

WEBVTT

00:00:00.000 --> 00:00:03.168 Funding for Yale Cancer Answers is

NOTE Confidence: 0.815263929090909

00:00:03.168 --> 00:00:06.170 provided by Smilow Cancer Hospital.

NOTE Confidence: 0.815263929090909

00:00:06.170 --> 00:00:08.335 Welcome to Yale Cancer Answers

NOTE Confidence: 0.815263929090909

00:00:08.335 --> 00:00:10.067 with Doctor Anees Chagpar.

NOTE Confidence: 0.815263929090909

00:00:10.070 --> 00:00:12.254 Yale Cancer Answers features the latest

NOTE Confidence: 0.815263929090909

00:00:12.254 --> 00:00:14.491 information on cancer care by welcoming

NOTE Confidence: 0.815263929090909

00:00:14.491 --> 00:00:17.004 oncologists and specialists who are on the

NOTE Confidence: 0.815263929090909

00:00:17.004 --> 00:00:19.078 forefront of the battle to fight cancer.

NOTE Confidence: 0.815263929090909

00:00:19.080 --> 00:00:21.180 This week, it's a conversation about the

NOTE Confidence: 0.815263929090909

00:00:21.180 --> 00:00:23.182 care of patients with kidney disease

NOTE Confidence: 0.815263929090909

00:00:23.182 --> 00:00:25.282 and cancer with doctor Anushree Shirali.

NOTE Confidence: 0.815263929090909

00:00:25.290 --> 00:00:27.096 Dr. Shirali is an associate professor

NOTE Confidence: 0.815263929090909

00:00:27.096 --> 00:00:29.306 of medicine in the section of nephrology

NOTE Confidence: 0.815263929090909

00:00:29.306 --> 00:00:31.202 at the Yale School of Medicine,

NOTE Confidence: 0.815263929090909

00:00:31.210 --> 00:00:32.995 where Doctor Chagpar is a

NOTE Confidence: 0.815263929090909

00:00:32.995 --> 00:00:34.423 professor of surgical oncology.  
NOTE Confidence: 0.92834906

00:00:35.660 --> 00:00:37.431 Maybe we could start off by you  
NOTE Confidence: 0.92834906

00:00:37.431 --> 00:00:39.378 telling us a little bit more about  
NOTE Confidence: 0.92834906

00:00:39.378 --> 00:00:42.250 yourself and what it is you do.  
NOTE Confidence: 0.796792096

00:00:42.320 --> 00:00:44.312 I'd be happy to.  
NOTE Confidence: 0.796792096

00:00:44.312 --> 00:00:47.780 So I am a clinical nephrologist and  
NOTE Confidence: 0.796792096

00:00:47.780 --> 00:00:51.620 I have been here at Yale since about  
NOTE Confidence: 0.796792096

00:00:51.620 --> 00:00:53.438 2006 when I came for fellowship.  
NOTE Confidence: 0.796792096

00:00:53.440 --> 00:00:55.953 I spent a few years in an  
NOTE Confidence: 0.796792096

00:00:55.953 --> 00:00:57.935 immunology lab and then joined  
NOTE Confidence: 0.796792096

00:00:57.935 --> 00:01:00.791 the clinical faculty back in 2011.  
NOTE Confidence: 0.796792096

00:01:00.791 --> 00:01:03.458 That's when Smilow was just getting off  
NOTE Confidence: 0.796792096

00:01:03.458 --> 00:01:06.096 the ground and there was a real need  
NOTE Confidence: 0.796792096

00:01:06.100 --> 00:01:08.545 for renal specific or kidney  
NOTE Confidence: 0.796792096

00:01:08.545 --> 00:01:10.990 specific care of cancer patients.  
NOTE Confidence: 0.796792096

00:01:10.990 --> 00:01:14.782 So I started seeing cancer patients

NOTE Confidence: 0.796792096

00:01:14.782 --> 00:01:17.414 who have any sort of kidney issue

NOTE Confidence: 0.796792096

00:01:17.414 --> 00:01:19.699 and that in essence is what I do

NOTE Confidence: 0.796792096

00:01:19.699 --> 00:01:22.002 now as a clinical practice that

NOTE Confidence: 0.796792096

00:01:22.002 --> 00:01:24.397 is centered on onco nephrology.

NOTE Confidence: 0.856792549

00:01:25.400 --> 00:01:27.584 So tell us a little bit

NOTE Confidence: 0.856792549

00:01:27.584 --> 00:01:29.040 more about onco nephrology,

NOTE Confidence: 0.856792549

00:01:29.040 --> 00:01:31.878 are there cancer patients who

NOTE Confidence: 0.856792549

00:01:31.878 --> 00:01:35.282 have kidney issues or is that really

NOTE Confidence: 0.856792549

00:01:35.282 --> 00:01:37.657 people who have kidney cancer?

NOTE Confidence: 0.877983056842105

00:01:38.060 --> 00:01:40.937 Yeah, so it's a bit more expansive

NOTE Confidence: 0.877983056842105

00:01:40.937 --> 00:01:43.314 than just patients who may have

NOTE Confidence: 0.877983056842105

00:01:43.314 --> 00:01:45.432 cancer of the kidney.

NOTE Confidence: 0.877983056842105

00:01:45.440 --> 00:01:49.392 Onco nephrology is a relatively new sub

NOTE Confidence: 0.877983056842105

00:01:49.392 --> 00:01:52.440 specialty within the field of nephrology,

NOTE Confidence: 0.877983056842105

00:01:52.440 --> 00:01:55.368 it really is about 10 to 15 years old.

NOTE Confidence: 0.877983056842105

00:01:55.370 --> 00:02:00.455 And it involves the care of patients who have  
NOTE Confidence: 0.877983056842105

00:02:00.455 --> 00:02:05.147 either active cancer or a history of cancer,  
NOTE Confidence: 0.877983056842105

00:02:05.150 --> 00:02:07.010 who then develop kidney disease  
NOTE Confidence: 0.877983056842105

00:02:07.010 --> 00:02:08.870 in all of its forms.  
NOTE Confidence: 0.877983056842105

00:02:08.870 --> 00:02:12.054 And that could be something like having some  
NOTE Confidence: 0.877983056842105

00:02:12.054 --> 00:02:15.247 protein in the urine or blood in the urine.  
NOTE Confidence: 0.877983056842105

00:02:15.250 --> 00:02:17.002 Or it could be a change  
NOTE Confidence: 0.877983056842105

00:02:17.002 --> 00:02:18.170 in actual kidney function,  
NOTE Confidence: 0.877983056842105

00:02:18.170 --> 00:02:20.822 something that we measure by a  
NOTE Confidence: 0.877983056842105

00:02:20.822 --> 00:02:22.590 blood marker called creatinine.  
NOTE Confidence: 0.877983056842105

00:02:22.590 --> 00:02:24.588 And that change in creatinine could  
NOTE Confidence: 0.877983056842105

00:02:24.588 --> 00:02:26.888 happen over a short period of time  
NOTE Confidence: 0.877983056842105

00:02:26.890 --> 00:02:29.498 which we call acute kidney injury or it  
NOTE Confidence: 0.877983056842105

00:02:29.498 --> 00:02:32.037 could happen over a longer period of time,  
NOTE Confidence: 0.877983056842105

00:02:32.040 --> 00:02:33.815 something that we call chronic  
NOTE Confidence: 0.877983056842105

00:02:33.815 --> 00:02:34.525 kidney disease.

NOTE Confidence: 0.877983056842105  
00:02:34.530 --> 00:02:37.400 And then finally patients who have cancer  
NOTE Confidence: 0.877983056842105  
00:02:37.400 --> 00:02:40.030 and particularly those who are  
NOTE Confidence: 0.877983056842105  
00:02:40.030 --> 00:02:42.028 on certain types of active treatment  
NOTE Confidence: 0.877983056842105  
00:02:42.097 --> 00:02:44.467 can also develop high blood pressure.  
NOTE Confidence: 0.877983056842105  
00:02:44.470 --> 00:02:46.773 So the job of the onco nephrologist  
NOTE Confidence: 0.877983056842105  
00:02:46.773 --> 00:02:49.612 is really to take care of patients  
NOTE Confidence: 0.877983056842105  
00:02:49.612 --> 00:02:51.837 who have all these different  
NOTE Confidence: 0.877983056842105  
00:02:51.837 --> 00:02:53.799 manifestations of kidney disease.  
NOTE Confidence: 0.903939605384615  
00:02:55.270 --> 00:02:57.730 That's a really good point because  
NOTE Confidence: 0.903939605384615  
00:02:57.730 --> 00:03:00.426 we know that people in general  
NOTE Confidence: 0.903939605384615  
00:03:00.426 --> 00:03:02.856 can get kidney disease whether  
NOTE Confidence: 0.903939605384615  
00:03:02.856 --> 00:03:05.489 they have hypertension or diabetes  
NOTE Confidence: 0.903939605384615  
00:03:05.489 --> 00:03:07.669 or various other nephropathies.  
NOTE Confidence: 0.903939605384615  
00:03:07.670 --> 00:03:09.800 And clearly people who have  
NOTE Confidence: 0.903939605384615  
00:03:09.800 --> 00:03:11.504 cancer are also people  
NOTE Confidence: 0.903939605384615

00:03:11.510 --> 00:03:13.925 so they could get these things too.  
NOTE Confidence: 0.903939605384615

00:03:13.930 --> 00:03:16.471 But do people who have cancer and  
NOTE Confidence: 0.903939605384615

00:03:16.471 --> 00:03:19.345 are on certain therapies related  
NOTE Confidence: 0.903939605384615

00:03:19.345 --> 00:03:22.175 to cancer like chemotherapy or  
NOTE Confidence: 0.903939605384615

00:03:22.175 --> 00:03:25.248 people who have gotten radiation  
NOTE Confidence: 0.903939605384615

00:03:25.250 --> 00:03:26.534 for various reasons,  
NOTE Confidence: 0.903939605384615

00:03:26.534 --> 00:03:28.674 particularly to the abdomen,  
NOTE Confidence: 0.903939605384615

00:03:28.674 --> 00:03:31.122 are they at increased risk of  
NOTE Confidence: 0.903939605384615

00:03:31.122 --> 00:03:33.396 getting kidney disease and if so,  
NOTE Confidence: 0.903939605384615

00:03:33.400 --> 00:03:36.001 can you talk a little bit more about what  
NOTE Confidence: 0.903939605384615

00:03:36.001 --> 00:03:38.387 those things are that put them at risk?  
NOTE Confidence: 0.690893418571429

00:03:38.500 --> 00:03:41.454 Yes, definitely. And the answer is yes,  
NOTE Confidence: 0.690893418571429

