WEBVTT

00:00:00.000 --> 00:00:01.965 Funding for Yale Cancer Answers

NOTE Confidence: 0.953969787142857

00:00:01.965 --> 00:00:03.930 is provided by Smilow Cancer

NOTE Confidence: 0.953969787142857

00:00:03.997 --> 00:00:05.697 Hospital and AstraZeneca.

NOTE Confidence: 0.946205228461538

00:00:07.780 --> 00:00:09.814 Welcome to Yale Cancer Answers with

NOTE Confidence: 0.946205228461538

00:00:09.814 --> 00:00:12.159 your host doctor Anees Chagpar.

NOTE Confidence: 0.946205228461538

00:00:12.160 --> 00:00:14.020 Yale Cancer Answers features the

NOTE Confidence: 0.946205228461538

00:00:14.020 --> 00:00:16.302 latest information on cancer care by

NOTE Confidence: 0.946205228461538

00:00:16.302 --> 00:00:17.766 welcoming oncologists and specialists

NOTE Confidence: 0.946205228461538

00:00:17.766 --> 00:00:20.200 who are on the forefront of the

NOTE Confidence: 0.946205228461538

00:00:20.200 --> 00:00:21.990 battle to fight cancer. This week,

NOTE Confidence: 0.946205228461538

00:00:21.990 --> 00:00:23.740 it's a conversation about prostate

NOTE Confidence: 0.946205228461538

00:00:23.740 --> 00:00:25.669 cancer with Doctor Peter Humphrey.

NOTE Confidence: 0.946205228461538

00:00:25.670 --> 00:00:27.362 Doctor Humphrey is a professor of

NOTE Confidence: 0.946205228461538

00:00:27.362 --> 00:00:29.520 pathology at Yale School of Medicine,

NOTE Confidence: 0.946205228461538

00:00:29.520 --> 00:00:32.831 where Doctor Chagpar is a professor

NOTE Confidence: 0.946205228461538

00:00:32.831 --> 00:00:34.660 of surgical oncology.

NOTE Confidence: 0.981144545

00:00:34.670 --> 00:00:36.371 Peter, maybe we can start off by you

NOTE Confidence: 0.981144545

00:00:36.371 --> 00:00:38.068 telling us a little bit about

NOTE Confidence: 0.981144545

00:00:38.068 --> 00:00:40.080 yourself and what you do.

NOTE Confidence: 0.973310797777778

00:00:40.110 --> 00:00:42.110 I'm a practicing surgical pathologist

NOTE Confidence: 0.973310797777778

00:00:42.110 --> 00:00:44.610 which basically means that I

NOTE Confidence: 0.973310797777778

00:00:44.610 --> 00:00:47.620 look at a glass slide under a

NOTE Confidence: 0.973310797777778

00:00:47.620 --> 00:00:50.258 microscope and render a diagnosis,

NOTE Confidence: 0.973310797777778

00:00:50.258 --> 00:00:54.021 often cancer diagnosis on tissues that

NOTE Confidence: 0.973310797777778

00:00:54.021 --> 00:00:56.606 we received from other physicians,

NOTE Confidence: 0.973310797777778

00:00:56.610 --> 00:01:01.580 including biopsies and and resections,

NOTE Confidence: 0.973310797777778

00:01:01.580 --> 00:01:04.639 and so microscopes have always interested me.

NOTE Confidence: 0.973310797777778

00:01:04.640 --> 00:01:07.763 Ever since I was very young and

NOTE Confidence: 0.973310797777778

00:01:07.763 --> 00:01:10.091 looked through a microscope at pond

NOTE Confidence: 0.973310797777778

00:01:10.091 --> 00:01:13.490 water when I was in elementary school,

NOTE Confidence: 0.973310797777778

00:01:13.490 --> 00:01:15.583 but it was actually taking

NOTE Confidence: 0.973310797777778

00:01:15.583 --> 00:01:18.127 care of a patient in medical school

NOTE Confidence: 0.973310797777778

00:01:18.130 --> 00:01:20.938 that really helped direct me into

NOTE Confidence: 0.973310797777778

00:01:20.938 --> 00:01:25.060 pathology and if I can give that story.

NOTE Confidence: 0.973310797777778

00:01:25.060 --> 00:01:28.660 I was a third year

NOTE Confidence: 0.973310797777778

00:01:28.660 --> 00:01:29.460 medical student and

NOTE Confidence: 0.973310797777778

00:01:29.460 --> 00:01:33.078 hadn't really decided on a specialty.

NOTE Confidence: 0.973310797777778

00:01:33.080 --> 00:01:34.785 And was considering a number

NOTE Confidence: 0.973310797777778

00:01:34.785 --> 00:01:35.808 of different specialties,

NOTE Confidence: 0.973310797777778

00:01:35.810 --> 00:01:38.460 including medicine and internal medicine.

NOTE Confidence: 0.973310797777778

00:01:38.460 --> 00:01:41.408 Pathology wasn't so

NOTE Confidence: 0.973310797777778

00:01:41.408 --> 00:01:45.093 high on the list until

NOTE Confidence: 0.973310797777778

00:01:45.100 --> 00:01:48.390 there was an occurrence with one

NOTE Confidence: 0.973310797777778

00:01:48.390 --> 00:01:51.467 patient and she was on the internal

NOTE Confidence: 0.973310797777778

00:01:51.467 --> 00:01:54.470 medicine ward and she had rib pain

NOTE Confidence: 0.973310797777778

00:01:54.556 --> 00:01:57.640 and the radiologists were able to

NOTE Confidence: 0.973310797777778

00:01:57.640 --> 00:02:01.269 identify a lesion in the rib and

NOTE Confidence: 0.973310797777778

00:02:01.269 --> 00:02:03.185 the differential diagnosis that

NOTE Confidence: 0.973310797777778

00:02:03.185 --> 00:02:05.580 we considered clinically and the

NOTE Confidence: 0.973310797777778

00:02:05.650 --> 00:02:08.988 radiologist considered was quite lengthy

NOTE Confidence: 0.973310797777778

00:02:08.988 --> 00:02:13.017 so it really took a biopsy which

NOTE Confidence: 0.973310797777778

00:02:13.017 --> 00:02:15.699 then went to surgical pathology and

NOTE Confidence: 0.973310797777778

00:02:15.700 --> 00:02:17.698 in order to establish the diagnosis,

NOTE Confidence: 0.973310797777778

00:02:17.700 --> 00:02:20.832 and so I I went down to surgical pathology.

NOTE Confidence: 0.973310797777778

00:02:20.840 --> 00:02:23.605 the laboratory where the attending

NOTE Confidence: 0.973310797777778

00:02:23.605 --> 00:02:25.817 surgical pathologist was looking,

NOTE Confidence: 0.973310797777778

00:02:25.820 --> 00:02:28.160 at slides with their resident

NOTE Confidence: 0.973310797777778

00:02:28.160 --> 00:02:31.157 on the service and I asked if they

NOTE Confidence: 0.973310797777778

00:02:31.157 --> 00:02:33.185 had seen the biopsy from this

NOTE Confidence: 0.973310797777778

00:02:33.263 --> 00:02:36.119 particular patient and he said he had,

NOTE Confidence: 0.973310797777778

00:02:36.120 --> 00:02:38.640 and then he pulled out the slide

NOTE Confidence: 0.973310797777778

00:02:38.640 --> 00:02:41.192 and went through it and in pretty

NOTE Confidence: 0.973310797777778

00:02:41.192 --> 00:02:42.588 short order said oh,

NOTE Confidence: 0.973310797777778

00:02:42.590 --> 00:02:44.700 this is metastatic cancer from

NOTE Confidence: 0.973310797777778

00:02:44.700 --> 00:02:45.966 the salivary gland,

NOTE Confidence: 0.973310797777778

00:02:45.970 --> 00:02:48.996 which was a diagnosis that was not

NOTE Confidence: 0.973310797777778

00:02:48.996 --> 00:02:51.486 really considered in this patient.

NOTE Confidence: 0.973310797777778

00:02:51.490 --> 00:02:54.118 It turns out she did have a history of

NOTE Confidence: 0.973310797777778

00:02:54.118 --> 00:02:56.486 salivary gland cancer 10 years prior

00:02:58.180 --> 00:03:00.844 so it occurred to me that this was

NOTE Confidence: 0.973310797777778

00:03:00.844 --> 00:03:03.525 the way to really help patients

NOTE Confidence: 0.973310797777778

00:03:03.525 --> 00:03:05.945 by helping render diagnosis.

00:03:08.140 --> 00:03:10.108 I find that fascinating, because certainly

NOTE Confidence: 0.976006924285714

00:03:10.108 --> 00:03:12.798 if you had a patient with rib pain,

NOTE Confidence: 0.976006924285714

00:03:12.800 --> 00:03:15.425 metastatic cancer from a salivary

NOTE Confidence: 0.976006924285714

00:03:15.425 --> 00:03:17.850 gland would not be top of the list.

NOTE Confidence: 0.976006924285714

00:03:17.850 --> 00:03:21.413 Did the pathologist know about the distant

NOTE Confidence: 0.976006924285714

00:03:21.413 --> 00:03:24.059 diagnosis of salivary gland cancer?

NOTE Confidence: 0.985878084736842

00:03:24.140 --> 00:03:26.040 I think this particular

NOTE Confidence: 0.985878084736842

00:03:26.040 --> 00:03:28.415 cancer was so distinctive that

NOTE Confidence: 0.985878084736842

00:03:28.415 --> 00:03:31.386 he was able to suspect salivary

NOTE Confidence: 0.985878084736842

00:03:31.386 --> 00:03:33.314 gland cancer right away.

NOTE Confidence: 0.985878084736842

00:03:33.320 --> 00:03:34.880 I'm not sure if he knew the history,

NOTE Confidence: 0.985878084736842

00:03:34.880 --> 00:03:36.976 but he was an excellent

NOTE Confidence: 0.985878084736842

00:03:36.976 --> 00:03:38.212 surgical pathologist and being

NOTE Confidence: 0.985878084736842

00:03:38.212 --> 00:03:39.536 an excellent surgical pathologist

NOTE Confidence: 0.985878084736842

00:03:39.540 --> 00:03:41.550 I'm sure he had asked the

NOTE Confidence: 0.985878084736842

00:03:41.550 --> 00:03:43.360 resident for the history first,

NOTE Confidence: 0.985878084736842

00:03:43.360 --> 00:03:45.864 as they examined the slide.

