

WEBVTT

NOTE duration: "01:06:12.080"

NOTE Confidence: 0.95674324

00:00:00.160 --> 00:00:02.159 Hello. My name is, Michael

NOTE Confidence: 0.95674324

00:00:02.159 --> 00:00:03.840 Giacchini. I'm an associate professor

NOTE Confidence: 0.95674324

00:00:03.840 --> 00:00:05.440 of medicine at the Yale

NOTE Confidence: 0.95674324

00:00:05.440 --> 00:00:06.339 School of Medicine.

NOTE Confidence: 0.9472618

00:00:06.799 --> 00:00:08.080 I'm a medical oncologist in

NOTE Confidence: 0.9472618

00:00:08.080 --> 00:00:09.380 the Yale Cancer Center.

NOTE Confidence: 0.9622189

00:00:09.760 --> 00:00:10.960 I'm co director of the

NOTE Confidence: 0.9622189

00:00:10.960 --> 00:00:12.960 colorectal cancer program and co

NOTE Confidence: 0.9622189

00:00:12.960 --> 00:00:14.099 director of the GI

NOTE Confidence: 0.9744723

00:00:14.465 --> 00:00:15.905 clinical research team here at

NOTE Confidence: 0.9744723

00:00:15.905 --> 00:00:16.405 Yale.

NOTE Confidence: 0.9617964

00:00:17.905 --> 00:00:18.945 I'm here with my colleague,

NOTE Confidence: 0.9617964

00:00:18.945 --> 00:00:19.765 doctor Pantel,

NOTE Confidence: 0.9987041

00:00:20.065 --> 00:00:21.345 one of our colorectal surgeons.

NOTE Confidence: 0.9987041

00:00:21.345 --> 00:00:22.805 I'll let him introduce himself.  
NOTE Confidence: 0.9550895

00:00:23.825 --> 00:00:25.185 Thank you, Mike. My name  
NOTE Confidence: 0.9550895

00:00:25.185 --> 00:00:26.704 is Hadden Pantel. I'm a  
NOTE Confidence: 0.9550895

00:00:26.704 --> 00:00:28.625 colorectal surgeon also here at  
NOTE Confidence: 0.9550895

00:00:28.625 --> 00:00:29.125 Yale.  
NOTE Confidence: 0.98650074

00:00:29.720 --> 00:00:31.080 And, I just wanna thank  
NOTE Confidence: 0.98650074

00:00:31.080 --> 00:00:32.520 everyone for taking time this  
NOTE Confidence: 0.98650074

00:00:32.520 --> 00:00:33.320 evening to,  
NOTE Confidence: 0.95295626

00:00:33.720 --> 00:00:35.879 hopefully learn some helpful things  
NOTE Confidence: 0.95295626

00:00:35.879 --> 00:00:37.640 about, colon cancer and rectal  
NOTE Confidence: 0.95295626

00:00:37.640 --> 00:00:38.140 cancer.  
NOTE Confidence: 0.9903629

00:00:39.320 --> 00:00:40.760 So we'll be doing the  
NOTE Confidence: 0.9903629

00:00:40.760 --> 00:00:41.260 Yale,  
NOTE Confidence: 0.98922235

00:00:41.720 --> 00:00:43.399 CME for colorectal cancer for  
NOTE Confidence: 0.98922235

00:00:43.399 --> 00:00:44.920 twenty twenty four, twenty twenty  
NOTE Confidence: 0.98922235

00:00:44.920 --> 00:00:45.420 five.

NOTE Confidence: 0.9752822

00:00:46.415 --> 00:00:47.375 Originally, this is gonna be

NOTE Confidence: 0.9752822

00:00:47.375 --> 00:00:48.895 a three part session with

NOTE Confidence: 0.9752822

00:00:48.895 --> 00:00:50.735 myself, doctor Jacqueline Gaddy, and

NOTE Confidence: 0.9752822

00:00:50.735 --> 00:00:51.775 doctor Pantel, but this will

NOTE Confidence: 0.9752822

00:00:51.775 --> 00:00:53.055 be just doctor just the

NOTE Confidence: 0.9752822

00:00:53.055 --> 00:00:53.795 two of us,

NOTE Confidence: 0.93780893

00:00:54.175 --> 00:00:56.175 doctor Pantel and myself, this

NOTE Confidence: 0.93780893

00:00:56.175 --> 00:00:56.675 evening.

