> 00:22:20.452 The white area has this dark lesion that

NOTE Confidence: 0.946207984444445

00:22:20.452 --> 00:22:22.785 circled with the yellow circle that's

NOTE Confidence: 0.946207984444445

00:22:22.785 --> 00:22:25.203 obviously different than the other side.

NOTE Confidence: 0.946207984444445

00:22:25.210 --> 00:22:27.940 And this is an area of concern

NOTE Confidence: 0.946207984444445

00:22:27.940 --> 00:22:30.398 where a biopsy is warranted.

NOTE Confidence: 0.945358825833333

00:22:33.430 --> 00:22:36.244 So at Yale, we have the technology

NOTE Confidence: 0.945358825833333

00:22:36.244 --> 00:22:38.689 to perform MRI fusion biopsy,

NOTE Confidence: 0.945358825833333

00:22:38.690 --> 00:22:40.700 where we can target these areas

NOTE Confidence: 0.945358825833333

00:22:40.700 --> 00:22:43.071 that were found on the MRI because

NOTE Confidence: 0.945358825833333

00:22:43.071 --> 00:22:44.910 the ultrasound machine combines the

NOTE Confidence: 0.945358825833333

00:22:44.910 --> 00:22:47.190 MRI with the ultrasound to help

NOTE Confidence: 0.945358825833333

00:22:47.250 --> 00:22:49.120 us target that specific lesion.

NOTE Confidence: 0.9756474425

00:22:53.010 --> 00:22:55.578 So there are risks said doing a biopsy.

NOTE Confidence: 0.9756474425

00:22:55.580 --> 00:22:58.811 Most men who get a biopsy do not have

NOTE Confidence: 0.9756474425

00:22:58.811 --> 00:23:01.339 clinically significant prostate cancer,

NOTE Confidence: 0.9756474425

00:23:01.340 --> 00:23:04.136 so, uh, we're subjecting men to

NOTE Confidence: 0.9756474425

00:23:04.136 --> 00:23:07.107 unnecessary biopsy in order to find

NOTE Confidence: 0.9756474425

00:23:07.107 --> 00:23:10.185 the patients that do have clinically

NOTE Confidence: 0.9756474425

00:23:10.185 --> 00:23:11.850 significant prostate cancer.

NOTE Confidence: 0.9756474425

00:23:11.850 --> 00:23:13.140 There are risks to biopsies,

NOTE Confidence: 0.9756474425

00:23:13.140 --> 00:23:15.020 such as infection, bleeding,

NOTE Confidence: 0.9756474425

00:23:15.020 --> 00:23:18.580 and as well as discomfort and anxiety.

NOTE Confidence: 0.9756474425

00:23:18.580 --> 00:23:21.028 It can lead to the detection of low grade

NOTE Confidence: 0.9756474425

00:23:21.028 --> 00:23:23.138 cancers that may not need to be treated.

NOTE Confidence: 0.9756474425

00:23:23.140 --> 00:23:24.748 And it could lead to overtreatment,

NOTE Confidence: 0.9756474425

00:23:24.750 --> 00:23:27.706 which could have effects on urination,

NOTE Confidence: 0.9756474425

00:23:27.706 --> 00:23:31.636 erections, and the bowel function.

NOTE Confidence: 0.985271849047619

00:23:35.710 --> 00:23:37.908 So what are some options if the

NOTE Confidence: 0.985271849047619

00:23:37.908 --> 00:23:39.582 if localized prostate cancer is

NOTE Confidence: 0.985271849047619

00:23:39.582 --> 00:23:41.574 detected and today we're going to

NOTE Confidence: 0.985271849047619

00:23:41.574 --> 00:23:44.052 discuss four options which include

NOTE Confidence: 0.985271849047619

00:23:44.052 --> 00:23:46.050 active surveillance, surgery,

NOTE Confidence: 0.985271849047619

00:23:46.050 --> 00:23:50.018 radiation? And focal therapy.

NOTE Confidence: 0.985271849047619

00:23:50.020 --> 00:23:52.426 I will be discussing active surveillance

NOTE Confidence: 0.985271849047619

00:23:52.426 --> 00:23:54.864 surgery and focal therapy and Doctor

NOTE Confidence: 0.985271849047619

00:23:54.864 --> 00:23:56.774 Mcgibbon will focus on radiation.

NOTE Confidence: 0.985271849047619

00:23:56.780 --> 00:23:58.420 And like I said previously,

NOTE Confidence: 0.985271849047619

00:23:58.420 --> 00:24:00.464 the options must be tailored to the

NOTE Confidence: 0.985271849047619

00:24:00.464 --> 00:24:01.727 individual needs and characteristics

NOTE Confidence: 0.985271849047619

00:24:01.727 --> 00:24:04.030 of each patient and the type of

NOTE Confidence: 0.985271849047619

00:24:04.030 --> 00:24:05.630 prostate cancer that's diagnosed.

NOTE Confidence: 0.985539901333333

00:24:07.680 --> 00:24:09.432 So first we'll go into active

NOTE Confidence: 0.985539901333333

00:24:09.432 --> 00:24:11.046 surveillance and the goal of

NOTE Confidence: 0.985539901333333

00:24:11.046 --> 00:24:12.578 active surveillance is monitored.

NOTE Confidence: 0.985539901333333

00:24:12.580 --> 00:24:14.098 Monitoring the prostate

NOTE Confidence: 0.985539901333333

00:24:14.098 --> 00:24:15.616 cancer without treatment.

NOTE Confidence: 0.985539901333333

00:24:15.620 --> 00:24:17.622 And this is done in order to

NOTE Confidence: 0.985539901333333

00:24:17.622 --> 00:24:19.230 prevent the adverse effects that

NOTE Confidence: 0.985539901333333

00:24:19.230 --> 00:24:21.300 come with treatment in terms of

NOTE Confidence: 0.985539901333333

00:24:21.300 --> 00:24:23.010 urination and sexual function.

NOTE Confidence: 0.985539901333333

00:24:23.010 --> 00:24:25.590 But these patients still have the

NOTE Confidence: 0.985539901333333

00:24:25.590 --> 00:24:28.317 ability to obtain cure should more

NOTE Confidence: 0.985539901333333

00:24:28.317 --> 00:24:31.544 aggressive disease be found in the future?

NOTE Confidence: 0.985539901333333

00:24:31.550 --> 00:24:33.980 Patients have to be OK with a slight a

NOTE Confidence: 0.985539901333333

00:24:33.980 --> 00:24:36.399 small risk of progression of prostate

NOTE Confidence: 0.985539901333333

00:24:36.399 --> 00:24:38.484 cancer while on active surveillance.

NOTE Confidence: 0.959377065454545

00:24:40.920 --> 00:24:42.405 The ideal candidate for active

NOTE Confidence: 0.959377065454545

00:24:42.405 --> 00:24:44.260 surveillance has a low PSA level.

NOTE Confidence: 0.959377065454545

00:24:44.260 --> 00:24:47.108 Usually we consider less than 10 as a

NOTE Confidence: 0.959377065454545

00:24:47.108 --> 00:24:50.100 good level low Gleason score and biopsy,

NOTE Confidence: 0.959377065454545

00:24:50.100 --> 00:24:52.458 and these scores are graded from 6 to 10,

NOTE Confidence: 0.959377065454545

00:24:52.460 --> 00:24:55.764 so usually A6 is a good score

NOTE Confidence: 0.959377065454545

00:24:55.764 --> 00:24:57.180 for active surveillance.

NOTE Confidence: 0.959377065454545

00:24:57.180 --> 00:25:01.580 A small amount of cancer, so. Uh.

NOTE Confidence: 0.959377065454545

00:25:01.580 --> 00:25:04.282 That means that few of the biopsy

NOTE Confidence: 0.959377065454545

00:25:04.282 --> 00:25:06.289 samples were positive for cancer,

NOTE Confidence: 0.959377065454545

00:25:06.290 --> 00:25:08.522 and that there's no evidence of

NOTE Confidence: 0.959377065454545

00:25:08.522 --> 00:25:10.481 disease outside of the prostate

NOTE Confidence: 0.959377065454545

00:25:10.481 --> 00:25:12.869 in the Seminole vesicles or the

NOTE Confidence: 0.959377065454545

00:25:12.869 --> 00:25:14.966 lymph nodes and patients have to

NOTE Confidence: 0.959377065454545

00:25:14.966 --> 00:25:17.100 be willing to have close follow up

NOTE Confidence: 0.959377065454545

00:25:17.100 --> 00:25:19.632 because the follow for most active

NOTE Confidence: 0.959377065454545

00:25:19.632 --> 00:25:21.028 surveillance protocols involves

NOTE Confidence: 0.959377065454545

00:25:21.028 --> 00:25:24.316 monitoring the PSA every six months,

NOTE Confidence: 0.959377065454545

00:25:24.320 --> 00:25:26.938 getting a repeat biopsy every one to

NOTE Confidence: 0.959377065454545

00:25:26.938 --> 00:25:30.240 two years and getting an MRI's as well.

NOTE Confidence: 0.959377065454545

00:25:30.240 --> 00:25:31.728 Everyone to two years.

NOTE Confidence: 0.959377065454545

00:25:31.728 --> 00:25:34.777 And the goal of actor surveillance is to

NOTE Confidence: 0.959377065454545

00:25:34.777 --> 00:25:37.027 intervene and treat the prostate cancer.

NOTE Confidence: 0.959377065454545

00:25:37.030 --> 00:25:40.005 If a more aggressive form is found.

NOTE Confidence: 0.959377065454545

00:25:40.010 --> 00:25:41.180 Odd repeat biopsy.

NOTE Confidence: 0.972224422

00:25:44.960 --> 00:25:47.690 Next, we'll discuss surgical therapy,

NOTE Confidence: 0.972224422

00:25:47.690 --> 00:25:50.910 so surgery is done to remove the

NOTE Confidence: 0.972224422

00:25:50.910 --> 00:25:53.979 entire prostate and Seminole vesicles,

NOTE Confidence: 0.972224422

00:25:53.980 --> 00:25:55.948 and 95% of this surgery in

NOTE Confidence: 0.972224422

00:25:55.948 --> 00:25:57.680 the United States is done.

NOTE Confidence: 0.972224422

00:25:57.680 --> 00:25:58.416 Laparoscopic Lee,

NOTE Confidence: 0.972224422

00:25:58.416 --> 00:26:00.624 with the assistance of a robot.

NOTE Confidence: 0.972224422

00:26:00.630 --> 00:26:03.444 And on the left this was actually

NOTE Confidence: 0.972224422

00:26:03.444 --> 00:26:06.010 a robot purchased for one of

NOTE Confidence: 0.972224422

00:26:06.010 --> 00:26:08.090 the hospitals in Westerly,

NOTE Confidence: 0.972224422

00:26:08.090 --> 00:26:10.883 RI with and you can see that

NOTE Confidence: 0.972224422

00:26:10.883 --> 00:26:13.408 the four arms of the robot.

NOTE Confidence: 0.972224422

00:26:13.410 --> 00:26:15.835 Are what control the instruments

NOTE Confidence: 0.972224422

00:26:15.835 --> 00:26:18.006 that are used to perform the

NOTE Confidence: 0.972224422

00:26:18.006 --> 00:26:19.800 surgery inside the patient and on

NOTE Confidence: 0.972224422

00:26:19.861 --> 00:26:22.450 the right the surgeon sits at a

NOTE Confidence: 0.972224422

00:26:22.450 --> 00:26:24.530 console to control those instruments

NOTE Confidence: 0.972224422

00:26:24.606 --> 00:26:26.326 and this allows for better.

NOTE Confidence: 0.972224422

00:26:26.326 --> 00:26:29.530 A better view of the pelvis as as well

NOTE Confidence: 0.972224422

00:26:29.607 --> 00:26:32.469 as better precision with the surgery.

NOTE Confidence: 0.98292573

00:26:36.550 --> 00:26:39.550 So what's involved in surgery?

NOTE Confidence: 0.98292573

00:26:39.550 --> 00:26:42.016 So the entire prostate and the

NOTE Confidence: 0.98292573

00:26:42.016 --> 00:26:43.660 Seminole vesicles are removed.

NOTE Confidence: 0.98292573

00:26:43.660 --> 00:26:46.747 As you can see by the dotted line here.

NOTE Confidence: 0.98292573

00:26:46.750 --> 00:26:48.766 And the bladder has to be

NOTE Confidence: 0.98292573

00:26:48.766 --> 00:26:50.790 sutured back to the urethra.

NOTE Confidence: 0.98292573

00:26:50.790 --> 00:26:54.090 It's done with small incisions.

NOTE Confidence: 0.98292573

00:26:54.090 --> 00:26:56.045 And most patients stay in

NOTE Confidence: 0.98292573

00:26:56.045 --> 00:26:57.609 the hospital one night.

NOTE Confidence: 0.98292573

00:26:57.610 --> 00:26:59.458 Most patients will have a Foley

NOTE Confidence: 0.98292573

00:26:59.458 --> 00:27:01.673 catheter for about one week to help

NOTE Confidence: 0.98292573

00:27:01.673 --> 00:27:03.213 with healing where the bladder

NOTE Confidence: 0.98292573

00:27:03.213 --> 00:27:05.028 is sutured back to the urethra.

NOTE Confidence: 0.98292573

00:27:05.030 --> 00:27:08.762 And the robotic laparoscopy helps improve

NOTE Confidence: 0.98292573

00:27:08.762 --> 00:27:10.854 certain characteristics of the surgery,

NOTE Confidence: 0.98292573

00:27:10.854 --> 00:27:13.390 including that there is less blood loss,

NOTE Confidence: 0.98292573

00:27:13.390 --> 00:27:14.872 a faster recovery,

NOTE Confidence: 0.98292573

00:27:14.872 --> 00:27:17.700 and shorter hospital stay than with

NOTE Confidence: 0.98292573

00:27:17.700 --> 00:27:19.400 traditional open prostate surgery.

NOTE Confidence: 0.903573416666667

00:27:23.160 --> 00:27:28.470 So focal therapy has been a.

NOTE Confidence: 0.903573416666667

00:27:28.470 --> 00:27:31.680 Investigated for awhile.

NOTE Confidence: 0.903573416666667

00:27:31.680 --> 00:27:34.576 And Yale is at the forefront of several

NOTE Confidence: 0.903573416666667

00:27:34.576 --> 00:27:36.538 new technologies and focal therapy.

NOTE Confidence: 0.903573416666667

00:27:36.540 --> 00:27:37.989 Uh, including cryoablation,

NOTE Confidence: 0.903573416666667

00:27:37.989 --> 00:27:41.370 which means freezing a specific area of

NOTE Confidence: 0.903573416666667

00:27:41.443 --> 00:27:44.397 the prostate where the lesion is located.

NOTE Confidence: 0.903573416666667

00:27:44.400 --> 00:27:46.195 HIFU, which stands for high

NOTE Confidence: 0.903573416666667

00:27:46.195 --> 00:27:47.631 intensity focused ultrasound where

NOTE Confidence: 0.903573416666667

00:27:47.631 --> 00:27:49.907 a needle is placed into the lesion

NOTE Confidence: 0.903573416666667

00:27:49.907 --> 00:27:51.873 and ultrasound is used to heat the

NOTE Confidence: 0.903573416666667

00:27:51.873 --> 00:27:54.090 area and destroy the cancer cells.

NOTE Confidence: 0.903573416666667

00:27:54.090 --> 00:27:56.652 Nanoknife Nanoknife is actually used for

NOTE Confidence: 0.903573416666667

00:27:56.652 --> 00:27:59.319 several solid tumors other than prostate,

NOTE Confidence: 0.903573416666667

00:27:59.320 --> 00:28:02.015 but it's it's being used in prostate

NOTE Confidence: 0.903573416666667

00:28:02.015 --> 00:28:05.146 as well where several probes are placed

NOTE Confidence: 0.903573416666667

00:28:05.146 --> 00:28:07.344 around the lesion and electricity

NOTE Confidence: 0.903573416666667

00:28:07.344 --> 00:28:10.053 is sent from one probe to another

NOTE Confidence: 0.903573416666667

00:28:10.060 --> 00:28:13.888 to help kill the cancer cells.

NOTE Confidence: 0.903573416666667

00:28:13.890 --> 00:28:18.486 And a new technology that was

NOTE Confidence: 0.903573416666667

00:28:18.486 --> 00:28:20.018 recently developed.

NOTE Confidence: 0.903573416666667

00:28:20.020 --> 00:28:21.973 Called Tulsa Pro,

NOTE Confidence: 0.903573416666667

00:28:21.973 --> 00:28:24.577 which stands for transurethral.

NOTE Confidence: 0.903573416666667

00:28:24.580 --> 00:28:28.246 Ultrasound ablation of the prostate.

NOTE Confidence: 0.903573416666667

00:28:28.246 --> 00:28:31.480 And this is done under MRI guidance

NOTE Confidence: 0.903573416666667

00:28:31.575 --> 00:28:34.599 and Yale is one of only 11 centers

NOTE Confidence: 0.903573416666667

00:28:34.600 --> 00:28:38.317 in the country to have this machine.

NOTE Confidence: 0.903573416666667

00:28:38.320 --> 00:28:39.958 The caveat with all these treatments

NOTE Confidence: 0.903573416666667

00:28:39.958 --> 00:28:41.895 is that there is a lot less long

NOTE Confidence: 0.903573416666667

00:28:41.895 --> 00:28:43.900 term data and a lot of them are not

NOTE Confidence: 0.903573416666667

00:28:43.900 --> 00:28:45.448 yet FDA approved for the treatment

NOTE Confidence: 0.903573416666667

00:28:45.448 --> 00:28:47.890 of prostate cancer because it takes

NOTE Confidence: 0.903573416666667

00:28:47.890 --> 00:28:51.613 years to see how well they work in

NOTE Confidence: 0.903573416666667

00:28:51.613 --> 00:28:54.038 comparison to surgery or radiation.

NOTE Confidence: 0.903573416666667

00:28:54.040 --> 00:28:54.460 However,

NOTE Confidence: 0.903573416666667

00:28:54.460 --> 00:28:56.140 patients with localized lesions

NOTE Confidence: 0.903573416666667

00:28:56.140 --> 00:28:59.108 and armor I may be good candidates

NOTE Confidence: 0.903573416666667

00:28:59.108 --> 00:29:01.880 for focal therapy if they want to.

NOTE Confidence: 0.903573416666667

00:29:01.880 --> 00:29:03.840 If they want to prevent some of

NOTE Confidence: 0.903573416666667

00:29:03.840 --> 00:29:05.610 the side effects associated with

NOTE Confidence: 0.903573416666667

00:29:05.610 --> 00:29:06.906 surgery or radiation.

NOTE Confidence: 0.953334296

00:29:09.500 --> 00:29:11.615 So the main advances at

NOTE Confidence: 0.953334296

00:29:11.615 --> 00:29:13.730 Yale have been with MRI.

NOTE Confidence: 0.953334296

00:29:13.730 --> 00:29:15.956 In in terms of helping detect

NOTE Confidence: 0.953334296

00:29:15.956 --> 00:29:17.320 prostate cancer, and as you can

NOTE Confidence: 0.953334296

00:29:17.320 --> 00:29:18.570 see in the picture on the bottom,

NOTE Confidence: 0.953334296

00:29:18.570 --> 00:29:21.250 that's this is an ultrasound of and this

NOTE Confidence: 0.953334296

00:29:21.250 --> 00:29:24.376 is the prostate here and the red area.

NOTE Confidence: 0.953334296

00:29:24.376 --> 00:29:27.504 Is where a lesion was found on the

NOTE Confidence: 0.953334296

00:29:27.504 --> 00:29:30.507 MRI and it's helping us detected on

NOTE Confidence: 0.953334296

00:29:30.507 --> 00:29:33.178 ultrasound and helping us guide the needle.

NOTE Confidence: 0.953334296

00:29:33.180 --> 00:29:34.287 To help biopsy.

NOTE Confidence: 0.953334296

00:29:34.287 --> 00:29:36.870 The area that was identified on MRI.