00:03:41.460 --> 00:03:45.660 they are indeed at risk specifically from,  
NOTE Confidence: 0.690893418571429

00:03:45.660 --> 00:03:47.836 well in certain cases from the cancer itself.  
NOTE Confidence: 0.690893418571429

00:03:47.840 --> 00:03:49.821 So I'm thinking here of kidney cancer  
NOTE Confidence: 0.690893418571429

00:03:49.821 --> 00:03:51.914 when you have a nephrectomy

NOTE Confidence: 0.690893418571429  
00:03:51.914 --> 00:03:53.684 or removal of the kidney that's  
NOTE Confidence: 0.690893418571429  
00:03:53.740 --> 00:03:55.972 been affected by tumor, you lose  
NOTE Confidence: 0.690893418571429  
00:03:55.972 --> 00:03:57.400 some kidney function,  
NOTE Confidence: 0.690893418571429  
00:03:57.400 --> 00:04:01.422 the surgical procedure itself can cause  
NOTE Confidence: 0.690893418571429  
00:04:01.422 --> 00:04:03.676 certain types of injury to the kidney,  
NOTE Confidence: 0.690893418571429  
00:04:03.680 --> 00:04:06.550 but yes, other types of therapies  
NOTE Confidence: 0.690893418571429  
00:04:06.550 --> 00:04:10.100 for any kind of cancer can also cause  
NOTE Confidence: 0.690893418571429  
00:04:10.100 --> 00:04:12.600 different manifestations of kidney disease,  
NOTE Confidence: 0.690893418571429  
00:04:12.600 --> 00:04:14.084 particularly acute kidney injury.  
NOTE Confidence: 0.690893418571429  
00:04:14.084 --> 00:04:15.939 And this is not something  
NOTE Confidence: 0.690893418571429  
00:04:15.939 --> 00:04:17.320 new within oncology.  
NOTE Confidence: 0.690893418571429  
00:04:17.320 --> 00:04:19.804 So platinum based drugs for example  
NOTE Confidence: 0.690893418571429  
00:04:19.804 --> 00:04:22.464 have been around for a very long  
NOTE Confidence: 0.690893418571429  
00:04:22.464 --> 00:04:24.634 time and we knew early on that  
NOTE Confidence: 0.690893418571429  
00:04:24.713 --> 00:04:26.932 cisplatin is particularly toxic  
NOTE Confidence: 0.690893418571429

00:04:26.932 --> 00:04:28.930 to the kidney,  
NOTE Confidence: 0.690893418571429

00:04:28.930 --> 00:04:30.932 a part of the kidney called the  
NOTE Confidence: 0.690893418571429

00:04:30.932 --> 00:04:32.488 proximal tubule that's  
NOTE Confidence: 0.690893418571429

00:04:32.488 --> 00:04:34.99 really the workhorse of the kidney  
NOTE Confidence: 0.690893418571429

00:04:34.994 --> 00:04:38.170 can be damaged with use of cisplatin.  
NOTE Confidence: 0.690893418571429

00:04:38.170 --> 00:04:40.070 So that's something that  
NOTE Confidence: 0.690893418571429

00:04:40.070 --> 00:04:42.390 we've known for a long time.  
NOTE Confidence: 0.690893418571429

00:04:42.390 --> 00:04:44.145 There are other more what  
NOTE Confidence: 0.690893418571429

00:04:44.145 --> 00:04:45.549 we call targeted therapies.  
NOTE Confidence: 0.690893418571429

00:04:45.550 --> 00:04:48.846 So something that I think about or see  
NOTE Confidence: 0.690893418571429

00:04:48.846 --> 00:04:52.728 commonly is the use of inhibitors against  
NOTE Confidence: 0.690893418571429

00:04:52.728 --> 00:04:55.108 vascular endothelial growth factor,  
NOTE Confidence: 0.690893418571429

00:04:55.110 --> 00:04:56.970 which is a growth factor that  
NOTE Confidence: 0.690893418571429

00:04:56.970 --> 00:04:57.900 encourages tumor growth.  
NOTE Confidence: 0.690893418571429

00:04:57.900 --> 00:05:01.488 Inhibition of that is obviously of  
NOTE Confidence: 0.690893418571429

00:05:01.488 --> 00:05:04.160 importance when you're trying to



NOTE Confidence: 0.690893418571429  
00:05:04.160 --> 00:05:06.400 achieve tumor growth suppression.  
NOTE Confidence: 0.690893418571429  
00:05:06.400 --> 00:05:10.423 But VEGF also happens to play an  
NOTE Confidence: 0.690893418571429  
00:05:10.423 --> 00:05:13.268 integral role in maintaining the  
NOTE Confidence: 0.690893418571429  
00:05:13.268 --> 00:05:16.260 vascular architecture of the kidney.  
NOTE Confidence: 0.690893418571429  
00:05:16.260 --> 00:05:19.116 And so when these drugs first came out,  
NOTE Confidence: 0.690893418571429  
00:05:19.120 --> 00:05:21.760 we noted that patients were presenting  
NOTE Confidence: 0.690893418571429  
00:05:21.760 --> 00:05:25.612 with new onset or of high blood pressure  
NOTE Confidence: 0.690893418571429  
00:05:25.612 --> 00:05:28.630 or if they had pre-existing hypertension  
NOTE Confidence: 0.690893418571429  
00:05:28.630 --> 00:05:31.024 the control of that blood pressure became  
NOTE Confidence: 0.690893418571429  
00:05:31.024 --> 00:05:33.518 worse with the use of VEGF inhibitors.  
NOTE Confidence: 0.690893418571429  
00:05:33.520 --> 00:05:35.970 We then also noted that these patients  
NOTE Confidence: 0.690893418571429  
00:05:35.970 --> 00:05:37.919 were getting protein in their urine  
NOTE Confidence: 0.690893418571429  
00:05:37.919 --> 00:05:39.872 and when some of these  
NOTE Confidence: 0.690893418571429  
00:05:39.932 --> 00:05:42.007 patients ended up getting biopsied,  
NOTE Confidence: 0.690893418571429  
00:05:42.010 --> 00:05:44.334 we noticed something called  
NOTE Confidence: 0.690893418571429

00:05:44.334 --> 00:05:45.496 thrombotic microangiopathy.  
NOTE Confidence: 0.690893418571429

00:05:45.500 --> 00:05:48.355 Essentially they were getting in  
NOTE Confidence: 0.690893418571429

00:05:48.355 --> 00:05:51.106 their kidneys clots within the  
NOTE Confidence: 0.690893418571429

00:05:51.106 --> 00:05:53.826 blood vessels of the kidneys.  
NOTE Confidence: 0.690893418571429

00:05:53.830 --> 00:05:57.162 So we know that a variety of  
NOTE Confidence: 0.690893418571429

00:05:57.162 --> 00:05:59.310 different treatments for cancer  
NOTE Confidence: 0.690893418571429

00:05:59.310 --> 00:06:01.860 can cause  
NOTE Confidence: 0.690893418571429

00:06:01.860 --> 00:06:04.800 injury to the kidney itself and the  
NOTE Confidence: 0.690893418571429

00:06:04.800 --> 00:06:08.670 prompt diagnosis of these kidney  
NOTE Confidence: 0.690893418571429

00:06:08.670 --> 00:06:12.185 injuries can then lead to controlling  
NOTE Confidence: 0.690893418571429

00:06:12.185 --> 00:06:13.880 those manifestations better.  
NOTE Confidence: 0.852640678571428

00:06:14.260 --> 00:06:16.199 Yeah. So that was the other question.  
NOTE Confidence: 0.852640678571428

00:06:16.200 --> 00:06:18.200 Of course which is we  
NOTE Confidence: 0.852640678571428

00:06:18.200 --> 00:06:20.647 know that there are a number of side  
NOTE Confidence: 0.852640678571428

00:06:20.647 --> 00:06:22.251 effects of cancer therapies and  
NOTE Confidence: 0.852640678571428

00:06:22.251 --> 00:06:24.246 sometimes in order to try

NOTE Confidence: 0.852640678571428  
00:06:24.246 --> 00:06:26.450 to control the cancer you kind of  
NOTE Confidence: 0.852640678571428  
00:06:26.450 --> 00:06:29.797 have to bite the bullet on the  
NOTE Confidence: 0.852640678571428  
00:06:29.797 --> 00:06:31.847 risks associated with those therapies.  
NOTE Confidence: 0.852640678571428  
00:06:31.850 --> 00:06:35.746 But it is concerning if  
NOTE Confidence: 0.852640678571428  
00:06:35.746 --> 00:06:38.890 some of those factors are irreversible.  
NOTE Confidence: 0.852640678571428  
00:06:38.890 --> 00:06:41.655 But what I'm gathering from you is  
NOTE Confidence: 0.852640678571428  
00:06:41.655 --> 00:06:44.675 that so long as you can diagnose  
NOTE Confidence: 0.852640678571428  
00:06:44.675 --> 00:06:47.297 it and treat it effectively that  
NOTE Confidence: 0.852640678571428  
00:06:47.384 --> 00:06:50.179 these can be managed. Is that right?  
NOTE Confidence: 0.852640678571428  
00:06:50.179 --> 00:06:52.237 Or does this sometimes lead  
NOTE Confidence: 0.852640678571428  
00:06:52.237 --> 00:06:54.660 to irreversible kidney failure?  
NOTE Confidence: 0.840268586  
00:06:54.730 --> 00:06:56.502 Yeah. So I want to, you know,  
NOTE Confidence: 0.840268586  
00:06:56.502 --> 00:06:58.232 reassure that most of the  
NOTE Confidence: 0.840268586  
00:06:58.232 --> 00:07:00.709 time it is indeed reversible.  
NOTE Confidence: 0.840268586  
00:07:00.710 --> 00:07:02.120 So cisplatin is a great  
NOTE Confidence: 0.840268586

00:07:02.120 --> 00:07:04.521 example, it can cause an acute  
NOTE Confidence: 0.840268586

00:07:04.521 --> 00:07:07.362 rise in in the blood creatinine and  
NOTE Confidence: 0.840268586

00:07:07.362 --> 00:07:10.409 those are the referrals that I  
NOTE Confidence: 0.840268586

00:07:10.409 --> 00:07:12.604 get pretty quickly and patients often  
NOTE Confidence: 0.840268586

00:07:12.604 --> 00:07:15.110 you know express a lot of concern.  
NOTE Confidence: 0.840268586

00:07:15.110 --> 00:07:17.550 I don't want my kidneys to fail.  
NOTE Confidence: 0.840268586

00:07:17.550 --> 00:07:19.910 I don't want to end up on dialysis.  
NOTE Confidence: 0.840268586