NOTE Confidence: 0.97856496

00:03:46.310 --> 00:03:49.680 Yeah, it's just absolutely fascinating,

NOTE Confidence: 0.97856496

00:03:49.680 --> 00:03:52.050 but now you've kind of transitioned

NOTE Confidence: 0.97856496

00:03:52.050 --> 00:03:53.630 still looking at cancers,

NOTE Confidence: 0.97856496

00:03:53.630 --> 00:03:56.178 but now you're into the world

NOTE Confidence: 0.97856496

00:03:56.178 --> 00:03:58.401 of genitourinary pathology,

NOTE Confidence: 0.97856496

00:03:58.401 --> 00:04:01.129 tell us a little bit more about how

NOTE Confidence: 0.97856496

00:04:01.129 --> 00:04:03.910 your interests transitioned to that.

00:04:06.700 --> 00:04:09.520 In residency a big

NOTE Confidence: 0.988903856

00:04:09.520 --> 00:04:11.776 part of pathology residency,

NOTE Confidence: 0.988903856

00:04:11.780 --> 00:04:13.320 which is pretty broad based,

NOTE Confidence: 0.988903856

00:04:13.320 --> 00:04:17.352 we rotate through a number of different

NOTE Confidence: 0.988903856

00:04:17.352 --> 00:04:19.626 services, subspecialty services and

NOTE Confidence: 0.988903856

00:04:19.626 --> 00:04:22.356 those services work with specific

NOTE Confidence: 0.988903856

00:04:22.360 --> 00:04:25.000 clinicians and it's disease

NOTE Confidence: 0.988903856

00:04:25.000 --> 00:04:28.717 focused and usually organ site

NOTE Confidence: 0.988903856

00:04:28.720 --> 00:04:32.050 focused. For example,

NOTE Confidence: 0.988903856

00:04:32.050 --> 00:04:34.290 as a genitourinary pathologist,

NOTE Confidence: 0.988903856

00:04:34.290 --> 00:04:37.710 I interact very closely with the

NOTE Confidence: 0.988903856

00:04:37.710 --> 00:04:39.990 urologist and medical oncologist

NOTE Confidence: 0.988903856

00:04:40.078 --> 00:04:43.052 to treat urological cancers as well

NOTE Confidence: 0.988903856

00:04:43.052 --> 00:04:45.324 as radiologist and interventional

NOTE Confidence: 0.988903856

00:04:45.324 --> 00:04:47.342 radiologists to deal with these

NOTE Confidence: 0.988903856

00:04:47.342 --> 00:04:48.812 type of cancers and specifically

NOTE Confidence: 0.988903856

00:04:48.812 --> 00:04:50.609 for the genitourinary system,

NOTE Confidence: 0.988903856

00:04:50.610 --> 00:04:53.340 this is just an introduction.

NOTE Confidence: 0.988903856

00:04:53.340 --> 00:04:57.267 We basically address cancers that arise in

NOTE Confidence: 0.988903856

00:04:57.267 --> 00:05:01.239 the prostate and testis and bladder and

NOTE Confidence: 0.988903856

00:05:01.240 --> 00:05:06.288 kidney, so it turns out when you are

NOTE Confidence: 0.988903856

00:05:06.290 --> 00:05:07.808 in formative years,

NOTE Confidence: 0.988903856

00:05:07.808 --> 00:05:10.338 one should never underestimate

NOTE Confidence: 0.988903856

00:05:10.338 --> 00:05:13.808 how a single patient or a physician

NOTE Confidence: 0.988903856

00:05:13.808 --> 00:05:17.575 can impact the development of

NOTE Confidence: 0.988903856

00:05:17.575 --> 00:05:20.420 the individuals who are young and

NOTE Confidence: 0.988903856

00:05:20.420 --> 00:05:22.830 deciding in medical school or pathology.

00:05:24.570 --> 00:05:27.762 So I was a first year resident and

NOTE Confidence: 0.988903856

00:05:27.762 --> 00:05:31.242 I rotated through the VA hospital

NOTE Confidence: 0.988903856

00:05:31.242 --> 00:05:33.246 which was right across from Duke

NOTE Confidence: 0.988903856

00:05:33.246 --> 00:05:34.150 University Hospital,

NOTE Confidence: 0.988903856

00:05:34.150 --> 00:05:37.034 which is where I did my residency.

NOTE Confidence: 0.988903856

00:05:37.040 --> 00:05:39.350 And there was a fascinating rotation,

NOTE Confidence: 0.988903856

00:05:39.350 --> 00:05:41.278 and another excellent surgical

NOTE Confidence: 0.988903856

00:05:41.278 --> 00:05:43.688 pathologist was the attending there,

NOTE Confidence: 0.988903856

00:05:43.690 --> 00:05:47.090 and we saw quite a lot of prostate cancer.

NOTE Confidence: 0.988903856

00:05:47.940 --> 00:05:51.060 And at the VA hospital,

NOTE Confidence: 0.988903856

00:05:51.060 --> 00:05:54.554 this was several decades ago,

NOTE Confidence: 0.988903856

00:05:54.554 --> 00:05:57.900 dating myself a number of decades ago,

NOTE Confidence: 0.988903856

00:05:57.900 --> 00:05:59.668 there was not much known about

NOTE Confidence: 0.988903856

00:05:59.668 --> 00:06:00.764 prostate cancer,

NOTE Confidence: 0.988903856

00:06:00.764 --> 00:06:03.504 and treatments were relatively limited,

NOTE Confidence: 0.988903856

00:06:03.510 --> 00:06:05.734 so it seemed to me that this was

NOTE Confidence: 0.988903856

00:06:05.734 --> 00:06:06.780 an area where

NOTE Confidence: 0.988903856

00:06:06.780 --> 00:06:10.260 there is much to be learned about diagnosis

NOTE Confidence: 0.988903856

00:06:10.260 --> 00:06:13.415 and prognosis as well as treatment of

NOTE Confidence: 0.988903856

00:06:13.420 --> 00:06:14.674 that particular cancer.

NOTE Confidence: 0.988903856

00:06:14.674 --> 00:06:17.182 So that's really how I became

NOTE Confidence: 0.988903856

00:06:17.182 --> 00:06:19.400 interested as a first year

NOTE Confidence: 0.988903856

00:06:19.400 --> 00:06:21.000 pathology resident in

NOTE Confidence: 0.988903856

00:06:21.000 --> 00:06:21.822 genitourinary cancers,

NOTE Confidence: 0.988903856

00:06:21.822 --> 00:06:23.466 and specifically prostate cancer

NOTE Confidence: 0.972486137272727

00:06:24.160 --> 00:06:26.170 Let's dive a little

NOTE Confidence: 0.972486137272727

00:06:26.170 --> 00:06:28.060 bit more into prostate cancer.

NOTE Confidence: 0.972486137272727

00:06:28.060 --> 00:06:31.093 I think that so much of again,

NOTE Confidence: 0.972486137272727

00:06:31.100 --> 00:06:33.557 what we do is really dictated by

NOTE Confidence: 0.972486137272727

00:06:33.557 --> 00:06:35.620 the biopsies that we take.

NOTE Confidence: 0.972486137272727

00:06:35.620 --> 00:06:38.290 So if somebody has

NOTE Confidence: 0.972486137272727

00:06:38.290 --> 00:06:41.682 a mass in the prostate or an enlarged

NOTE Confidence: 0.972486137272727

00:06:41.682 --> 00:06:43.433 prostate, even more globally,

NOTE Confidence: 0.972486137272727

00:06:43.433 --> 00:06:46.079 sometimes a biopsy will be done,

NOTE Confidence: 0.972486137272727

00:06:46.080 --> 00:06:48.240 and that'll be sent to the

NOTE Confidence: 0.972486137272727

00:06:48.240 --> 00:06:50.255 pathologist and it's really up to

NOTE Confidence: 0.972486137272727

00:06:50.255 --> 00:06:52.784 you to try to figure out is this

NOTE Confidence: 0.972486137272727

00:06:52.784 --> 00:06:55.856 cancer or is this something benign?

NOTE Confidence: 0.972486137272727

00:06:55.860 --> 00:06:57.228 And if it's cancer,

NOTE Confidence: 0.972486137272727

00:06:57.228 --> 00:07:00.283 how bad of a cancer is it which

NOTE Confidence: 0.972486137272727

00:07:00.283 --> 00:07:02.127 really dictates

NOTE Confidence: 0.972486137272727

00:07:02.130 --> 00:07:04.786 is this something that we treat at all,

NOTE Confidence: 0.972486137272727

00:07:04.790 --> 00:07:08.690 or something that we simply watch?

NOTE Confidence: 0.972486137272727

00:07:08.690 --> 00:07:11.430 How do you make those decisions?

NOTE Confidence: 0.972486137272727

00:07:11.430 --> 00:07:14.790 How do you make that differentiation from

NOTE Confidence: 0.972486137272727

00:07:14.790 --> 00:07:17.857 benign to malignant and within malignant,

NOTE Confidence: 0.972486137272727

00:07:17.860 --> 00:07:20.518 the different grades of prostate cancer?

NOTE Confidence: 0.987030749375

00:07:21.120 --> 00:07:23.694 So it's really quite a long

NOTE Confidence: 0.987030749375

00:07:23.694 --> 00:07:26.597 educational process to be able to

NOTE Confidence: 0.987030749375

00:07:26.597 --> 00:07:28.809 diagnose benign versus malignant,

NOTE Confidence: 0.987030749375

00:07:28.810 --> 00:07:31.258 and it turns out that what's so fascinating

NOTE Confidence: 0.987030749375

00:07:31.258 --> 00:07:33.910 is that every single biopsy is different,

NOTE Confidence: 0.987030749375

00:07:33.910 --> 00:07:36.390 even if we render an

NOTE Confidence: 0.987030749375

00:07:36.390 --> 00:07:38.390 umbrella diagnosis of benign tissue.