NOTE Confidence: 0.953334296

00:29:36.870 --> 00:29:39.845 Traditional ultrasound cannot see a

NOTE Confidence: 0.953334296

00:29:39.845 --> 00:29:42.820 prostatic lesions or prostate cancer,

NOTE Confidence: 0.953334296

00:29:42.820 --> 00:29:45.492 so the the the ability to fuse the

NOTE Confidence: 0.953334296

00:29:45.492 --> 00:29:47.940 image with the MRI helps guide

NOTE Confidence: 0.953334296

00:29:47.940 --> 00:29:50.060 biopsy and this improves detection

NOTE Confidence: 0.953334296

00:29:50.060 --> 00:29:51.898 of high risk cancers.

NOTE Confidence: 0.953334296

00:29:51.900 --> 00:29:53.435 And it lowers the detection

NOTE Confidence: 0.953334296

00:29:53.435 --> 00:29:54.663 of lower risk cancers.

NOTE Confidence: 0.921637178333333

00:29:56.960 --> 00:29:59.420 So in conclusion, as we discussed,

NOTE Confidence: 0.921637178333333

00:29:59.420 --> 00:30:01.322 prostate cancer is one of the

NOTE Confidence: 0.921637178333333

00:30:01.322 --> 00:30:02.900 most common cancers in men.

NOTE Confidence: 0.921637178333333

00:30:02.900 --> 00:30:04.384 A screening of prostate

NOTE Confidence: 0.921637178333333

00:30:04.384 --> 00:30:06.239 cancer has risks and benefits,

NOTE Confidence: 0.921637178333333

00:30:06.240 --> 00:30:08.788 so it needs to be tailored to

NOTE Confidence: 0.921637178333333

00:30:08.788 --> 00:30:10.544 the individual patient as well

NOTE Confidence: 0.921637178333333

00:30:10.544 --> 00:30:12.326 as the age of the patient.

NOTE Confidence: 0.921637178333333

00:30:12.330 --> 00:30:15.816 MRI and fusion biopsy or helping

NOTE Confidence: 0.921637178333333

00:30:15.816 --> 00:30:18.604 guide diagnosis and Yale is

NOTE Confidence: 0.921637178333333

00:30:18.604 --> 00:30:20.692 helping develop new strategies

NOTE Confidence: 0.921637178333333

00:30:20.692 --> 00:30:22.591 for diagnosing prostate cancer.

NOTE Confidence: 0.921637178333333

00:30:22.591 --> 00:30:24.419 And treatment decisions for

NOTE Confidence: 0.921637178333333

00:30:24.419 --> 00:30:26.582 localized prostate cancer should be

NOTE Confidence: 0.921637178333333

00:30:26.582 --> 00:30:28.397 tailored to the individual patient,

NOTE Confidence: 0.921637178333333

00:30:28.400 --> 00:30:29.800 and these treatments include,

NOTE Confidence: 0.921637178333333

00:30:29.800 --> 00:30:30.850 as we discussed,

NOTE Confidence: 0.921637178333333

00:30:30.850 --> 00:30:32.521 active surveillance surgery,

NOTE Confidence: 0.921637178333333

00:30:32.521 --> 00:30:34.749 radiation, and focal therapy.

NOTE Confidence: 0.97436995

00:30:39.170 --> 00:30:39.700 Thank you.

NOTE Confidence: 0.982788083333333

00:30:42.880 --> 00:30:45.889 Excellent, thank you.

NOTE Confidence: 0.982788083333333

00:30:45.890 --> 00:30:47.380 Let's see how doctor Apartments

NOTE Confidence: 0.982788083333333

00:30:47.380 --> 00:30:48.274 finishing sharing screen.

NOTE Confidence: 0.982788083333333

00:30:48.280 --> 00:30:50.744 I'll share mine moment so feel free to

NOTE Confidence: 0.982788083333333

00:30:50.744 --> 00:30:53.357 type into the chat with the Q&A section.

NOTE Confidence: 0.982788083333333

00:30:53.360 --> 00:30:55.375 Any questions productive Portman and

NOTE Confidence: 0.982788083333333

00:30:55.375 --> 00:30:58.616 feel free to do the same on my talk

NOTE Confidence: 0.982788083333333

00:30:58.616 --> 00:31:01.280 and then you know I will answer them.

NOTE Confidence: 0.982788083333333

00:31:01.280 --> 00:31:04.100 At the end, as well as like one or two.

NOTE Confidence: 0.982788083333333

00:31:04.100 --> 00:31:06.290 Maybe it'll help with that are

NOTE Confidence: 0.982788083333333

00:31:06.290 --> 00:31:07.750 holdovers from Doctor Petrol.

NOTE Confidence: 0.967030086666667

00:31:10.150 --> 00:31:10.978 Share my screen.

NOTE Confidence: 0.986828684

00:31:20.030 --> 00:31:22.431 OK, so I'm going to talk through

NOTE Confidence: 0.986828684

00:31:22.431 --> 00:31:24.062 some advances in radiation

NOTE Confidence: 0.986828684

00:31:24.062 --> 00:31:26.190 therapy for prostate cancer.

NOTE Confidence: 0.980438124

00:31:28.220 --> 00:31:30.368 Yeah again, I'm doctor Bruce McGill

NOTE Confidence: 0.980438124

00:31:30.368 --> 00:31:32.750 and I'm the medical director for

NOTE Confidence: 0.980438124

00:31:32.750 --> 00:31:34.842 radiation oncology at Smilow Cancer

NOTE Confidence: 0.980438124

00:31:34.842 --> 00:31:36.747 Hospital Care Center in Greenwich.

NOTE Confidence: 0.98535618

00:31:40.130 --> 00:31:44.186 Screen, yeah. And so one thing that to

NOTE Confidence: 0.98535618

00:31:44.186 --> 00:31:46.999 note is that a lot of what's advance in

NOTE Confidence: 0.98535618

00:31:46.999 --> 00:31:49.732 radiation therapy in the past 10 to 15

NOTE Confidence: 0.98535618

00:31:49.732 --> 00:31:51.895 years is image guidance before we could

NOTE Confidence: 0.98535618

00:31:51.900 --> 00:31:53.988 line people up on the table and have a

NOTE Confidence: 0.98535618

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00:31:53.988 --> 00:31:56.065 very good idea where the prostate was,

NOTE Confidence: 0.98535618

00:31:56.070 --> 00:31:58.260 but we couldn't be ultra precise.

NOTE Confidence: 0.98535618

00:31:58.260 --> 00:32:01.050 And and with the advent of imaging on the

NOTE Confidence: 0.98535618

00:32:01.050 --> 00:32:03.635 machines were able to not only create very

NOTE Confidence: 0.98535618

00:32:03.635 --> 00:32:06.260 complex shapes of radiation within the body,

NOTE Confidence: 0.98535618

00:32:06.260 --> 00:32:08.028 but ensure that internally

NOTE Confidence: 0.98535618

00:32:08.028 --> 00:32:09.796 we're really on target.

NOTE Confidence: 0.98535618

00:32:09.800 --> 00:32:12.090 And so if you look at the bottom right here.

NOTE Confidence: 0.98535618

00:32:12.090 --> 00:32:14.482 This is what's called a variant Ruby machine

NOTE Confidence: 0.98535618

00:32:14.482 --> 00:32:17.114 like we have in branch and the treatment

NOTE Confidence: 0.98535618

00:32:17.114 --> 00:32:19.470 head where they actually come out is here.

NOTE Confidence: 0.98535618

00:32:19.470 --> 00:32:21.150 But on the side or these two arms,

NOTE Confidence: 0.98535618

00:32:21.150 --> 00:32:22.460 and those are imaging arms,

NOTE Confidence: 0.98535618

00:32:22.460 --> 00:32:24.322 and so we can spend the machine

NOTE Confidence: 0.98535618

00:32:24.322 --> 00:32:26.002 around the patient while he or she

NOTE Confidence: 0.98535618

00:32:26.002 --> 00:32:27.666 is on the table and take an image

00:32:27.666 --> 00:32:29.389 that looks very much like a cat scan.

00:32:29.390 --> 00:32:31.294 So when people come for region planning,

00:32:31.300 --> 00:32:32.926 we do a special type of

00:32:32.926 --> 00:32:34.449 cask and that's what we do.

00:32:34.450 --> 00:32:34.862 Design on.

00:32:34.862 --> 00:32:37.007 But then we can run a kovid CT and see

00:32:37.007 --> 00:32:38.775 how things match up on any given day

00:32:38.832 --> 00:32:40.589 is most people are kind of radiation

00:32:40.589 --> 00:32:42.666 or not coming just once they're coming.

00:32:42.666 --> 00:32:45.055 Are often five days a week for

00:32:45.055 --> 00:32:46.099 for several weeks,

00:32:46.100 --> 00:32:48.521 and so if you look on the upper left

00:32:48.521 --> 00:32:50.726 you can see how close the image

00:32:50.726 --> 00:32:53.824 quality is in that the top right and

00:32:53.824 --> 00:32:56.794 lower left or the cone beam CT and

00:32:56.794 --> 00:32:59.579 the lower right and upper left are the

NOTE Confidence: 0.98535618

00:32:59.579 --> 00:33:01.210 regular CT and they look very similar.

NOTE Confidence: 0.98535618

00:33:01.210 --> 00:33:03.387 We can scroll between these two and

NOTE Confidence: 0.98535618

00:33:03.387 --> 00:33:05.691 see how things line up inside and this

NOTE Confidence: 0.98535618

00:33:05.691 --> 00:33:07.858 is how we get that confidence that

NOTE Confidence: 0.98535618

00:33:07.858 --> 00:33:10.240 we're on target for each treatment.

NOTE Confidence: 0.98535618

00:33:10.240 --> 00:33:12.172 Another element is that we've gone

NOTE Confidence: 0.98535618

00:33:12.172 --> 00:33:13.928 from what's called 3D conformal

NOTE Confidence: 0.98535618

00:33:13.928 --> 00:33:16.346 radiation to I MRT or intensity

NOTE Confidence: 0.98535618

00:33:16.346 --> 00:33:17.555 modulated radiation therapy.

NOTE Confidence: 0.98535618

00:33:17.560 --> 00:33:19.023 This picture on the left is what

NOTE Confidence: 0.98535618

00:33:19.023 --> 00:33:20.219 they call a color wash.

NOTE Confidence: 0.98535618

00:33:20.220 --> 00:33:21.615 It's approximating what the dose

NOTE Confidence: 0.98535618

00:33:21.615 --> 00:33:23.746 would look like if you had one beam

NOTE Confidence: 0.98535618

00:33:23.746 --> 00:33:25.342 from the front and one beam from

NOTE Confidence: 0.98535618

00:33:25.396 --> 00:33:27.020 the back and one from each side,

NOTE Confidence: 0.98535618

00:33:27.020 --> 00:33:27.708 and it's quite good,

NOTE Confidence: 0.98535618

00:33:27.708 --> 00:33:28.396 but in this case,

NOTE Confidence: 0.98535618

00:33:28.400 --> 00:33:30.380 this is a picture songs chest,

NOTE Confidence: 0.98535618

00:33:30.380 --> 00:33:32.436 and this is the spinal cord back here,

NOTE Confidence: 0.98535618

00:33:32.440 --> 00:33:34.136 and this is the heart in front and

NOTE Confidence: 0.98535618

00:33:34.136 --> 00:33:36.131 you see with this technique that this

NOTE Confidence: 0.98535618

00:33:36.131 --> 00:33:38.359 dose is splashing through most of the heart,

NOTE Confidence: 0.98535618

00:33:38.360 --> 00:33:40.223 and these black areas on the sides of the.

NOTE Confidence: 0.98535618

00:33:40.230 --> 00:33:42.442 Lungs it's going through that and it's

NOTE Confidence: 0.98535618

00:33:42.442 --> 00:33:44.796 going through the spinal cord quite a bit.

NOTE Confidence: 0.98535618

00:33:44.800 --> 00:33:46.896 But when you use this I MRT technique,

NOTE Confidence: 0.98535618

00:33:46.900 --> 00:33:49.440 you come from many angles,

NOTE Confidence: 0.98535618

00:33:49.440 --> 00:33:51.078 sometimes as few as five or seven.

NOTE Confidence: 0.98535618

00:33:51.080 --> 00:33:53.016 But often it's a 360 degree arc and

NOTE Confidence: 0.98535618

00:33:53.016 --> 00:33:55.145 as the beam is going around it's

NOTE Confidence: 0.98535618

00:33:55.145 --> 00:33:57.037 changing the intensity of the beam

NOTE Confidence: 0.98535618

00:33:57.037 --> 00:33:59.024 and the shape of the beam at each

NOTE Confidence: 0.98535618

00:33:59.024 --> 00:33:59.780 of those points.

NOTE Confidence: 0.98535618

00:33:59.780 --> 00:34:02.060 And so you get a much fancier dose

NOTE Confidence: 0.98535618

00:34:02.060 --> 00:34:03.398 distribution that in this case,

NOTE Confidence: 0.98535618

00:34:03.400 --> 00:34:04.004 for example,

NOTE Confidence: 0.98535618

00:34:04.004 --> 00:34:05.816 is staying better off the hard

NOTE Confidence: 0.98535618

00:34:05.816 --> 00:34:06.420 and better

NOTE Confidence: 0.984421157142857

00:34:06.480 --> 00:34:07.600 off the spinal cord,

NOTE Confidence: 0.984421157142857

00:34:07.600 --> 00:34:09.070 and we can employ that technique.

NOTE Confidence: 0.984421157142857

00:34:09.070 --> 00:34:11.138 Another is the body,

NOTE Confidence: 0.984421157142857

00:34:11.138 --> 00:34:13.206 such as the prostate.

NOTE Confidence: 0.984421157142857

00:34:13.210 --> 00:34:14.813 Another thing that's gotten a lot of

NOTE Confidence: 0.984421157142857

00:34:14.813 --> 00:34:16.608 buzz in the last handful of years.

NOTE Confidence: 0.984421157142857

00:34:16.610 --> 00:34:18.339 For many treatment areas in the body,

NOTE Confidence: 0.984421157142857

00:34:18.340 --> 00:34:21.124 but definitely the process is called

54

00:34:21.124 --> 00:34:23.569 stereotactic body radiation therapy or SBRT.

00:34:23.570 --> 00:34:26.706 Some people know it is as Cyberknife,

00:34:26.710 --> 00:34:27.646 although it's a little bit sweet.

00:34:27.650 --> 00:34:29.802 Cyber Knife is the name of a machine

00:34:29.802 --> 00:34:31.669 that's capable of doing this technique,

00:34:31.670 --> 00:34:33.767 but there are other machines that can do it,

00:34:33.770 --> 00:34:35.275 but that's why the most common way

00:34:35.275 --> 00:34:36.711 that people would have heard something

00:34:36.711 --> 00:34:38.682 like this and start tactic recipe.

00:34:38.682 --> 00:34:40.890 Aarti is characterized by having special,

00:34:40.890 --> 00:34:42.183 patient and mobilizations

00:34:42.183 --> 00:34:43.476 that accept position.

00:34:43.480 --> 00:34:46.180 Limiting normal tissue exposure to the

00:34:46.180 --> 00:34:48.391 radiation preventing or accounting for

00:34:48.391 --> 00:34:50.820 organ motion and it's called stereo taxi,

00:34:50.820 --> 00:34:53.529 which is in essence a targeting system

NOTE Confidence: 0.984421157142857

00:34:53.529 --> 00:34:55.680 internally and then sub centimeter accuracy,

NOTE Confidence: 0.984421157142857

00:34:55.680 --> 00:34:57.642 sometimes down to millimeters of action

NOTE Confidence: 0.984421157142857

00:34:57.642 --> 00:34:59.838 with the dose instead of bringing people

NOTE Confidence: 0.984421157142857

00:34:59.838 --> 00:35:02.219 for Monday to Friday for weeks at a time.

NOTE Confidence: 0.984421157142857

00:35:02.220 --> 00:35:05.796 This is a treatment limited to one to

NOTE Confidence: 0.984421157142857

00:35:05.796 --> 00:35:08.386 five treatments only and this again

NOTE Confidence: 0.984421157142857

00:35:08.386 --> 00:35:10.918 we're showing the color wash picture.

NOTE Confidence: 0.984421157142857

00:35:10.920 --> 00:35:13.202 Where you can see this is targeting

NOTE Confidence: 0.984421157142857

00:35:13.202 --> 00:35:15.659 the red outline is the process itself.

NOTE Confidence: 0.984421157142857

00:35:15.660 --> 00:35:18.159 Little purple is is a gold marker,

NOTE Confidence: 0.984421157142857

00:35:18.160 --> 00:35:20.438 which I'll talk about later and behind here

NOTE Confidence: 0.984421157142857

00:35:20.438 --> 00:35:22.038 is the ****** and auto size of the hips.

NOTE Confidence: 0.984421157142857

00:35:22.040 --> 00:35:23.867 You can see we're really keeping the

NOTE Confidence: 0.984421157142857

00:35:23.867 --> 00:35:25.848 dose very tight to the prostate and

NOTE Confidence: 0.984421157142857

00:35:25.848 --> 00:35:27.564 not splashing it around other organs.

NOTE Confidence: 0.956765988666667

00:35:29.670 --> 00:35:31.819 Uhm, there's a quick note about machines

NOTE Confidence: 0.956765988666667

00:35:31.819 --> 00:35:34.049 so that again this top machine is a.

NOTE Confidence: 0.956765988666667

00:35:34.050 --> 00:35:35.652 It's a view from the side of the machine.

NOTE Confidence: 0.956765988666667

00:35:35.660 --> 00:35:37.778 Now it's time earlier that very

NOTE Confidence: 0.956765988666667

00:35:37.778 --> 00:35:40.256 true being it can do pretty much

NOTE Confidence: 0.956765988666667

00:35:40.256 --> 00:35:41.948 everything in the radiation.

NOTE Confidence: 0.956765988666667

00:35:41.950 --> 00:35:43.308 We're almost everything we want to do,

NOTE Confidence: 0.956765988666667

00:35:43.310 --> 00:35:48.246 including I MRT and SBRT using X rays.

NOTE Confidence: 0.956765988666667

00:35:48.250 --> 00:35:49.578 Uh, another thing which

NOTE Confidence: 0.956765988666667

00:35:49.578 --> 00:35:51.238 has come on a baptizing.

NOTE Confidence: 0.956765988666667

00:35:51.240 --> 00:35:53.088 What interest is showing low left?

NOTE Confidence: 0.956765988666667

00:35:53.090 --> 00:35:54.642 It's a proton unit.

NOTE Confidence: 0.956765988666667

00:35:54.642 --> 00:35:55.806 Protons are fundamentally

NOTE Confidence: 0.956765988666667

00:35:55.806 --> 00:35:57.580 different in terms of power.

NOTE Confidence: 0.956765988666667

00:35:57.580 --> 00:35:59.799 Kind of what's coming out of machines

NOTE Confidence: 0.956765988666667

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00:35:59.799 --> 00:36:01.830 is a positively charged particle,

NOTE Confidence: 0.956765988666667

00:36:01.830 --> 00:36:03.355 and that has certain characteristics

NOTE Confidence: 0.956765988666667

00:36:03.355 --> 00:36:05.430 about how it deposits in the issue,

NOTE Confidence: 0.956765988666667

00:36:05.430 --> 00:36:06.750 and there may be there.

NOTE Confidence: 0.956765988666667

00:36:06.750 --> 00:36:08.262 I think there are some occasions

NOTE Confidence: 0.956765988666667

00:36:08.262 --> 00:36:09.845 where protons are better than X

NOTE Confidence: 0.956765988666667

00:36:09.845 --> 00:36:11.150 rays and there's some occasions

NOTE Confidence: 0.956765988666667

00:36:11.150 --> 00:36:12.340 directed better than protons,

NOTE Confidence: 0.956765988666667

00:36:12.340 --> 00:36:14.130 but really just starting to

NOTE Confidence: 0.956765988666667

00:36:14.130 --> 00:36:16.114 figure out now you know when is

NOTE Confidence: 0.956765988666667

00:36:16.114 --> 00:36:17.470 one thing better than the other,

NOTE Confidence: 0.956765988666667

00:36:17.470 --> 00:36:18.740 and so for prostate cancer.

NOTE Confidence: 0.956765988666667

00:36:18.740 --> 00:36:19.032 Example,

NOTE Confidence: 0.956765988666667

00:36:19.032 --> 00:36:21.076 at this point there really no long

NOTE Confidence: 0.956765988666667

00:36:21.076 --> 00:36:22.886 term data that show an advantage

NOTE Confidence: 0.956765988666667

00:36:22.886 --> 00:36:24.638 of one machine over the other,

NOTE Confidence: 0.956765988666667

00:36:24.640 --> 00:36:26.296 certainly not in terms of care or not

NOTE Confidence: 0.956765988666667

00:36:26.296 --> 00:36:27.820 really even in terms of side effects.