00:07:19.910 --> 00:07:21.890 But in general the way we manage it is  
NOTE Confidence: 0.840268586

00:07:21.890 --> 00:07:23.252 quite conservatively.  
NOTE Confidence: 0.840268586

00:07:23.252 --> 00:07:26.430 You know usually there'll be a break  
NOTE Confidence: 0.840268586

00:07:26.509 --> 00:07:29.416 i chemotherapy they'll be just  
NOTE Confidence: 0.840268586

00:07:29.416 --> 00:07:32.548 supportive care and then  
NOTE Confidence: 0.840268586

00:07:32.550 --> 00:07:34.983 in the period of time, usually within weeks,  
NOTE Confidence: 0.840268586

00:07:34.983 --> 00:07:37.442 I've never had, you know,  
NOTE Confidence: 0.840268586

00:07:37.442 --> 00:07:40.197 injury last for several months,  
NOTE Confidence: 0.840268586

00:07:40.200 --> 00:07:43.116 but usually within a matter of a few weeks,

NOTE Confidence: 0.840268586  
00:07:43.120 --> 00:07:45.898 the kidney function will then return,  
NOTE Confidence: 0.840268586  
00:07:45.900 --> 00:07:47.208 usually to normal.  
NOTE Confidence: 0.840268586  
00:07:47.208 --> 00:07:49.388 Sometimes people will have a  
NOTE Confidence: 0.840268586  
00:07:49.388 --> 00:07:52.102 creatinine that ends up being a bit  
NOTE Confidence: 0.840268586  
00:07:52.102 --> 00:07:54.220 over what their baseline values are,  
NOTE Confidence: 0.840268586  
00:07:54.220 --> 00:07:56.400 but in general, you know,  
NOTE Confidence: 0.840268586  
00:07:56.400 --> 00:07:59.200 even if they have residual kidney disease,  
NOTE Confidence: 0.840268586  
00:07:59.200 --> 00:08:01.804 it's very mild and it's very manageable.  
00:08:05.320 --> 00:08:08.780 So if people have already had  
NOTE Confidence: 0.945605306  
00:08:08.780 --> 00:08:10.274 pre-existing kidney disease,  
NOTE Confidence: 0.945605306  
00:08:10.274 --> 00:08:13.262 so let's say somebody has hypertension  
NOTE Confidence: 0.945605306  
00:08:13.262 --> 00:08:15.867 and they're already starting to have  
NOTE Confidence: 0.945605306  
00:08:15.867 --> 00:08:18.358 the first signs of kidney disease  
NOTE Confidence: 0.945605306  
00:08:18.358 --> 00:08:21.060 and then they end up getting cancer,  
NOTE Confidence: 0.945605306  
00:08:21.060 --> 00:08:23.783 are you often involved in  
NOTE Confidence: 0.945605306  
00:08:23.783 --> 00:08:26.380 kind of helping to guide therapy?

NOTE Confidence: 0.945605306

00:08:26.380 --> 00:08:29.131 I mean, should those patients avoid some

NOTE Confidence: 0.945605306

00:08:29.131 --> 00:08:32.658 of the more nephrotoxic chemotherapies or

NOTE Confidence: 0.945605306

00:08:32.660 --> 00:08:34.868 is this something where it's kind of like,

NOTE Confidence: 0.945605306

00:08:34.870 --> 00:08:38.770 you know what we'll manage your cancer

00:08:40.653 --> 00:08:42.729 and we'll kind of deal with whatever

NOTE Confidence: 0.945605306

00:08:42.729 --> 00:08:44.858 we need to deal with on the back end?

NOTE Confidence: 0.751519366

00:08:46.430 --> 00:08:48.584 The answer sort of depends on

NOTE Confidence: 0.751519366

00:08:48.584 --> 00:08:50.878 what are the different choices for

NOTE Confidence: 0.751519366

00:08:50.878 --> 00:08:52.843 therapy of that particular cancer

NOTE Confidence: 0.751519366

00:08:52.843 --> 00:08:55.185 and that of course will depend

NOTE Confidence: 0.751519366

00:08:55.185 --> 00:08:57.420 on what organ type is affected,

NOTE Confidence: 0.751519366

00:08:57.420 --> 00:08:59.954 how advanced is the malignancy

NOTE Confidence: 0.751519366

00:08:59.954 --> 00:09:03.587 and then it also depends on how bad is

NOTE Confidence: 0.751519366

00:09:03.587 --> 00:09:06.004 the pre-existing kidney disease and

NOTE Confidence: 0.751519366

00:09:06.004 --> 00:09:08.788 I definitely do see those patients

NOTE Confidence: 0.751519366

00:09:08.790 --> 00:09:11.005 even before treatment is started

NOTE Confidence: 0.751519366

00:09:11.005 --> 00:09:14.072 mostly so that the oncologists and

NOTE Confidence: 0.751519366

00:09:14.072 --> 00:09:17.948 I can partner in potentially

NOTE Confidence: 0.751519366

00:09:17.948 --> 00:09:21.399 modifying the types of treatment.

NOTE Confidence: 0.751519366

00:09:21.400 --> 00:09:22.789 So for example,

NOTE Confidence: 0.751519366

00:09:22.789 --> 00:09:25.104 many of these chemotherapies are

NOTE Confidence: 0.751519366

00:09:25.104 --> 00:09:27.098 actually cleared by the kidney.

NOTE Confidence: 0.751519366

00:09:27.100 --> 00:09:29.196 So it's not just that you worry

NOTE Confidence: 0.751519366

00:09:29.196 --> 00:09:31.389 about the drugs that are going to be

NOTE Confidence: 0.751519366

00:09:31.389 --> 00:09:33.639 toxic to the kidney and if someone

NOTE Confidence: 0.751519366

00:09:33.639 --> 00:09:35.131 has pre-existing kidney disease

NOTE Confidence: 0.751519366

00:09:35.131 --> 00:09:37.216 then their kidney disease gets worse

NOTE Confidence: 0.751519366

00:09:37.216 --> 00:09:39.470 and that ends up being an issue.

NOTE Confidence: 0.751519366

00:09:39.470 --> 00:09:42.758 But that even the therapies that

NOTE Confidence: 0.751519366

00:09:42.758 --> 00:09:44.950 are not particularly nephrotoxic,

NOTE Confidence: 0.751519366

00:09:44.950 --> 00:09:47.746 so toxic to the kidney are

NOTE Confidence: 0.751519366

00:09:47.746 --> 00:09:50.290 metabolically cleared by the kidney.

NOTE Confidence: 0.751519366

00:09:50.290 --> 00:09:52.397 And so what you then worry about

NOTE Confidence: 0.751519366

00:09:52.397 --> 00:09:54.211 is that these chemotherapies could

NOTE Confidence: 0.751519366

00:09:54.211 --> 00:09:56.725 build up and cause toxicity in

NOTE Confidence: 0.751519366

00:09:56.725 --> 00:09:59.472 other organs if you have

NOTE Confidence: 0.751519366

00:09:59.472 --> 00:10:01.307 preexisting kidney disease and you

NOTE Confidence: 0.751519366

00:10:01.310 --> 00:10:03.700 can't quite clear the chemotherapy

NOTE Confidence: 0.751519366

00:10:03.700 --> 00:10:06.090 that's being given to you.

NOTE Confidence: 0.751519366

00:10:06.090 --> 00:10:07.798 And so we do have some guidelines

NOTE Confidence: 0.751519366

00:10:07.798 --> 00:10:09.468 depending on the drug and how much

NOTE Confidence: 0.751519366

00:10:09.470 --> 00:10:11.522 experience we have on it about

NOTE Confidence: 0.751519366

00:10:11.522 --> 00:10:13.979 a dose reduction if you have

NOTE Confidence: 0.751519366

00:10:13.979 --> 00:10:15.500 pre-existing kidney disease,

00:10:15.948 --> 00:10:18.636 I've also had my own dialysis

NOTE Confidence: 0.751519366

00:10:18.636 --> 00:10:21.223 patients develop cancer and that's

NOTE Confidence: 0.751519366

00:10:21.223 --> 00:10:23.372 a particularly challenging thing

NOTE Confidence: 0.751519366



00:10:23.372 --> 00:10:25.382 because you're dealing with their  
NOTE Confidence: 0.751519366

00:10:25.382 --> 00:10:26.990 dialysis treatments and you're  
NOTE Confidence: 0.751519366

00:10:27.054 --> 00:10:28.919 dealing with having to definitely  
NOTE Confidence: 0.751519366

00:10:28.919 --> 00:10:30.784 modify chemotherapy in order to  
NOTE Confidence: 0.751519366

00:10:30.851 --> 00:10:32.796 dose things safely and effectively  
NOTE Confidence: 0.751519366

00:10:32.796 --> 00:10:34.352 for the particular cancer.  
NOTE Confidence: 0.925959974285714

00:10:35.600 --> 00:10:38.260 Yeah. I mean, and it sounds like  
NOTE Confidence: 0.925959974285714

00:10:38.260 --> 00:10:41.424 certainly things can get a little bit  
NOTE Confidence: 0.925959974285714

00:10:41.424 --> 00:10:44.598 tricky when you're dealing with somebody  
NOTE Confidence: 0.925959974285714

00:10:44.598 --> 00:10:47.478 who has pre-existing kidney issues.  
NOTE Confidence: 0.925959974285714

00:10:47.480 --> 00:10:50.036 But one of the questions that might come up,  
NOTE Confidence: 0.925959974285714

00:10:50.040 --> 00:10:53.784 I mean, there are people who either have  
NOTE Confidence: 0.925959974285714

00:10:53.784 --> 00:10:58.630 donated a kidney or have lost a kidney  
NOTE Confidence: 0.925959974285714

00:10:58.630 --> 00:11:03.388 for whatever reason, either a benign  
NOTE Confidence: 0.925959974285714

00:11:03.390 --> 00:11:06.206 or perhaps a due to a trauma  
NOTE Confidence: 0.925959974285714

00:11:06.206 --> 00:11:09.233 have had either a partial or total

NOTE Confidence: 0.925959974285714

00:11:09.233 --> 00:11:11.473 nephrectomy and after that

NOTE Confidence: 0.925959974285714

00:11:11.557 --> 00:11:14.437 oftentimes they're told don't worry,

NOTE Confidence: 0.925959974285714

00:11:14.440 --> 00:11:18.517 you have two kidneys you can you can live

NOTE Confidence: 0.925959974285714

00:11:18.517 --> 00:11:24.640 quite happily on one, if they then get cancer,

NOTE Confidence: 0.925959974285714

00:11:24.640 --> 00:11:26.760 does that cause an impediment

NOTE Confidence: 0.925959974285714

00:11:26.760 --> 00:11:29.180 or is it that, you know,

NOTE Confidence: 0.925959974285714

00:11:29.180 --> 00:11:32.060 so long as that one kidney is functioning,

NOTE Confidence: 0.925959974285714

00:11:32.060 --> 00:11:33.269 they're still OK?