NOTE Confidence: 0.987030749375

00:07:38.390 --> 00:07:41.398 For example, the lining tissue of the prostate.

NOTE Confidence: 0.987030749375

00:07:41.400 --> 00:07:43.272 There could be a number of

NOTE Confidence: 0.987030749375

00:07:43.272 --> 00:07:44.820 benign mimicker's in there,

NOTE Confidence: 0.987030749375

00:07:44.820 --> 00:07:46.460 meaning benign tissue looking

NOTE Confidence: 0.987030749375

00:07:46.460 --> 00:07:48.659 like cancer under the microscope,

NOTE Confidence: 0.987030749375

00:07:48.660 --> 00:07:52.510 but it's not, and we have

NOTE Confidence: 0.987030749375

00:07:54.790 --> 00:07:55.550 a differential diagnosis.

NOTE Confidence: 0.987030749375

00:07:55.550 --> 00:07:57.470 We consider a number of different

NOTE Confidence: 0.987030749375

00:07:57.470 --> 00:07:58.750 benign entities before deciding

NOTE Confidence: 0.987030749375

00:07:58.799 --> 00:08:00.027 on a malignant diagnosis,

NOTE Confidence: 0.987030749375

00:08:00.030 --> 00:08:02.291 because that's such a huge step

NOTE Confidence: 0.987030749375

00:08:02.291 --> 00:08:04.770 to take for us and for the patient

NOTE Confidence: 0.987030749375

00:08:04.770 --> 00:08:08.800 and the patient's treating physician.

NOTE Confidence: 0.987030749375

00:08:08.800 --> 00:08:11.218 So that's what I particularly enjoy,

00:08:14.410 --> 00:08:16.245 that diagnostic work and it

NOTE Confidence: 0.987030749375

00:08:16.245 --> 00:08:17.713 can be arduous sometimes.

NOTE Confidence: 0.987030749375

00:08:17.720 --> 00:08:19.640 Sometimes it's very straightforward

NOTE Confidence: 0.987030749375

00:08:19.640 --> 00:08:23.054 that a particular biopsy is benign

NOTE Confidence: 0.987030749375

00:08:23.054 --> 00:08:25.082 and sometimes straightforward that

NOTE Confidence: 0.987030749375

00:08:25.082 --> 00:08:27.393 it's malignant, but other times

NOTE Confidence: 0.987030749375

00:08:27.393 --> 00:08:29.548 there are benign conditions under

NOTE Confidence: 0.987030749375

00:08:29.548 --> 00:08:31.910 the microscope that look like cancer

NOTE Confidence: 0.987030749375

00:08:31.910 --> 00:08:34.058 and cancer that can look benign.

NOTE Confidence: 0.987030749375

00:08:34.060 --> 00:08:36.671 So we've been fortunate in this area

NOTE Confidence: 0.987030749375

00:08:36.671 --> 00:08:39.924 to have some tools to help us and

NOTE Confidence: 0.987030749375

00:08:39.924 --> 00:08:41.979 those include antibodies that can

NOTE Confidence: 0.987030749375

00:08:42.058 --> 00:08:44.950 help us recognize specific cells under

NOTE Confidence: 0.987030749375

00:08:44.950 --> 00:08:47.402 the microscope and in certain cases

NOTE Confidence: 0.987030749375

00:08:47.402 --> 00:08:50.040 that can be relayed to us,

NOTE Confidence: 0.987030749375

00:08:50.040 --> 00:08:52.842 but it still requires judgment and

NOTE Confidence: 0.987030749375

00:08:52.842 --> 00:08:55.603 having formed a differential diagnosis

NOTE Confidence: 0.987030749375

00:08:55.603 --> 00:08:57.858 or consideration of what's possible

NOTE Confidence: 0.987030749375

00:08:57.858 --> 00:09:00.178 before we order those tests.

NOTE Confidence: 0.987030749375

00:09:00.180 --> 00:09:01.518 On that issue,

NOTE Confidence: 0.987030749375

00:09:01.518 --> 00:09:03.748 so once having established a

NOTE Confidence: 0.987030749375

00:09:03.748 --> 00:09:05.600 diagnosis of malignancy,

NOTE Confidence: 0.987030749375

00:09:05.600 --> 00:09:08.534 then the next step is to decide and this

NOTE Confidence: 0.987030749375

00:09:08.534 --> 00:09:11.437 is so important for prostate cancer,

NOTE Confidence: 0.987030749375

00:09:11.440 --> 00:09:12.972 how aggressive is it?

NOTE Confidence: 0.987030749375

00:09:12.972 --> 00:09:15.797 Because it turns out most men who

NOTE Confidence: 0.987030749375

00:09:15.797 --> 00:09:17.830 have prostate cancer will die

NOTE Confidence: 0.987030749375

00:09:17.830 --> 00:09:19.870 with it rather than of it.

NOTE Confidence: 0.987030749375

00:09:19.870 --> 00:09:22.579 So there are a large number of

NOTE Confidence: 0.987030749375

00:09:22.579 --> 00:09:24.517 prostate cancers that can grow

NOTE Confidence: 0.987030749375

00:09:24.517 --> 00:09:26.617 very slowly and may not affect

NOTE Confidence: 0.987030749375

00:09:26.617 --> 00:09:29.180 the man during his lifetime,

NOTE Confidence: 0.987030749375

00:09:29.180 --> 00:09:31.230 yet it turns out that

NOTE Confidence: 0.987030749375

00:09:31.230 --> 00:09:34.428 prostate cancer is the second most

NOTE Confidence: 0.987030749375

00:09:34.428 --> 00:09:36.970 lethal cancer amongst American men

NOTE Confidence: 0.987030749375

00:09:36.970 --> 00:09:38.311 by total numbers

NOTE Confidence: 0.987030749375

00:09:38.311 --> 00:09:40.546 trailing only lung cancer.

NOTE Confidence: 0.987030749375

00:09:40.550 --> 00:09:43.259 So those are the cancers we want

NOTE Confidence: 0.987030749375

00:09:43.259 --> 00:09:45.225 to specifically separate out from

NOTE Confidence: 0.987030749375

00:09:45.225 --> 00:09:47.065 the more slowly growing ones.

NOTE Confidence: 0.987030749375

00:09:47.070 --> 00:09:49.485 And we do that under the microscope

NOTE Confidence: 0.987030749375

00:09:49.485 --> 00:09:52.001 using a very powerful approach

NOTE Confidence: 0.987030749375

00:09:52.001 --> 00:09:54.527 that is grade, as you suggest.

NOTE Confidence: 0.987030749375

00:09:54.530 --> 00:09:56.510 So what is grade?

NOTE Confidence: 0.987030749375

00:09:56.510 --> 00:09:59.144 It's basically the way the cells

NOTE Confidence: 0.987030749375

00:09:59.144 --> 00:10:01.370 grow within the prostate once

NOTE Confidence: 0.987030749375

00:10:01.370 --> 00:10:04.340 we've identified them as cancer cells,

NOTE Confidence: 0.987030749375

00:10:04.340 --> 00:10:06.279 so we can look under the microscope

NOTE Confidence: 0.987030749375

00:10:06.279 --> 00:10:07.110 and in their patterns

NOTE Confidence: 0.987030749375

00:10:07.110 --> 00:10:09.545 there are specific patterns that

NOTE Confidence: 0.987030749375

00:10:09.545 --> 00:10:12.520 are known to correlate with the

NOTE Confidence: 0.987030749375

00:10:12.520 --> 00:10:14.340 outcome for the patient,

NOTE Confidence: 0.987030749375

00:10:14.340 --> 00:10:17.416 and so we have various tiers,

NOTE Confidence: 0.987030749375

00:10:17.416 --> 00:10:20.246 various numbers we can apply

NOTE Confidence: 0.987030749375

00:10:20.250 --> 00:10:22.294 and the most simple one that we

NOTE Confidence: 0.987030749375

00:10:22.294 --> 00:10:24.458 use right now is grade group and

NOTE Confidence: 0.987030749375

00:10:24.458 --> 00:10:26.288 that ranges from one to five.

NOTE Confidence: 0.987030749375

00:10:26.290 --> 00:10:29.250 One being the best outcome,

NOTE Confidence: 0.987030749375

00:10:29.250 --> 00:10:31.075 and those patients are managed

NOTE Confidence: 0.987030749375

00:10:31.075 --> 00:10:32.170 very differently from

NOTE Confidence: 0.987030749375

00:10:32.170 --> 00:10:34.546 those who have a grade group

NOTE Confidence: 0.987030749375

00:10:34.546 --> 00:10:36.130 five out of five,

NOTE Confidence: 0.987030749375

00:10:36.130 --> 00:10:37.680 but there's everything in between,

NOTE Confidence: 0.987030749375

00:10:37.680 --> 00:10:39.370 so it's really a spectrum.

NOTE Confidence: 0.987030749375

00:10:39.370 --> 00:10:41.474 And therein lies again

NOTE Confidence: 0.987030749375

00:10:41.474 --> 00:10:46.396 judgment as far as deciphering as you note,

NOTE Confidence: 0.987030749375

00:10:46.400 --> 00:10:48.332 the detective work deciphering

NOTE Confidence: 0.987030749375

00:10:48.332 --> 00:10:51.230 out the patterns that can help

NOTE Confidence: 0.988765668461538

00:10:51.318 --> 00:10:53.410 us assign a grade that

NOTE Confidence: 0.988765668461538

00:10:53.410 --> 00:10:54.550 indicates aggressiveness of

NOTE Confidence: 0.988765668461538

00:10:54.550 --> 00:10:56.560 that prostate cancer.

NOTE Confidence: 0.974073658

00:10:57.990 --> 00:11:00.070 One of the questions

NOTE Confidence: 0.974073658

00:11:00.070 --> 00:11:01.955 that I think always comes up is

NOTE Confidence: 0.974073658

00:11:01.955 --> 00:11:04.013 that it seems to be a little bit

NOTE Confidence: 0.974073658

00:11:04.013 --> 00:11:06.080 of art and a little bit of science.