NOTE Confidence: 0.99226224

00:00:57.135 --> 00:00:57.935 We're gonna start with,

NOTE Confidence: 0.9490943

00:00:59.695 --> 00:01:00.435 my presentation.

NOTE Confidence: 0.8831415

00:01:01.290 --> 00:01:02.969 Doctor Pantel will moderate some

NOTE Confidence: 0.8831415

00:01:02.969 --> 00:01:03.469 questions,

NOTE Confidence: 0.98745507

00:01:03.850 --> 00:01:05.290 and then, the role will

NOTE Confidence: 0.98745507

00:01:05.290 --> 00:01:06.650 reverse. He'll present, and I'll

NOTE Confidence: 0.98745507

00:01:06.650 --> 00:01:07.930 I'll moderate some questions for

NOTE Confidence: 0.98745507

00:01:07.930 --> 00:01:08.430 him.  
NOTE Confidence: 0.96690816  
00:01:09.450 --> 00:01:11.050 We're we'll have, no more  
NOTE Confidence: 0.96690816  
00:01:11.050 --> 00:01:12.490 than a max of, an  
NOTE Confidence: 0.96690816  
00:01:12.490 --> 00:01:13.310 hour presentation,  
NOTE Confidence: 0.9954664  
00:01:13.610 --> 00:01:14.270 which will  
NOTE Confidence: 0.96422625  
00:01:14.615 --> 00:01:15.895 therefore give plenty of time  
NOTE Confidence: 0.96422625  
00:01:15.895 --> 00:01:17.415 for questions. This session will  
NOTE Confidence: 0.96422625  
00:01:17.415 --> 00:01:18.615 certainly not go any longer  
NOTE Confidence: 0.96422625  
00:01:18.615 --> 00:01:19.655 than one and a half  
NOTE Confidence: 0.96422625  
00:01:19.655 --> 00:01:21.494 hours. We'll we'll, frankly, probably  
NOTE Confidence: 0.96422625  
00:01:21.494 --> 00:01:22.854 be more along the hour  
NOTE Confidence: 0.96422625  
00:01:22.854 --> 00:01:23.354 mark.  
NOTE Confidence: 0.97283745  
00:01:23.975 --> 00:01:25.334 Please put your questions into  
NOTE Confidence: 0.97283745  
00:01:25.334 --> 00:01:27.255 the chat. Some questions may  
NOTE Confidence: 0.97283745  
00:01:27.255 --> 00:01:29.530 be answered directly by, response  
NOTE Confidence: 0.97283745  
00:01:29.530 --> 00:01:30.330 in the chat, but we'll

NOTE Confidence: 0.97283745  
00:01:30.330 --> 00:01:30.970 try and,  
NOTE Confidence: 0.9891103  
00:01:31.290 --> 00:01:32.730 field the questions, to the  
NOTE Confidence: 0.9891103  
00:01:32.730 --> 00:01:33.230 presenter.  
NOTE Confidence: 0.9734688  
00:01:34.010 --> 00:01:35.290 If the question seems pertinent  
NOTE Confidence: 0.9734688  
00:01:35.290 --> 00:01:36.430 at the time of presentation,  
NOTE Confidence: 0.9734688  
00:01:36.490 --> 00:01:37.690 you may see doctor Pantel  
NOTE Confidence: 0.9734688  
00:01:37.690 --> 00:01:39.050 and myself interrupt each other  
NOTE Confidence: 0.9734688  
00:01:39.050 --> 00:01:40.490 to answer the relevant question  
NOTE Confidence: 0.9734688  
00:01:40.490 --> 00:01:41.895 at that time. Otherwise, we'll  
NOTE Confidence: 0.9734688  
00:01:41.895 --> 00:01:42.935 probably save some of these  
NOTE Confidence: 0.9734688  
00:01:42.935 --> 00:01:43.815 questions for the end of  
NOTE Confidence: 0.9734688  
00:01:43.815 --> 00:01:44.395 the presentation.  
NOTE Confidence: 0.9757858  
00:01:45.575 --> 00:01:46.075 So  
NOTE Confidence: 0.99750495  
00:01:46.535 --> 00:01:47.575 thank you so much. Let  
NOTE Confidence: 0.99750495  
00:01:47.575 --> 00:01:48.935 me get my presentation up  
NOTE Confidence: 0.99750495