NOTE Confidence: 0.781895964

00:11:34.000 --> 00:11:35.610 Yeah. So in a sense,

NOTE Confidence: 0.781895964

00:11:35.610 --> 00:11:37.042 you're absolutely right.

NOTE Confidence: 0.781895964

00:11:37.042 --> 00:11:38.832 When people have a nephrectomy,

NOTE Confidence: 0.781895964

00:11:38.840 --> 00:11:40.428 whether it's traumatic or

NOTE Confidence: 0.781895964

00:11:40.428 --> 00:11:41.905 sometimes it's congenital, right?

NOTE Confidence: 0.781895964

00:11:41.905 --> 00:11:43.615 You're just born with one kidney.

NOTE Confidence: 0.781895964

00:11:43.620 --> 00:11:46.780 That is the advice we give them that

NOTE Confidence: 0.781895964

00:11:46.780 --> 00:11:49.999 you should be OK because your other  
NOTE Confidence: 0.781895964

00:11:49.999 --> 00:11:52.296 remnant kidney does start taking  
NOTE Confidence: 0.781895964

00:11:52.296 --> 00:11:55.008 over for the other kidney that  
NOTE Confidence: 0.781895964

00:11:55.010 --> 00:11:57.670 quote UN quote should be there,  
NOTE Confidence: 0.781895964

00:11:57.670 --> 00:11:59.910 and that is true.  
NOTE Confidence: 0.781895964

00:11:59.910 --> 00:12:02.784 You should be maintaining your  
NOTE Confidence: 0.781895964

00:12:02.784 --> 00:12:04.700 overall kidney function whether  
NOTE Confidence: 0.781895964

00:12:04.776 --> 00:12:06.810 you have one or two kidneys.  
NOTE Confidence: 0.781895964

00:12:06.810 --> 00:12:09.440 Having said that, that remaining  
NOTE Confidence: 0.781895964

00:12:09.440 --> 00:12:12.710 kidney remains in a sense  
NOTE Confidence: 0.781895964

00:12:12.710 --> 00:12:15.356 more susceptible because you're only working  
NOTE Confidence: 0.781895964

00:12:15.356 --> 00:12:18.390 with a certain amount of kidney reserve.  
NOTE Confidence: 0.781895964

00:12:18.390 --> 00:12:21.135 So yes, if the patients I think about  
NOTE Confidence: 0.781895964

00:12:21.135 --> 00:12:23.298 sometimes are the ones who have kidney  
NOTE Confidence: 0.781895964

00:12:23.298 --> 00:12:25.897 cancers and have had to have a nephrectomy.  
NOTE Confidence: 0.781895964

00:12:25.900 --> 00:12:27.909 And then end up being on some

NOTE Confidence: 0.781895964

00:12:27.909 --> 00:12:30.072 sort of systemic treatment

NOTE Confidence: 0.781895964

00:12:30.072 --> 00:12:32.516 that is potentially nephrotoxic.

NOTE Confidence: 0.781895964

00:12:32.520 --> 00:12:34.568 And so there I do worry a little

NOTE Confidence: 0.781895964

00:12:34.568 --> 00:12:36.427 bit more because you're working

NOTE Confidence: 0.781895964

00:12:36.427 --> 00:12:38.139 with less kidney reserve.

NOTE Confidence: 0.781895964

00:12:38.140 --> 00:12:41.171 And so if we are using potentially

NOTE Confidence: 0.781895964

00:12:41.171 --> 00:12:42.924 nephrotoxic therapies that we

NOTE Confidence: 0.781895964

00:12:42.924 --> 00:12:45.174 just have to monitor very closely.

NOTE Confidence: 0.817492161428571

00:12:46.370 --> 00:12:49.506 Yeah. And it sounds like,

NOTE Confidence: 0.817492161428571

00:12:49.510 --> 00:12:51.518 um, particularly for people

NOTE Confidence: 0.817492161428571

00:12:51.518 --> 00:12:53.868 with kidney cancer is

NOTE Confidence: 0.817492161428571

00:12:53.868 --> 00:12:56.234 that really more so for people

NOTE Confidence: 0.817492161428571

00:12:56.234 --> 00:12:59.048 who have had kidney cancer that have

NOTE Confidence: 0.817492161428571

00:12:59.048 --> 00:13:02.400 had a nephrectomy or is that for

NOTE Confidence: 0.817492161428571

00:13:02.400 --> 00:13:05.356 anybody who's got a single kidney

NOTE Confidence: 0.817492161428571

00:13:05.356 --> 00:13:08.348 who's getting nephrotoxic drugs?  
NOTE Confidence: 0.817492161428571

00:13:08.350 --> 00:13:08.839 Yeah, I would  
NOTE Confidence: 0.918478568

00:13:08.850 --> 00:13:09.790 say it's not  
NOTE Confidence: 0.918478568

00:13:09.790 --> 00:13:12.016 particularly specific to  
NOTE Confidence: 0.918478568

00:13:12.016 --> 00:13:14.984 people with kidney cancer.  
NOTE Confidence: 0.918478568

00:13:14.990 --> 00:13:15.834 I really think it's  
NOTE Confidence: 0.918478568

00:13:15.834 --> 00:13:17.836 for anybody who's had  
NOTE Confidence: 0.918478568

00:13:17.836 --> 00:13:19.806 a nephrectomy for any reason,  
NOTE Confidence: 0.918478568

00:13:19.810 --> 00:13:21.442 whether it's congenital or  
NOTE Confidence: 0.918478568

00:13:21.442 --> 00:13:23.370 related to trauma.  
NOTE Confidence: 0.882766749230769

00:13:24.760 --> 00:13:27.082 Fantastic. Well, we are gonna take  
NOTE Confidence: 0.882766749230769

00:13:27.082 --> 00:13:29.978 a short break for a medical minute,  
NOTE Confidence: 0.882766749230769

00:13:29.980 --> 00:13:31.220 but on the other side,  
NOTE Confidence: 0.882766749230769

00:13:31.220 --> 00:13:33.305 hopefully we'll talk more about  
NOTE Confidence: 0.882766749230769

00:13:33.305 --> 00:13:35.853 kidney cancer and the whole area  
NOTE Confidence: 0.882766749230769

00:13:35.853 --> 00:13:38.157 of onco nephrology with my guest,

NOTE Confidence: 0.882766749230769  
00:13:38.160 --> 00:13:39.948 doctor Anushree Shirali.  
NOTE Confidence: 0.840855680344828  
00:13:40.520 --> 00:13:42.848 Funding for Yale Cancer Answers comes  
NOTE Confidence: 0.840855680344828  
00:13:42.848 --> 00:13:44.897 from Smilow Cancer Hospital where  
NOTE Confidence: 0.840855680344828  
00:13:44.897 --> 00:13:46.617 their Center for Gastrointestinal  
NOTE Confidence: 0.840855680344828  
00:13:46.617 --> 00:13:48.767 Cancers provides patients with a  
NOTE Confidence: 0.840855680344828  
00:13:48.834 --> 00:13:49.790 comprehensive multidisciplinary  
NOTE Confidence: 0.840855680344828  
00:13:49.790 --> 00:13:53.136 approach to the treatment of GI cancers.  
NOTE Confidence: 0.840855680344828  
00:13:53.140 --> 00:13:57.308 SmilowCancerhospital.org  
NOTE Confidence: 0.840855680344828  
00:13:57.310 --> 00:14:00.190 The American Cancer Society estimates that  
NOTE Confidence: 0.840855680344828  
00:14:00.190 --> 00:14:02.698 over 200,000 cases of Melanoma will be  
NOTE Confidence: 0.840855680344828  
00:14:02.698 --> 00:14:05.119 diagnosed in the United States this year,  
NOTE Confidence: 0.840855680344828  
00:14:05.120 --> 00:14:08.228 with over 1000 patients in Connecticut alone.  
NOTE Confidence: 0.840855680344828  
00:14:08.230 --> 00:14:10.515 While Melanoma accounts for only  
NOTE Confidence: 0.840855680344828  
00:14:10.515 --> 00:14:13.014 about 1% of skin cancer cases,  
NOTE Confidence: 0.840855680344828  
00:14:13.014 --> 00:14:16.010 it causes the most skin cancer deaths,  
NOTE Confidence: 0.840855680344828

00:14:16.010 --> 00:14:17.434 but when detected early,  
NOTE Confidence: 0.840855680344828

00:14:17.434 --> 00:14:20.150 it is easily treated and highly curable.  
NOTE Confidence: 0.840855680344828

00:14:20.150 --> 00:14:22.038 Clinical trials are currently  
NOTE Confidence: 0.840855680344828

00:14:22.038 --> 00:14:23.926 underway at federally designated  
NOTE Confidence: 0.840855680344828

00:14:23.926 --> 00:14:25.875 Comprehensive cancer centers such as  
NOTE Confidence: 0.840855680344828

00:14:25.875 --> 00:14:28.066 Yale Cancer Center and Smilow Cancer.  
NOTE Confidence: 0.840855680344828

00:14:28.070 --> 00:14:30.070 Hospital to test innovative new  
NOTE Confidence: 0.840855680344828

00:14:30.070 --> 00:14:32.542 treatments for Melanoma, The goal of  
NOTE Confidence: 0.840855680344828

00:14:32.542 --> 00:14:34.572 the specialized programs of research  
NOTE Confidence: 0.840855680344828

00:14:34.572 --> 00:14:37.332 excellence in skin Cancer Grant is to  
NOTE Confidence: 0.840855680344828

00:14:37.332 --> 00:14:39.824 better understand the biology of skin cancer,  
NOTE Confidence: 0.840855680344828

00:14:39.830 --> 00:14:41.530 where the focus on discovering  
NOTE Confidence: 0.840855680344828

00:14:41.530 --> 00:14:43.795 targets that will lead to improved  
NOTE Confidence: 0.840855680344828

00:14:43.795 --> 00:14:45.298 diagnosis and treatment.  
NOTE Confidence: 0.840855680344828

00:14:45.300 --> 00:14:47.748 More information is available  
NOTE Confidence: 0.840855680344828

00:14:47.748 --> 00:14:48.792 at [yalecancercenter.org](http://yalecancercenter.org).