NOTE Confidence: 0.974073658

00:11:06.080 --> 00:11:09.230 Looking at these patterns

NOTE Confidence: 0.974073658

00:11:09.230 --> 00:11:11.740 and trying to decipher is this

NOTE Confidence: 0.974073658

00:11:11.740 --> 00:11:13.156 lower grade?

NOTE Confidence: 0.974073658

00:11:13.156 --> 00:11:14.926 Is this a higher grade?

NOTE Confidence: 0.974073658

00:11:14.930 --> 00:11:18.226 How much of it is art,

NOTE Confidence: 0.974073658

00:11:18.230 --> 00:11:20.982 and how much of it is science

NOTE Confidence: 0.974073658

00:11:20.982 --> 00:11:24.168 and how sure are you at any given

NOTE Confidence: 0.974073658

00:11:24.168 --> 00:11:26.959 time of your diagnosis being correct?

NOTE Confidence: 0.986967973333333

00:11:27.000 --> 00:11:30.150 Interpretation of slides

NOTE Confidence: 0.986967973333333

00:11:30.150 --> 00:11:33.533 under the microscope is most definitely

NOTE Confidence: 0.986967973333333

00:11:33.533 --> 00:11:36.702 both art and science, so there's

NOTE Confidence: 0.986967973333333

00:11:36.702 --> 00:11:38.988 much experience that one must have

NOTE Confidence: 0.986967973333333

00:11:38.988 --> 00:11:41.760 in order to recognize these patterns.

NOTE Confidence: 0.986967973333333

00:11:41.760 --> 00:11:44.856 The science part is that we can use

NOTE Confidence: 0.986967973333333

00:11:44.856 --> 00:11:47.997 antibodies to help identify specific cells.

NOTE Confidence: 0.986967973333333

00:11:48.000 --> 00:11:49.670 The grading part remains, though,

NOTE Confidence: 0.986967973333333

00:11:49.670 --> 00:11:52.880 very much art and pattern recognition

NOTE Confidence: 0.986967973333333

00:11:52.880 --> 00:11:54.370 going forward in the future,

NOTE Confidence: 0.986967973333333

00:11:54.370 --> 00:11:55.990 and this has already started.

NOTE Confidence: 0.986967973333333

00:11:55.990 --> 00:11:59.158 We have tools that can help us recognize

NOTE Confidence: 0.986967973333333

00:11:59.158 --> 00:12:02.000 patterns even better and more quantitatively,

NOTE Confidence: 0.986967973333333

00:12:02.000 --> 00:12:05.570 and that's through the use of artificial

NOTE Confidence: 0.986967973333333

00:12:05.658 --> 00:12:08.330 intelligence and machine learning.

NOTE Confidence: 0.986967973333333

00:12:08.330 --> 00:12:10.410 So all of that work has just started,

NOTE Confidence: 0.986967973333333

00:12:10.410 --> 00:12:12.420 but already I've had the opportunity

NOTE Confidence: 0.986967973333333

00:12:12.420 --> 00:12:14.874 to work in on a couple different

NOTE Confidence: 0.986967973333333

00:12:14.874 --> 00:12:17.645 projects and it turns out that the

NOTE Confidence: 0.986967973333333

00:12:17.645 --> 00:12:19.757 computer with specific algorithms

NOTE Confidence: 0.986967973333333

00:12:19.760 --> 00:12:20.644 can identify,

NOTE Confidence: 0.986967973333333

00:12:20.644 --> 00:12:22.854 can diagnose and grade prostate

NOTE Confidence: 0.986967973333333

00:12:22.854 --> 00:12:25.531 cancers just as well as a number

NOTE Confidence: 0.986967973333333

00:12:25.531 --> 00:12:27.445 of us who specialize in sub

NOTE Confidence: 0.986967973333333

00:12:27.517 --> 00:12:30.197 specializing in that particular area.

00:12:30.950 --> 00:12:33.398 I can't wait to learn more about that,

NOTE Confidence: 0.983648072222222

00:12:33.400 --> 00:12:35.220 but first we need to take a

NOTE Confidence: 0.983648072222222

00:12:35.220 --> 00:12:36.980 short break for medical minute.

NOTE Confidence: 0.983648072222222

00:12:36.980 --> 00:12:39.535 Please stay tuned to learn more about

NOTE Confidence: 0.983648072222222

00:12:39.535 --> 00:12:41.415 prostate cancer diagnosis and prognosis

NOTE Confidence: 0.983648072222222

00:12:41.415 --> 00:12:43.587 with my guest doctor Peter Humphrey.

NOTE Confidence: 0.964767035238095

00:12:44.380 --> 00:12:46.355 Funding for Yale Cancer Answers

NOTE Confidence: 0.964767035238095

00:12:46.355 --> 00:12:48.330 comes from AstraZeneca, dedicated

NOTE Confidence: 0.964767035238095

00:12:48.398 --> 00:12:50.283 to advancing options and providing

NOTE Confidence: 0.964767035238095

00:12:50.283 --> 00:12:52.660 hope for people living with cancer.

NOTE Confidence: 0.964767035238095

00:12:52.660 --> 00:12:53.818 More information at

NOTE Confidence: 0.8963175

00:12:55.960 --> 00:12:57.980 astrazeneca-us.com.

NOTE Confidence: 0.8963175

00:12:57.980 --> 00:13:00.104 The American Cancer Society

NOTE Confidence: 0.8963175

00:13:00.104 --> 00:13:02.444 estimates that nearly 150,000 people

NOTE Confidence: 0.8963175

00:13:02.444 --> 00:13:05.048 in the US will be diagnosed with

NOTE Confidence: 0.8963175

00:13:05.048 --> 00:13:07.019 colorectal cancer this year alone.

NOTE Confidence: 0.8963175

00:13:07.020 --> 00:13:08.668 When detected early, colorectal

NOTE Confidence: 0.8963175

00:13:08.668 --> 00:13:11.140 cancer is easily treated and highly

NOTE Confidence: 0.8963175

00:13:11.208 --> 00:13:12.858 curable and men and women over

NOTE Confidence: 0.8963175

00:13:12.858 --> 00:13:15.268 the age of 45 should have regular

NOTE Confidence: 0.8963175

00:13:15.268 --> 00:13:17.764 colonoscopies to screen for the disease.

NOTE Confidence: 0.8963175

00:13:17.770 --> 00:13:19.142 Patients with colorectal cancer

NOTE Confidence: 0.8963175

00:13:19.142 --> 00:13:21.200 have more hope than ever before,

NOTE Confidence: 0.8963175

00:13:21.200 --> 00:13:24.104 thanks to increased access to advanced

NOTE Confidence: 0.8963175

00:13:24.104 --> 00:13:26.040 therapies and specialized care.

NOTE Confidence: 0.8963175

00:13:26.040 --> 00:13:27.896 Clinical trials are currently

NOTE Confidence: 0.8963175

00:13:27.896 --> 00:13:29.752 underway at federally designated

NOTE Confidence: 0.8963175

00:13:29.752 --> 00:13:31.190 Comprehensive Cancer Centers.

NOTE Confidence: 0.8963175

00:13:31.190 --> 00:13:33.350 Such as Yale Cancer Center and

NOTE Confidence: 0.8963175

00:13:33.350 --> 00:13:35.313 at Smilow Cancer Hospital to

NOTE Confidence: 0.8963175

00:13:35.313 --> 00:13:37.113 test innovative new treatments

NOTE Confidence: 0.8963175

00:13:37.113 --> 00:13:38.936 for colorectal cancer. Tumor

NOTE Confidence: 0.8963175

00:13:38.936 --> 00:13:41.266 gene analysis has helped improve

NOTE Confidence: 0.8963175

00:13:41.266 --> 00:13:43.130 management of colorectal cancer

NOTE Confidence: 0.8963175

00:13:43.195 --> 00:13:45.425 by identifying the patients most

NOTE Confidence: 0.8963175

00:13:45.425 --> 00:13:47.655 likely to benefit from chemotherapy

NOTE Confidence: 0.8963175

00:13:47.724 --> 00:13:49.428 and newer targeted agents,

NOTE Confidence: 0.8963175

00:13:49.430 --> 00:13:52.268 resulting in more patient specific treatment.

NOTE Confidence: 0.8963175

00:13:52.270 --> 00:13:55.330 More information is available at

NOTE Confidence: 0.8963175

00:13:55.330 --> 00:13:56.626 yalecancercenter.org. You're listening

NOTE Confidence: 0.8963175

00:13:56.626 --> 00:13:58.354 to Connecticut Public Radio.

NOTE Confidence: 0.89388961

00:13:59.320 --> 00:14:01.516 Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.89388961

00:14:01.520 --> 00:14:04.220 This is doctor Anees Chagpar and I'm joined

NOTE Confidence: 0.89388961

00:14:04.220 --> 00:14:06.578 tonight by my guest doctor Peter Humphrey.

NOTE Confidence: 0.89388961

00:14:06.580 --> 00:14:08.440 We're talking about prostate

NOTE Confidence: 0.89388961

00:14:08.440 --> 00:14:10.300 cancer diagnosis and prognosis,

NOTE Confidence: 0.89388961

00:14:10.300 --> 00:14:13.359 and right before the break we were

NOTE Confidence: 0.89388961

00:14:13.359 --> 00:14:15.694 talking about this magic that

NOTE Confidence: 0.89388961

00:14:15.694 --> 00:14:18.049 happens in the pathology lab.