NOTE Confidence: 0.956765988666667

00:36:27.820 --> 00:36:28.732 More broadly,

NOTE Confidence: 0.956765988666667

00:36:28.732 --> 00:36:31.924 one of my colleagues at Yale did

NOTE Confidence: 0.956765988666667

00:36:31.924 --> 00:36:33.685 analysis that showed that X rays

NOTE Confidence: 0.956765988666667

00:36:33.685 --> 00:36:35.360 were better at certain side effects

NOTE Confidence: 0.956765988666667

00:36:35.360 --> 00:36:37.244 and protons and certain other ones,

NOTE Confidence: 0.956765988666667

00:36:37.250 --> 00:36:39.660 but very similar would say,

NOTE Confidence: 0.956765988666667

00:36:39.660 --> 00:36:40.850 can you see on the lower right?

NOTE Confidence: 0.956765988666667

00:36:40.850 --> 00:36:42.638 The Cyberlink machine has

NOTE Confidence: 0.956765988666667

00:36:42.638 --> 00:36:44.426 a totally different shape.

NOTE Confidence: 0.956765988666667

00:36:44.430 --> 00:36:46.485 It actually has a miniaturized

NOTE Confidence: 0.956765988666667

00:36:46.485 --> 00:36:49.609 radixin on top of a robotic arm.

NOTE Confidence: 0.956765988666667

00:36:49.610 --> 00:36:52.290 Arm is the same type this use in

NOTE Confidence: 0.956765988666667

00:36:52.290 --> 00:36:54.795 high end car assembly but allows the

NOTE Confidence: 0.956765988666667

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00:36:54.795 --> 00:36:56.580 machine to be moved and many many

NOTE Confidence: 0.956765988666667

00:36:56.635 --> 00:36:58.150 different directions that uses small

NOTE Confidence: 0.956765988666667

00:36:58.150 --> 00:37:00.568 teams who have to go through a target

NOTE Confidence: 0.956765988666667

00:37:00.570 --> 00:37:02.850 so it it really is a great machine.

NOTE Confidence: 0.956765988666667

00:37:02.850 --> 00:37:05.370 One of the great machines are safe for SBRT,

NOTE Confidence: 0.956765988666667

00:37:05.370 --> 00:37:07.130 but it's not actually capable

NOTE Confidence: 0.956765988666667

00:37:07.130 --> 00:37:08.538 of treating larger fields.

NOTE Confidence: 0.956765988666667

00:37:08.540 --> 00:37:10.475 Are bigger targets or treating

NOTE Confidence: 0.956765988666667

00:37:10.475 --> 00:37:12.410 really practical sense over many

NOTE Confidence: 0.956765988666667

00:37:12.480 --> 00:37:14.450 weeks like certain other things.

NOTE Confidence: 0.956765988666667

00:37:14.450 --> 00:37:17.130 So all those machines are

NOTE Confidence: 0.956765988666667

00:37:17.130 --> 00:37:19.274 applicable for prostate cancer.

NOTE Confidence: 0.956765988666667

00:37:19.280 --> 00:37:23.900 And some have more flexibility, some summers.

NOTE Confidence: 0.956765988666667

00:37:23.900 --> 00:37:24.391 Uhm?

NOTE Confidence: 0.956765988666667

00:37:24.391 --> 00:37:25.864 Kirk out about,

NOTE Confidence: 0.956765988666667

00:37:25.864 --> 00:37:26.846 you know,

NOTE Confidence: 0.956765988666667

00:37:26.850 --> 00:37:28.670 prostate cancer radiation when were

NOTE Confidence: 0.956765988666667

00:37:28.670 --> 00:37:30.490 also when we're being aggressive

NOTE Confidence: 0.956765988666667

00:37:30.546 --> 00:37:32.052 with the process we were trying

NOTE Confidence: 0.956765988666667

00:37:32.052 --> 00:37:33.930 to cure or redo something much

NOTE Confidence: 0.956765988666667

00:37:33.930 --> 00:37:35.250 more than just palliation.

NOTE Confidence: 0.956765988666667

00:37:35.250 --> 00:37:37.626 So we have three settings we have intact,

NOTE Confidence: 0.956765988666667

00:37:37.630 --> 00:37:39.754 prostate post prostatectomy,

NOTE Confidence: 0.956765988666667

00:37:39.754 --> 00:37:41.170 active prospecting,

NOTE Confidence: 0.956765988666667

00:37:41.170 --> 00:37:43.582 and a new category called Olivo

NOTE Confidence: 0.956765988666667

00:37:43.582 --> 00:37:45.050 metastatic so for intact prostate.

NOTE Confidence: 0.956765988666667

00:37:45.050 --> 00:37:46.998 The two major options we can do

NOTE Confidence: 0.956765988666667

00:37:46.998 --> 00:37:48.202 external being where patients

NOTE Confidence: 0.956765988666667

00:37:48.202 --> 00:37:50.054 lying on the table machine moved

NOTE Confidence: 0.956765988666667

00:37:50.054 --> 00:37:51.812 around and took pictures from a

NOTE Confidence: 0.956765988666667

00:37:51.812 --> 00:37:53.970 distance that can be done in this

NOTE Confidence: 0.956765988666667

00:37:53.970 --> 00:37:56.059 traditional IM RT which is 40 to 45.

NOTE Confidence: 0.956765988666667

00:37:56.060 --> 00:37:58.125 Sessions that's gonna nine week

NOTE Confidence: 0.956765988666667

00:37:58.125 --> 00:38:00.862 course you can have one that's called

NOTE Confidence: 0.956765988666667

00:38:00.862 --> 00:38:02.023 moderately hypofractionated imarti.

NOTE Confidence: 0.956765988666667

00:38:02.030 --> 00:38:03.362 It's quite a mouthful,

NOTE Confidence: 0.956765988666667

00:38:03.362 --> 00:38:05.360 but it's basically a slightly higher

NOTE Confidence: 0.956765988666667

00:38:05.422 --> 00:38:07.498 dose per day and still done Monday to Friday,

NOTE Confidence: 0.956765988666667

00:38:07.500 --> 00:38:10.080 but only 20 to 28 sessions.

NOTE Confidence: 0.956765988666667

00:38:10.080 --> 00:38:10.914 And then SBRT,

NOTE Confidence: 0.956765988666667

00:38:10.914 --> 00:38:12.860 which in the case of prostate is

NOTE Confidence: 0.956765988666667

00:38:12.927 --> 00:38:15.090 5 sessions and for most or deal

NOTE Confidence: 0.956765988666667

00:38:15.090 --> 00:38:17.110 with prostate with with low risk

NOTE Confidence: 0.956765988666667

00:38:17.110 --> 00:38:19.020 or low risk intermediate risk.

NOTE Confidence: 0.98677316125

00:38:19.020 --> 00:38:21.956 With things like we have six weeks seven.

NOTE Confidence: 0.98677316125

00:38:21.960 --> 00:38:24.221 All these options are great once you

NOTE Confidence: 0.98677316125

00:38:24.221 --> 00:38:26.573 move into the higher risk prostate

NOTE Confidence: 0.98677316125

00:38:26.573 --> 00:38:28.700 cancer then we really don't have

NOTE Confidence: 0.98677316125

00:38:28.700 --> 00:38:30.390 renewed for just five treatments

NOTE Confidence: 0.98677316125

00:38:30.449 --> 00:38:32.449 we tend to do either the imarti or

NOTE Confidence: 0.98677316125

00:38:32.449 --> 00:38:34.469 the that hypofractionated regimen,

NOTE Confidence: 0.98677316125

00:38:34.470 --> 00:38:36.576 or some combination of these things.

NOTE Confidence: 0.98677316125

00:38:36.580 --> 00:38:39.116 Try to intensify the dose in the prostate.

NOTE Confidence: 0.98677316125

00:38:39.120 --> 00:38:41.268 Will also giving some dose too.

NOTE Confidence: 0.98677316125

00:38:41.270 --> 00:38:43.062 Nearby things at risk.

NOTE Confidence: 0.98677316125

00:38:43.062 --> 00:38:44.854 Like the public moments.

NOTE Confidence: 0.98677316125

00:38:44.860 --> 00:38:46.115 A completely different way to

NOTE Confidence: 0.98677316125

00:38:46.115 --> 00:38:47.370 go about his breakey therapy,

NOTE Confidence: 0.98677316125

00:38:47.370 --> 00:38:49.368 which is huge amounts of radioactive

NOTE Confidence: 0.98677316125

00:38:49.368 --> 00:38:51.264 seed implant on its own.

NOTE Confidence: 0.98677316125

00:38:51.264 --> 00:38:53.712 It's also good for early stage,

NOTE Confidence: 0.98677316125

00:38:53.720 --> 00:38:55.760 have low risk prostate cancer,

NOTE Confidence: 0.98677316125

00:38:55.760 --> 00:38:58.656 and may also be good or it is

NOTE Confidence: 0.98677316125

00:38:58.656 --> 00:39:02.930 good as a booster or wave.

NOTE Confidence: 0.98677316125

00:39:02.930 --> 00:39:05.219 Increasing the dose of proxy for high

NOTE Confidence: 0.98677316125

00:39:05.219 --> 00:39:07.262 risk prostate cancer oftentimes have a

NOTE Confidence: 0.98677316125

00:39:07.262 --> 00:39:09.740 little bit of a slightly worse urinary

NOTE Confidence: 0.98677316125

00:39:09.812 --> 00:39:12.046 ciphered profile but also good way

NOTE Confidence: 0.98677316125

00:39:12.046 --> 00:39:13.912 of going about it after prostatectomy.

NOTE Confidence: 0.98677316125

00:39:13.912 --> 00:39:15.628 We have two ways in which

NOTE Confidence: 0.98677316125

00:39:15.628 --> 00:39:17.259 we call to offer radiation.

NOTE Confidence: 0.98677316125

00:39:17.260 --> 00:39:19.519 One is that.

NOTE Confidence: 0.98677316125

00:39:19.520 --> 00:39:20.895 So basically, the surgeon surprised

NOTE Confidence: 0.98677316125

00:39:20.895 --> 00:39:22.270 by the results of surgery.

NOTE Confidence: 0.98677316125

00:39:22.270 --> 00:39:23.734 There's something much riskier.

NOTE Confidence: 0.98677316125

00:39:23.734 --> 00:39:24.466 There was.

NOTE Confidence: 0.98677316125

00:39:24.470 --> 00:39:25.715 The lymph nodes are involved

NOTE Confidence: 0.98677316125

00:39:25.715 --> 00:39:27.420 or a lot of positive margins.

NOTE Confidence: 0.98677316125

00:39:27.420 --> 00:39:28.962 Or you know something that was

NOTE Confidence: 0.98677316125

00:39:28.962 --> 00:39:30.134 quite alarming and the persons

NOTE Confidence: 0.98677316125

00:39:30.134 --> 00:39:31.006 otherwise in great shape.

NOTE Confidence: 0.98677316125

00:39:31.010 --> 00:39:32.762 And then we're calling it radiation

NOTE Confidence: 0.98677316125

00:39:32.762 --> 00:39:34.640 about three to six months later

NOTE Confidence: 0.98677316125

00:39:34.640 --> 00:39:36.960 that someone unusual that happens.

NOTE Confidence: 0.98677316125

00:39:36.960 --> 00:39:38.790 The other case is called

NOTE Confidence: 0.98677316125

00:39:38.790 --> 00:39:39.888 salvage radiation therapy,

NOTE Confidence: 0.98677316125

00:39:39.890 --> 00:39:41.240 and that's where it looks like

NOTE Confidence: 0.98677316125

00:39:41.240 --> 00:39:42.679 the surgery is done quite well.

NOTE Confidence: 0.98677316125

00:39:42.680 --> 00:39:44.720 PSA goes to undetectable level,

NOTE Confidence: 0.98677316125

00:39:44.720 --> 00:39:46.250 but later starts to rise.

NOTE Confidence: 0.98677316125

00:39:46.250 --> 00:39:47.828 We get the feeling that perhaps

NOTE Confidence: 0.98677316125

00:39:47.828 --> 00:39:49.739 it's come back in that area with.

NOTE Confidence: 0.98677316125

00:39:49.740 --> 00:39:51.804 Plastic was taken 20 plastic better

NOTE Confidence: 0.98677316125

00:39:51.804 --> 00:39:54.460 in the pelvic nodes and then we bring

NOTE Confidence: 0.98677316125

00:39:54.460 --> 00:39:56.532 them in for 37 to 39 treatments.

NOTE Confidence: 0.98677316125

00:39:56.532 --> 00:39:58.650 So it's about an 8 week course

NOTE Confidence: 0.98677316125

00:39:58.650 --> 00:40:00.194 to try it again.

NOTE Confidence: 0.98677316125

00:40:00.194 --> 00:40:02.742 Cure the problem and and drop pick

NOTE Confidence: 0.98677316125

00:40:02.742 --> 00:40:04.746 up with the surgery left off.

NOTE Confidence: 0.98677316125

00:40:04.750 --> 00:40:06.262 The third category is all of them into stack,

NOTE Confidence: 0.98677316125

00:40:06.270 --> 00:40:08.970 so this is an interesting distinction.

NOTE Confidence: 0.98677316125

00:40:08.970 --> 00:40:10.730 So medicine disease is usually

NOTE Confidence: 0.98677316125

00:40:10.730 --> 00:40:12.854 defined as the cancer that spread

NOTE Confidence: 0.98677316125

00:40:12.854 --> 00:40:14.270 well beyond the area.

NOTE Confidence: 0.98677316125

00:40:14.270 --> 00:40:15.650 So in the case of processing,

NOTE Confidence: 0.98677316125

00:40:15.650 --> 00:40:17.708 that's usually gone off into the bones,

NOTE Confidence: 0.98677316125

00:40:17.710 --> 00:40:19.888 or maybe some distant lymph nodes.

NOTE Confidence: 0.98677316125

00:40:19.890 --> 00:40:22.070 And the old feeling was,

NOTE Confidence: 0.98677316125

00:40:22.070 --> 00:40:24.140 well, once it's escaped, it's,

NOTE Confidence: 0.98677316125

00:40:24.140 --> 00:40:24.746 you know,

NOTE Confidence: 0.98677316125

00:40:24.746 --> 00:40:26.734 like we're just gonna play kind of

NOTE Confidence: 0.98677316125

00:40:26.734 --> 00:40:28.540 a defensive role here and just slow

NOTE Confidence: 0.98677316125

00:40:28.603 --> 00:40:30.382 things down. Or just do palliation.

NOTE Confidence: 0.98677316125

00:40:30.382 --> 00:40:32.364 But there's a very narrow category where

NOTE Confidence: 0.98677316125

00:40:32.364 --> 00:40:35.346 it seems to only spread to just a few spots,

NOTE Confidence: 0.98677316125

00:40:35.346 --> 00:40:37.366 maybe two or three spots.

NOTE Confidence: 0.98677316125

00:40:37.370 --> 00:40:40.637 And what we found out is it being aggressive.

NOTE Confidence: 0.98677316125

00:40:40.640 --> 00:40:41.809 They are can pay off and we

NOTE Confidence: 0.98677316125

00:40:41.809 --> 00:40:42.740 have a survival advantage.

NOTE Confidence: 0.98677316125

00:40:42.740 --> 00:40:43.808 Sometimes we're locking in.

NOTE Confidence: 0.98677316125

00:40:43.808 --> 00:40:45.410 Those are really the only spots

NOTE Confidence: 0.98677316125

00:40:45.460 --> 00:40:46.816 in the body that truly active.

NOTE Confidence: 0.98677316125

00:40:46.820 --> 00:40:48.350 It's not hiding elsewhere and other

NOTE Confidence: 0.98677316125

00:40:48.350 --> 00:40:49.711 occasions it turns out there's

NOTE Confidence: 0.98677316125

00:40:49.711 --> 00:40:51.176 some other spots they're hiding.

NOTE Confidence: 0.98677316125

00:40:51.180 --> 00:40:54.006 But by going after the ones that are visible.

NOTE Confidence: 0.98677316125

00:40:54.010 --> 00:40:55.480 We can perhaps stimulate the

NOTE Confidence: 0.98677316125

00:40:55.480 --> 00:40:57.570 immune system and help to keep the

NOTE Confidence: 0.98677316125

00:40:57.570 --> 00:40:59.244 other ones and check for longer.

NOTE Confidence: 0.98677316125

00:40:59.250 --> 00:41:01.511 So if we find a gentleman who

NOTE Confidence: 0.98677316125

00:41:01.511 --> 00:41:02.480 has prostate cancer

NOTE Confidence: 0.979663999444445

00:41:02.551 --> 00:41:04.727 as a new diagnosis but has a few,

NOTE Confidence: 0.979663999444445

00:41:04.730 --> 00:41:05.974 let's say bone spots,

NOTE Confidence: 0.979663999444445

00:41:05.974 --> 00:41:08.287 we will treat the prostate as the

NOTE Confidence: 0.979663999444445

00:41:08.287 --> 00:41:10.585 original source for about 20 treatments,

NOTE Confidence: 0.979663999444445

00:41:10.590 --> 00:41:13.523 but will also treated with SBRT to

NOTE Confidence: 0.979663999444445

00:41:13.523 --> 00:41:15.483 those metastatic sites and really

NOTE Confidence: 0.979663999444445

00:41:15.483 --> 00:41:17.270 try to wrestling manage the problem.

NOTE Confidence: 0.984389344117647

00:41:19.650 --> 00:41:21.175 One thing, nothing that's been

NOTE Confidence: 0.984389344117647

00:41:21.175 --> 00:41:23.484 great in our world last handful of

NOTE Confidence: 0.984389344117647

00:41:23.484 --> 00:41:25.299 years is better rectal protection.

NOTE Confidence: 0.984389344117647

00:41:25.300 --> 00:41:27.196 So if we look at this lower left

NOTE Confidence: 0.984389344117647

00:41:27.196 --> 00:41:29.248 view we see that dose cloud there.

NOTE Confidence: 0.984389344117647

00:41:29.248 --> 00:41:31.462 Right behind it in this kind

NOTE Confidence: 0.984389344117647

00:41:31.462 --> 00:41:33.649 of maroon or burgundy object.

NOTE Confidence: 0.984389344117647

00:41:33.650 --> 00:41:34.775 That's the ******.

NOTE Confidence: 0.984389344117647

00:41:34.775 --> 00:41:36.275 So usually directing the

NOTE Confidence: 0.984389344117647

00:41:36.275 --> 00:41:37.400 prostate are touching.

NOTE Confidence: 0.984389344117647

00:41:37.400 --> 00:41:39.146 And that means that whatever we

NOTE Confidence: 0.984389344117647

00:41:39.146 --> 00:41:40.855 give authority should dose to the

NOTE Confidence: 0.984389344117647

00:41:40.855 --> 00:41:42.331 back edge of the prostate goes

NOTE Confidence: 0.984389344117647

00:41:42.331 --> 00:41:43.839 exactly the front edge of the

NOTE Confidence: 0.984389344117647

00:41:43.839 --> 00:41:46.288 ****** and that can lead to things

NOTE Confidence: 0.984389344117647

00:41:46.288 --> 00:41:48.760 like urgency to move bowels or or

NOTE Confidence: 0.984389344117647

00:41:48.760 --> 00:41:50.900 frequency of Bowser looser stool

NOTE Confidence: 0.984389344117647

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00:41:50.900 --> 00:41:52.160 and well after the treatment.

NOTE Confidence: 0.984389344117647

00:41:52.160 --> 00:41:54.530 We can sometimes get some bleeding

NOTE Confidence: 0.984389344117647

00:41:54.530 --> 00:41:56.755 from that and so this project was

NOTE Confidence: 0.984389344117647

00:41:56.755 --> 00:41:58.958 created called space or Gel which is

NOTE Confidence: 0.984389344117647

00:41:58.958 --> 00:42:00.728 inserted this diagram like between.

NOTE Confidence: 0.984389344117647

00:42:00.730 --> 00:42:03.250 Crossing the ****** and uh oh,

NOTE Confidence: 0.984389344117647

00:42:03.250 --> 00:42:04.314 you can't see it in this cone.