NOTE Confidence: 0.840855680344828  
00:14:48.792 --> 00:14:51.384 You're listening to Connecticut public radio.  
NOTE Confidence: 0.840585796666667  
00:14:53.450 --> 00:14:55.688 Welcome back to Yale Cancer Answers.  
NOTE Confidence: 0.840585796666667  
00:14:55.690 --> 00:14:57.350 This is doctor Anees Chagpar  
NOTE Confidence: 0.840585796666667  
00:14:57.350 --> 00:14:59.604 and I'm joined tonight by my guest,  
NOTE Confidence: 0.840585796666667  
00:14:59.610 --> 00:15:00.819 doctor Anushree Shirali.  
NOTE Confidence: 0.840585796666667  
00:15:00.819 --> 00:15:02.431 We're talking about the  
NOTE Confidence: 0.840585796666667  
00:15:02.431 --> 00:15:04.430 field of onco nephrology,  
NOTE Confidence: 0.840585796666667  
00:15:04.430 --> 00:15:08.090 which is really how cancer intersects  
NOTE Confidence: 0.840585796666667  
00:15:08.090 --> 00:15:11.410 with nephrology, or kidney disease.  
NOTE Confidence: 0.840585796666667  
00:15:11.410 --> 00:15:13.158 And this isn't specifically  
NOTE Confidence: 0.840585796666667  
00:15:13.158 --> 00:15:14.906 just for kidney cancers,  
NOTE Confidence: 0.840585796666667  
00:15:14.910 --> 00:15:18.851 it can be for any cancer where  
NOTE Confidence: 0.840585796666667  
00:15:18.851 --> 00:15:22.040 therapies may have nephrotoxic  
NOTE Confidence: 0.840585796666667  
00:15:22.040 --> 00:15:23.136 side effects.  
NOTE Confidence: 0.840585796666667  
00:15:23.136 --> 00:15:24.780 So doctor Shirali,  
NOTE Confidence: 0.840585796666667



00:15:24.780 --> 00:15:25.965 before the break,  
NOTE Confidence: 0.840585796666667

00:15:25.965 --> 00:15:28.730 we were talking about some of the  
NOTE Confidence: 0.840585796666667

00:15:28.808 --> 00:15:31.630 chemotherapies that can be nephrotoxic.  
NOTE Confidence: 0.840585796666667

00:15:31.630 --> 00:15:33.994 And you mentioned, for example,  
NOTE Confidence: 0.840585796666667

00:15:33.994 --> 00:15:37.036 platinum agents these days we are  
NOTE Confidence: 0.840585796666667

00:15:37.036 --> 00:15:40.499 using a lot more immunotherapies.  
NOTE Confidence: 0.840585796666667

00:15:40.500 --> 00:15:43.300 Can you talk a little bit more  
NOTE Confidence: 0.840585796666667

00:15:43.300 --> 00:15:44.897 about the effects potentially  
NOTE Confidence: 0.840585796666667

00:15:44.897 --> 00:15:46.892 of immunotherapies on the kidney  
NOTE Confidence: 0.840585796666667

00:15:46.892 --> 00:15:49.166 and what can be done about that?  
NOTE Confidence: 0.864384791333333

00:15:49.260 --> 00:15:51.252 Sure. So, yeah, absolutely.  
NOTE Confidence: 0.864384791333333

00:15:51.252 --> 00:15:53.742 So you know immunotherapy as  
NOTE Confidence: 0.864384791333333

00:15:53.742 --> 00:15:56.567 I'm sure the audience knows  
NOTE Confidence: 0.864384791333333

00:15:56.570 --> 00:15:58.802 is really becoming the mainstay treatment  
NOTE Confidence: 0.864384791333333

00:15:58.802 --> 00:16:01.509 for a variety of different cancers,  
NOTE Confidence: 0.864384791333333

00:16:01.510 --> 00:16:03.946 not just kidney cancer, but lung cancer,

NOTE Confidence: 0.864384791333333  
00:16:03.950 --> 00:16:05.570 Melanoma and others.  
NOTE Confidence: 0.864384791333333  
00:16:05.570 --> 00:16:08.000 So it's really an exciting time  
NOTE Confidence: 0.864384791333333  
00:16:08.073 --> 00:16:10.600 I think for the field of oncology  
NOTE Confidence: 0.864384791333333  
00:16:10.600 --> 00:16:13.010 and for patients who are looking  
NOTE Confidence: 0.864384791333333  
00:16:13.010 --> 00:16:15.090 for treatment of their tumors.  
NOTE Confidence: 0.864384791333333  
00:16:15.090 --> 00:16:17.705 Unfortunately the same drugs can  
NOTE Confidence: 0.864384791333333  
00:16:17.705 --> 00:16:21.026 have immune side effects on things  
NOTE Confidence: 0.864384791333333  
00:16:21.026 --> 00:16:23.470 other than their particular  
NOTE Confidence: 0.864384791333333  
00:16:23.470 --> 00:16:25.094 tumor and so  
NOTE Confidence: 0.864384791333333  
00:16:25.094 --> 00:16:29.180 we knew early on at Yale when  
NOTE Confidence: 0.864384791333333  
00:16:29.180 --> 00:16:31.148 patients were enrolled in clinical  
NOTE Confidence: 0.864384791333333  
00:16:31.148 --> 00:16:33.650 trials for some of the immunotherapies.  
NOTE Confidence: 0.864384791333333  
00:16:33.650 --> 00:16:35.046 And what we noticed,  
NOTE Confidence: 0.864384791333333  
00:16:35.046 --> 00:16:36.791 I had several referrals for  
NOTE Confidence: 0.864384791333333  
00:16:36.791 --> 00:16:38.676 patients who had a elevation in  
NOTE Confidence: 0.864384791333333

00:16:38.676 --> 00:16:40.640 their creatinine all of a sudden.

NOTE Confidence: 0.864384791333333

00:16:40.640 --> 00:16:43.076 And when we biopsied their kidneys,

NOTE Confidence: 0.864384791333333

00:16:43.080 --> 00:16:45.852 we found something that we call

NOTE Confidence: 0.864384791333333

00:16:45.852 --> 00:16:47.238 acute interstitial nephritis.

NOTE Confidence: 0.864384791333333

00:16:47.240 --> 00:16:50.305 It's essentially a fancy term

NOTE Confidence: 0.864384791333333

00:16:50.305 --> 00:16:52.384 for infiltration of the kidney

NOTE Confidence: 0.864384791333333

00:16:52.384 --> 00:16:54.580 with a variety of immune cells.

NOTE Confidence: 0.864384791333333

00:16:54.580 --> 00:16:56.938 And the way I sort of explain it to

NOTE Confidence: 0.864384791333333

00:16:56.938 --> 00:16:59.043 patients is that you can think about

NOTE Confidence: 0.864384791333333

00:16:59.043 --> 00:17:00.700 it as a hypersensitive sensitivity

NOTE Confidence: 0.864384791333333

00:17:00.700 --> 00:17:03.100 or allergic reaction in the kidney.

NOTE Confidence: 0.864384791333333

00:17:03.100 --> 00:17:05.704 And we see the acute interstitial nephritis

NOTE Confidence: 0.864384791333333

00:17:05.704 --> 00:17:08.058 with other drugs or NSAIDs or Advil,

NOTE Confidence: 0.864384791333333

00:17:08.060 --> 00:17:11.730 ibuprofen or what we commonly tell patients

NOTE Confidence: 0.864384791333333

00:17:11.730 --> 00:17:13.620 who are on them can sometimes develop

NOTE Confidence: 0.864384791333333

00:17:13.620 --> 00:17:14.977 kidney injury and if we biopsy,

NOTE Confidence: 0.864384791333333  
00:17:14.980 --> 00:17:17.115 we'll sometimes see acute interstitial  
NOTE Confidence: 0.864384791333333  
00:17:17.115 --> 00:17:19.648 nephritis and it's really thought to  
NOTE Confidence: 0.864384791333333  
00:17:19.648 --> 00:17:21.338 be in hypersensitivity reaction in  
NOTE Confidence: 0.864384791333333  
00:17:21.338 --> 00:17:23.580 the kidney with the immunotherapy,  
NOTE Confidence: 0.864384791333333  
00:17:23.580 --> 00:17:24.495 we don't quite  
NOTE Confidence: 0.864384791333333  
00:17:24.495 --> 00:17:26.325 know what the mechanism here is,  
NOTE Confidence: 0.864384791333333  
00:17:26.330 --> 00:17:28.526 we hypothesize that it's  
NOTE Confidence: 0.864384791333333  
00:17:28.530 --> 00:17:30.302 general immune activation against  
NOTE Confidence: 0.864384791333333  
00:17:30.302 --> 00:17:32.960 the cancer and then maybe there's  
NOTE Confidence: 0.864384791333333  
00:17:33.032 --> 00:17:35.174 some sort of cross reactive antigen  
NOTE Confidence: 0.864384791333333  
00:17:35.174 --> 00:17:37.445 in the kidney that these immune  
NOTE Confidence: 0.864384791333333  
00:17:37.445 --> 00:17:38.989 cells then respond to.  
NOTE Confidence: 0.864384791333333  
00:17:38.990 --> 00:17:43.029 But the presentation can be quite dramatic.  
NOTE Confidence: 0.864384791333333  
00:17:43.030 --> 00:17:45.408 I've had patients with  
NOTE Confidence: 0.864384791333333  
00:17:45.408 --> 00:17:48.222 very high creatinine where their kidney  
NOTE Confidence: 0.864384791333333

00:17:48.222 --> 00:17:50.530 function can go quite low,  
NOTE Confidence: 0.864384791333333

00:17:50.530 --> 00:17:53.149 but it also tends to be a very  
NOTE Confidence: 0.864384791333333

00:17:53.149 --> 00:17:54.829 steroid responsive side effect.  
NOTE Confidence: 0.864384791333333

00:17:54.830 --> 00:17:56.876 What happens in the kidney with  
NOTE Confidence: 0.864384791333333

00:17:56.876 --> 00:17:59.556 immunotherapy, so in general,  
NOTE Confidence: 0.864384791333333

00:18:01.193 --> 00:18:02.948 you would stop the immunotherapy  
NOTE Confidence: 0.864384791333333

00:18:02.948 --> 00:18:05.275 and you would treat somebody with  
NOTE Confidence: 0.864384791333333

00:18:05.275 --> 00:18:07.220 steroids and you'd see pretty  
NOTE Confidence: 0.864384791333333

00:18:07.220 --> 00:18:11.120 quick resolution in the  
NOTE Confidence: 0.864384791333333

00:18:11.120 --> 00:18:14.620 elevation of their serum creatinine.  
00:18:16.240 --> 00:18:17.206 It's not uncommon,  
NOTE Confidence: 0.864384791333333

00:18:17.206 --> 00:18:19.920 but it doesn't happen in all patients either.  
NOTE Confidence: 0.864384791333333