NOTE Confidence: 0.89388961

00:14:18.050 --> 00:14:20.489 At least, it seems like magic to those of

NOTE Confidence: 0.89388961

00:14:20.489 --> 00:14:22.930 us who send them biopsies and magically

NOTE Confidence: 0.89388961

00:14:22.930 --> 00:14:25.322 get back a diagnosis that we then

NOTE Confidence: 0.89388961

00:14:25.322 --> 00:14:27.478 use to treat our patients and Doctor

NOTE Confidence: 0.89388961

00:14:27.480 --> 00:14:29.419 Humphrey was telling us that this is

NOTE Confidence: 0.89388961

00:14:29.420 --> 00:14:30.383 in part art,

NOTE Confidence: 0.89388961

00:14:30.383 --> 00:14:33.043 but it is in part science and

NOTE Confidence: 0.89388961

00:14:33.043 --> 00:14:35.521 that you're able to use antibodies

NOTE Confidence: 0.89388961

00:14:35.521 --> 00:14:39.268 and so on to help you in making

NOTE Confidence: 0.89388961

00:14:39.268 --> 00:14:41.865 that diagnosis and right

NOTE Confidence: 0.89388961

00:14:41.865 --> 00:14:44.987 before the break you started to talk

NOTE Confidence: 0.89388961

00:14:44.987 --> 00:14:47.210 Doctor Humphrey about artificial

NOTE Confidence: 0.89388961

00:14:47.210 --> 00:14:50.750 intelligence and how this might actually

NOTE Confidence: 0.89388961

00:14:50.750 --> 00:14:55.350 help us in making a diagnosis now,

NOTE Confidence: 0.89388961

00:14:55.350 --> 00:14:56.985 so that the computers might

NOTE Confidence: 0.89388961

00:14:56.985 --> 00:14:59.430 be able to make a diagnosis

NOTE Confidence: 0.89388961

00:14:59.430 --> 00:15:01.565 almost as well as an experienced pathologist.

NOTE Confidence: 0.89388961

00:15:01.565 --> 00:15:04.067 Tell us a little bit more about that.

NOTE Confidence: 0.984233065

00:15:04.710 --> 00:15:09.047 So we are in the very early pilot stage

NOTE Confidence: 0.984233065

00:15:09.047 --> 00:15:11.616 I would say as far as

NOTE Confidence: 0.984233065

00:15:11.616 --> 00:15:13.629 development of this tool,

NOTE Confidence: 0.984233065

00:15:13.630 --> 00:15:15.846 but I think it will be an important

NOTE Confidence: 0.984233065

00:15:15.846 --> 00:15:18.066 tool that can assist the pathologist

NOTE Confidence: 0.984233065

00:15:18.066 --> 00:15:19.634 and actually artificial intelligence

NOTE Confidence: 0.984233065

00:15:19.634 --> 00:15:21.544 is being developed in many

NOTE Confidence: 0.984233065

00:15:21.544 --> 00:15:23.500 branches of medicine and

NOTE Confidence: 0.984233065

00:15:23.500 --> 00:15:25.866 radiology too, so it turns out

NOTE Confidence: 0.984233065

00:15:25.866 --> 00:15:28.320 that those parts of medicine that

NOTE Confidence: 0.984233065

00:15:28.320 --> 00:15:30.430 deal with diagnostic images like

NOTE Confidence: 0.984233065

00:15:30.500 --> 00:15:32.690 radiology and pathology are areas

NOTE Confidence: 0.984233065

00:15:32.690 --> 00:15:35.340 where there could be great benefit.

NOTE Confidence: 0.984233065

00:15:35.340 --> 00:15:39.138 From more standardization, I would say,

NOTE Confidence: 0.984233065

00:15:39.140 --> 00:15:41.844 and perhaps even quantitation,

NOTE Confidence: 0.984233065

00:15:41.844 --> 00:15:44.548 using computer assisted methods,

NOTE Confidence: 0.984233065

00:15:44.550 --> 00:15:46.440 so that's already happening and

NOTE Confidence: 0.984233065

00:15:46.440 --> 00:15:47.952 actually happening very quickly

NOTE Confidence: 0.984233065

00:15:47.952 --> 00:15:50.106 as far as the research into this.

NOTE Confidence: 0.984233065

00:15:50.110 --> 00:15:53.410 And the use of computers and

NOTE Confidence: 0.984233065

00:15:53.410 --> 00:15:54.510 artificial intelligence.

NOTE Confidence: 0.984233065

00:15:54.510 --> 00:15:58.722 To develop algorithms, ways in which

NOTE Confidence: 0.984233065

00:15:58.722 --> 00:16:02.189 the computer can diagnose and

NOTE Confidence: 0.984233065

00:16:02.189 --> 00:16:04.907 even grade prostate cancer.

NOTE Confidence: 0.984233065

00:16:04.910 --> 00:16:07.031 So I've been fortunate enough to have

NOTE Confidence: 0.984233065

00:16:07.031 --> 00:16:09.118 been involved in a couple of these

NOTE Confidence: 0.984233065

00:16:09.118 --> 00:16:11.134 research studies and a number of us

NOTE Confidence: 0.984233065

00:16:11.134 --> 00:16:12.772 from around the world who

NOTE Confidence: 0.984233065

00:16:12.772 --> 00:16:14.738 are interested in prostate cancer

NOTE Confidence: 0.984233065

00:16:14.738 --> 00:16:16.848 and are genitourinary pathologists,

NOTE Confidence: 0.984233065

00:16:16.850 --> 00:16:18.509 and we've looked at hundreds of slides,

NOTE Confidence: 0.984233065

00:16:18.510 --> 00:16:20.016 all online,

NOTE Confidence: 0.984233065

00:16:20.016 --> 00:16:23.028 so these are all images diagnosable

NOTE Confidence: 0.984233065

00:16:23.028 --> 00:16:24.354 on our computer.

NOTE Confidence: 0.984233065

00:16:24.354 --> 00:16:27.462 And then we tested the algorithm and then

00:16:30.275 --> 00:16:33.035 the algorithm was tested against our

NOTE Confidence: 0.984233065

00:16:33.113 --> 00:16:35.476 diagnosis in grade versus collections

NOTE Confidence: 0.984233065

00:16:35.476 --> 00:16:38.598 of pathologists who were

NOTE Confidence: 0.984233065

00:16:38.600 --> 00:16:40.865 not sub specialized in

NOTE Confidence: 0.984233065

00:16:40.865 --> 00:16:43.173 prostate cancer diagnosis and the

NOTE Confidence: 0.984233065

00:16:43.173 --> 00:16:46.131 computer was actually just as good

NOTE Confidence: 0.984233065

00:16:46.131 --> 00:16:49.138 as our diagnosis and grading.

NOTE Confidence: 0.984233065

00:16:49.140 --> 00:16:51.820 So what does this mean for the future?

NOTE Confidence: 0.984233065

00:16:51.820 --> 00:16:53.940 Well, there are actually a lot of challenges.

00:16:55.148 --> 00:16:56.658 There are several algorithms that

NOTE Confidence: 0.984233065

00:16:56.658 --> 00:16:58.240 have already been published.

NOTE Confidence: 0.984233065

00:16:58.240 --> 00:17:00.850 Methods that the computer uses,

NOTE Confidence: 0.984233065

00:17:00.850 --> 00:17:03.622 and there's a lot of standardization

NOTE Confidence: 0.984233065

00:17:03.622 --> 00:17:06.234 and validation that needs to occur

NOTE Confidence: 0.984233065

00:17:06.234 --> 00:17:07.939 so that a computer can use

NOTE Confidence: 0.984233065

00:17:07.940 --> 00:17:10.898 images from a particular laboratory

NOTE Confidence: 0.984233065

00:17:10.898 --> 00:17:13.613 and one particular hospital as far

NOTE Confidence: 0.984233065

00:17:13.613 --> 00:17:15.930 as the scanners they use to make

NOTE Confidence: 0.984233065

00:17:15.930 --> 00:17:18.591 those images and the way the slides

NOTE Confidence: 0.984233065

00:17:18.591 --> 00:17:20.756 are prepared that all of those

NOTE Confidence: 0.984233065

00:17:20.756 --> 00:17:23.478 factors can have a huge impact on the

NOTE Confidence: 0.984233065

00:17:23.478 --> 00:17:25.986 success or failure of the algorithms.

NOTE Confidence: 0.984233065

00:17:25.990 --> 00:17:28.694 My hope is that as far as standardization,

NOTE Confidence: 0.984233065

00:17:28.700 --> 00:17:31.472 it can be used as a tool to help

NOTE Confidence: 0.984233065

00:17:31.472 --> 00:17:33.931 hospitals where there may not be ready

NOTE Confidence: 0.984233065

00:17:33.931 --> 00:17:36.860 access to a genitourinary pathologist.

NOTE Confidence: 0.984233065

00:17:36.860 --> 00:17:38.253 And also I think for those of

NOTE Confidence: 0.984233065

00:17:38.253 --> 00:17:39.539 us who have high volumes

NOTE Confidence: 0.984233065

00:17:39.540 --> 00:17:42.204 and have a special sub specialized group

NOTE Confidence: 0.984233065

00:17:42.204 --> 00:17:45.157 of Geo pathologist as we do here at Yale,

NOTE Confidence: 0.984233065

00:17:45.160 --> 00:17:46.880 I think it might actually

NOTE Confidence: 0.984233065

00:17:46.880 --> 00:17:48.256 help us screen cases.

NOTE Confidence: 0.984233065

00:17:48.260 --> 00:17:50.801 So that the computer could actually help

NOTE Confidence: 0.984233065

00:17:50.801 --> 00:17:53.549 us identify through all these slides,

NOTE Confidence: 0.984233065

00:17:53.550 --> 00:17:56.916 identify the ones that need particular

NOTE Confidence: 0.984233065

00:17:56.916 --> 00:17:58.731 attention or standardized grading.