00:01:48.935 --> 00:01:49.675 right here.  
NOTE Confidence: 0.9887797

00:01:53.910 --> 00:01:55.210 Alright. So,  
NOTE Confidence: 0.97566587

00:01:56.230 --> 00:01:58.390 again, this is, our twenty  
NOTE Confidence: 0.97566587

00:01:58.390 --> 00:01:59.750 twenty four, twenty twenty five  
NOTE Confidence: 0.97566587

00:01:59.750 --> 00:02:01.670 ELCME for colorectal cancer, and  
NOTE Confidence: 0.97566587

00:02:01.670 --> 00:02:02.550 thank you so much for  
NOTE Confidence: 0.97566587

00:02:02.550 --> 00:02:03.690 joining us this evening.  
NOTE Confidence: 0.95767105

00:02:04.790 --> 00:02:05.850 Here are my disclosures,  
NOTE Confidence: 0.9271646

00:02:07.515 --> 00:02:08.635 and here's an outline for  
NOTE Confidence: 0.9271646

00:02:08.635 --> 00:02:09.595 what I'm gonna talk about  
NOTE Confidence: 0.9271646

00:02:09.595 --> 00:02:10.875 today. So We're still we're  
NOTE Confidence: 0.9271646

00:02:10.875 --> 00:02:12.235 still really gonna Can you  
NOTE Confidence: 0.9271646

00:02:12.235 --> 00:02:13.195 guys can I think your  
NOTE Confidence: 0.9271646

00:02:13.195 --> 00:02:14.315 slides are gonna be pulled  
NOTE Confidence: 0.9271646

00:02:14.315 --> 00:02:14.815 up?  
NOTE Confidence: 0.9592783

00:02:15.595 --> 00:02:16.715 Oh, I'm sorry. I'm not

NOTE Confidence: 0.9592783  
00:02:16.715 --> 00:02:17.775 sharing, am I?  
NOTE Confidence: 0.9944915  
00:02:19.769 --> 00:02:20.829 Good call there,  
NOTE Confidence: 0.92043394  
00:02:23.609 --> 00:02:24.109 Ed.  
NOTE Confidence: 0.937106  
00:02:35.425 --> 00:02:37.044 That better? That looks perfect.  
NOTE Confidence: 0.56752247  
00:02:37.745 --> 00:02:39.264 That's actually a spec up  
NOTE Confidence: 0.56752247  
00:02:39.264 --> 00:02:39.764 there.  
NOTE Confidence: 0.8648866  
00:02:40.544 --> 00:02:41.264 Wouldn't be,  
NOTE Confidence: 0.9493663  
00:02:41.825 --> 00:02:43.745 wouldn't be, a presentation without  
NOTE Confidence: 0.9493663  
00:02:43.745 --> 00:02:45.510 a few technical difficulties, and,  
NOTE Confidence: 0.9803132  
00:02:46.150 --> 00:02:47.530 I'm not the chief technology  
NOTE Confidence: 0.9803132  
00:02:47.590 --> 00:02:48.730 officer here or anything.  
NOTE Confidence: 0.9898605  
00:02:49.030 --> 00:02:49.510 So,  
NOTE Confidence: 0.88817227  
00:02:50.389 --> 00:02:51.989 so this is, the twenty  
NOTE Confidence: 0.88817227  
00:02:51.989 --> 00:02:53.510 twenty four twenty twenty four  
NOTE Confidence: 0.88817227  
00:02:53.510 --> 00:02:55.030 twenty twenty five Yale CME  
NOTE Confidence: 0.88817227

00:02:55.030 --> 00:02:57.129 for colorectal cancer. My disclosures

NOTE Confidence: 0.88817227

00:02:57.349 --> 00:02:57.849 again.