00:18:19.920 --> 00:18:23.184 So in the studies as well as the  
NOTE Confidence: 0.864384791333333

00:18:23.184 --> 00:18:25.118 postmarketing data that we have,  
NOTE Confidence: 0.864384791333333

00:18:25.120 --> 00:18:27.696 it's about a 2 to 4% incidence  
NOTE Confidence: 0.864384791333333

00:18:27.696 --> 00:18:30.312 rate among all patients who are  
NOTE Confidence: 0.864384791333333

00:18:30.312 --> 00:18:32.720 being treated with immunotherapy.  
NOTE Confidence: 0.864384791333333

00:18:32.720 --> 00:18:34.720 So something that we encounter,  
NOTE Confidence: 0.864384791333333

00:18:34.720 --> 00:18:36.530 but something that's also treatable.  
NOTE Confidence: 0.892593581052631

00:18:37.280 --> 00:18:39.996 And so how often should patients who  
NOTE Confidence: 0.892593581052631

00:18:39.996 --> 00:18:43.052 are on chemotherapy or on an immune  
NOTE Confidence: 0.892593581052631

00:18:43.052 --> 00:18:45.322 checkpoint inhibitor have their creatinine checked?  
NOTE Confidence: 0.892593581052631

00:18:45.330 --> 00:18:47.532 I mean is that something  
NOTE Confidence: 0.892593581052631

00:18:47.532 --> 00:18:50.019 that is routinely done or is it  
NOTE Confidence: 0.892593581052631

00:18:50.019 --> 00:18:51.792 something that patients  
NOTE Confidence: 0.892593581052631

00:18:51.792 --> 00:18:55.376 should advocate for?  
NOTE Confidence: 0.892593581052631

00:18:55.380 --> 00:18:56.310 Yeah. So I think in  
NOTE Confidence: 0.950587448

00:18:56.320 --> 00:18:59.160 general because so much of  
NOTE Confidence: 0.950587448

00:18:59.160 --> 00:19:01.536 chemotherapy and immunotherapy is,  
NOTE Confidence: 0.950587448

00:19:01.536 --> 00:19:03.318 is protocol driven,  
NOTE Confidence: 0.950587448

00:19:03.320 --> 00:19:05.224 you know it's sort of built into when  
NOTE Confidence: 0.950587448

00:19:05.224 --> 00:19:06.918 they come in for their treatment.

NOTE Confidence: 0.950587448

00:19:06.920 --> 00:19:09.587 So before you're going to

NOTE Confidence: 0.950587448

00:19:09.587 --> 00:19:11.880 be infused with your particular

NOTE Confidence: 0.950587448

00:19:11.880 --> 00:19:14.016 chemotherapy or immunotherapy you'll

NOTE Confidence: 0.950587448

00:19:14.016 --> 00:19:17.449 have a visit with your oncologist.

NOTE Confidence: 0.950587448

00:19:17.450 --> 00:19:19.405 Or another provider and you'll

NOTE Confidence: 0.950587448

00:19:19.405 --> 00:19:22.385 have all of your labs drawn that

NOTE Confidence: 0.950587448

00:19:22.385 --> 00:19:24.750 morning and the serum creatinine.

NOTE Confidence: 0.950587448

00:19:24.750 --> 00:19:27.774 So that's what we check to see

NOTE Confidence: 0.950587448

00:19:27.774 --> 00:19:29.484 how someone's kidneys are functioning

NOTE Confidence: 0.950587448

00:19:29.484 --> 00:19:32.150 is part of the basic metabolic panel

NOTE Confidence: 0.950587448

00:19:32.150 --> 00:19:34.120 that's ordered with these labs.

NOTE Confidence: 0.92205206

00:19:34.250 --> 00:19:37.428 And you had mentioned that many times

NOTE Confidence: 0.92205206

00:19:37.430 --> 00:19:40.568 the kidney side effects of chemotherapies

NOTE Confidence: 0.92205206

00:19:40.568 --> 00:19:43.430 or immunotherapies tend to be acute.

NOTE Confidence: 0.92205206

00:19:43.430 --> 00:19:45.305 Are there long term side

NOTE Confidence: 0.92205206

00:19:45.305 --> 00:19:46.805 effects that might hurt  
NOTE Confidence: 0.92205206

00:19:46.810 --> 00:19:48.680 your kidneys down the road,  
NOTE Confidence: 0.92205206

00:19:48.680 --> 00:19:53.430 so you know 10-15 years later you end  
NOTE Confidence: 0.92205206

00:19:53.430 --> 00:19:57.374 up with a kidney issues that may be  
NOTE Confidence: 0.92205206

00:19:57.374 --> 00:19:59.984 related to your earlier therapy.  
NOTE Confidence: 0.861156077142857

00:20:00.760 --> 00:20:02.944 Yeah, so that's a great question and I  
NOTE Confidence: 0.861156077142857

00:20:02.944 --> 00:20:05.396 think the answer to that is, yes,  
NOTE Confidence: 0.861156077142857

00:20:05.396 --> 00:20:08.252 particularly when you look at the age  
NOTE Confidence: 0.861156077142857

00:20:08.252 --> 00:20:11.308 group of patients being treated.  
NOTE Confidence: 0.861156077142857

00:20:11.310 --> 00:20:13.674 So the best example I can give you  
NOTE Confidence: 0.861156077142857

00:20:13.674 --> 00:20:15.109 from my own clinical experience  
NOTE Confidence: 0.861156077142857

00:20:15.109 --> 00:20:16.929 when I see patients in our  
NOTE Confidence: 0.861156077142857

00:20:16.930 --> 00:20:19.522 Onco Nephrology clinic is patients who  
NOTE Confidence: 0.861156077142857

00:20:19.522 --> 00:20:23.003 have had childhood cancer of some sort and  
NOTE Confidence: 0.861156077142857

00:20:23.003 --> 00:20:25.108 they're treated with nephrotoxic agents.  
NOTE Confidence: 0.861156077142857

00:20:25.110 --> 00:20:27.358 So Ifosfamide



NOTE Confidence: 0.861156077142857  
00:20:27.358 --> 00:20:29.495 is the particular chemotherapy  
NOTE Confidence: 0.861156077142857  
00:20:29.495 --> 00:20:32.610 that I'm thinking of and it is  
NOTE Confidence: 0.861156077142857  
00:20:32.610 --> 00:20:34.449 particularly nephrotoxic and that  
NOTE Confidence: 0.861156077142857  
00:20:34.449 --> 00:20:36.644 nephrotoxicity is very dose dependent.  
NOTE Confidence: 0.861156077142857  
00:20:36.650 --> 00:20:40.530 And so there's now pretty large  
NOTE Confidence: 0.861156077142857  
00:20:40.530 --> 00:20:43.783 repository of literature that suggests  
NOTE Confidence: 0.861156077142857  
00:20:43.783 --> 00:20:47.610 that if you get cumulative dosing over  
NOTE Confidence: 0.861156077142857  
00:20:47.610 --> 00:20:50.424 a lifetime of over a  
NOTE Confidence: 0.861156077142857  
00:20:50.424 --> 00:20:52.300 certain amount of ifosfamide,  
NOTE Confidence: 0.861156077142857  
00:20:52.300 --> 00:20:54.205 the chances of getting chronic  
NOTE Confidence: 0.861156077142857  
00:20:54.205 --> 00:20:56.806 kidney disease later on in life that  
NOTE Confidence: 0.861156077142857  
00:20:56.806 --> 00:20:58.690 is directly tied to that cancer  
NOTE Confidence: 0.861156077142857  
00:20:58.690 --> 00:21:01.260 or to that chemotherapy is higher.  
NOTE Confidence: 0.861156077142857  
00:21:01.260 --> 00:21:03.186 And as you mentioned before, right,  
NOTE Confidence: 0.861156077142857  
00:21:03.186 --> 00:21:04.916 that cancer patients aren't just  
NOTE Confidence: 0.861156077142857

00:21:04.916 --> 00:21:06.666 patients who have cancer, right?  
NOTE Confidence: 0.861156077142857

00:21:06.666 --> 00:21:09.228 They have their people who can get  
NOTE Confidence: 0.861156077142857

00:21:09.228 --> 00:21:11.520 diabetes and hypertension later on.  
NOTE Confidence: 0.861156077142857

00:21:11.520 --> 00:21:13.725 So when I get referrals for chronic  
NOTE Confidence: 0.861156077142857

00:21:13.725 --> 00:21:15.356 kidney disease in patients who  
NOTE Confidence: 0.861156077142857

00:21:15.356 --> 00:21:17.228 have had a history of cancer,  
NOTE Confidence: 0.861156077142857

00:21:17.230 --> 00:21:18.830 you know the most  
NOTE Confidence: 0.861156077142857

00:21:18.830 --> 00:21:20.830 important thing I underscore  
NOTE Confidence: 0.861156077142857

00:21:20.830 --> 00:21:22.494 is that whatever's happened  
NOTE Confidence: 0.861156077142857

00:21:22.494 --> 00:21:23.934 with your kidney has happened.  
NOTE Confidence: 0.861156077142857

00:21:23.940 --> 00:21:25.760 We can't undo that,  
NOTE Confidence: 0.861156077142857

00:21:25.760 --> 00:21:28.930 and thankfully your cancer is at Bay.  
NOTE Confidence: 0.861156077142857

00:21:28.930 --> 00:21:31.549 But what we now need to do is control  
NOTE Confidence: 0.861156077142857

00:21:31.549 --> 00:21:34.190 risk factors that could make your  
NOTE Confidence: 0.861156077142857

00:21:34.190 --> 00:21:36.010 existing kidney disease worse.  
NOTE Confidence: 0.861156077142857

00:21:36.010 --> 00:21:38.194 So essentially you have another insult

NOTE Confidence: 0.861156077142857  
00:21:38.194 --> 00:21:40.072 that can make your pre-existing  
NOTE Confidence: 0.861156077142857  
00:21:40.072 --> 00:21:41.338 kidney disease worse.  
NOTE Confidence: 0.861156077142857  
00:21:41.338 --> 00:21:44.769 And so that's really control of your diet.  
NOTE Confidence: 0.861156077142857  
00:21:44.770 --> 00:21:46.632 So if you happen to have high  
NOTE Confidence: 0.861156077142857  
00:21:46.632 --> 00:21:48.009 blood pressure taking your meds.  
NOTE Confidence: 0.861156077142857  
00:21:48.010 --> 00:21:50.516 Controlling your salt if you have diabetes,  
NOTE Confidence: 0.861156077142857  
00:21:50.520 --> 00:21:51.684 controlling your sugar,  
NOTE Confidence: 0.861156077142857  
00:21:51.684 --> 00:21:53.236 taking your diabetes meds.  
NOTE Confidence: 0.861156077142857  
00:21:53.240 --> 00:21:55.642 So really,  
NOTE Confidence: 0.861156077142857  
00:21:55.642 --> 00:21:57.294 same kind of advice I'd give to  
NOTE Confidence: 0.861156077142857  
00:21:57.294 --> 00:21:58.626 patients with chronic kidney disease  
NOTE Confidence: 0.861156077142857  
00:21:58.626 --> 00:22:00.570 who don't have a history of cancer.  
NOTE Confidence: 0.905445781666667  
00:22:00.660 --> 00:22:03.724 And so is it really that  
NOTE Confidence: 0.905445781666667  
00:22:03.724 --> 00:22:06.034 you're trying to minimize  
NOTE Confidence: 0.905445781666667  
00:22:06.034 --> 00:22:08.145 any additional injury or is  
NOTE Confidence: 0.905445781666667