NOTE Confidence: 0.984233065

00:17:58.731 --> 00:18:00.399 So there may be,

NOTE Confidence: 0.984233065

00:18:00.400 --> 00:18:01.128 for example,

NOTE Confidence: 0.984233065

00:18:01.128 --> 00:18:03.312 a difference of opinion about the

NOTE Confidence: 0.984233065

00:18:03.312 --> 00:18:05.502 grade of a specific cancer and

NOTE Confidence: 0.984233065

00:18:05.502 --> 00:18:07.074 the way we currently address this,

NOTE Confidence: 0.984233065

00:18:07.080 --> 00:18:08.610 and this is very important actually

NOTE Confidence: 0.984233065

00:18:08.610 --> 00:18:10.400 when there's a difficult case,

NOTE Confidence: 0.984233065

00:18:10.400 --> 00:18:12.880 we'll have a consensus conference,

NOTE Confidence: 0.984233065

00:18:12.880 --> 00:18:15.344 meaning that up to seven of us

NOTE Confidence: 0.984233065

00:18:15.344 --> 00:18:17.938 who are sub specialized in

NOTE Confidence: 0.984233065

00:18:17.940 --> 00:18:19.300 genitourinary pathology at Yale will meet

NOTE Confidence: 0.984233065

00:18:19.300 --> 00:18:21.638 around the microscope or in this area,

NOTE Confidence: 0.982386003571429

00:18:21.640 --> 00:18:23.695 from our computers and look

NOTE Confidence: 0.982386003571429

00:18:23.695 --> 00:18:26.122 at the images together to try

NOTE Confidence: 0.982386003571429

00:18:26.122 --> 00:18:27.835 to agree on a particular grade.

NOTE Confidence: 0.982386003571429

00:18:27.835 --> 00:18:30.239 In a difficult case or where it's a

NOTE Confidence: 0.982386003571429

00:18:30.239 --> 00:18:32.315 borderline case between grades for example.

NOTE Confidence: 0.982386003571429

00:18:32.320 --> 00:18:35.410 So maybe the computer could also

NOTE Confidence: 0.982386003571429

00:18:35.410 --> 00:18:38.309 provide help in standardizing those.

NOTE Confidence: 0.982386003571429

00:18:38.310 --> 00:18:40.315 Those sorts of assessments when

NOTE Confidence: 0.982386003571429

00:18:40.315 --> 00:18:42.710 it's a difficult or borderline case,

NOTE Confidence: 0.979769693333333

00:18:43.440 --> 00:18:46.832 so it sounds like this is really exciting

NOTE Confidence: 0.979769693333333

00:18:46.832 --> 00:18:49.619 technology that might be able to provide

NOTE Confidence: 0.979769693333333

00:18:49.620 --> 00:18:53.407 a second opinion. But for right now,

NOTE Confidence: 0.979769693333333

00:18:53.410 --> 00:18:56.570 if you're a patient and you might not

NOTE Confidence: 0.979769693333333

00:18:56.570 --> 00:19:00.397 be at or near a large academic center,

NOTE Confidence: 0.979769693333333

00:19:00.400 --> 00:19:02.968 and you get a prostate biopsy,

NOTE Confidence: 0.979769693333333

00:19:02.970 --> 00:19:05.434 for example, how important is it for

NOTE Confidence: 0.979769693333333

00:19:05.434 --> 00:19:08.928 you to get a second opinion on that

NOTE Confidence: 0.979769693333333

00:19:08.928 --> 00:19:11.288 biopsy from another human pathologist

NOTE Confidence: 0.979769693333333

00:19:11.290 --> 00:19:13.336 if a computer isn't readily available?

NOTE Confidence: 0.986269001666667

00:19:14.030 --> 00:19:16.970 That's a really critical question,

NOTE Confidence: 0.986269001666667

00:19:16.970 --> 00:19:19.220 and I think it's important to

NOTE Confidence: 0.986269001666667

00:19:19.220 --> 00:19:21.986 know in discussions with your

NOTE Confidence: 0.986269001666667

00:19:21.986 --> 00:19:24.506 physician whether a genitourinary pathologist

NOTE Confidence: 0.986269001666667

00:19:24.506 --> 00:19:27.272 has reviewed the slides and it's

NOTE Confidence: 0.986269001666667

00:19:27.272 --> 00:19:29.468 true that around the country there

NOTE Confidence: 0.986269001666667

00:19:29.468 --> 00:19:32.149 are just varying degrees of practice

NOTE Confidence: 0.986269001666667

00:19:32.149 --> 00:19:34.494 and varying volumes of practice,

NOTE Confidence: 0.986269001666667

00:19:34.500 --> 00:19:36.558 and so at a smaller hospital,

NOTE Confidence: 0.986269001666667

00:19:36.560 --> 00:19:39.080 maybe only a few prostate biopsies might

NOTE Confidence: 0.986269001666667

00:19:39.080 --> 00:19:41.816 be seen over a long period of time,

NOTE Confidence: 0.986269001666667

00:19:41.820 --> 00:19:44.865 and particularly in those cases where the

NOTE Confidence: 0.986269001666667

00:19:44.865 --> 00:19:47.355 pathologists may not feel as comfortable,

NOTE Confidence: 0.986269001666667

00:19:47.360 --> 00:19:50.312 or the treating physician may not

NOTE Confidence: 0.986269001666667

00:19:50.312 --> 00:19:53.770 feel as as comfortable, it's

NOTE Confidence: 0.986269001666667

00:19:53.770 --> 00:19:55.534 I think a useful step to seek

NOTE Confidence: 0.986269001666667

00:19:55.534 --> 00:19:57.250 a second opinion,

NOTE Confidence: 0.986269001666667

00:19:57.250 --> 00:20:00.344 and we see slides for second opinions

NOTE Confidence: 0.986269001666667

00:20:00.350 --> 00:20:02.247 all the time here from everyone.

NOTE Confidence: 0.986269001666667

00:20:02.250 --> 00:20:05.004 Actually from patients from treating

NOTE Confidence: 0.986269001666667

00:20:05.004 --> 00:20:07.590 physicians and from pathologists themselves,

NOTE Confidence: 0.986269001666667

00:20:07.590 --> 00:20:10.170 and this is an important quality

NOTE Confidence: 0.986269001666667

00:20:10.170 --> 00:20:12.250 to all these second opinions.

NOTE Confidence: 0.986269001666667

00:20:12.250 --> 00:20:14.938 And again we very commonly almost

NOTE Confidence: 0.986269001666667

00:20:14.938 --> 00:20:18.330 on a daily basis share cases here at

NOTE Confidence: 0.986269001666667

00:20:18.330 --> 00:20:20.990 Yale amongst our group of seven genitourinary

NOTE Confidence: 0.986269001666667

00:20:20.990 --> 00:20:22.280 pathologists

NOTE Confidence: 0.983176275714286

00:20:22.930 --> 00:20:25.807 And so are these second opinions when

NOTE Confidence: 0.983176275714286

00:20:25.810 --> 00:20:28.150 you go and you have your

NOTE Confidence: 0.983176275714286

00:20:28.150 --> 00:20:30.008 slides reviewed by somebody else?

NOTE Confidence: 0.983176275714286

00:20:30.010 --> 00:20:33.112 Or maybe the pathologists themselves sends

NOTE Confidence: 0.983176275714286

00:20:33.112 --> 00:20:35.786 it to another center to get reviewed

NOTE Confidence: 0.983176275714286

00:20:35.790 --> 00:20:37.640 if they're not quite sure

NOTE Confidence: 0.983176275714286

00:20:37.640 --> 00:20:38.750 about the diagnosis,

NOTE Confidence: 0.983176275714286

00:20:38.750 --> 00:20:40.598 is that covered by your insurance?

NOTE Confidence: 0.986612545294117

00:20:41.980 --> 00:20:43.532 Usually it is.

NOTE Confidence: 0.986612545294117

00:20:43.532 --> 00:20:46.388 So at least the cases that we

NOTE Confidence: 0.986612545294117

00:20:46.388 --> 00:20:49.040 receive here for second opinions.

NOTE Confidence: 0.972344943333333

00:20:49.950 --> 00:20:52.296 That's good to know.

NOTE Confidence: 0.972344943333333

00:20:52.300 --> 00:20:55.396 Is it ever the case where even

NOTE Confidence: 0.972344943333333

00:20:55.396 --> 00:20:57.538 if you go to a large academic

NOTE Confidence: 0.972344943333333

00:20:57.538 --> 00:20:59.150 center that it's worthwhile

NOTE Confidence: 0.972344943333333

00:20:59.150 --> 00:21:01.480 getting your slides reviewed by

NOTE Confidence: 0.972344943333333

00:21:01.480 --> 00:21:03.410 another large academic center?

NOTE Confidence: 0.972344943333333

00:21:03.410 --> 00:21:05.735 I mean, how much heterogeneity

NOTE Confidence: 0.972344943333333

00:21:05.735 --> 00:21:07.595 is there between experienced

NOTE Confidence: 0.972344943333333

00:21:07.595 --> 00:21:09.990 genitourinary pathologists for example?

NOTE Confidence: 0.901181860909091

00:21:10.580 --> 00:21:12.810 So since diagnosis

NOTE Confidence: 0.901181860909091

00:21:12.810 --> 00:21:15.460 and grading are still art,

NOTE Confidence: 0.901181860909091

00:21:15.460 --> 00:21:18.638 there can be differences of opinion amongst

NOTE Confidence: 0.901181860909091

00:21:18.638 --> 00:21:22.080 even expert and experienced genitourinary

NOTE Confidence: 0.901181860909091

00:21:22.080 --> 00:21:24.530 pathologists and these tend to be the

NOTE Confidence: 0.901181860909091

00:21:24.530 --> 00:21:27.229 rarer or more borderline cases.