NOTE Confidence: 0.984389344117647

00:42:04.320 --> 00:42:05.452 Beams on the left.

NOTE Confidence: 0.984389344117647

00:42:05.452 --> 00:42:06.867 It's actual locations right here?

NOTE Confidence: 0.984389344117647

00:42:06.870 --> 00:42:09.280 Diagram pink and you're obviously

NOTE Confidence: 0.984389344117647

00:42:09.280 --> 00:42:12.046 doctor would put the skin for

NOTE Confidence: 0.984389344117647

00:42:12.046 --> 00:42:13.470 us before the radiation.

NOTE Confidence: 0.984389344117647

00:42:13.470 --> 00:42:15.138 It stays there for three months.

NOTE Confidence: 0.984389344117647

00:42:15.140 --> 00:42:16.868 You can see any pictures here.

NOTE Confidence: 0.984389344117647

00:42:16.870 --> 00:42:20.027 Appears as a white area on MRI

NOTE Confidence: 0.984389344117647

00:42:20.030 --> 00:42:21.902 and then it dissolves back to

NOTE Confidence: 0.984389344117647

00:42:21.902 --> 00:42:23.471 water after another three months

NOTE Confidence: 0.984389344117647

00:42:23.471 --> 00:42:25.025 since his or by the body.

NOTE Confidence: 0.984389344117647

00:42:25.030 --> 00:42:26.720 Patients generally don't have any

NOTE Confidence: 0.984389344117647

00:42:26.720 --> 00:42:28.410 symptoms from having in there.

NOTE Confidence: 0.984389344117647

00:42:28.410 --> 00:42:30.237 Besides maybe just a little sense of

NOTE Confidence: 0.984389344117647

00:42:30.237 --> 00:42:32.570 formats for a few days and it's a

NOTE Confidence: 0.984389344117647

00:42:32.570 --> 00:42:34.730 wonderful way to get the radiation.

NOTE Confidence: 0.984389344117647

00:42:34.730 --> 00:42:37.754 Does the ****** lower in addition to

NOTE Confidence: 0.984389344117647

00:42:37.754 --> 00:42:40.497 the fancy techniques like I'm RTMS PRT?

NOTE Confidence: 0.984389344117647

00:42:40.500 --> 00:42:42.124 The other thing is that we ask the

NOTE Confidence: 0.984389344117647

00:42:42.124 --> 00:42:43.439 girls help for our implanting,

NOTE Confidence: 0.984389344117647

00:42:43.440 --> 00:42:46.080 sometime fiducials or markers at Greenwich.

NOTE Confidence: 0.984389344117647

00:42:46.080 --> 00:42:49.210 We typically use gold fiducials.

NOTE Confidence: 0.984389344117647

00:42:49.210 --> 00:42:51.055 They're about the size of a grain of rice.

NOTE Confidence: 0.984389344117647

00:42:51.060 --> 00:42:52.794 They have to look carefully the

NOTE Confidence: 0.984389344117647

00:42:52.794 --> 00:42:54.582 picture they have almost a rough

NOTE Confidence: 0.984389344117647

00:42:54.582 --> 00:42:56.027 surface so that when they're

NOTE Confidence: 0.984389344117647

00:42:56.027 --> 00:42:57.619 embedded they don't slide around.

NOTE Confidence: 0.984389344117647

00:42:57.620 --> 00:43:00.007 Then we stick in after the prostate.

NOTE Confidence: 0.984389344117647

00:43:00.010 --> 00:43:00.790 And they provide.

NOTE Confidence: 0.984389344117647

00:43:00.790 --> 00:43:01.050 Really.

NOTE Confidence: 0.984389344117647

00:43:01.050 --> 00:43:03.410 It's kind of like a GPS system for us.

NOTE Confidence: 0.984389344117647

00:43:03.410 --> 00:43:05.671 So when we see their relationship to

NOTE Confidence: 0.984389344117647

00:43:05.671 --> 00:43:07.818 the prostate on our planning scan,

NOTE Confidence: 0.984389344117647

00:43:07.820 --> 00:43:10.070 then when we line up patient up on the

NOTE Confidence: 0.984389344117647

00:43:10.070 --> 00:43:11.725 treatment day and do that conga MCT,

NOTE Confidence: 0.984389344117647

00:43:11.730 --> 00:43:13.830 we can really easily see the markers.

NOTE Confidence: 0.984389344117647

00:43:13.830 --> 00:43:15.559 Make sure those line and then we

NOTE Confidence: 0.984389344117647

00:43:15.559 --> 00:43:17.583 know that we're really on target down

NOTE Confidence: 0.984389344117647

00:43:17.583 --> 00:43:19.123 to the millimeter type accuracy.

NOTE Confidence: 0.984389344117647

00:43:19.130 --> 00:43:21.258 And the red arrow here is kind of

NOTE Confidence: 0.984389344117647

00:43:21.258 --> 00:43:23.069 pointing out what these look like.

NOTE Confidence: 0.984389344117647

00:43:23.070 --> 00:43:24.970 So nice bright light here.

NOTE Confidence: 0.984389344117647

00:43:24.970 --> 00:43:27.336 You can't mistake them for anything else.

NOTE Confidence: 0.984389344117647

00:43:27.340 --> 00:43:29.170 Uhm, they look anything else.

NOTE Confidence: 0.984389344117647

00:43:29.170 --> 00:43:30.930 They look sort of calcifications.

NOTE Confidence: 0.984389344117647

00:43:30.930 --> 00:43:31.488 The prostate,

NOTE Confidence: 0.984389344117647

00:43:31.488 --> 00:43:33.441 which are another nice thing for us

NOTE Confidence: 0.984389344117647

00:43:33.441 --> 00:43:35.554 to line up by so they really stand

NOTE Confidence: 0.984389344117647

00:43:35.554 --> 00:43:37.228 out and they're fantastic in helping

NOTE Confidence: 0.984389344117647

00:43:37.228 --> 00:43:42.080 us get that hyper accurate alignment.

NOTE Confidence: 0.984389344117647

00:43:42.080 --> 00:43:42.396 I.

NOTE Confidence: 0.984389344117647

00:43:42.396 --> 00:43:44.924 Nothing to touch on is in which I

NOTE Confidence: 0.984389344117647

00:43:44.924 --> 00:43:47.707 felt were just kind of getting into.

NOTE Confidence: 0.984389344117647

00:43:47.710 --> 00:43:49.866 Now is better imaging for prostate cancer,

NOTE Confidence: 0.984389344117647

00:43:49.870 --> 00:43:51.900 so the better we know where cancer

NOTE Confidence: 0.984389344117647

00:43:51.900 --> 00:43:53.390 is and where it isn't,

NOTE Confidence: 0.984389344117647

00:43:53.390 --> 00:43:55.604 the more aggressive we can be

NOTE Confidence: 0.984389344117647

00:43:55.604 --> 00:43:57.900 appropriately or or less aggressive,

NOTE Confidence: 0.984389344117647

00:43:57.900 --> 00:43:59.592 whatever matches and.

NOTE Confidence: 0.984389344117647

00:43:59.592 --> 00:44:01.848 When you're flying blind,

NOTE Confidence: 0.984389344117647

00:44:01.850 --> 00:44:03.890 sometimes you know you're not always.

NOTE Confidence: 0.984389344117647

00:44:03.890 --> 00:44:04.354 You know,

NOTE Confidence: 0.984389344117647

00:44:04.354 --> 00:44:05.746 doing you're doing what you think

NOTE Confidence: 0.984389344117647

00:44:05.746 --> 00:44:06.210 is best

NOTE Confidence: 0.98654547

00:44:06.263 --> 00:44:07.521 at the time, but sometimes you

NOTE Confidence: 0.98654547

00:44:07.521 --> 00:44:08.943 find out there is more there.

NOTE Confidence: 0.98654547

00:44:08.950 --> 00:44:10.800 So conventional imaging now includes

NOTE Confidence: 0.98654547

00:44:10.800 --> 00:44:13.662 things like MRI of the pelvis that Dr.

NOTE Confidence: 0.98654547

00:44:13.662 --> 00:44:14.806 Horton was showing us,

NOTE Confidence: 0.98654547

00:44:14.810 --> 00:44:17.610 see TV ad with pelvis bone scans.

NOTE Confidence: 0.98654547

00:44:17.610 --> 00:44:19.647 These are all very good test still

NOTE Confidence: 0.98654547

00:44:19.650 --> 00:44:20.770 buy insurance, they they were.

NOTE Confidence: 0.98654547

00:44:20.770 --> 00:44:21.906 They are excellent but

NOTE Confidence: 0.98654547

00:44:21.906 --> 00:44:23.326 we have two other tests.

NOTE Confidence: 0.98654547

00:44:23.330 --> 00:44:25.562 I say that come up fairly recently where

NOTE Confidence: 0.98654547

00:44:25.562 --> 00:44:27.597 there were still finding their place.

NOTE Confidence: 0.98654547

00:44:27.600 --> 00:44:29.568 Sometimes when she really needs them,

NOTE Confidence: 0.98654547

00:44:29.570 --> 00:44:30.630 but once called accident.

NOTE Confidence: 0.98654547

00:44:30.630 --> 00:44:32.590 And the other one one the names,

NOTE Confidence: 0.98654547

00:44:32.590 --> 00:44:34.928 the other one is called the clarified.

NOTE Confidence: 0.98654547

00:44:34.930 --> 00:44:38.746 Uhm, axemen it was approved first,

NOTE Confidence: 0.98654547

00:44:38.750 --> 00:44:40.470 so it's a type of these are both

NOTE Confidence: 0.98654547

00:44:40.470 --> 00:44:43.158 types of PET scans and this one is

NOTE Confidence: 0.98654547

00:44:43.158 --> 00:44:46.330 called simplified with Queen F18.

NOTE Confidence: 0.98654547

00:44:46.330 --> 00:44:49.390 So it's really what this is taking

NOTE Confidence: 0.98654547

00:44:49.390 --> 00:44:52.100 advantage of is that there was a

NOTE Confidence: 0.98654547

00:44:52.100 --> 00:44:54.130 thing called amino acid transporter,

NOTE Confidence: 0.98654547

00:44:54.130 --> 00:44:55.628 which is something on the surface of

NOTE Confidence: 0.98654547

00:44:55.628 --> 00:44:57.161 cells help to move things back and

NOTE Confidence: 0.98654547

00:44:57.161 --> 00:44:58.640 forth and they found is that one.

NOTE Confidence: 0.98654547

00:44:58.640 --> 00:45:00.132 This one particular one.

NOTE Confidence: 0.98654547

00:45:00.132 --> 00:45:03.172 Uh is up regulators more of it on

NOTE Confidence: 0.98654547

00:45:03.172 --> 00:45:06.092 prostate cancer cells and so this drug women.

NOTE Confidence: 0.98654547

00:45:06.100 --> 00:45:08.434 It's infused in the body gets

NOTE Confidence: 0.98654547

00:45:08.434 --> 00:45:09.990 preferentially dragged into these

NOTE Confidence: 0.98654547

00:45:10.061 --> 00:45:12.023 prostate cells and the reactive part

NOTE Confidence: 0.98654547

00:45:12.023 --> 00:45:14.638 of it's a little tag then shines out.

NOTE Confidence: 0.98654547

00:45:14.640 --> 00:45:16.608 You can see it on a PET scan.

NOTE Confidence: 0.98654547

00:45:16.610 --> 00:45:18.375 And this is really approved

NOTE Confidence: 0.98654547

00:45:18.375 --> 00:45:19.434 for prostate cancer.

NOTE Confidence: 0.98654547

00:45:19.440 --> 00:45:21.660 Well, to evaluate prostate cancer recurrence.

NOTE Confidence: 0.98654547

00:45:21.660 --> 00:45:23.065 So it's not really approved

NOTE Confidence: 0.98654547

00:45:23.065 --> 00:45:24.189 for a new diagnosis,

NOTE Confidence: 0.98654547

00:45:24.190 --> 00:45:26.182 but it's for men who had

NOTE Confidence: 0.98654547

00:45:26.182 --> 00:45:27.510 surgery had lesion before.

NOTE Confidence: 0.98654547

00:45:27.510 --> 00:45:28.530 PSA is looking really.

NOTE Confidence: 0.98654547

00:45:28.530 --> 00:45:30.372 PSA is coming back and we're looking

NOTE Confidence: 0.98654547

00:45:30.372 --> 00:45:32.164 to find out where the problem is.

NOTE Confidence: 0.98654547

00:45:32.170 --> 00:45:34.906 This can be an excellent test.

NOTE Confidence: 0.98654547

00:45:34.910 --> 00:45:36.554 And according to the

NOTE Confidence: 0.98654547

00:45:36.554 --> 00:45:37.787 company's other research,

NOTE Confidence: 0.98654547

00:45:37.790 --> 00:45:40.424 it may have its size is 68% action

NOTE Confidence: 0.98654547

00:45:40.424 --> 00:45:42.709 rate for current prostate cancer.

NOTE Confidence: 0.98654547

00:45:42.710 --> 00:45:43.517 And you know,

NOTE Confidence: 0.98654547

00:45:43.517 --> 00:45:45.400 I think it's still not a great

NOTE Confidence: 0.98654547

00:45:45.462 --> 00:45:46.926 test of the PSA is very,

NOTE Confidence: 0.98654547

00:45:46.930 --> 00:45:47.534 very low,

NOTE Confidence: 0.98654547

00:45:47.534 --> 00:45:49.648 but once it comes up past about

00:45:49.648 --> 00:45:50.849 .7 or .8 or so,

00:45:50.850 --> 00:45:52.452 pretty cool number start to get

00:45:52.452 --> 00:45:54.054 better and better chances of picking

00:45:54.054 --> 00:45:55.494 up where the problem might be.

00:45:57.640 --> 00:45:59.696 The other test, which is a little newer.

00:45:59.700 --> 00:46:00.970 Other couple versions of it,

00:46:00.970 --> 00:46:03.570 but it's a it's releasing Dr Patch like

00:46:03.570 --> 00:46:06.512 let's bring up this PS MA so PSA is

00:46:06.512 --> 00:46:08.666 prostate specific membrane and Jenn says

00:46:08.666 --> 00:46:10.922 it's special marker that's unique to

00:46:10.922 --> 00:46:13.300 prostate cells and pressing cancer cells.

00:46:13.300 --> 00:46:13.964 It's overexpressed.

00:46:13.964 --> 00:46:16.620 There's more of it on prostate cancer cells,

00:46:16.620 --> 00:46:18.828 and in fact, higher expression of it is

00:46:18.828 --> 00:46:20.958 linked to having hired recent scores,

NOTE Confidence: 0.97014339625

00:46:20.960 --> 00:46:23.095 so more aggressive toward type

NOTE Confidence: 0.97014339625

00:46:23.095 --> 00:46:24.376 and lower survival.

NOTE Confidence: 0.97014339625

00:46:24.380 --> 00:46:25.730 And if you have something which

NOTE Confidence: 0.97014339625

00:46:25.730 --> 00:46:26.890 is unique to prostate cell.

NOTE Confidence: 0.97014339625

00:46:26.890 --> 00:46:28.108 And you can take advantage of

NOTE Confidence: 0.97014339625

00:46:28.108 --> 00:46:29.350 it and try to imagine.

NOTE Confidence: 0.97014339625

00:46:29.350 --> 00:46:31.066 So that's what this test is.

NOTE Confidence: 0.97014339625

00:46:31.070 --> 00:46:33.919 It takes another type of pet marker,

NOTE Confidence: 0.97014339625

00:46:33.920 --> 00:46:35.320 attaches it to something that can go on.

NOTE Confidence: 0.97014339625

00:46:35.320 --> 00:46:38.238 Attached to that PS MA and

NOTE Confidence: 0.97014339625

00:46:38.238 --> 00:46:39.428 then shines out from there.

NOTE Confidence: 0.97014339625

00:46:39.430 --> 00:46:41.094 And this one is a little more flexible.

NOTE Confidence: 0.97014339625

00:46:41.100 --> 00:46:43.105 So this is approved both

NOTE Confidence: 0.97014339625

00:46:43.105 --> 00:46:44.709 for an initial workout,

NOTE Confidence: 0.97014339625

00:46:44.710 --> 00:46:46.798 so new diagnosis or for someone

NOTE Confidence: 0.97014339625

00:46:46.798 --> 00:46:49.010 who has a suspected recurrence.

NOTE Confidence: 0.97014339625

00:46:49.010 --> 00:46:51.285 So perhaps a little bit more flexible.

NOTE Confidence: 0.97014339625

00:46:51.290 --> 00:46:53.970 The company their data shows

NOTE Confidence: 0.97014339625

00:46:53.970 --> 00:46:55.302 that specificity, for example,

NOTE Confidence: 0.97014339625

00:46:55.302 --> 00:46:56.967 is one of the markets.

NOTE Confidence: 0.97014339625

00:46:56.970 --> 00:46:58.478 How to test it?

NOTE Confidence: 0.97014339625

00:46:58.478 --> 00:47:02.094 Is air quoting 97.9% versus 65%

NOTE Confidence: 0.97014339625

00:47:02.094 --> 00:47:04.578 with conventional imaging.

NOTE Confidence: 0.97014339625

00:47:04.580 --> 00:47:07.000 This kind of idealized numbers,

NOTE Confidence: 0.97014339625

00:47:07.000 --> 00:47:09.784 but point being that that we may have

NOTE Confidence: 0.97014339625

00:47:09.784 --> 00:47:13.168 a role here to bring on these pet scans

NOTE Confidence: 0.97014339625

00:47:13.168 --> 00:47:16.029 for better and better evaluation of.

NOTE Confidence: 0.97014339625

00:47:16.030 --> 00:47:18.830 Where cancer is here is as a comic

NOTE Confidence: 0.97014339625

00:47:18.830 --> 00:47:21.393 classic case from the company where

NOTE Confidence: 0.97014339625

00:47:21.393 --> 00:47:24.060 someone this is from one of their

NOTE Confidence: 0.97014339625

00:47:24.060 --> 00:47:25.691 studies where gentleman was images

NOTE Confidence: 0.97014339625

00:47:25.691 --> 00:47:27.770 with the bone scan yet seen on

NOTE Confidence: 0.97014339625

00:47:27.838 --> 00:47:29.791 the left and there's a little bit

NOTE Confidence: 0.97014339625

00:47:29.791 --> 00:47:31.780 of Hope's a little bit of uptake.

NOTE Confidence: 0.97014339625

00:47:31.780 --> 00:47:33.716 You can see here in this pelvic area.

NOTE Confidence: 0.97014339625

00:47:33.720 --> 00:47:34.887 Otherwise look fine.

NOTE Confidence: 0.97014339625

00:47:34.887 --> 00:47:38.018 They got the pet image and you see

NOTE Confidence: 0.97014339625

00:47:38.018 --> 00:47:39.808 all these all these black dots.

NOTE Confidence: 0.97014339625

00:47:39.808 --> 00:47:42.289 I smaller black dots are all cancer sizes.

NOTE Confidence: 0.97014339625

00:47:42.290 --> 00:47:42.880 For example,

NOTE Confidence: 0.97014339625

00:47:42.880 --> 00:47:44.650 much more cancer than they had

NOTE Confidence: 0.97014339625

00:47:44.650 --> 00:47:46.429 thought and that totally changed.

NOTE Confidence: 0.97014339625

00:47:46.430 --> 00:47:48.116 The man jumped out, for example.

NOTE Confidence: 0.781422944

00:47:50.920 --> 00:47:54.921 Using the same PS may. Target a doctor.

NOTE Confidence: 0.781422944

00:47:54.921 --> 00:47:57.356 Patrick was touching on that.

NOTE Confidence: 0.781422944

00:47:57.360 --> 00:47:59.025 There's a radiopharmaceutical,

NOTE Confidence: 0.781422944

00:47:59.025 --> 00:48:02.808 so using something called lutetium 177 which

NOTE Confidence: 0.781422944

00:48:02.808 --> 00:48:07.332 is reactive molecule tagged 2P SNAPSMA

NOTE Confidence: 0.781422944

00:48:07.332 --> 00:48:09.940 finding monkey put those in it hunts around.

NOTE Confidence: 0.781422944

00:48:09.940 --> 00:48:11.218 Sounds like a smart bomb idea,

NOTE Confidence: 0.781422944

00:48:11.220 --> 00:48:13.408 finding work crossing cancer

NOTE Confidence: 0.781422944

00:48:13.408 --> 00:48:16.143 is an attacking from there.