00:22:08.145 --> 00:22:10.434 there a way to reverse the injury  
NOTE Confidence: 0.905445781666667

00:22:10.434 --> 00:22:12.770 that's already happened?  
NOTE Confidence: 0.862548661111111

00:22:12.780 --> 00:22:15.072 The kidney is a  
NOTE Confidence: 0.862548661111111

00:22:15.072 --> 00:22:16.218 really remarkable organ.  
NOTE Confidence: 0.862548661111111

00:22:16.220 --> 00:22:18.866 It can really withstand a  
NOTE Confidence: 0.862548661111111

00:22:18.870 --> 00:22:20.434 variety of insults.  
NOTE Confidence: 0.862548661111111

00:22:20.434 --> 00:22:23.950 And so the example I give to people is,  
NOTE Confidence: 0.862548661111111

00:22:23.950 --> 00:22:25.552 let's say you are sick with  
NOTE Confidence: 0.862548661111111

00:22:25.552 --> 00:22:27.377 something and you have vomiting and  
NOTE Confidence: 0.862548661111111

00:22:27.377 --> 00:22:28.972 diarrhea for several days, right?  
NOTE Confidence: 0.862548661111111

00:22:28.972 --> 00:22:30.790 All of us will not end up even though  
NOTE Confidence: 0.862548661111111

00:22:30.836 --> 00:22:32.804 you're having a huge amount of volume loss,  
NOTE Confidence: 0.862548661111111

00:22:32.810 --> 00:22:34.693 but all of us don't end up  
NOTE Confidence: 0.862548661111111

00:22:34.693 --> 00:22:36.110 getting kidney disease from that.  
NOTE Confidence: 0.862548661111111

00:22:36.110 --> 00:22:37.835 And that's because the kidneys  
NOTE Confidence: 0.862548661111111

00:22:37.835 --> 00:22:38.525 very remarkable.

NOTE Confidence: 0.8625486611111111  
00:22:38.530 --> 00:22:40.552 It's got a variety of different  
NOTE Confidence: 0.8625486611111111  
00:22:40.552 --> 00:22:41.900 mechanisms to withstand what's  
NOTE Confidence: 0.8625486611111111  
00:22:41.956 --> 00:22:43.741 happening to the rest of the body  
NOTE Confidence: 0.8625486611111111  
00:22:43.741 --> 00:22:45.490 when you have an acute illness.  
NOTE Confidence: 0.8625486611111111  
00:22:45.490 --> 00:22:48.808 Sometimes, though, if an illness is extended.  
00:22:51.774 --> 00:22:53.676 you're definitely getting a toxic  
NOTE Confidence: 0.8625486611111111  
00:22:53.676 --> 00:22:55.456 agent that you can't be off of,  
NOTE Confidence: 0.8625486611111111  
00:22:55.460 --> 00:22:58.260 that insult and that injury is  
NOTE Confidence: 0.8625486611111111  
00:22:58.260 --> 00:23:01.121 ongoing and the kidney reaches a point  
NOTE Confidence: 0.8625486611111111  
00:23:01.121 --> 00:23:04.120 where it can try to defend itself,  
NOTE Confidence: 0.8625486611111111  
00:23:04.120 --> 00:23:06.292 but it has reached a point  
NOTE Confidence: 0.8625486611111111  
00:23:06.292 --> 00:23:08.746 where the kidney injury sets in.  
NOTE Confidence: 0.8625486611111111  
00:23:08.746 --> 00:23:10.758 So in those cases,  
NOTE Confidence: 0.8625486611111111  
00:23:10.760 --> 00:23:13.064 I sort of liken it to someone  
NOTE Confidence: 0.8625486611111111  
00:23:13.064 --> 00:23:14.978 getting a cut on their skin.  
NOTE Confidence: 0.8625486611111111  
00:23:14.980 --> 00:23:16.618 It depends on what the cut is,

NOTE Confidence: 0.8625486611111111  
00:23:16.620 --> 00:23:18.600 like, how deep it is.  
NOTE Confidence: 0.8625486611111111  
00:23:18.600 --> 00:23:20.238 Sometimes that cut will heal and you'll  
NOTE Confidence: 0.8625486611111111  
00:23:20.238 --> 00:23:22.028 look at it and you'll never know  
NOTE Confidence: 0.8625486611111111  
00:23:22.030 --> 00:23:23.160 there was a cut there.  
NOTE Confidence: 0.8625486611111111  
00:23:23.160 --> 00:23:23.883 Other times though,  
NOTE Confidence: 0.8625486611111111  
00:23:23.883 --> 00:23:25.899 if the cut on the skin is deeper  
NOTE Confidence: 0.8625486611111111  
00:23:25.899 --> 00:23:27.775 or it's a particular kind of cut,  
NOTE Confidence: 0.8625486611111111  
00:23:27.780 --> 00:23:29.400 you'll end up seeing a scar.  
NOTE Confidence: 0.8625486611111111  
00:23:29.400 --> 00:23:31.180 So the kidney  
NOTE Confidence: 0.8625486611111111  
00:23:31.180 --> 00:23:34.079 to use that analogy can  
NOTE Confidence: 0.8625486611111111  
00:23:34.079 --> 00:23:36.231 get a cut and that  
NOTE Confidence: 0.8625486611111111  
00:23:36.231 --> 00:23:38.449 cut can either heal or if it's  
NOTE Confidence: 0.8625486611111111  
00:23:38.449 --> 00:23:40.886 a severe cut then you'll end up  
NOTE Confidence: 0.8625486611111111  
00:23:40.886 --> 00:23:42.746 with scarring in the kidney.  
NOTE Confidence: 0.8710826883333333  
00:23:43.540 --> 00:23:47.500 Now we had talked earlier about  
NOTE Confidence: 0.8710826883333333

00:23:47.500 --> 00:23:51.280 the fact that  
NOTE Confidence: 0.871082688333333

00:23:51.280 --> 00:23:55.108 some of the toxicities associated with  
NOTE Confidence: 0.871082688333333

00:23:55.108 --> 00:23:57.660 chemotherapy and immunotherapy etcetera,  
NOTE Confidence: 0.871082688333333

00:23:57.660 --> 00:23:59.585 that are used for any kind of  
NOTE Confidence: 0.871082688333333

00:23:59.585 --> 00:24:01.119 cancer can affect the kidney.  
NOTE Confidence: 0.941590681428571

00:24:03.170 --> 00:24:06.789 For people who have had kidney cancer,  
NOTE Confidence: 0.941590681428571

00:24:06.790 --> 00:24:09.590 are those side effects worse?  
NOTE Confidence: 0.941590681428571

00:24:09.590 --> 00:24:11.907 In other words, is the kidney that  
NOTE Confidence: 0.941590681428571

00:24:11.907 --> 00:24:15.076 has had the kidney cancer  
NOTE Confidence: 0.941590681428571

00:24:15.076 --> 00:24:17.680 more susceptible to injury or  
NOTE Confidence: 0.941590681428571

00:24:17.680 --> 00:24:20.690 does that not really play a role?  
NOTE Confidence: 0.941590681428571

00:24:20.690 --> 00:24:21.438 Yeah. So I don't  
NOTE Confidence: 0.83552084375

00:24:21.450 --> 00:24:22.900 think there's any great literature  
NOTE Confidence: 0.83552084375

00:24:22.900 --> 00:24:24.610 that suggests that  
NOTE Confidence: 0.83552084375

00:24:24.610 --> 00:24:27.130 having kidney cancer puts you at  
NOTE Confidence: 0.83552084375

00:24:27.130 --> 00:24:30.177 more risk for having kidney side

NOTE Confidence: 0.83552084375

00:24:30.177 --> 00:24:32.827 effects from a particular treatment.

NOTE Confidence: 0.83552084375

00:24:32.830 --> 00:24:36.020 And frankly we don't know why

NOTE Confidence: 0.83552084375

00:24:36.020 --> 00:24:38.400 certain people get injury with

NOTE Confidence: 0.83552084375

00:24:38.494 --> 00:24:41.558 cisplatin for example or why 2 to 4%

NOTE Confidence: 0.83552084375

00:24:41.560 --> 00:24:45.180 get kidney injury from immunotherapy.

NOTE Confidence: 0.83552084375

00:24:45.180 --> 00:24:49.550 Why don't the other 97 to 99%, right,

NOTE Confidence: 0.83552084375

00:24:49.550 --> 00:24:51.335 why don't they get it.

NOTE Confidence: 0.83552084375

00:24:51.340 --> 00:24:54.343 So I don't think we really understand

NOTE Confidence: 0.83552084375

00:24:54.343 --> 00:24:57.419 completely the mechanisms of why

NOTE Confidence: 0.83552084375

00:24:57.419 --> 00:25:00.259 particular patients get a particular

NOTE Confidence: 0.83552084375

00:25:00.259 --> 00:25:02.738 nephrotoxicity from a specific drug.

NOTE Confidence: 0.83552084375

00:25:02.738 --> 00:25:05.228 Whether that's chemotherapy or immunotherapy.

00:25:06.055 --> 00:25:07.980 I wouldn't say that patients with kidney

NOTE Confidence: 0.83552084375

00:25:08.038 --> 00:25:10.369 cancer are more susceptible to side effects.

NOTE Confidence: 0.83552084375

00:25:10.370 --> 00:25:13.989 It's more that if they already have

NOTE Confidence: 0.83552084375

00:25:13.989 --> 00:25:16.261 compromised kidney function so perhaps



NOTE Confidence: 0.83552084375

00:25:16.261 --> 00:25:18.145 they've had pre-existing kidney

NOTE Confidence: 0.83552084375

00:25:18.145 --> 00:25:21.609 disease or they have had a nephrectomy,

NOTE Confidence: 0.83552084375

00:25:21.610 --> 00:25:24.544 then potentially if they get nephrotoxicity

NOTE Confidence: 0.83552084375

00:25:24.544 --> 00:25:27.450 from a particular agent for example,

NOTE Confidence: 0.83552084375

00:25:27.450 --> 00:25:29.263 then I am a little bit more

NOTE Confidence: 0.83552084375

00:25:29.263 --> 00:25:31.135 nervous that they have less renal

NOTE Confidence: 0.83552084375

00:25:31.135 --> 00:25:32.515 reserve to withstand that.