NOTE Confidence: 0.99724394

00:03:00.125 --> 00:03:01.165 And here's an outline for

NOTE Confidence: 0.99724394

00:03:01.165 --> 00:03:02.364 what I'm gonna discuss this

NOTE Confidence: 0.99724394

00:03:02.364 --> 00:03:02.864 evening.

NOTE Confidence: 0.98960114

00:03:03.565 --> 00:03:04.864 I'm gonna talk about,

NOTE Confidence: 0.97839147

00:03:05.485 --> 00:03:07.245 biomarker updates from the the

NOTE Confidence: 0.97839147

00:03:07.245 --> 00:03:08.845 past year. I'm gonna talk

NOTE Confidence: 0.97839147

00:03:08.845 --> 00:03:09.345 about,

NOTE Confidence: 0.91507846

00:03:11.004 --> 00:03:12.485 BRAFV six hundred e, obviously,

NOTE Confidence: 0.91507846

00:03:12.485 --> 00:03:14.044 a very important biomarker for

NOTE Confidence: 0.91507846

00:03:14.044 --> 00:03:15.060 our disease and some

NOTE Confidence: 0.92273206

00:03:15.540 --> 00:03:18.020 treatment. KRAS and HER2, we've

NOTE Confidence: 0.92273206

00:03:18.020 --> 00:03:19.139 got some updates there as

NOTE Confidence: 0.92273206

00:03:19.139 --> 00:03:20.580 well, some approvals in the

NOTE Confidence: 0.92273206

00:03:20.580 --> 00:03:21.700 last year with, you know,



NOTE Confidence: 0.92273206  
00:03:21.700 --> 00:03:22.020 these,  
NOTE Confidence: 0.99931526  
00:03:22.660 --> 00:03:23.160 biomarkers.  
NOTE Confidence: 0.9814875  
00:03:23.860 --> 00:03:25.700 We'll talk about mismatch repair  
NOTE Confidence: 0.9814875  
00:03:25.700 --> 00:03:26.200 deficient,  
NOTE Confidence: 0.9527125  
00:03:26.500 --> 00:03:28.739 microsatellite instability, high disease. It's  
NOTE Confidence: 0.9527125  
00:03:28.739 --> 00:03:30.514 always a very important topic,  
NOTE Confidence: 0.9527125  
00:03:30.514 --> 00:03:31.394 and we have some very  
NOTE Confidence: 0.9527125  
00:03:31.394 --> 00:03:32.435 recent updates that I think  
NOTE Confidence: 0.9527125  
00:03:32.435 --> 00:03:33.415 are important.  
NOTE Confidence: 0.9619902  
00:03:33.794 --> 00:03:35.334 We have updates in ctDNA  
NOTE Confidence: 0.9363827  
00:03:35.955 --> 00:03:37.075 with the five year follow-up  
NOTE Confidence: 0.9363827  
00:03:37.075 --> 00:03:38.515 from the DYNAMIC study. We  
NOTE Confidence: 0.9363827  
00:03:38.515 --> 00:03:39.955 have the Altair results that  
NOTE Confidence: 0.9363827  
00:03:39.955 --> 00:03:40.834 tell us a little bit  
NOTE Confidence: 0.9363827  
00:03:40.834 --> 00:03:41.795 about what we can and  
NOTE Confidence: 0.9363827

00:03:41.795 --> 00:03:43.790 can't do, perhaps with persistently  
NOTE Confidence: 0.9363827

00:03:43.930 --> 00:03:45.770 positive circulating tumor DNA. We  
NOTE Confidence: 0.9363827

00:03:45.770 --> 00:03:46.890 have a recent approval for  
NOTE Confidence: 0.9363827

00:03:46.890 --> 00:03:48.350 anal cancer with retinphemimab  
NOTE Confidence: 0.98246926

00:03:49.050 --> 00:03:50.350 that that we'll be discussing  
NOTE Confidence: 0.98246926

00:03:50.410 --> 00:03:50.990 as well.  
NOTE Confidence: 0.8499315

00:03:51.770 --> 00:03:52.970 Excuse me, not approval. We  
NOTE Confidence: 0.8499315

00:03:52.970 --> 00:03:54.250 have a recent guideline change  
NOTE Confidence: 0.8499315