00:21:28.080 --> 00:21:30.294 There's been a lot of research looking at

00:21:31.770 --> 00:21:34.665 variations or differences of opinion

NOTE Confidence: 0.901181860909091

00:21:34.665 --> 00:21:38.190 between pathologists and even between genitourinary

NOTE Confidence: 0.901181860909091

00:21:38.190 --> 00:21:39.020 pathologists,

NOTE Confidence: 0.901181860909091

00:21:39.020 --> 00:21:42.340 and even did a study where I looked

NOTE Confidence: 0.901181860909091

00:21:42.421 --> 00:21:45.043 at agreement with myself so I

NOTE Confidence: 0.901181860909091

00:21:45.043 --> 00:21:47.614 diagnosed and graded some slides and

NOTE Confidence: 0.901181860909091

00:21:47.614 --> 00:21:49.846 then came back sometime later

NOTE Confidence: 0.901181860909091

00:21:49.846 --> 00:21:52.055 to see if the diagnosis and grading

NOTE Confidence: 0.901181860909091

00:21:52.055 --> 00:21:54.439 were the same so the agreement is

NOTE Confidence: 0.901181860909091

00:21:54.439 --> 00:21:56.574 pretty good amongst genitourinary pathologists,

NOTE Confidence: 0.901181860909091

00:21:56.580 --> 00:21:59.272 but one should not hesitate in

NOTE Confidence: 0.901181860909091

00:21:59.272 --> 00:22:01.924 seeking a second opinion at another

NOTE Confidence: 0.901181860909091

00:22:01.930 --> 00:22:03.835 center with an established

NOTE Confidence: 0.901181860909091

00:22:03.835 --> 00:22:05.359 group of pathologists,

NOTE Confidence: 0.982465014545455

00:22:05.850 --> 00:22:07.719 but as we

NOTE Confidence: 0.982465014545455

00:22:07.719 --> 00:22:09.400 talk about that variability,

NOTE Confidence: 0.982465014545455

00:22:09.400 --> 00:22:11.758 all of these pathologists are looking

NOTE Confidence: 0.982465014545455

00:22:11.758 --> 00:22:14.870 at the same slides and I know that in

NOTE Confidence: 0.982465014545455

00:22:14.870 --> 00:22:17.340 other cancers we've talked on this show

NOTE Confidence: 0.982465014545455

00:22:17.340 --> 00:22:19.490 about this concept of

NOTE Confidence: 0.982465014545455

00:22:19.490 --> 00:22:21.832 heterogeneity that you might have a

NOTE Confidence: 0.982465014545455

00:22:21.832 --> 00:22:24.121 cancer that looks kind of different in

NOTE Confidence: 0.982465014545455

00:22:24.130 --> 00:22:28.144 one part than another and so I wonder,

NOTE Confidence: 0.982465014545455

00:22:28.150 --> 00:22:30.264 when you get these biopsies,

NOTE Confidence: 0.982465014545455

00:22:30.270 --> 00:22:32.797 we often

NOTE Confidence: 0.982465014545455

00:22:32.797 --> 00:22:34.859 send a core biopsy so

NOTE Confidence: 0.982465014545455

00:22:34.860 --> 00:22:37.150 a sampling of this tumor,

NOTE Confidence: 0.982465014545455

00:22:37.150 --> 00:22:38.410 how representative is that,

NOTE Confidence: 0.982465014545455

00:22:38.410 --> 00:22:40.639 and is it ever the case where

NOTE Confidence: 0.982465014545455

00:22:40.639 --> 00:22:42.815 you look at this and you

NOTE Confidence: 0.982465014545455

00:22:42.815 --> 00:22:44.726 kind of say

NOTE Confidence: 0.982465014545455

00:22:44.726 --> 00:22:46.777 I don't know that this is representative?

NOTE Confidence: 0.982465014545455

00:22:46.780 --> 00:22:48.775 We need to get more tissue or

NOTE Confidence: 0.982465014545455

00:22:48.775 --> 00:22:50.892 are you usually pretty happy

NOTE Confidence: 0.982465014545455

00:22:50.892 --> 00:22:53.268 with the sample that you get?

NOTE Confidence: 0.982267694285714

00:22:53.900 --> 00:22:57.012 So that's such a key question and

NOTE Confidence: 0.982267694285714

00:22:57.012 --> 00:23:00.036 really the practice of the biopsy

NOTE Confidence: 0.982267694285714

00:23:00.036 --> 00:23:03.627 as far as the prostate has changed so

NOTE Confidence: 0.982267694285714

00:23:03.627 --> 00:23:06.260 remarkably since when I was a resident.

NOTE Confidence: 0.982267694285714

00:23:06.260 --> 00:23:07.880 So back in the olden days,

NOTE Confidence: 0.982267694285714

00:23:07.880 --> 00:23:10.659 it was usually just one needle biopsy,

NOTE Confidence: 0.982267694285714

00:23:10.660 --> 00:23:12.730 digitally directed towards a palpable

NOTE Confidence: 0.982267694285714

00:23:12.730 --> 00:23:15.693 mass in the prostate by the examining

NOTE Confidence: 0.982267694285714

00:23:15.693 --> 00:23:18.549 physician and one single core was taken.

NOTE Confidence: 0.982267694285714

00:23:18.550 --> 00:23:20.320 So prostate cancer,

NOTE Confidence: 0.982267694285714

00:23:20.320 --> 00:23:22.680 heterogeneous concept of heterogeneity,

NOTE Confidence: 0.982267694285714

00:23:22.680 --> 00:23:24.906 and different areas of the prostate

NOTE Confidence: 0.982267694285714

00:23:24.910 --> 00:23:27.115 being actually of different grades

NOTE Confidence: 0.982267694285714

00:23:27.115 --> 00:23:28.879 and different aggressiveness

NOTE Confidence: 0.982267694285714

00:23:28.879 --> 00:23:30.921 is actually characteristic of

NOTE Confidence: 0.982267694285714

00:23:30.921 --> 00:23:32.965 prostate cancer and prostate

NOTE Confidence: 0.982267694285714

00:23:32.970 --> 00:23:35.220 cancer also tends to have multiple

NOTE Confidence: 0.982267694285714

00:23:35.220 --> 00:23:37.180 nodules within the same gland,

NOTE Confidence: 0.982267694285714

00:23:37.180 --> 00:23:38.770 so what's been a real advantage

NOTE Confidence: 0.982267694285714

00:23:38.770 --> 00:23:41.146 is medical advances in radiology,

NOTE Confidence: 0.982267694285714

00:23:41.146 --> 00:23:44.562 and there are expert radiologists here who have

NOTE Confidence: 0.982267694285714

00:23:44.562 --> 00:23:46.602 actually helped develop this technique,

NOTE Confidence: 0.982267694285714

00:23:46.610 --> 00:23:50.040 and that's a special type of MRI.

NOTE Confidence: 0.982267694285714

00:23:50.040 --> 00:23:53.095 Magnetic resonance imaging that's used

NOTE Confidence: 0.982267694285714

00:23:53.095 --> 00:23:57.519 with ultrasound to guide the

NOTE Confidence: 0.982267694285714

00:23:57.520 --> 00:23:59.980 needle placement within the prostate.

NOTE Confidence: 0.982267694285714

00:23:59.980 --> 00:24:02.976 So now rather than one needle core,

NOTE Confidence: 0.982267694285714

00:24:02.980 --> 00:24:07.644 we often receive anywhere from 20 to even

NOTE Confidence: 0.982267694285714

00:24:07.644 --> 00:24:11.567 30 individual needle cores per patient.

NOTE Confidence: 0.982267694285714

00:24:11.570 --> 00:24:14.356 And the reason is that the radiologist

NOTE Confidence: 0.982267694285714

00:24:14.356 --> 00:24:17.034 now can identify areas where they're

NOTE Confidence: 0.982267694285714

00:24:17.034 --> 00:24:19.854 suspicious of cancer and can specifically

NOTE Confidence: 0.982267694285714

00:24:19.854 --> 00:24:22.396 say based on their grading scheme,

NOTE Confidence: 0.982267694285714

00:24:22.396 --> 00:24:25.228 whether they think it's a lower

NOTE Confidence: 0.982267694285714

00:24:25.228 --> 00:24:28.070 risk or a higher risk case so

NOTE Confidence: 0.982267694285714

00:24:28.070 --> 00:24:32.120 I do feel good about the

NOTE Confidence: 0.982267694285714

00:24:32.120 --> 00:24:34.805 representation for most patients and when

NOTE Confidence: 0.982267694285714

00:24:34.805 --> 00:24:38.227 the patients have undergone this

NOTE Confidence: 0.982267694285714

00:24:38.227 --> 00:24:41.515 type of imaging by the radiologists.

00:24:42.501 --> 00:24:44.136 Even though multiple needle cores

NOTE Confidence: 0.982267694285714

00:24:44.136 --> 00:24:45.949 are placed in a single nodule,

NOTE Confidence: 0.982267694285714

00:24:45.950 --> 00:24:49.136 it's still possible that maybe

NOTE Confidence: 0.982267694285714

00:24:49.136 --> 00:24:52.849 a smaller high grade area was missed.

NOTE Confidence: 0.982267694285714

00:24:52.850 --> 00:24:54.368 Warning signs would be,

NOTE Confidence: 0.982267694285714

00:24:54.370 --> 00:24:57.146 what if the patient has a really high

NOTE Confidence: 0.982267694285714

00:24:57.146 --> 00:25:00.280 serum PSA prostate specific antigen level?

NOTE Confidence: 0.982267694285714

00:25:00.280 --> 00:25:02.452 Or what if this is radiologically

NOTE Confidence: 0.982267694285714

00:25:02.452 --> 00:25:04.400 a very aggressive looking lesion,

NOTE Confidence: 0.982267694285714

00:25:04.400 --> 00:25:06.848 but we don't see that under the microscope?

NOTE Confidence: 0.982267694285714

00:25:06.850 --> 00:25:10.210 Then I would worry about

NOTE Confidence: 0.982267694285714

00:25:10.210 --> 00:25:12.100 the needle maybe not sampling

NOTE Confidence: 0.982267694285714

00:25:12.100 --> 00:25:13.510 the worst of the cancer.

NOTE Confidence: 0.981135883333333

00:25:13.540 --> 00:25:15.256 Yeah, it goes back to that

NOTE Confidence: 0.981135883333333

00:25:15.260 --> 00:25:17.676 concept of being a bit of a

NOTE Confidence: 0.981135883333333

00:25:17.676 --> 00:25:19.614 detective that we talked about before

NOTE Confidence: 0.981135883333333

00:25:19.614 --> 00:25:22.348 the break and the fact that the

NOTE Confidence: 0.981135883333333

00:25:22.348 --> 00:25:24.572 pathologist is really a key part

NOTE Confidence: 0.981135883333333

00:25:24.572 --> 00:25:26.342 of this multidisciplinary team that

NOTE Confidence: 0.981135883333333

00:25:26.342 --> 00:25:28.659 you need to get information from.