NOTE Confidence: 0.888978118

00:25:33.400 --> 00:25:35.340 And what about the reverse?

NOTE Confidence: 0.888978118

00:25:35.340 --> 00:25:40.758 So if you have had a chemotherapy or an

NOTE Confidence: 0.888978118

00:25:40.758 --> 00:25:44.198 immunotherapy with a nephrotoxic drug,

NOTE Confidence: 0.888978118

00:25:44.200 --> 00:25:46.438 are you more susceptible for developing

NOTE Confidence: 0.888978118

00:25:46.438 --> 00:25:48.300 kidney cancer down the line?

NOTE Confidence: 0.888978118

00:25:48.300 --> 00:25:50.740 In other words, that toxicity,

NOTE Confidence: 0.888978118

00:25:50.740 --> 00:25:53.860 that scar from that cut,

NOTE Confidence: 0.888978118

00:25:53.860 --> 00:25:56.164 does that increase your risk of

NOTE Confidence: 0.888978118

00:25:56.164 --> 00:25:58.130 kidney cancer down the line?  
NOTE Confidence: 0.888978118

00:25:58.130 --> 00:25:58.739 So I wouldn't  
NOTE Confidence: 0.86155285125

00:25:58.750 --> 00:26:00.070 say there's  
NOTE Confidence: 0.86155285125

00:26:00.070 --> 00:26:01.390 kidney cancer in particular.  
NOTE Confidence: 0.86155285125

00:26:01.390 --> 00:26:03.928 There are some very muddy data  
NOTE Confidence: 0.86155285125

00:26:03.928 --> 00:26:05.620 that suggests that patients  
NOTE Confidence: 0.86155285125

00:26:05.698 --> 00:26:08.199 with chronic kidney disease may  
NOTE Confidence: 0.86155285125

00:26:08.199 --> 00:26:11.373 be at generally at higher risk  
NOTE Confidence: 0.86155285125

00:26:11.373 --> 00:26:14.259 for getting cancer of any kind.  
NOTE Confidence: 0.86155285125

00:26:14.260 --> 00:26:16.816 And there's some theories on that  
NOTE Confidence: 0.86155285125

00:26:16.816 --> 00:26:19.515 because kidney disease can lead to some  
NOTE Confidence: 0.86155285125

00:26:19.515 --> 00:26:22.065 relative suppression of the immune system.  
NOTE Confidence: 0.86155285125

00:26:22.070 --> 00:26:24.362 And so you're not getting surveillance  
NOTE Confidence: 0.86155285125

00:26:24.362 --> 00:26:26.370 of cancer that's floating around,  
NOTE Confidence: 0.86155285125

00:26:26.370 --> 00:26:27.650 but it's not  
NOTE Confidence: 0.86155285125

00:26:27.650 --> 00:26:29.054 very clean data.

00:26:30.460 --> 00:26:32.674 I wouldn't say that having kidney  
NOTE Confidence: 0.86155285125

00:26:32.674 --> 00:26:35.079 disease makes one at higher risk  
NOTE Confidence: 0.86155285125

00:26:35.079 --> 00:26:37.224 in particular for kidney cancer.  
NOTE Confidence: 0.910729834347826

00:26:38.630 --> 00:26:41.605 You had mentioned that  
NOTE Confidence: 0.910729834347826

00:26:41.605 --> 00:26:44.207 particularly for people who may have  
NOTE Confidence: 0.910729834347826

00:26:44.207 --> 00:26:46.715 been treated in childhood for childhood  
NOTE Confidence: 0.910729834347826

00:26:46.715 --> 00:26:48.808 cancers with nephrotoxic drugs,  
NOTE Confidence: 0.910729834347826

00:26:48.810 --> 00:26:51.990 that there's a risk for developing  
NOTE Confidence: 0.910729834347826

00:26:51.990 --> 00:26:54.330 kidney disease years down the line.  
NOTE Confidence: 0.910729834347826

00:26:54.330 --> 00:26:57.066 Can you talk a little bit about some  
NOTE Confidence: 0.910729834347826

00:26:57.066 --> 00:27:00.058 of the symptoms and and signs that  
NOTE Confidence: 0.910729834347826

00:27:00.058 --> 00:27:02.816 people should watch for that might  
NOTE Confidence: 0.910729834347826

00:27:02.816 --> 00:27:05.931 lead them to believe that they have  
NOTE Confidence: 0.910729834347826

00:27:05.931 --> 00:27:07.904 kidney disease because presumably they  
NOTE Confidence: 0.910729834347826

00:27:07.904 --> 00:27:10.052 wouldn't be getting routine blood work?  
00:27:10.420 --> 00:27:14.108 That's a great question.  
NOTE Confidence: 0.82051698375

00:27:14.110 --> 00:27:16.819 And you know oftentimes we'll get referrals

NOTE Confidence: 0.82051698375

00:27:16.819 --> 00:27:19.690 for patients who have been

NOTE Confidence: 0.82051698375

00:27:19.690 --> 00:27:22.648 diagnosed based on their lab testing with

NOTE Confidence: 0.82051698375

00:27:22.648 --> 00:27:25.258 chronic kidney disease and they'll say,

NOTE Confidence: 0.82051698375

00:27:25.260 --> 00:27:27.465 but I don't feel anything and that

NOTE Confidence: 0.82051698375

00:27:27.465 --> 00:27:29.417 is actually quite true that kidney

NOTE Confidence: 0.82051698375

00:27:29.417 --> 00:27:31.307 disease for the most part unless

NOTE Confidence: 0.82051698375

00:27:31.307 --> 00:27:33.197 it becomes very advanced

NOTE Confidence: 0.82051698375

00:27:33.200 --> 00:27:34.490 is relatively asymptomatic.

NOTE Confidence: 0.82051698375

00:27:34.490 --> 00:27:37.500 So most of the times the diagnosis

NOTE Confidence: 0.82051698375

00:27:37.573 --> 00:27:40.205 for kidney disease is really based on

NOTE Confidence: 0.82051698375

00:27:40.210 --> 00:27:41.203 routine lab testing.

NOTE Confidence: 0.82051698375

00:27:41.203 --> 00:27:43.189 So, so that's a great point

NOTE Confidence: 0.82051698375

00:27:43.189 --> 00:27:45.309 that you're right that

NOTE Confidence: 0.82051698375

00:27:45.309 --> 00:27:47.029 if you had childhood cancer,

NOTE Confidence: 0.82051698375

00:27:47.030 --> 00:27:49.557 you may not necessarily in your early

NOTE Confidence: 0.82051698375

00:27:49.557 --> 00:27:51.819 20s be getting blood work done.

NOTE Confidence: 0.735198724

00:27:54.010 --> 00:27:56.000 So you're right,

NOTE Confidence: 0.735198724

00:27:56.000 --> 00:27:58.366 a lot of times the way patients

NOTE Confidence: 0.735198724

00:27:58.366 --> 00:28:00.622 will present is that

NOTE Confidence: 0.735198724

00:28:00.622 --> 00:28:03.429 perhaps they'll have some sort of insurance

NOTE Confidence: 0.735198724

00:28:03.429 --> 00:28:05.773 company lab screening and that will

NOTE Confidence: 0.735198724

00:28:05.773 --> 00:28:08.240 incidentally pick up a kidney disease.

NOTE Confidence: 0.735198724

00:28:08.240 --> 00:28:10.459 But in general the symptoms of

NOTE Confidence: 0.735198724

00:28:10.459 --> 00:28:13.072 and signs of kidney disease don't show

NOTE Confidence: 0.735198724

00:28:13.072 --> 00:28:15.454 up until they're very advanced and

NOTE Confidence: 0.735198724

00:28:15.523 --> 00:28:17.839 they tend to be pretty nonspecific.

NOTE Confidence: 0.735198724

00:28:17.840 --> 00:28:19.844 So patients will complain of

NOTE Confidence: 0.735198724

00:28:19.844 --> 00:28:21.538 I don't feel like eating very much.

NOTE Confidence: 0.735198724

00:28:21.540 --> 00:28:23.140 I've lost some weight.

NOTE Confidence: 0.735198724

00:28:23.140 --> 00:28:24.758 Food taste different to me.

NOTE Confidence: 0.735198724

00:28:24.758 --> 00:28:25.790 I have nausea.  
NOTE Confidence: 0.735198724

00:28:25.790 --> 00:28:27.854 So nothing that I think would  
NOTE Confidence: 0.735198724

00:28:27.854 --> 00:28:29.230 immediately clue patients in  
NOTE Confidence: 0.735198724

00:28:29.297 --> 00:28:31.077 that they have kidney disease.  
NOTE Confidence: 0.8846719305

00:28:31.820 --> 00:28:33.605 Doctor Anushree Shirali is an  
NOTE Confidence: 0.8846719305

00:28:33.605 --> 00:28:35.033 associate professor of medicine  
NOTE Confidence: 0.8846719305

00:28:35.033 --> 00:28:36.726 in the section of nephrology  
NOTE Confidence: 0.8846719305

00:28:36.726 --> 00:28:38.634 at the Yale School of Medicine.  
NOTE Confidence: 0.8846719305

00:28:38.640 --> 00:28:40.640 If you have questions,  
NOTE Confidence: 0.8846719305

00:28:40.640 --> 00:28:42.601 the address is canceranswers@yale.edu,  
NOTE Confidence: 0.8846719305

00:28:42.601 --> 00:28:45.367 and past editions of the program  
NOTE Confidence: 0.8846719305

00:28:45.367 --> 00:28:47.767 are available in audio and written  
NOTE Confidence: 0.8846719305

00:28:47.767 --> 00:28:48.712 form at yalecancercenter.org.  
NOTE Confidence: 0.8846719305

00:28:48.712 --> 00:28:51.208 We hope you'll join us next week to  
NOTE Confidence: 0.8846719305

00:28:51.208 --> 00:28:53.111 learn more about the fight against  
NOTE Confidence: 0.8846719305

00:28:53.111 --> 00:28:55.000 cancer here on Connecticut Public Radio.

NOTE Confidence: 0.8846719305

00:28:55.000 --> 00:28:57.568 Funding for Yale Cancer Answers is

NOTE Confidence: 0.8846719305

00:28:57.568 --> 00:29:00.000 provided by Smilow Cancer Hospital.