00:03:54.250 --> 00:03:54.990 with retinphemimab.  
NOTE Confidence: 0.9953017

00:03:56.925 --> 00:03:57.965 So how do we apply  
NOTE Confidence: 0.9953017

00:03:57.965 --> 00:03:59.644 the biomarkers in twenty twenty  
NOTE Confidence: 0.9953017

00:03:59.644 --> 00:04:00.765 five for,  
NOTE Confidence: 0.9699589

00:04:01.325 --> 00:04:02.545 colorectal cancer?  
NOTE Confidence: 0.9427709

00:04:03.084 --> 00:04:04.605 These are the biomarkers really  
NOTE Confidence: 0.9427709

00:04:04.605 --> 00:04:05.965 that as as I see  
NOTE Confidence: 0.9427709

00:04:05.965 --> 00:04:06.845 them at this point in

NOTE Confidence: 0.9427709  
00:04:06.845 --> 00:04:08.224 time. We have KRAS,  
NOTE Confidence: 0.94703734  
00:04:09.790 --> 00:04:10.590 which is a sort of  
NOTE Confidence: 0.94703734  
00:04:10.590 --> 00:04:12.110 a negative biomarker for most  
NOTE Confidence: 0.94703734  
00:04:12.110 --> 00:04:13.150 patients in the first line  
NOTE Confidence: 0.94703734  
00:04:13.150 --> 00:04:14.830 setting. What we can't use,  
NOTE Confidence: 0.94703734  
00:04:14.830 --> 00:04:15.950 we can't use drugs like  
NOTE Confidence: 0.94703734  
00:04:15.950 --> 00:04:16.450 panetumumab  
NOTE Confidence: 0.8065982  
00:04:16.750 --> 00:04:17.330 and stuximab.  
NOTE Confidence: 0.97089493  
00:04:17.870 --> 00:04:19.070 We have KRAS g twelve  
NOTE Confidence: 0.97089493  
00:04:19.070 --> 00:04:20.450 c, our one actionable  
NOTE Confidence: 0.997968  
00:04:20.830 --> 00:04:22.430 KRAS mutation that we can  
NOTE Confidence: 0.997968  
00:04:22.430 --> 00:04:23.325 target with drugs.  
NOTE Confidence: 0.95737785  
00:04:24.125 --> 00:04:25.325 I'll come back to BRAF  
NOTE Confidence: 0.95737785  
00:04:25.325 --> 00:04:26.685 in a second. We have  
NOTE Confidence: 0.95737785  
00:04:26.685 --> 00:04:28.205 some rare fusions. Of course,  
NOTE Confidence: 0.95737785

00:04:28.205 --> 00:04:29.165 we have TMB high, which  
NOTE Confidence: 0.95737785

00:04:29.165 --> 00:04:30.845 is relatively rare, but microsatellite  
NOTE Confidence: 0.95737785

00:04:30.845 --> 00:04:32.205 instability high, and we have  
NOTE Confidence: 0.95737785

00:04:32.205 --> 00:04:33.965 HER2 amplified, maybe four percent  
NOTE Confidence: 0.95737785

00:04:33.965 --> 00:04:35.325 of these patients, four percent,  
NOTE Confidence: 0.95737785

00:04:35.325 --> 00:04:36.865 five percent each of these.  
NOTE Confidence: 0.9808517

00:04:38.125 --> 00:04:39.900 So, again, we've we've done  
NOTE Confidence: 0.9808517

00:04:39.900 --> 00:04:40.779 a good job, I think,  
NOTE Confidence: 0.9808517

00:04:40.779 --> 00:04:42.140 over the last several decades  
NOTE Confidence: 0.9808517

00:04:42.140 --> 00:04:43.420 of carving up this type  
NOTE Confidence: 0.9808517

00:04:43.420 --> 00:04:44.940 of cancer into different molecular  
NOTE Confidence: 0.9808517

00:04:44.940 --> 00:04:45.440 subtypes,  
NOTE Confidence: 0.96786857

00:04:45.900 --> 00:04:46.700 but there's a lot of  
NOTE Confidence: 0.96786857

00:04:46.700 --> 00:04:47.580 work to do in this  
NOTE Confidence: 0.96786857

00:04:47.580 --> 00:04:49.100 maroon color, which has no  
NOTE Confidence: 0.96786857