NOTE Confidence: 0.781422944

00:48:16.150 --> 00:48:17.554 This so far is really approved

NOTE Confidence: 0.781422944

00:48:17.554 --> 00:48:19.169 and being were not approved yet.

NOTE Confidence: 0.781422944

00:48:19.170 --> 00:48:21.634 We're looking for approval but has shown

NOTE Confidence: 0.781422944

00:48:21.634 --> 00:48:23.659 success in metastatic prostate cancer.

NOTE Confidence: 0.781422944

00:48:23.660 --> 00:48:27.348 No real role so far for earlier stage,

NOTE Confidence: 0.781422944

00:48:27.350 --> 00:48:30.050 although things approved metastatic tend

NOTE Confidence: 0.781422944

00:48:30.050 --> 00:48:31.808 to drift down towards further stage,

NOTE Confidence: 0.781422944

00:48:31.810 --> 00:48:34.512 but so far we're looking and hoping

NOTE Confidence: 0.781422944

00:48:34.512 --> 00:48:36.455 for approval expecting approval for

NOTE Confidence: 0.781422944

00:48:36.455 --> 00:48:37.875 at a static answer.

NOTE Confidence: 0.781422944

00:48:37.880 --> 00:48:39.064 Your system.

NOTE Confidence: 0.781422944

00:48:39.064 --> 00:48:40.248 Prostate cancer.

NOTE Confidence: 0.781422944

00:48:40.250 --> 00:48:44.210 Ah, so that's it for my time there.

NOTE Confidence: 0.781422944

00:48:44.210 --> 00:48:47.078 Stop sharing and let's.

NOTE Confidence: 0.781422944

00:48:47.080 --> 00:48:51.598 Let's jump into the question so.

NOTE Confidence: 0.781422944

00:48:51.600 --> 00:48:53.550 Never question was about PS MA.

NOTE Confidence: 0.981068126666667

00:48:56.330 --> 00:48:57.476 LU177 being used from your state.

NOTE Confidence: 0.981068126666667

00:48:57.480 --> 00:48:59.496 So again, currently no,

NOTE Confidence: 0.981068126666667

00:48:59.496 --> 00:49:02.660 but potentially later or modified version.

NOTE Confidence: 0.981068126666667

00:49:02.660 --> 00:49:06.512 And perhaps I think so far we're looking for.

NOTE Confidence: 0.981068126666667

00:49:06.520 --> 00:49:08.522 I guess the disadvantage of that therapy

NOTE Confidence: 0.981068126666667

00:49:08.522 --> 00:49:10.666 is there's only so much radiation you can

NOTE Confidence: 0.981068126666667

00:49:10.666 --> 00:49:12.719 get into one area with that technique,

NOTE Confidence: 0.981068126666667

00:49:12.720 --> 00:49:14.352 so I'm not sure if it ever really

NOTE Confidence: 0.981068126666667

00:49:14.352 --> 00:49:15.360 replace things like surgery,

NOTE Confidence: 0.981068126666667

00:49:15.360 --> 00:49:17.090 radiation, and the focal therapy,

NOTE Confidence: 0.981068126666667

00:49:17.090 --> 00:49:19.140 but certainly it looks to

NOTE Confidence: 0.981068126666667

00:49:19.140 --> 00:49:20.780 be helpful in metastatic.

NOTE Confidence: 0.981068126666667

00:49:20.780 --> 00:49:22.855 And other questions of cancers

NOTE Confidence: 0.981068126666667

00:49:22.855 --> 00:49:24.838 on the pelvic pelvis, wall,

NOTE Confidence: 0.981068126666667

00:49:24.838 --> 00:49:27.064 lymph nodes or some of US schools?

NOTE Confidence: 0.981068126666667

00:49:27.070 --> 00:49:28.210 Is it considered local?

NOTE Confidence: 0.981068126666667

00:49:28.210 --> 00:49:29.920 I would say would be called

NOTE Confidence: 0.981068126666667

00:49:29.983 --> 00:49:31.159 local slash regional,

NOTE Confidence: 0.981068126666667

00:49:31.160 --> 00:49:33.547 so that's still if it's really in

NOTE Confidence: 0.981068126666667

00:49:33.547 --> 00:49:35.818 the powers there and no issues

NOTE Confidence: 0.981068126666667

00:49:35.818 --> 00:49:38.890 that still curable situation.

NOTE Confidence: 0.981068126666667

00:49:38.890 --> 00:49:41.554 We tend to go after it with a combination

NOTE Confidence: 0.981068126666667

00:49:41.554 --> 00:49:44.441 of radiation and anti hormonal therapy,

NOTE Confidence: 0.981068126666667

00:49:44.441 --> 00:49:48.270 but there's some some options around that.

NOTE Confidence: 0.981068126666667

00:49:48.270 --> 00:49:51.645 I could see maybe this would

NOTE Confidence: 0.981068126666667

00:49:51.645 --> 00:49:53.180 be one for Doctor Poormon.

NOTE Confidence: 0.981068126666667

00:49:53.180 --> 00:49:55.378 What is the role of genomic testing

NOTE Confidence: 0.981068126666667

00:49:55.378 --> 00:49:56.730 like deciphering treatment choice,

NOTE Confidence: 0.981068126666667

00:49:56.730 --> 00:49:58.029 any outcomes data?

NOTE Confidence: 0.9763216

00:50:00.390 --> 00:50:01.220 So.

NOTE Confidence: 0.918831606153846

00:50:03.520 --> 00:50:05.278 Genomic testing is.

NOTE Confidence: 0.918831606153846

00:50:05.278 --> 00:50:08.208 Uhm, you were testing such

NOTE Confidence: 0.918831606153846

00:50:08.208 --> 00:50:11.029 as decyfer at Oncotype DX.

NOTE Confidence: 0.918831606153846

00:50:11.030 --> 00:50:13.970 That gives us a.

NOTE Confidence: 0.918831606153846

00:50:13.970 --> 00:50:16.910 The percentage chance of

NOTE Confidence: 0.918831606153846

00:50:16.910 --> 00:50:18.866 metastatic disease developing.

NOTE Confidence: 0.918831606153846

00:50:18.866 --> 00:50:22.778 Or the chance after prostate biopsy

NOTE Confidence: 0.918831606153846

00:50:22.778 --> 00:50:25.585 is positive that if we were to

NOTE Confidence: 0.918831606153846

00:50:25.585 --> 00:50:26.890 remove the prostate that there

NOTE Confidence: 0.918831606153846

00:50:26.951 --> 00:50:28.817 would be high risk disease present,

NOTE Confidence: 0.918831606153846

00:50:28.820 --> 00:50:31.490 that the biopsy did not catch?

NOTE Confidence: 0.918831606153846

00:50:31.490 --> 00:50:34.460 There is no long term outcomes

NOTE Confidence: 0.918831606153846

00:50:34.460 --> 00:50:36.440 data on this and.

NOTE Confidence: 0.918831606153846

00:50:36.440 --> 00:50:40.227 We do not have good data on

NOTE Confidence: 0.918831606153846

00:50:40.227 --> 00:50:42.974 which genomic test is better.

NOTE Confidence: 0.918831606153846

00:50:42.974 --> 00:50:47.596 In terms of which one to use at Yale,

NOTE Confidence: 0.918831606153846

00:50:47.596 --> 00:50:49.997 we tend to use decipher because it

NOTE Confidence: 0.918831606153846

00:50:49.997 --> 00:50:52.660 tests more genes than the other tests.

NOTE Confidence: 0.918831606153846

00:50:52.660 --> 00:50:55.180 I believe it S 22 genes.

NOTE Confidence: 0.918831606153846

00:50:55.180 --> 00:50:59.412 And we use it after biopsy in active

NOTE Confidence: 0.918831606153846

00:50:59.412 --> 00:51:01.890 surveillance to see if someone may

NOTE Confidence: 0.918831606153846

00:51:01.890 --> 00:51:03.990 have high risk disease and should

NOTE Confidence: 0.918831606153846

00:51:03.990 --> 00:51:05.668 have treatment earlier rather

NOTE Confidence: 0.918831606153846

00:51:05.668 --> 00:51:07.496 than having active surveillance.

NOTE Confidence: 0.98985326

00:51:10.710 --> 00:51:13.100 Excellent. Let's see,

NOTE Confidence: 0.98985326

00:51:13.100 --> 00:51:14.125 there's a question for early.

NOTE Confidence: 0.98985326

00:51:14.130 --> 00:51:15.824 I think we stopped for Doctor Patrylak,

NOTE Confidence: 0.98985326

00:51:15.830 --> 00:51:17.610 but came in after left

NOTE Confidence: 0.98985326

00:51:17.610 --> 00:51:19.034 asking for minute hormone.

NOTE Confidence: 0.98985326

00:51:19.040 --> 00:51:20.380 Hormone therapy is working.

NOTE Confidence: 0.98985326

00:51:20.380 --> 00:51:22.390 Are these new drugs can play?

NOTE Confidence: 0.98985326

00:51:22.390 --> 00:51:24.964 I would say the answer to that is yes,

NOTE Confidence: 0.98985326

00:51:24.970 --> 00:51:26.870 potentially to those other ones,

NOTE Confidence: 0.98985326

00:51:26.870 --> 00:51:29.640 but you'd have to ask Medical

NOTE Confidence: 0.98985326

00:51:29.640 --> 00:51:31.280 College for more detailed

NOTE Confidence: 0.98985326

00:51:31.280 --> 00:51:32.920 evaluation of particular case.

NOTE Confidence: 0.98985326

00:51:32.920 --> 00:51:33.948 Once things were starting

NOTE Confidence: 0.98985326

00:51:33.948 --> 00:51:34.976 to show some resistance,

NOTE Confidence: 0.970513581818182

00:51:35.170 --> 00:51:39.340 a lot of a lot of the drugs are for cash.

NOTE Confidence: 0.970513581818182

00:51:39.340 --> 00:51:42.700 Three resistant prostate cancer so.

NOTE Confidence: 0.970513581818182

00:51:42.700 --> 00:51:47.610 If the hormone therapy is working sometimes.

NOTE Confidence: 0.970513581818182

00:51:47.610 --> 00:51:50.316 A medical oncologist will hold off,

NOTE Confidence: 0.970513581818182

00:51:50.320 --> 00:51:52.480 but some of them are approved to be

NOTE Confidence: 0.970513581818182

00:51:52.480 --> 00:51:54.520 used in conjunction with hormone

NOTE Confidence: 0.970513581818182

00:51:54.520 --> 00:51:56.424 therapy such as abiraterone.

NOTE Confidence: 0.963294748

00:51:58.010 --> 00:52:01.880 Demo a Senior Center department

NOTE Confidence: 0.963294748

00:52:01.880 --> 00:52:04.070 asking for focal treatment is

NOTE Confidence: 0.963294748

00:52:04.070 --> 00:52:06.260 this an Apple samples choice?

NOTE Confidence: 0.963294748

00:52:06.260 --> 00:52:08.038 Is the surgery or is a newer,

NOTE Confidence: 0.963294748

00:52:08.040 --> 00:52:09.354 less invasive procedure?

NOTE Confidence: 0.963294748

00:52:09.354 --> 00:52:14.570 The same rate of success as the knife? So.

NOTE Confidence: 0.9874188125

00:52:15.470 --> 00:52:18.122 The focal treatments are not considered

NOTE Confidence: 0.9874188125

00:52:18.122 --> 00:52:21.070 Apple saddles. The standard of care

NOTE Confidence: 0.9874188125

00:52:21.070 --> 00:52:23.645 is still radiation or surgery.

NOTE Confidence: 0.9874188125

00:52:23.650 --> 00:52:27.186 And if we look at our EUA American

NOTE Confidence: 0.9874188125

00:52:27.186 --> 00:52:29.010 Urological Association guidelines,

NOTE Confidence: 0.9874188125

00:52:29.010 --> 00:52:31.778 which is also the same as the American

NOTE Confidence: 0.9874188125

00:52:31.778 --> 00:52:34.618 Society for Radiation Oncology guidelines,

NOTE Confidence: 0.9874188125

00:52:34.620 --> 00:52:37.146 they in fact state that specifically

NOTE Confidence: 0.9874188125

00:52:37.146 --> 00:52:40.169 focal therapy is not standard of care,

NOTE Confidence: 0.9874188125

00:52:40.170 --> 00:52:44.914 and that it's it's only been FDA approved

NOTE Confidence: 0.9874188125

00:52:44.914 --> 00:52:47.382 for destruction of prostate tissue.

NOTE Confidence: 0.9874188125

00:52:47.382 --> 00:52:50.190 It has not been FDA approved

NOTE Confidence: 0.9874188125

00:52:50.273 --> 00:52:53.238 specifically to treat prostate cancer.

NOTE Confidence: 0.9874188125

00:52:53.240 --> 00:52:59.330 So. While we can use these treatments.

NOTE Confidence: 0.9874188125

00:52:59.330 --> 00:53:02.180 There is, it's with the understanding

NOTE Confidence: 0.9874188125

00:53:02.180 --> 00:53:05.550 that it may be less effective.

NOTE Confidence: 0.9874188125

00:53:05.550 --> 00:53:07.050 The surgery or radiation,

NOTE Confidence: 0.9874188125

00:53:07.050 --> 00:53:10.699 but at the same time with less side effects.

NOTE Confidence: 0.9874188125

00:53:10.700 --> 00:53:12.388 So there's a tradeoff,

NOTE Confidence: 0.9874188125

00:53:12.388 --> 00:53:15.575 but also because it's not FDA approved

NOTE Confidence: 0.9874188125

00:53:15.575 --> 00:53:18.415 for treatment of prostate cancer.

NOTE Confidence: 0.9874188125

00:53:18.420 --> 00:53:21.006 A lot of insurances will not

NOTE Confidence: 0.9874188125

00:53:21.010 --> 00:53:22.228 cover these treatments.

NOTE Confidence: 0.984356117222222

00:53:25.640 --> 00:53:28.370 Next question, is it safe to say

NOTE Confidence: 0.984356117222222

00:53:28.370 --> 00:53:30.386 that machines altogether are more

NOTE Confidence: 0.984356117222222

00:53:30.386 --> 00:53:32.696 advanced than the old manual method?

NOTE Confidence: 0.984356117222222

00:53:32.700 --> 00:53:34.272 Certainly in radiation that

NOTE Confidence: 0.984356117222222

00:53:34.272 --> 00:53:36.630 they know machines are are far

NOTE Confidence: 0.984356117222222

00:53:36.699 --> 00:53:38.799 better than the prior machines.

NOTE Confidence: 0.984356117222222

00:53:38.800 --> 00:53:40.185 Old machines could only do

NOTE Confidence: 0.984356117222222

00:53:40.185 --> 00:53:41.293 technically that 3D technique.

NOTE Confidence: 0.984356117222222

00:53:41.300 --> 00:53:42.356 I was showing you,

NOTE Confidence: 0.984356117222222

00:53:42.356 --> 00:53:44.306 and really no modern center has a

NOTE Confidence: 0.984356117222222

00:53:44.306 --> 00:53:45.846 machine like that around anymore.

NOTE Confidence: 0.984356117222222

00:53:45.850 --> 00:53:47.302 That's useful prostate treatment,

NOTE Confidence: 0.984356117222222

00:53:47.302 --> 00:53:49.855 but it's been a world of difference

NOTE Confidence: 0.984356117222222

00:53:49.855 --> 00:53:51.697 with being able to do things

NOTE Confidence: 0.984356117222222

00:53:51.697 --> 00:53:54.332 like I am rtin SBRT to be able to

NOTE Confidence: 0.984356117222222

00:53:54.332 --> 00:53:56.628 escalate the dose to get better PSA

NOTE Confidence: 0.984356117222222

00:53:56.628 --> 00:53:58.608 control rates while also lowering

NOTE Confidence: 0.984356117222222

00:53:58.608 --> 00:54:00.870 the dose to knowledge issues.

NOTE Confidence: 0.984356117222222

00:54:00.870 --> 00:54:02.790 So definitely.

NOTE Confidence: 0.984356117222222

00:54:02.790 --> 00:54:04.222 Big trade,

NOTE Confidence: 0.984356117222222

00:54:04.222 --> 00:54:07.510 a positive trade that would you say,

NOTE Confidence: 0.984356117222222

00:54:07.510 --> 00:54:09.220 I'm sure they're also referring to

NOTE Confidence: 0.984356117222222

00:54:09.277 --> 00:54:11.549 serve in terms of robot versus non robotic.

NOTE Confidence: 0.984356117222222

00:54:11.550 --> 00:54:12.680 You have a comment there.

NOTE Confidence: 0.976590591428572

00:54:14.680 --> 00:54:16.402 In terms of, I'm sorry I

NOTE Confidence: 0.976590591428572

00:54:16.402 --> 00:54:18.230 didn't outcomes or or toxicity,

NOTE Confidence: 0.976590591428572

00:54:18.230 --> 00:54:23.494 so the outcomes in terms of cancer control.

NOTE Confidence: 0.976590591428572

00:54:23.500 --> 00:54:26.902 Uh, erections or a continents have

NOTE Confidence: 0.976590591428572

00:54:26.902 --> 00:54:30.691 not been proven to be different

NOTE Confidence: 0.976590591428572

00:54:30.691 --> 00:54:33.802 between open surgery and robotic.

NOTE Confidence: 0.976590591428572

00:54:33.802 --> 00:54:37.274 The differences are mainly in blood loss,

NOTE Confidence: 0.976590591428572

00:54:37.280 --> 00:54:39.192 the need for transfusion.

NOTE Confidence: 0.976590591428572

00:54:39.192 --> 00:54:43.068 It's very rare with the robot length of stay.

NOTE Confidence: 0.976590591428572

00:54:43.068 --> 00:54:45.420 Patients used to stay three or four

NOTE Confidence: 0.976590591428572

00:54:45.490 --> 00:54:47.842 days in the hospital with open surgery

NOTE Confidence: 0.976590591428572

00:54:47.842 --> 00:54:51.005 and now most patients go home the next

NOTE Confidence: 0.976590591428572

00:54:51.005 --> 00:54:53.103 day after robotic prostatectomy and.

NOTE Confidence: 0.976590591428572

00:54:53.103 --> 00:54:55.641 A faster recovery at home because

NOTE Confidence: 0.976590591428572

00:54:55.641 --> 00:54:57.600 the incisions are smaller,

NOTE Confidence: 0.976590591428572

00:54:57.600 --> 00:54:59.766 but the outcomes have not been

NOTE Confidence: 0.976590591428572

00:54:59.766 --> 00:55:02.369 proven to be better with the robot.

NOTE Confidence: 0.976590591428572

00:55:02.370 --> 00:55:03.678 That being said,

NOTE Confidence: 0.976590591428572

00:55:03.678 --> 00:55:06.730 most prostate surgery in the United States,

NOTE Confidence: 0.976590591428572

00:55:06.730 --> 00:55:08.032 the vast majority,

NOTE Confidence: 0.976590591428572

00:55:08.032 --> 00:55:10.112 probably way over 90% is

NOTE Confidence: 0.976590591428572

00:55:10.112 --> 00:55:11.480 done robotically these days.

NOTE Confidence: 0.973570818571428

00:55:14.700 --> 00:55:17.428 Uh, let's see next question as John six

NOTE Confidence: 0.973570818571428

00:55:17.428 --> 00:55:19.885 months ago had 28 days of radiation

NOTE Confidence: 0.973570818571428

00:55:19.885 --> 00:55:22.070 with three days of higher power,

NOTE Confidence: 0.973570818571428

00:55:22.070 --> 00:55:24.212 so it's three days of SBRT

NOTE Confidence: 0.973570818571428

00:55:24.212 --> 00:55:25.960 Boost or Kona Week on,

NOTE Confidence: 0.973570818571428

00:55:25.960 --> 00:55:27.885 which was nine and 62 years old.

NOTE Confidence: 0.973570818571428

00:55:27.890 --> 00:55:29.720 Feeling great checkup last week,

NOTE Confidence: 0.973570818571428

00:55:29.720 --> 00:55:31.526 which I expect in coming years and

NOTE Confidence: 0.973570818571428

00:55:31.526 --> 00:55:33.571 one of the options that there's

NOTE Confidence: 0.973570818571428

00:55:33.571 --> 00:55:35.046 progression coming up wrong.