NOTE Confidence: 0.981135883333333

00:25:28.660 --> 00:25:30.280 From the radiologist,

NOTE Confidence: 0.981135883333333

00:25:30.280 --> 00:25:31.495 from the surgeon.

NOTE Confidence: 0.981135883333333

00:25:31.500 --> 00:25:32.556 from the other physicians.

NOTE Confidence: 0.981135883333333

00:25:32.556 --> 00:25:34.316 who are involved

NOTE Confidence: 0.981135883333333

00:25:34.316 --> 00:25:36.670 in the case to kind of put all

NOTE Confidence: 0.981135883333333

00:25:36.670 --> 00:25:38.328 of the pieces together to make

NOTE Confidence: 0.981135883333333

00:25:38.328 --> 00:25:39.930 sure that it all makes sense.

NOTE Confidence: 0.988567085714286

00:25:40.170 --> 00:25:42.592 That's what I love about

NOTE Confidence: 0.988567085714286

00:25:42.592 --> 00:25:44.959 working here is working with so many

NOTE Confidence: 0.988567085714286

00:25:44.960 --> 00:25:47.240 bright and experienced physicians

NOTE Confidence: 0.988567085714286

00:25:47.240 --> 00:25:49.970 who are passionate about providing the

NOTE Confidence: 0.988567085714286

00:25:49.970 --> 00:25:53.120 highest level care and talking with

NOTE Confidence: 0.988567085714286

00:25:53.120 --> 00:25:55.622 them about what their perspective

NOTE Confidence: 0.988567085714286

00:25:55.622 --> 00:25:58.999 and view is on a specific patient.

NOTE Confidence: 0.988567085714286

00:25:59.000 --> 00:26:02.424 For example, if there

NOTE Confidence: 0.988567085714286

00:26:02.430 --> 00:26:06.084 is not a link made between pathology

NOTE Confidence: 0.988567085714286

00:26:06.090 --> 00:26:08.659 and what we see in the clinical setting

NOTE Confidence: 0.988567085714286

00:26:08.659 --> 00:26:12.000 that sort of correlation is

NOTE Confidence: 0.988567085714286

00:26:12.000 --> 00:26:13.440 clinicopathologic correlation and

NOTE Confidence: 0.988567085714286

00:26:13.440 --> 00:26:15.996 is so vital.

NOTE Confidence: 0.988567085714286

00:26:15.996 --> 00:26:18.688 Going back to that patient with pain in the rib.

NOTE Confidence: 0.988567085714286

00:26:18.690 --> 00:26:21.007 It was absolutely essential to know that

NOTE Confidence: 0.988567085714286

00:26:21.007 --> 00:26:23.297 the patient had a history of cancer

NOTE Confidence: 0.988567085714286

00:26:23.297 --> 00:26:25.500 10 years ago to establish firmly that

NOTE Confidence: 0.988567085714286

00:26:25.500 --> 00:26:27.738 cancer scene and what we would

NOTE Confidence: 0.988567085714286

00:26:27.738 --> 00:26:29.230 do is compare slides.

NOTE Confidence: 0.988567085714286

00:26:29.230 --> 00:26:31.757 That cancer in the rib biopsy

NOTE Confidence: 0.988567085714286

00:26:31.757 --> 00:26:34.527 was the same as the cancer in the

NOTE Confidence: 0.988567085714286

00:26:34.530 --> 00:26:35.730 salivary gland,

NOTE Confidence: 0.988567085714286

00:26:35.730 --> 00:26:38.127 so we do that commonly to look

NOTE Confidence: 0.988567085714286

00:26:38.127 --> 00:26:40.231 back at old slides to see if

NOTE Confidence: 0.988567085714286

00:26:40.295 --> 00:26:42.178 if cancer has come back and

NOTE Confidence: 0.988567085714286

00:26:42.178 --> 00:26:44.518 we think a cancer might

NOTE Confidence: 0.988567085714286

00:26:44.518 --> 00:26:47.450 have come back or spread so that

NOTE Confidence: 0.988567085714286

00:26:47.450 --> 00:26:49.370 comparison is a really important part

NOTE Confidence: 0.988567085714286

00:26:49.370 --> 00:26:51.696 of the detective work we do.

NOTE Confidence: 0.987179823333333

00:26:51.710 --> 00:26:54.475 And I think the other piece

NOTE Confidence: 0.987179823333333

00:26:54.475 --> 00:26:57.110 that's so important is that it's so

NOTE Confidence: 0.987179823333333

00:26:57.110 --> 00:26:59.470 critical in terms of what you do,

NOTE Confidence: 0.987179823333333

00:26:59.470 --> 00:27:01.158 especially in prostate cancer,

NOTE Confidence: 0.987179823333333

00:27:01.158 --> 00:27:03.268 to really nail down how

NOTE Confidence: 0.987179823333333

00:27:03.268 --> 00:27:05.190 aggressive this is because it is

NOTE Confidence: 0.987179823333333

00:27:05.190 --> 00:27:08.174 the difference these days between having

NOTE Confidence: 0.987179823333333

00:27:08.174 --> 00:27:11.258 more aggressive surgery

NOTE Confidence: 0.987179823333333

00:27:11.258 --> 00:27:14.299 or radiation versus watchful waiting.

NOTE Confidence: 0.987179823333333

00:27:14.300 --> 00:27:17.567 Tell us a little bit more about how your

NOTE Confidence: 0.987179823333333

00:27:17.567 --> 00:27:20.090 decisions impact treatment and prognosis?

NOTE Confidence: 0.989357395

00:27:20.870 --> 00:27:22.742 After establishing a

NOTE Confidence: 0.989357395

00:27:22.742 --> 00:27:24.614 diagnosis of prostate cancer,

NOTE Confidence: 0.989357395

00:27:24.620 --> 00:27:28.134 we assign the Gleason grade or score

NOTE Confidence: 0.989357395

00:27:28.140 --> 00:27:31.204 and that is a grade number we give

NOTE Confidence: 0.989357395

00:27:31.204 --> 00:27:33.598 for every single prostate cancer

NOTE Confidence: 0.989357395

00:27:33.598 --> 00:27:37.795 needle core in every case and a great

NOTE Confidence: 0.989357395

00:27:37.795 --> 00:27:40.520 group for that particular biopsy.

NOTE Confidence: 0.989357395

00:27:40.520 --> 00:27:42.970 So if a patient had 10 positive

NOTE Confidence: 0.989357395

00:27:42.970 --> 00:27:44.959 cores with cancer in each one,

NOTE Confidence: 0.989357395

00:27:44.960 --> 00:27:47.402 we would assign an individual

NOTE Confidence: 0.989357395

00:27:47.402 --> 00:27:49.030 grade to each one,

NOTE Confidence: 0.989357395

00:27:49.030 --> 00:27:51.249 and actually I just gave a

NOTE Confidence: 0.989357395

00:27:51.249 --> 00:27:53.346 lecture this morning to the pathology

NOTE Confidence: 0.989357395

00:27:53.346 --> 00:27:55.399 residents on grading and staging.

NOTE Confidence: 0.989357395

00:27:55.399 --> 00:27:59.160 So it is one of the most critical

NOTE Confidence: 0.989357395

00:27:59.160 --> 00:28:02.376 things we do because grade is such

NOTE Confidence: 0.989357395

00:28:02.376 --> 00:28:05.872 a dominant prognostic indicator for us.

NOTE Confidence: 0.989357395

00:28:05.872 --> 00:28:07.736 For the patients physician,

NOTE Confidence: 0.989357395

00:28:07.740 --> 00:28:08.634 for everyone,

NOTE Confidence: 0.989357395

00:28:08.634 --> 00:28:11.316 and the patient themselves.

00:28:12.500 --> 00:28:15.044 For example, a grade Group One in a patient

NOTE Confidence: 0.989357395

00:28:15.050 --> 00:28:18.284 with a lower PSA might consider

NOTE Confidence: 0.989357395

00:28:18.284 --> 00:28:20.440 along with their physician,

NOTE Confidence: 0.989357395

00:28:20.440 --> 00:28:22.660 the physician might consider active

NOTE Confidence: 0.989357395

00:28:22.660 --> 00:28:24.880 surveillance or careful monitoring of

NOTE Confidence: 0.989357395

00:28:24.941 --> 00:28:27.335 that cancer compared to a grade Group

NOTE Confidence: 0.989357395

00:28:27.335 --> 00:28:29.604 5 where everyone would agree this

NOTE Confidence: 0.989357395

00:28:29.604 --> 00:28:31.999 patient definitely needs active therapy.

NOTE Confidence: 0.974879952142857

00:28:32.810 --> 00:28:35.127 Doctor Peter Humphrey is a professor of

NOTE Confidence: 0.974879952142857

00:28:35.127 --> 00:28:37.608 pathology at the Yale School of Medicine.

NOTE Confidence: 0.974879952142857

00:28:37.610 --> 00:28:39.102 If you have questions,

NOTE Confidence: 0.974879952142857

00:28:39.102 --> 00:28:41.340 the address is cancer answers at

NOTE Confidence: 0.974879952142857

00:28:41.340 --> 00:28:43.602 yale.edu and past editions of the

NOTE Confidence: 0.974879952142857

00:28:43.602 --> 00:28:45.888 program are available in audio and

NOTE Confidence: 0.974879952142857

00:28:45.888 --> 00:28:48.366 written form at Yale Cancer Center Org.

NOTE Confidence: 0.974879952142857

00:28:48.370 --> 00:28:50.338 We hope you'll join us next week to

NOTE Confidence: 0.974879952142857

00:28:50.338 --> 00:28:52.236 learn more about the fight against

NOTE Confidence: 0.974879952142857

00:28:52.236 --> 00:28:53.921 cancer here on Connecticut Public

NOTE Confidence: 0.974879952142857

00:28:53.921 --> 00:28:55.600 radio funding for Yale Cancer

NOTE Confidence: 0.974879952142857

00:28:55.600 --> 00:28:57.205 Answers is provided by Smilow

NOTE Confidence: 0.974879952142857

00:28:57.205 --> 00:28:59.998 Cancer Hospital and AstraZeneca.