NOTE Confidence: 0.973570818571428

00:55:35.046 --> 00:55:37.174 So you know, this is a Yale approach

NOTE Confidence: 0.973570818571428

00:55:37.174 --> 00:55:39.203 and some other signs or kindness really

NOTE Confidence: 0.973570818571428

00:55:39.203 --> 00:55:41.477 to kind of the best of two worlds.

NOTE Confidence: 0.973570818571428

00:55:41.480 --> 00:55:42.696 One is to get.

NOTE Confidence: 0.973570818571428

00:55:42.696 --> 00:55:44.520 The convenience and the lower side

NOTE Confidence: 0.973570818571428

00:55:44.587 --> 00:55:47.005 effects of the external beam technique,

NOTE Confidence: 0.973570818571428

00:55:47.010 --> 00:55:48.690 while being able to intensify,

NOTE Confidence: 0.973570818571428

00:55:48.690 --> 00:55:50.979 escalate that dose in a way that's

NOTE Confidence: 0.973570818571428

00:55:50.979 --> 00:55:53.119 not identical to breaking therapy,

NOTE Confidence: 0.973570818571428

00:55:53.120 --> 00:55:56.608 but is getting much closer to the idea

NOTE Confidence: 0.973570818571428

00:55:56.610 --> 00:55:58.106 because it seems to be a great draft.

NOTE Confidence: 0.973570818571428

00:55:58.110 --> 00:56:00.135 We've had a lot of success with that in

NOTE Confidence: 0.973570818571428

00:56:00.135 --> 00:56:02.250 the system and lodged in green from it.

NOTE Confidence: 0.973570818571428

00:56:02.250 --> 00:56:04.826 You know, if there is a recurrence later,

NOTE Confidence: 0.973570818571428

00:56:04.830 --> 00:56:06.310 we have to distinguish, and this is working.

NOTE Confidence: 0.973570818571428

00:56:06.310 --> 00:56:08.518 It comes in is this a recurrent where

NOTE Confidence: 0.973570818571428

00:56:08.518 --> 00:56:10.288 we've done great in the palace,

NOTE Confidence: 0.973570818571428

00:56:10.290 --> 00:56:12.370 but something popping up elsewhere?

NOTE Confidence: 0.973570818571428

00:56:12.370 --> 00:56:13.228 Or is it?

NOTE Confidence: 0.973570818571428

00:56:13.228 --> 00:56:14.658 Something has to be resisted,

NOTE Confidence: 0.973570818571428

00:56:14.660 --> 00:56:17.144 and it's it's really needs to

NOTE Confidence: 0.973570818571428

00:56:17.144 --> 00:56:18.800 be treated in prostate.

NOTE Confidence: 0.973570818571428

00:56:18.800 --> 00:56:20.596 And if it's elsewhere,

NOTE Confidence: 0.973570818571428

00:56:20.596 --> 00:56:22.841 that's usually where some like

NOTE Confidence: 0.973570818571428

00:56:22.841 --> 00:56:25.088 doctor petrol comes into play.

NOTE Confidence: 0.973570818571428

00:56:25.090 --> 00:56:26.884 Or maybe spot treated with radiation

NOTE Confidence: 0.973570818571428

00:56:26.884 --> 00:56:29.030 of just a limited number of spots,

NOTE Confidence: 0.973570818571428

00:56:29.030 --> 00:56:32.198 but it's back on the prostate area that is.

NOTE Confidence: 0.973570818571428

00:56:32.200 --> 00:56:33.732 That's a bigger challenge.

NOTE Confidence: 0.973570818571428

00:56:33.732 --> 00:56:34.498 You know,

NOTE Confidence: 0.973570818571428

00:56:34.500 --> 00:56:35.796 doing salvage prostatectomy

NOTE Confidence: 0.973570818571428

00:56:35.796 --> 00:56:38.388 is technically can be done is,

NOTE Confidence: 0.973570818571428

00:56:38.390 --> 00:56:39.915 but it's usually not because

NOTE Confidence: 0.973570818571428

00:56:39.915 --> 00:56:41.880 the the size of much worse.

NOTE Confidence: 0.973570818571428

00:56:41.880 --> 00:56:44.029 We do look at some of the.

NOTE Confidence: 0.973570818571428

00:56:44.030 --> 00:56:45.182 The focal therapies, though,

NOTE Confidence: 0.973570818571428

00:56:45.182 --> 00:56:46.334 like the doctor appointments,

NOTE Confidence: 0.973570818571428

00:56:46.340 --> 00:56:47.900 managing probation Tulsa.

NOTE Confidence: 0.973570818571428

00:56:47.900 --> 00:56:51.540 Things of that nature if I could.

NOTE Confidence: 0.973570818571428

00:56:51.540 --> 00:56:56.070 Yeah, I was asking.com comma so uh.

NOTE Confidence: 0.983462018

00:56:56.070 --> 00:56:59.542 Like Doctor Mcgibbon said,

NOTE Confidence: 0.983462018

00:56:59.542 --> 00:57:05.011 most urologists hesitate to do a prostate

NOTE Confidence: 0.983462018

00:57:05.011 --> 00:57:08.116 surgery prostate removal after radiation.

NOTE Confidence: 0.983462018

00:57:08.120 --> 00:57:09.137 That being said,

NOTE Confidence: 0.983462018

00:57:09.137 --> 00:57:11.770 there are some specialists who do do it.

NOTE Confidence: 0.983462018

00:57:11.770 --> 00:57:15.694 Our new chairman of Urology at

NOTE Confidence: 0.983462018

00:57:15.694 --> 00:57:18.874 Yale specializes in removal of

NOTE Confidence: 0.983462018

00:57:18.874 --> 00:57:22.620 prostate after radiation. Uhm?

NOTE Confidence: 0.983462018

00:57:22.620 --> 00:57:24.465 However, there are more risks

NOTE Confidence: 0.983462018

00:57:24.465 --> 00:57:26.758 and side effects that can happen

NOTE Confidence: 0.983462018

00:57:26.758 --> 00:57:28.658 after that type of surgery.

NOTE Confidence: 0.983462018

00:57:28.660 --> 00:57:32.670 The other option is cryoablation.

NOTE Confidence: 0.983462018

00:57:32.670 --> 00:57:34.956 Where you freeze the entire prostate,

NOTE Confidence: 0.983462018

00:57:34.960 --> 00:57:38.628 and that's actually in the NCCN guidelines,

NOTE Confidence: 0.983462018

00:57:38.630 --> 00:57:41.850 as an approved secondary treatment,

NOTE Confidence: 0.983462018

00:57:41.850 --> 00:57:45.707 a newer treatment is the Tulsa Pro.

NOTE Confidence: 0.983462018

00:57:45.710 --> 00:57:48.209 It's not FDA approved for prostate cancer,

NOTE Confidence: 0.983462018

00:57:48.210 --> 00:57:49.880 but.

NOTE Confidence: 0.983462018

00:57:49.880 --> 00:57:54.370 Uh, the technology is so impressive and

NOTE Confidence: 0.983462018

00:57:54.370 --> 00:57:57.938 it's so precise that I think eventually.

NOTE Confidence: 0.983462018

00:57:57.940 --> 00:58:01.244 This will be a perfect indication for it,

NOTE Confidence: 0.983462018

00:58:01.250 --> 00:58:03.618 and, uh, there is a machine like this

NOTE Confidence: 0.983462018

00:58:03.618 --> 00:58:06.240 like I mentioned in my presentation.

NOTE Confidence: 0.983462018

00:58:06.240 --> 00:58:07.316 It's in New Haven.

NOTE Confidence: 0.983462018

00:58:07.316 --> 00:58:10.447 It's one of only 11 in the country right now.

NOTE Confidence: 0.9879415

00:58:13.290 --> 00:58:14.860 Great, UM, it looks like a

NOTE Confidence: 0.9879415

00:58:14.860 --> 00:58:15.960 little tight in that they're

NOTE Confidence: 0.93881073

00:58:16.006 --> 00:58:17.608 having a little trouble hearing me.

NOTE Confidence: 0.93881073

00:58:17.610 --> 00:58:18.690 I'll try talk a little.

NOTE Confidence: 0.93881073

00:58:18.690 --> 00:58:19.870 Asher was a connection issue.

NOTE Confidence: 0.93881073

00:58:19.870 --> 00:58:21.226 I'll talk a little louder and

NOTE Confidence: 0.93881073

00:58:21.226 --> 00:58:22.410 closer to the screen here.

NOTE Confidence: 0.93881073

00:58:22.410 --> 00:58:25.430 Hopefully that will help, UM.

NOTE Confidence: 0.93881073

00:58:25.430 --> 00:58:27.416 Let's see, one is a question

NOTE Confidence: 0.93881073

00:58:27.416 --> 00:58:28.740 about when that lutetium

NOTE Confidence: 0.988910332222222

00:58:31.210 --> 00:58:32.198 177617 will be approved.

NOTE Confidence: 0.988910332222222

00:58:32.198 --> 00:58:33.433 It's been approved in Israel,

NOTE Confidence: 0.988910332222222

00:58:33.440 --> 00:58:34.970 Australia, weather in the US.

NOTE Confidence: 0.988910332222222

00:58:34.970 --> 00:58:36.090 Of course we don't know,

NOTE Confidence: 0.988910332222222

00:58:36.090 --> 00:58:38.124 but we're hoping within the next

NOTE Confidence: 0.988910332222222

00:58:38.124 --> 00:58:40.150 year that would be approved.

NOTE Confidence: 0.988910332222222

00:58:40.150 --> 00:58:42.590 It's somewhat challenging to deliver

NOTE Confidence: 0.988910332222222

00:58:42.590 --> 00:58:45.628 in terms of radiation safety and and

NOTE Confidence: 0.988910332222222

00:58:45.630 --> 00:58:46.974 having various resources available,

NOTE Confidence: 0.988910332222222

00:58:46.974 --> 00:58:49.271 so it'll be hard to really roll

NOTE Confidence: 0.988910332222222

00:58:49.271 --> 00:58:51.007 out in a massive way in the US,

NOTE Confidence: 0.988910332222222

00:58:51.010 --> 00:58:53.160 but I think it's definitely

NOTE Confidence: 0.988910332222222

00:58:53.160 --> 00:58:54.020 exciting treatment.

NOTE Confidence: 0.988910332222222

00:58:54.020 --> 00:58:57.100 Certainly looks offer in the mail system.

NOTE Confidence: 0.988910332222222

00:58:57.100 --> 00:58:58.576 Let's see what types of cancer

NOTE Confidence: 0.988910332222222

00:58:58.576 --> 00:58:59.560 found in the prostate.

NOTE Confidence: 0.988910332222222

00:58:59.560 --> 00:59:02.920 The foreman handle that one.

NOTE Confidence: 0.988910332222222

00:59:02.920 --> 00:59:03.180 Yeah,

NOTE Confidence: 0.991294966

00:59:03.190 --> 00:59:05.046 so most prostate cancers

NOTE Confidence: 0.991294966

00:59:05.046 --> 00:59:07.811 called adenocarcinoma or a

NOTE Confidence: 0.991294966

00:59:07.811 --> 00:59:11.646 cancer of the prostate glands.

NOTE Confidence: 0.991294966

00:59:11.650 --> 00:59:14.380 Uh, it's graded from 6 to 10,

NOTE Confidence: 0.991294966

00:59:14.380 --> 00:59:17.230 which is the Gleason score,

NOTE Confidence: 0.991294966

00:59:17.230 --> 00:59:18.830 with six being the lowest,

NOTE Confidence: 0.991294966

00:59:18.830 --> 00:59:21.168 least aggressive and 10 being the highest,

NOTE Confidence: 0.991294966

00:59:21.170 --> 00:59:22.206 most aggressive.

NOTE Confidence: 0.991294966

00:59:22.206 --> 00:59:25.314 Uh, it's very rare to have

NOTE Confidence: 0.991294966

00:59:25.314 --> 00:59:28.344 other types of prostate cancer

NOTE Confidence: 0.991294966

00:59:28.344 --> 00:59:30.900 other than adenocarcinoma.

NOTE Confidence: 0.991294966

00:59:30.900 --> 00:59:33.060 So that's the most common type.

NOTE Confidence: 0.98872006

00:59:34.470 --> 00:59:37.362 Yeah. Uh, let's see?

NOTE Confidence: 0.98872006

00:59:37.362 --> 00:59:40.330 Uh, next time is 76 years old.

NOTE Confidence: 0.98872006

00:59:40.330 --> 00:59:42.060 Had a project in 2015,

NOTE Confidence: 0.98872006

00:59:42.060 --> 00:59:44.046 the rising PSA over five years.

NOTE Confidence: 0.98872006

00:59:44.050 --> 00:59:46.270 What's the trigger for salvage radiation?

NOTE Confidence: 0.98872006

00:59:46.270 --> 00:59:48.210 This is a little tricky.

NOTE Confidence: 0.98872006

00:59:48.210 --> 00:59:49.725 I would say the the

NOTE Confidence: 0.98872006

00:59:49.725 --> 00:59:50.901 classic definition is 0.2.

NOTE Confidence: 0.98872006

00:59:50.901 --> 00:59:52.467 That's our technical definition of peace,

NOTE Confidence: 0.98872006

00:59:52.470 --> 00:59:54.620 of failure with these ultra

NOTE Confidence: 0.98872006

00:59:54.620 --> 00:59:56.370 sensitive PSA's or sometimes seeing

NOTE Confidence: 0.98872006

00:59:56.370 --> 00:59:58.965 you know levels of you know, .03.

NOTE Confidence: 0.98872006

00:59:58.965 --> 01:00:01.272 Going to point 06.12.

NOTE Confidence: 0.98872006

01:00:01.272 --> 01:00:04.968 So if we're seeing a distinct rising pattern,

NOTE Confidence: 0.98872006

01:00:04.970 --> 01:00:06.290 I think that's.

NOTE Confidence: 0.98872006

01:00:06.290 --> 01:00:08.224 That's enough to say, OK,

NOTE Confidence: 0.98872006

01:00:08.224 --> 01:00:09.268 there might be a problem here.

NOTE Confidence: 0.98872006

01:00:09.270 --> 01:00:12.750 We factor in how fast it's rising and that

NOTE Confidence: 0.98872006

01:00:12.750 --> 01:00:14.910 person's overall health and their age.

NOTE Confidence: 0.98872006

01:00:14.910 --> 01:00:16.440 Try consider whether this is

NOTE Confidence: 0.98872006

01:00:16.440 --> 01:00:17.970 worth going after with radiation,

NOTE Confidence: 0.98872006

01:00:17.970 --> 01:00:20.014 so not everybody has a rising PSA

NOTE Confidence: 0.98872006

01:00:20.014 --> 01:00:21.450 necessarily need salvage radiation.

NOTE Confidence: 0.98872006

01:00:21.450 --> 01:00:23.740 But I'd say 0.2 certainly

NOTE Confidence: 0.98872006

01:00:23.740 --> 01:00:25.572 is the classic trigger,

NOTE Confidence: 0.98872006

01:00:25.580 --> 01:00:29.115 and in some cases even lower if

NOTE Confidence: 0.98872006

01:00:29.115 --> 01:00:32.358 we have several rises in a row.

NOTE Confidence: 0.98872006

01:00:32.360 --> 01:00:34.100 Uhm, which scan is better?

NOTE Confidence: 0.98872006

01:00:34.100 --> 01:00:36.560 PS MA at the gallium.

NOTE Confidence: 0.98872006

01:00:36.560 --> 01:00:39.536 Basically G60 or PS MA with the flooring.

NOTE Confidence: 0.98872006

01:00:39.540 --> 01:00:41.269 I don't think there's any data that

NOTE Confidence: 0.98872006

01:00:41.269 --> 01:00:43.194 we're up to say that one is really

NOTE Confidence: 0.98872006

01:00:43.194 --> 01:00:45.308 bad and the other is just a different

NOTE Confidence: 0.98872006

01:00:45.308 --> 01:00:47.168 radioactive tag shining out the F18

NOTE Confidence: 0.98872006

01:00:47.168 --> 01:00:49.280 people feel that they are better

NOTE Confidence: 0.98872006

01:00:49.280 --> 01:00:51.660 because the half life is longer,

NOTE Confidence: 0.98872006

01:00:51.660 --> 01:00:54.280 so we imaging may be easier to pick it up.

NOTE Confidence: 0.98872006

01:00:54.280 --> 01:00:56.824 I think these are.

NOTE Confidence: 0.98872006

01:00:56.824 --> 01:00:57.460 Subtleties,

NOTE Confidence: 0.98872006

01:00:57.460 --> 01:01:00.580 I would say either is is great and

NOTE Confidence: 0.98872006

01:01:00.580 --> 01:01:02.516 I'm sure it'll be one winner in the

NOTE Confidence: 0.98872006

01:01:02.516 --> 01:01:04.900 US in terms of what's more available,

NOTE Confidence: 0.98872006

01:01:04.900 --> 01:01:06.790 but I wouldn't say that one is

NOTE Confidence: 0.98872006

01:01:06.790 --> 01:01:08.160 necessarily better than the other.

NOTE Confidence: 0.98872006

01:01:08.160 --> 01:01:08.562 Uhm,

NOTE Confidence: 0.98872006

01:01:08.562 --> 01:01:10.974 prostate out or stay in with

NOTE Confidence: 0.98872006

01:01:10.974 --> 01:01:12.849 metastatic seems different for some,

NOTE Confidence: 0.98872006

01:01:12.850 --> 01:01:16.586 although my sex spread hip pain in response.

NOTE Confidence: 0.98872006

01:01:16.590 --> 01:01:19.310 Uhm, while becoming about radiation,

NOTE Confidence: 0.98872006

01:01:19.310 --> 01:01:20.306 but that part, you have a.

NOTE Confidence: 0.98872006

01:01:20.310 --> 01:01:22.914 You have a comment about prostatectomy

NOTE Confidence: 0.98872006

01:01:22.914 --> 01:01:24.650 for metastatic prostate cancer.

NOTE Confidence: 0.98872006

01:01:24.650 --> 01:01:25.778 Although metastatic prostate

NOTE Confidence: 0.971150883333333

01:01:26.250 --> 01:01:29.750 so this has been a topic that

NOTE Confidence: 0.971150883333333

01:01:29.750 --> 01:01:31.969 we've been debating a lot.

NOTE Confidence: 0.971150883333333

01:01:31.970 --> 01:01:35.589 I know we've discussed it between ourselves.

NOTE Confidence: 0.971150883333333

01:01:35.590 --> 01:01:40.566 Yeah, there's no good data to show that.

NOTE Confidence: 0.971150883333333

01:01:40.570 --> 01:01:43.390 Prostate prostate ectomy improves survival.

NOTE Confidence: 0.971150883333333

01:01:43.390 --> 01:01:44.806 However there is.

NOTE Confidence: 0.971150883333333

01:01:44.806 --> 01:01:47.166 There are some small retrospective

NOTE Confidence: 0.971150883333333

01:01:47.166 --> 01:01:49.860 studies that show it can decrease

NOTE Confidence: 0.971150883333333

01:01:49.860 --> 01:01:53.129 symptoms in the pelvis in the future,

NOTE Confidence: 0.971150883333333

01:01:53.130 --> 01:01:55.350 such as issues with urination,

NOTE Confidence: 0.971150883333333

01:01:55.350 --> 01:02:00.428 or issues with blockages of the ureters.

NOTE Confidence: 0.971150883333333

01:02:00.430 --> 01:02:03.534 But there there's no good data to show

NOTE Confidence: 0.971150883333333

01:02:03.534 --> 01:02:06.757 that it improves survival right now.

NOTE Confidence: 0.971150883333333

01:02:06.760 --> 01:02:07.732 That being said,

NOTE Confidence: 0.971150883333333

01:02:07.732 --> 01:02:10.463 I believe this is something that is being

NOTE Confidence: 0.971150883333333

01:02:10.463 --> 01:02:12.815 investigated right now at MD Anderson.

NOTE Confidence: 0.971150883333333

01:02:12.820 --> 01:02:15.598 I think there's a trial there

NOTE Confidence: 0.971150883333333

01:02:15.598 --> 01:02:17.450 for something like this.

NOTE Confidence: 0.971150883333333

01:02:17.450 --> 01:02:17.650 Yeah,

NOTE Confidence: 0.979884402142857

01:02:17.660 --> 01:02:19.556 we have. There's a little bit more data

NOTE Confidence: 0.979884402142857

01:02:19.556 --> 01:02:21.450 I would say for prostate radiation.

NOTE Confidence: 0.979884402142857

01:02:21.450 --> 01:02:22.134 Although it's it's,

NOTE Confidence: 0.979884402142857

01:02:22.134 --> 01:02:23.706 you know, not huge numbers.

NOTE Confidence: 0.979884402142857

01:02:23.706 --> 01:02:26.310 There's a travel to Stampede trial there.

NOTE Confidence: 0.979884402142857

01:02:26.310 --> 01:02:27.910 She several sections of it,

NOTE Confidence: 0.979884402142857

01:02:27.910 --> 01:02:30.691 but one of them was looking at a local

NOTE Confidence: 0.979884402142857

01:02:30.691 --> 01:02:32.878 therapy like radiation and there did seem

NOTE Confidence: 0.979884402142857

01:02:32.878 --> 01:02:34.987 to be at least a trend towards better

NOTE Confidence: 0.979884402142857

01:02:34.987 --> 01:02:37.249 overall survival wasn't a huge difference,

NOTE Confidence: 0.979884402142857

01:02:37.250 --> 01:02:39.880 but there was some difference.

NOTE Confidence: 0.979884402142857

01:02:39.880 --> 01:02:42.085 And the classic way that we do that is

NOTE Confidence: 0.979884402142857

01:02:42.085 --> 01:02:44.156 with twenty sessions to the process,

NOTE Confidence: 0.979884402142857

01:02:44.160 --> 01:02:45.819 we treat the processing of 20 sections

NOTE Confidence: 0.979884402142857

01:02:45.819 --> 01:02:47.857 and then if there are a few bone spots,

NOTE Confidence: 0.979884402142857

01:02:47.860 --> 01:02:49.580 we go after those aggressively.

NOTE Confidence: 0.979884402142857

01:02:49.580 --> 01:02:50.206 If there.

NOTE Confidence: 0.979884402142857

01:02:50.206 --> 01:02:51.771 I think if I'm reading

NOTE Confidence: 0.979884402142857

01:02:51.771 --> 01:02:53.320 correctly 6 to 7 spots.

NOTE Confidence: 0.979884402142857

01:02:53.320 --> 01:02:53.880 That's Kyle,

NOTE Confidence: 0.979884402142857

01:02:53.880 --> 01:02:55.280 exceeding the number really shown

NOTE Confidence: 0.979884402142857

01:02:55.280 --> 01:02:57.265 in trials to make sense to go

NOTE Confidence: 0.979884402142857

01:02:57.265 --> 01:02:58.357 after all those aggressively.

NOTE Confidence: 0.979884402142857

01:02:58.360 --> 01:03:00.624 So we usually just go after the ones

NOTE Confidence: 0.979884402142857

01:03:00.624 --> 01:03:03.584 that are painful and but still give

NOTE Confidence: 0.979884402142857

01:03:03.584 --> 01:03:06.410 a treatment to to the prostate.

NOTE Confidence: 0.979884402142857

01:03:06.410 --> 01:03:10.308 Uh, let's see next the PSA of 144

NOTE Confidence: 0.979884402142857

01:03:10.308 --> 01:03:11.898 medication tried now in chemotherapy

NOTE Confidence: 0.979884402142857

01:03:11.898 --> 01:03:13.819 should really should be tried first.

NOTE Confidence: 0.979884402142857

01:03:13.820 --> 01:03:16.890 Why was it started suggested?

NOTE Confidence: 0.979884402142857

01:03:16.890 --> 01:03:20.066 You know it's a difficult to you know,

NOTE Confidence: 0.979884402142857

01:03:20.070 --> 01:03:22.156 made up for having more than survive

NOTE Confidence: 0.979884402142857

01:03:22.156 --> 01:03:24.378 difficult to answer on a platform like this.

NOTE Confidence: 0.979884402142857

01:03:24.380 --> 01:03:26.484 Is there a lot of nuances to that?

NOTE Confidence: 0.979884402142857

01:03:26.490 --> 01:03:28.436 There might be a role for radiation

NOTE Confidence: 0.979884402142857

01:03:28.436 --> 01:03:28.992 is surgery,

NOTE Confidence: 0.979884402142857

01:03:29.000 --> 01:03:31.223 but I'd say I have to have a more

NOTE Confidence: 0.979884402142857

01:03:31.223 --> 01:03:32.828 formal consultation to really dig

NOTE Confidence: 0.979884402142857

01:03:32.828 --> 01:03:35.750 into what could be done a lot to pens

NOTE Confidence: 0.979884402142857

01:03:35.750 --> 01:03:37.604 on what's really seen on imaging.

NOTE Confidence: 0.979884402142857

01:03:37.610 --> 01:03:41.516 Not just PSA, but with the imaging is right.

NOTE Confidence: 0.984134093333333

01:03:41.530 --> 01:03:43.798 Yeah, I would agree with that,

NOTE Confidence: 0.984134093333333

01:03:43.800 --> 01:03:46.050 but most patients with a PSA.

NOTE Confidence: 0.984134093333333

01:03:46.050 --> 01:03:50.910 Over 100 will have some metastatic

NOTE Confidence: 0.984134093333333

01:03:50.910 --> 01:03:54.098 disease and the risks of surgery.

NOTE Confidence: 0.98652867375

01:03:56.400 --> 01:03:59.052 There are there are risks to

NOTE Confidence: 0.98652867375

01:03:59.052 --> 01:04:02.128 surgery and AY without being a

NOTE Confidence: 0.98652867375

01:04:02.128 --> 01:04:04.316 clear benefit within patient.

NOTE Confidence: 0.98652867375

01:04:04.320 --> 01:04:06.456 If they have significant

NOTE Confidence: 0.98652867375

01:04:06.456 --> 01:04:08.670 metastatic disease so. Uh.

NOTE Confidence: 0.98652867375

01:04:08.670 --> 01:04:12.940 I think most urologists would agree that.

NOTE Confidence: 0.98652867375

01:04:12.940 --> 01:04:16.062 Local therapy, unless it's like what you

NOTE Confidence: 0.98652867375

01:04:16.062 --> 01:04:18.950 just mentioned in the Stampede trial.

NOTE Confidence: 0.98652867375

01:04:18.950 --> 01:04:21.950 Uhm? Is usually not indicated.

NOTE Confidence: 0.981451430714286

01:04:22.790 --> 01:04:23.714 Yeah, even Stampede.

NOTE Confidence: 0.981451430714286

01:04:23.714 --> 01:04:25.562 It was really what for what

NOTE Confidence: 0.981451430714286

01:04:25.562 --> 01:04:27.498 they call low metastatic burden.

NOTE Confidence: 0.981451430714286

01:04:27.500 --> 01:04:28.852 So men who had a high in this

NOTE Confidence: 0.981451430714286

01:04:28.852 --> 01:04:30.315 area so really a lot of spots

NOTE Confidence: 0.981451430714286

01:04:30.315 --> 01:04:31.838 there was no advantage to treating

NOTE Confidence: 0.981451430714286

01:04:31.838 --> 01:04:33.038 with radiation processing,

NOTE Confidence: 0.981451430714286

01:04:33.040 --> 01:04:35.820 so it's particular they would

NOTE Confidence: 0.981451430714286

01:04:35.820 --> 01:04:37.550 need more information there.

NOTE Confidence: 0.981451430714286

01:04:37.550 --> 01:04:39.890 Uh, is there any efficacy with

NOTE Confidence: 0.981451430714286

01:04:39.890 --> 01:04:42.884 having seeds use a second time using

NOTE Confidence: 0.981451430714286

01:04:42.884 --> 01:04:44.572 extended after metastatic condition?

NOTE Confidence: 0.981451430714286

01:04:44.580 --> 01:04:46.490 We basically never do seed

NOTE Confidence: 0.981451430714286

01:04:46.490 --> 01:04:48.018 implant a second time.

NOTE Confidence: 0.981451430714286

01:04:48.020 --> 01:04:50.485 There is some very early

NOTE Confidence: 0.981451430714286

01:04:50.485 --> 01:04:52.426 data now on radiation,

NOTE Confidence: 0.981451430714286

01:04:52.426 --> 01:04:55.618 so someone had strong being furtively add.

NOTE Confidence: 0.981451430714286

01:04:55.620 --> 01:04:56.750 We've got to seize later,

NOTE Confidence: 0.981451430714286

01:04:56.750 --> 01:05:01.180 or we add stereotactic radiation

NOTE Confidence: 0.981451430714286

01:05:01.180 --> 01:05:03.340 that's that is done in highly

NOTE Confidence: 0.981451430714286

01:05:03.340 --> 01:05:05.190 selected number of cases where

NOTE Confidence: 0.981451430714286

01:05:05.190 --> 01:05:07.194 we feel very confident just in

NOTE Confidence: 0.981451430714286

01:05:07.194 --> 01:05:09.200 the gland and other options.

NOTE Confidence: 0.981451430714286

01:05:09.200 --> 01:05:11.960 But not on the table.

NOTE Confidence: 0.981451430714286

01:05:11.960 --> 01:05:14.024 But you know the details that

NOTE Confidence: 0.981451430714286

01:05:14.024 --> 01:05:15.056 are super important.

NOTE Confidence: 0.981451430714286

01:05:15.060 --> 01:05:16.588 The toxins he does tend to be higher,

NOTE Confidence: 0.981451430714286

01:05:16.590 --> 01:05:19.587 so it's a possibility not to do seeds twice,

NOTE Confidence: 0.981451430714286

01:05:19.590 --> 01:05:21.882 but to do two different kinds

NOTE Confidence: 0.981451430714286

01:05:21.882 --> 01:05:23.800 of radiation twice extended is

NOTE Confidence: 0.981451430714286

01:05:23.800 --> 01:05:26.110 definitely used as one of the

NOTE Confidence: 0.981451430714286

01:05:26.110 --> 01:05:28.738 drugs in the metastatic setting,

NOTE Confidence: 0.981451430714286

01:05:28.740 --> 01:05:30.630 and there are some trials looking

NOTE Confidence: 0.981451430714286

01:05:30.630 --> 01:05:35.340 at using it in high risk.

NOTE Confidence: 0.981451430714286

01:05:35.340 --> 01:05:36.804 Setting up more upfront,

NOTE Confidence: 0.981451430714286

01:05:36.804 --> 01:05:39.870 but those are more in the in

NOTE Confidence: 0.981451430714286

01:05:39.870 --> 01:05:41.610 trials currently.

110

NOTE Confidence: 0.981451430714286

01:05:41.610 --> 01:05:42.126 Uhm,

NOTE Confidence: 0.981451430714286

01:05:42.126 --> 01:05:44.706 what's the best treatment for

NOTE Confidence: 0.981451430714286

01:05:44.706 --> 01:05:46.770 semi advanced prostate cancer

NOTE Confidence: 0.981451430714286

01:05:46.853 --> 01:05:48.869 bypassing or voiding ADT?

NOTE Confidence: 0.981451430714286

01:05:48.870 --> 01:05:49.376 You know,

NOTE Confidence: 0.981451430714286

01:05:49.376 --> 01:05:51.147 some my view will get Doctor Barnes

NOTE Confidence: 0.981451430714286

01:05:51.147 --> 01:05:53.133 and 2nd is men who have intermediate

NOTE Confidence: 0.981451430714286

01:05:53.133 --> 01:05:54.670 or high risk prostate cancer.

NOTE Confidence: 0.981451430714286

01:05:54.670 --> 01:05:57.280 So high reasons for higher PSA.

NOTE Confidence: 0.981451430714286

01:05:57.280 --> 01:05:57.878 You know,

NOTE Confidence: 0.981451430714286

01:05:57.878 --> 01:05:59.672 although we don't have really great

NOTE Confidence: 0.981451430714286

01:05:59.672 --> 01:06:00.830 data comparing radiation surgery

NOTE Confidence: 0.981451430714286

01:06:00.830 --> 01:06:02.862 for a lot of those things I think

NOTE Confidence: 0.981451430714286

01:06:02.915 --> 01:06:04.560 are best outcomes with radiation.

NOTE Confidence: 0.981451430714286

01:06:04.560 --> 01:06:05.946 For those intermediate,

NOTE Confidence: 0.981451430714286

01:06:05.946 --> 01:06:07.794 higher with anti testosterone

NOTE Confidence: 0.981451430714286

01:06:07.794 --> 01:06:10.900 therapy or ADT and I think if we're

NOTE Confidence: 0.981451430714286

01:06:10.900 --> 01:06:13.690 trying to say if cure is number 1.

NOTE Confidence: 0.981451430714286

01:06:13.690 --> 01:06:15.468 And A and a gentleman does not

NOTE Confidence: 0.981451430714286

01:06:15.468 --> 01:06:17.574 want to do ADT, and I say, well,

NOTE Confidence: 0.981451430714286

01:06:17.574 --> 01:06:18.854 I think we're definitely giving

NOTE Confidence: 0.981451430714286

01:06:18.854 --> 01:06:20.488 something up in terms of pure potential.

NOTE Confidence: 0.981451430714286

01:06:20.490 --> 01:06:22.737 So I think if if radiation and

NOTE Confidence: 0.981451430714286

01:06:22.737 --> 01:06:25.248 antitrust star or equivalent to surgery,

NOTE Confidence: 0.981451430714286

01:06:25.250 --> 01:06:26.630 which I think they often are,

NOTE Confidence: 0.981451430714286

01:06:26.630 --> 01:06:28.686 we can argue that if we're not doing

NOTE Confidence: 0.981451430714286

01:06:28.686 --> 01:06:30.608 the ADT for some advance cases,

NOTE Confidence: 0.981451430714286

01:06:30.610 --> 01:06:31.738 then I'm going to get surgery

NOTE Confidence: 0.981451430714286

01:06:31.738 --> 01:06:32.909 number one and ready shipper 2.

NOTE Confidence: 0.981451430714286

01:06:32.910 --> 01:06:35.880 But for a guy who does not want surgery,

NOTE Confidence: 0.981451430714286

01:06:35.880 --> 01:06:37.104 not want antivir,

NOTE Confidence: 0.981451430714286

01:06:37.104 --> 01:06:39.144 model original install an option.

NOTE Confidence: 0.981451430714286

01:06:39.150 --> 01:06:40.966 It's just not as good as this one.

NOTE Confidence: 0.981451430714286

01:06:40.970 --> 01:06:42.930 We have the drug with.

NOTE Confidence: 0.981451430714286

01:06:42.930 --> 01:06:44.106 What do you think?

NOTE Confidence: 0.981451430714286

01:06:44.106 --> 01:06:44.400 Or

NOTE Confidence: 0.98357791875

01:06:44.610 --> 01:06:47.794 yeah, I I think it would depend on

NOTE Confidence: 0.98357791875

01:06:47.800 --> 01:06:50.050 what you're defining as semi advanced.

NOTE Confidence: 0.98357791875

01:06:50.050 --> 01:06:53.066 If if someone has a Gleason score of

NOTE Confidence: 0.98357791875

01:06:53.066 --> 01:06:56.390 nine but it on MRI, the lesion is

NOTE Confidence: 0.98357791875

01:06:56.390 --> 01:06:58.749 clearly completely inside the prostate.

NOTE Confidence: 0.98357791875

01:06:58.750 --> 01:07:02.398 And you can remove the prostate.

NOTE Confidence: 0.98357791875

01:07:02.400 --> 01:07:04.176 With and there's no evidence of

NOTE Confidence: 0.98357791875

01:07:04.176 --> 01:07:06.018 disease in the lymph nodes then

NOTE Confidence: 0.98357791875

01:07:06.018 --> 01:07:07.866 surgery may be a good option.

NOTE Confidence: 0.98357791875

01:07:07.870 --> 01:07:10.810 However, if someone has disease in

NOTE Confidence: 0.98357791875

01:07:10.810 --> 01:07:13.580 the Seminole vesicles it's unlikely,

NOTE Confidence: 0.98357791875

01:07:13.580 --> 01:07:16.428 or in the lymph nodes that surgery alone.

NOTE Confidence: 0.98357791875

01:07:16.430 --> 01:07:18.809 Will be currative.

NOTE Confidence: 0.98357791875

01:07:18.810 --> 01:07:21.379 So the best chance at cure like

NOTE Confidence: 0.98357791875

01:07:21.379 --> 01:07:23.207 like you said, is.

NOTE Confidence: 0.98357791875

01:07:23.207 --> 01:07:29.023 Uh, at 18 months of ADT with uh.

NOTE Confidence: 0.98357791875

01:07:29.030 --> 01:07:31.330 With the radiation therapy.

NOTE Confidence: 0.99024016

01:07:32.780 --> 01:07:36.072 Yeah. Let's see, do we have survival

NOTE Confidence: 0.99024016

01:07:36.072 --> 01:07:37.570 rates for advanced prostate cancer?

NOTE Confidence: 0.99024016

01:07:37.570 --> 01:07:40.490 That or castrate resistant

NOTE Confidence: 0.99024016

01:07:40.490 --> 01:07:43.410 and high Gleason values?

NOTE Confidence: 0.99024016

01:07:43.410 --> 01:07:45.432 Generally when we talk about Patrick

NOTE Confidence: 0.99024016

01:07:45.432 --> 01:07:47.202 resistant, it's not just advanced,

NOTE Confidence: 0.99024016

01:07:47.202 --> 01:07:48.634 but it's meta static.

NOTE Confidence: 0.99024016

01:07:48.640 --> 01:07:50.842 We don't usually make that distinction

NOTE Confidence: 0.99024016

01:07:50.842 --> 01:07:52.310 for localized prostate cancer,

NOTE Confidence: 0.99024016

01:07:52.310 --> 01:07:53.750 so that's what we're talking about.

NOTE Confidence: 0.99024016

01:07:53.750 --> 01:07:55.750 I it's probably even better.

NOTE Confidence: 0.99024016

01:07:55.750 --> 01:07:57.349 Doctor Petrolite question.

NOTE Confidence: 0.99024016

01:07:57.349 --> 01:07:58.948 You know how?

NOTE Confidence: 0.99024016

01:07:58.950 --> 01:08:01.950 What, what prognosis is more exactly

NOTE Confidence: 0.99024016

01:08:01.950 --> 01:08:05.217 definitely things get much trickier when

NOTE Confidence: 0.99024016

01:08:05.217 --> 01:08:08.167 castrate resistance come comes around.

NOTE Confidence: 0.99024016

01:08:08.170 --> 01:08:09.255 And you know life expectancy

NOTE Confidence: 0.99024016

01:08:09.255 --> 01:08:10.123 used to getting shorter.

NOTE Confidence: 0.99024016

01:08:10.130 --> 01:08:12.328 It's definitely getting a lot longer there,

NOTE Confidence: 0.99024016

01:08:12.330 --> 01:08:13.830 but I don't have a figure out the top of my.

NOTE Confidence: 0.99024016

01:08:13.830 --> 01:08:14.580 Yeah,

NOTE Confidence: 0.96768366625

01:08:14.610 --> 01:08:16.760 each of those medications that

NOTE Confidence: 0.96768366625

01:08:16.760 --> 01:08:19.106 Doctor Petra lack mentioned usually

NOTE Confidence: 0.96768366625

01:08:19.106 --> 01:08:21.218 increases survival on average

NOTE Confidence: 0.96768366625

01:08:21.218 --> 01:08:24.200 somewhere between four to six months.

NOTE Confidence: 0.96768366625

01:08:24.200 --> 01:08:27.098 And if you combine them all together,

NOTE Confidence: 0.96768366625

01:08:27.100 --> 01:08:28.785 it's it's being stretched out

NOTE Confidence: 0.96768366625

01:08:28.785 --> 01:08:30.810 for a number of years now.

NOTE Confidence: 0.96768366625

01:08:30.810 --> 01:08:35.620 A docetaxel uh up front,

NOTE Confidence: 0.96768366625

01:08:35.620 --> 01:08:37.546 I believe, had the best survival,

NOTE Confidence: 0.96768366625

01:08:37.550 --> 01:08:40.555 and I think it was. It.

NOTE Confidence: 0.96768366625

01:08:40.555 --> 01:08:43.045 Somewhere between 12 and 15 months,

NOTE Confidence: 0.96768366625

01:08:43.050 --> 01:08:45.662 I don't remember the exact number, uh?

NOTE Confidence: 0.96768366625

01:08:45.662 --> 01:08:48.674 But if you Add all those

NOTE Confidence: 0.96768366625

01:08:48.674 --> 01:08:51.890 treatments that he was discussing,

NOTE Confidence: 0.96768366625

01:08:51.890 --> 01:08:54.594 people can live a number of years even

NOTE Confidence: 0.96768366625

01:08:54.594 --> 01:08:56.459 with metastatic castrate resistant

NOTE Confidence: 0.96768366625

01:08:56.460 --> 01:08:59.435 and you have to also remember that.

NOTE Confidence: 0.96768366625

01:08:59.440 --> 01:09:01.267 They live a number of years before

NOTE Confidence: 0.96768366625

01:09:01.267 --> 01:09:02.590 it becomes castrate resistant,

NOTE Confidence: 0.96768366625

01:09:02.590 --> 01:09:05.250 even if it's metastatic with

NOTE Confidence: 0.96768366625

01:09:05.250 --> 01:09:07.378 the hormone treatments so.

NOTE Confidence: 0.96768366625

01:09:07.380 --> 01:09:08.919 Uh, I think.

NOTE Confidence: 0.96768366625

01:09:08.919 --> 01:09:11.484 With the new new advances,

NOTE Confidence: 0.96768366625

01:09:11.490 --> 01:09:13.700 this is going to continue.

NOTE Confidence: 0.96768366625

01:09:13.700 --> 01:09:14.290 To grow.

NOTE Confidence: 0.93806407047619

01:09:16.790 --> 01:09:19.086 Uh, I think related to what Doctor was

NOTE Confidence: 0.93806407047619

01:09:19.086 --> 01:09:21.013 saying is this next question Abarat

NOTE Confidence: 0.93806407047619

01:09:21.013 --> 01:09:23.190 Aroun Brock PC down to under 1%.

NOTE Confidence: 0.93806407047619

01:09:23.190 --> 01:09:25.966 How long could this hold an aggressive form?

NOTE Confidence: 0.93806407047619

01:09:25.970 --> 01:09:27.352 I think we did **** saying it is,

NOTE Confidence: 0.93806407047619

01:09:27.352 --> 01:09:28.932 you know, about four to six

NOTE Confidence: 0.93806407047619

01:09:28.932 --> 01:09:31.030 months would be the average is at

NOTE Confidence: 0.93806407047619

01:09:31.030 --> 01:09:32.290 a fair interpretation problem.

NOTE Confidence: 0.79934044

01:09:32.690 --> 01:09:36.668 Yeah, I believe that, uh I I think.

NOTE Confidence: 0.800932421

01:09:39.490 --> 01:09:41.770 They there were two, uh,

NOTE Confidence: 0.800932421

01:09:41.770 --> 01:09:43.570 I believe it's around four to

NOTE Confidence: 0.800932421

01:09:43.570 --> 01:09:44.770 six months for abiraterone,

NOTE Confidence: 0.800932421

01:09:44.770 --> 01:09:47.186 but that once again I think it's a

NOTE Confidence: 0.800932421

01:09:47.186 --> 01:09:49.360 better question for Doctor petrol, yeah?

NOTE Confidence: 0.914600617058824

01:09:50.860 --> 01:09:53.340 Uh, let's see. Do you believe HRD is

NOTE Confidence: 0.914600617058824

01:09:53.340 --> 01:09:55.662 an important biomarker for metastatic

NOTE Confidence: 0.914600617058824

01:09:55.662 --> 01:09:57.834 castrate resistant prostate cancer?

NOTE Confidence: 0.914600617058824

01:09:57.840 --> 01:10:00.528 Just mutation analysis of each RR.

NOTE Confidence: 0.947145527

01:10:02.600 --> 01:10:03.568 It's outside my scope,

NOTE Confidence: 0.947145527

01:10:03.568 --> 01:10:05.020 I didn't know anything about that.

NOTE Confidence: 0.947145527

01:10:05.020 --> 01:10:09.428 Doctor Portland. No, a teacher.

NOTE Confidence: 0.947145527

01:10:09.430 --> 01:10:11.286 That we would be a good one to

NOTE Confidence: 0.947145527

01:10:11.286 --> 01:10:13.188 follow up with Doctor Doctor Petrol

NOTE Confidence: 0.947145527

01:10:13.188 --> 01:10:15.246 and we have more questions there.

NOTE Confidence: 0.947145527

01:10:15.250 --> 01:10:17.340 Next session in metastatic setting,

NOTE Confidence: 0.947145527

01:10:17.340 --> 01:10:18.376 how high does once?

NOTE Confidence: 0.947145527

01:10:18.376 --> 01:10:20.315 Because they have to be in order

NOTE Confidence: 0.947145527

01:10:20.315 --> 01:10:22.247 for PET scan to discerning lesion.

NOTE Confidence: 0.947145527

01:10:22.250 --> 01:10:25.450 Yeah, I would say really these PET scans,

NOTE Confidence: 0.947145527

01:10:25.450 --> 01:10:29.138 the AXEMAN study and and the PSM A.

NOTE Confidence: 0.947145527

01:10:29.140 --> 01:10:32.248 You know we're talking even after

NOTE Confidence: 0.947145527

01:10:32.248 --> 01:10:34.320 a prostatectomy were picking

NOTE Confidence: 0.947145527

01:10:34.413 --> 01:10:36.168 it up at point eight.

NOTE Confidence: 0.947145527

01:10:36.170 --> 01:10:37.450 1.0 something like that.

NOTE Confidence: 0.947145527

01:10:37.450 --> 01:10:38.840 So you know these are tests.

NOTE Confidence: 0.947145527

01:10:38.840 --> 01:10:41.144 If someone who's newly diagnosed in the PSA,

NOTE Confidence: 0.947145527

01:10:41.150 --> 01:10:44.250 let's say 8:00 or 12:15,

NOTE Confidence: 0.947145527

01:10:44.250 --> 01:10:45.996 I think these PET scans haven't

NOTE Confidence: 0.947145527

01:10:45.996 --> 01:10:47.809 said chance of showing the lesion.

NOTE Confidence: 0.947145527

01:10:47.810 --> 01:10:49.690 Perhaps better than conventional imaging,

NOTE Confidence: 0.947145527

01:10:49.690 --> 01:10:50.910 but you know, conventional region

NOTE Confidence: 0.947145527

01:10:50.910 --> 01:10:52.300 is still great and still is.

NOTE Confidence: 0.947145527

01:10:52.300 --> 01:10:55.680 It's easily approved with insurance.

NOTE Confidence: 0.947145527

01:10:55.680 --> 01:10:58.326 They definitely were not seeing routine

NOTE Confidence: 0.947145527

01:10:58.326 --> 01:11:01.219 approvals for PS MA at this point.

NOTE Confidence: 0.947145527

01:11:01.220 --> 01:11:02.942 With, you know,

NOTE Confidence: 0.947145527

01:11:02.942 --> 01:11:05.238 conventional imaging looks clear.

NOTE Confidence: 0.947145527

01:11:05.240 --> 01:11:05.595 Uhm,

NOTE Confidence: 0.947145527

01:11:05.595 --> 01:11:08.435 how rare is small cell neuron in carcinoma?

NOTE Confidence: 0.947145527

01:11:08.440 --> 01:11:10.744 Being founded, project biopsy.

NOTE Confidence: 0.947145527

01:11:10.744 --> 01:11:12.320 And so although Adam Carson

NOTE Confidence: 0.947145527

01:11:12.320 --> 01:11:13.820 is the most common by far,

NOTE Confidence: 0.947145527

01:11:13.820 --> 01:11:17.276 small cell is one of those.

NOTE Confidence: 0.947145527

01:11:17.280 --> 01:11:18.740 Uh, you know ones that we see now and then.

NOTE Confidence: 0.947145527

01:11:18.740 --> 01:11:21.395 If it absolutely, it's only rare to find it.

NOTE Confidence: 0.947145527

01:11:21.400 --> 01:11:25.480 It absolutely impacts the plan.

NOTE Confidence: 0.947145527

01:11:25.480 --> 01:11:28.495 I'd say we we rarely see serving being done,

NOTE Confidence: 0.947145527

01:11:28.500 --> 01:11:29.130 that that's where

NOTE Confidence: 0.969906304210526

01:11:29.620 --> 01:11:31.276 I think that small.

NOTE Confidence: 0.969906304210526

01:11:31.276 --> 01:11:33.346 So the the mainstay of

NOTE Confidence: 0.969906304210526

01:11:33.346 --> 01:11:35.544 treatment for any small cell

NOTE Confidence: 0.969906304210526

01:11:35.544 --> 01:11:37.669 in any organ is chemotherapy.

NOTE Confidence: 0.969906304210526

01:11:37.670 --> 01:11:40.874 Yeah, so a local treatment is

NOTE Confidence: 0.969906304210526

01:11:40.874 --> 01:11:43.630 unlikely to cure small cell.

NOTE Confidence: 0.987013288181818

01:11:44.770 --> 01:11:46.588 Yeah, I think it's particularly resistant

NOTE Confidence: 0.987013288181818

01:11:46.588 --> 01:11:48.220 basically to the hormone therapy.

NOTE Confidence: 0.987013288181818

01:11:48.220 --> 01:11:49.510 Unless you have a mixture of

NOTE Confidence: 0.987013288181818

01:11:49.510 --> 01:11:50.820 small cell and admin personal,

NOTE Confidence: 0.987013288181818

01:11:50.820 --> 01:11:53.034 but you know it, then yeah, both.

NOTE Confidence: 0.987013288181818

01:11:53.034 --> 01:11:54.930 But yeah, absolutely agreed.

NOTE Confidence: 0.987013288181818

01:11:54.930 --> 01:11:57.790 On 4 minutes a chemo.

NOTE Confidence: 0.987013288181818

01:11:57.790 --> 01:11:59.855 Situation for most part and often like

NOTE Confidence: 0.987013288181818

01:11:59.855 --> 01:12:02.536 we do for small cell cancer lung we

NOTE Confidence: 0.987013288181818

01:12:02.536 --> 01:12:04.632 often add some radiation later for

NOTE Confidence: 0.987013288181818

01:12:04.632 --> 01:12:06.788 getting a good response to the king.

NOTE Confidence: 0.987013288181818

01:12:06.790 --> 01:12:09.190 Uhm, there's some opinions that

NOTE Confidence: 0.987013288181818

01:12:09.190 --> 01:12:12.240 consider at least six nonmalignant, uh.

NOTE Confidence: 0.981786181

01:12:13.670 --> 01:12:18.118 Yes, so go ahead. There was a huge

NOTE Confidence: 0.981786181

01:12:18.118 --> 01:12:21.642 study done retrospectively and leason

NOTE Confidence: 0.981786181

01:12:21.642 --> 01:12:25.662 6 almost never metastasizes outside

NOTE Confidence: 0.981786181

01:12:25.662 --> 01:12:31.350 of the prostate, so that's why.

NOTE Confidence: 0.981786181

01:12:31.350 --> 01:12:33.438 That's the whole rationale

NOTE Confidence: 0.981786181

01:12:33.438 --> 01:12:35.004 behind actors surveillance.

NOTE Confidence: 0.981786181

01:12:35.010 --> 01:12:39.900 The concern is that. Uh.

NOTE Confidence: 0.981786181

01:12:39.900 --> 01:12:42.462 Did the biopsy Miss Gleason seven or

NOTE Confidence: 0.981786181

01:12:42.462 --> 01:12:45.010 higher or somewhere else in the prostate?

NOTE Confidence: 0.981786181

01:12:45.010 --> 01:12:47.650 And the other concern is, does Gleason

NOTE Confidence: 0.981786181

01:12:47.650 --> 01:12:50.942 six turn into a more aggressive cancer?

NOTE Confidence: 0.981786181

01:12:50.942 --> 01:12:52.357 And that's a question that's

NOTE Confidence: 0.981786181

01:12:52.357 --> 01:12:53.650 very difficult to answer.

NOTE Confidence: 0.981786181

01:12:53.650 --> 01:12:55.274 We don't have the answer to that.

NOTE Confidence: 0.981786181

01:12:55.280 --> 01:12:57.828 We don't know whether Gleason six turns

NOTE Confidence: 0.981786181

01:12:57.828 --> 01:13:00.047 into Gleason Seven or eight or nine,

NOTE Confidence: 0.981786181

01:13:00.050 --> 01:13:01.942 or if that just.

NOTE Confidence: 0.981786181

01:13:01.942 --> 01:13:05.570 Comes out the novel from benign tissue.

NOTE Confidence: 0.981786181

01:13:05.570 --> 01:13:09.464 So uh, while recent sex is normal, ignant.

NOTE Confidence: 0.981786181

01:13:09.464 --> 01:13:11.662 Someone who has Gleason six has a

NOTE Confidence: 0.981786181

01:13:11.662 --> 01:13:13.829 higher risk of having something else,

NOTE Confidence: 0.981786181

01:13:13.830 --> 01:13:15.505 and that's why we recommend

NOTE Confidence: 0.981786181

01:13:15.505 --> 01:13:16.175 active surveillance.

NOTE Confidence: 0.983788748

01:13:18.380 --> 01:13:21.050 And that didn't comment on side

NOTE Confidence: 0.983788748

01:13:21.050 --> 01:13:22.830 effects of hormone therapy,

NOTE Confidence: 0.977513716666667

01:13:23.420 --> 01:13:27.100 so normal therapy lowers the

NOTE Confidence: 0.977513716666667

01:13:27.100 --> 01:13:29.600 testosterone close to 0 initially and

NOTE Confidence: 0.977513716666667

01:13:29.600 --> 01:13:32.919 it causes a lot of the same effects

NOTE Confidence: 0.977513716666667

01:13:32.919 --> 01:13:35.374 that women feel with menopause.

NOTE Confidence: 0.967317187777778

01:13:37.510 --> 01:13:40.210 There's a, there's fatigue

NOTE Confidence: 0.967317187777778

01:13:40.210 --> 01:13:43.585 loss of bone mineral density.

NOTE Confidence: 0.967317187777778

01:13:43.590 --> 01:13:48.336 Hot flashes patients can experience

NOTE Confidence: 0.967317187777778

01:13:48.336 --> 01:13:50.305 occasionally depression A.

NOTE Confidence: 0.967317187777778

01:13:50.305 --> 01:13:53.330 Those are the main effects.

NOTE Confidence: 0.967317187777778

01:13:53.330 --> 01:13:57.626 There is some data now to suggest that.

NOTE Confidence: 0.967317187777778

01:13:57.630 --> 01:14:00.598 Hormone therapy may, uh,

NOTE Confidence: 0.967317187777778

01:14:00.598 --> 01:14:03.566 cause heart disease if.

NOTE Confidence: 0.986958602

01:14:05.680 --> 01:14:07.750 If it's given long term.

NOTE Confidence: 0.986958602

01:14:07.750 --> 01:14:10.390 Uh, that has not been proven,

NOTE Confidence: 0.986958602

01:14:10.390 --> 01:14:11.695 but there's more and more

NOTE Confidence: 0.986958602

01:14:11.695 --> 01:14:12.739 data to suggest that.

01:14:14.900 --> 01:14:15.992 Yeah, it's definitely.

01:14:15.992 --> 01:14:17.980 You know, it's a definite plus

01:14:17.980 --> 01:14:19.555 minus with the hormone therapy.

01:14:19.560 --> 01:14:21.296 But we do know that it has such

01:14:21.296 --> 01:14:23.233 a such a powerful role against

01:14:23.233 --> 01:14:25.033 prostate cancer that you know

01:14:25.033 --> 01:14:26.601 something your doctors can help

01:14:26.601 --> 01:14:28.710 way as to whether it's worth it

01:14:28.710 --> 01:14:30.660 with certain other health issues.

01:14:30.660 --> 01:14:32.790 But we know for intermediate risk,

01:14:32.790 --> 01:14:35.070 prostate high risk grants state

01:14:35.070 --> 01:14:37.736 another stack that has really very

01:14:37.736 --> 01:14:39.408 substantial effects or weighing

01:14:39.408 --> 01:14:41.560 the pros and cons there.

01:14:41.560 --> 01:14:43.768 And it looks like last question

01:14:43.768 --> 01:14:45.323 for tonight is a three.

NOTE Confidence: 0.820992198

01:14:45.323 --> 01:14:46.407 I think that's what

NOTE Confidence: 0.901996733333333

01:14:46.420 --> 01:14:51.403 multiparametric 3T MRI so

NOTE Confidence: 0.901996733333333

01:14:51.403 --> 01:14:54.575 multiparametric 3T MRI detects

NOTE Confidence: 0.901996733333333

01:14:54.575 --> 01:14:58.348 about 80 to 85% of prostate cancer.

NOTE Confidence: 0.901996733333333

01:14:58.348 --> 01:15:00.864 It's very good in that peripheral zone

NOTE Confidence: 0.901996733333333

01:15:00.864 --> 01:15:03.060 that I showed during my presentation.

NOTE Confidence: 0.901996733333333

01:15:03.060 --> 01:15:06.273 It's not as good at finding cancers

NOTE Confidence: 0.901996733333333

01:15:06.273 --> 01:15:09.154 that originate in in the transitional

NOTE Confidence: 0.901996733333333

01:15:09.154 --> 01:15:11.491 zone where the BPH occurs,

NOTE Confidence: 0.901996733333333

01:15:11.491 --> 01:15:16.380 but it's if it does show a high risk lesion.

NOTE Confidence: 0.901996733333333

01:15:16.380 --> 01:15:19.742 It's it's pretty specific in that most likely

NOTE Confidence: 0.901996733333333

01:15:19.742 --> 01:15:21.908 that that will detect prostate cancer.

NOTE Confidence: 0.982655535909091

01:15:25.100 --> 01:15:27.123 Well, I want to thank everyone for

NOTE Confidence: 0.982655535909091

01:15:27.123 --> 01:15:29.850 joining us tonight as part of a series of

NOTE Confidence: 0.982655535909091

01:15:29.850 --> 01:15:31.600 elections Healthfield TuneIn for the ones,

NOTE Confidence: 0.982655535909091

01:15:31.600 --> 01:15:34.240 but I do appreciate when tuning in and

NOTE Confidence: 0.982655535909091

01:15:34.240 --> 01:15:35.800 thank Doctor Warren for joining us as well.

NOTE Confidence: 0.982655535909091

01:15:35.800 --> 01:15:38.592 And if you well I've asked you first

NOTE Confidence: 0.982655535909091

01:15:38.592 --> 01:15:41.310 born how people want to reach you.

NOTE Confidence: 0.982655535909091

01:15:41.310 --> 01:15:43.704 I went away to get in contact.

NOTE Confidence: 0.766511455166667

01:15:44.640 --> 01:15:48.371 So, uh, you could email me or

NOTE Confidence: 0.766511455166667

01:15:48.371 --> 01:15:51.930 call a Yale office number.

NOTE Confidence: 0.987240654

01:15:54.340 --> 01:15:57.010 Oh, I could provide that. OK

NOTE Confidence: 0.98852053

01:15:57.100 --> 01:15:59.650 yeah and similar for me.

NOTE Confidence: 0.98852053

01:15:59.650 --> 01:16:01.845 Probably the best is you

NOTE Confidence: 0.98852053

01:16:01.845 --> 01:16:04.254 can get a Direct Line so.

NOTE Confidence: 0.98852053

01:16:04.254 --> 01:16:05.370 You know Google course, but it's

NOTE Confidence: 0.99111935

01:16:07.950 --> 01:16:10.992 2038633701 that's 8633701 and

NOTE Confidence: 0.99111935

01:16:10.992 --> 01:16:12.798 is the Direct Line for our

NOTE Confidence: 0.99111935

01:16:12.798 --> 01:16:13.948 department. Easy get in touch

NOTE Confidence: 0.97631435

01:16:13.980 --> 01:16:16.578 and mine is 75 two 815.

NOTE Confidence: 0.90261916

01:16:17.510 --> 01:16:19.858 Right now you're 3.

NOTE Confidence: 0.90261916

01:16:19.860 --> 01:16:20.460 Alright, thanks again.

NOTE Confidence: 0.90261916

01:16:20.460 --> 01:16:21.460 Everybody have a good rest

NOTE Confidence: 0.90261916

01:16:21.460 --> 01:16:22.950 of the night. Thank you.