00:04:49.100 --> 00:04:50.779 biomarker, and the blue color,

NOTE Confidence: 0.96786857  
00:04:50.779 --> 00:04:51.520 we're still,  
NOTE Confidence: 0.9434228  
00:04:52.444 --> 00:04:53.805 not able to really target  
NOTE Confidence: 0.9434228  
00:04:53.805 --> 00:04:54.764 most of these variants of  
NOTE Confidence: 0.9434228  
00:04:54.764 --> 00:04:56.205 KRAS. Although, that really may  
NOTE Confidence: 0.9434228  
00:04:56.205 --> 00:04:57.164 be changing with some of  
NOTE Confidence: 0.9434228  
00:04:57.164 --> 00:04:58.525 the new PANRAS inhibitors that  
NOTE Confidence: 0.9434228  
00:04:58.525 --> 00:04:59.565 we have in the clinic,  
NOTE Confidence: 0.9434228  
00:04:59.565 --> 00:05:00.865 which I could really think  
NOTE Confidence: 0.93503505  
00:05:01.245 --> 00:05:02.604 that could change dramatically how  
NOTE Confidence: 0.93503505  
00:05:02.604 --> 00:05:03.904 we think about this disease.  
NOTE Confidence: 0.90875584  
00:05:04.610 --> 00:05:05.910 But what about this subtype,  
NOTE Confidence: 0.90875584  
00:05:05.970 --> 00:05:07.190 the BRAF v600E,  
NOTE Confidence: 0.9550677  
00:05:07.730 --> 00:05:09.430 nine percent of metastatic colorectal  
NOTE Confidence: 0.9550677  
00:05:09.490 --> 00:05:10.930 cancer, one of the most  
NOTE Confidence: 0.9550677  
00:05:10.930 --> 00:05:12.610 aggressive molecular subtypes of the  
NOTE Confidence: 0.9550677

00:05:12.610 --> 00:05:14.690 drug of the disease. We've  
NOTE Confidence: 0.9550677

00:05:14.690 --> 00:05:16.850 used encorafenib, BRAF inhibitor with  
NOTE Confidence: 0.9550677

00:05:16.850 --> 00:05:17.350 cetuximab  
NOTE Confidence: 0.99324685

00:05:18.145 --> 00:05:19.504 as second line therapy for  
NOTE Confidence: 0.99324685

00:05:19.504 --> 00:05:20.324 several years,  
NOTE Confidence: 0.974877

00:05:21.025 --> 00:05:21.985 since that was published in  
NOTE Confidence: 0.974877

00:05:21.985 --> 00:05:22.944 the New England Journal of  
NOTE Confidence: 0.974877

00:05:22.944 --> 00:05:23.444 Medicine  
NOTE Confidence: 0.88397723

00:05:23.745 --> 00:05:25.264 as second line therapy. But  
NOTE Confidence: 0.88397723

00:05:25.264 --> 00:05:26.784 first line key first line  
NOTE Confidence: 0.88397723

00:05:26.784 --> 00:05:28.324 therapy has largely been chemotherapy.  
NOTE Confidence: 0.638078

00:05:28.705 --> 00:05:29.764 Olfox, Fulfirinox,  
NOTE Confidence: 0.9228256

00:05:30.625 --> 00:05:32.384 plus appropriate biologic, which would  
NOTE Confidence: 0.9228256

00:05:32.384 --> 00:05:33.444 generally be bevacizumab.  
NOTE Confidence: 0.9245518

00:05:34.680 --> 00:05:36.279 What about moving things up  
NOTE Confidence: 0.9245518

00:05:36.279 --> 00:05:37.400 to an earlier alliance? So

NOTE Confidence: 0.9245518  
00:05:37.400 --> 00:05:38.460 that is what the breakwater  
NOTE Confidence: 0.9245518  
00:05:38.759 --> 00:05:40.139 study tried to do.  
NOTE Confidence: 0.91782486  
00:05:40.600 --> 00:05:42.539 This was just presented two  
NOTE Confidence: 0.91782486  
00:05:42.599 --> 00:05:43.720 two months ago at our,  
NOTE Confidence: 0.91782486  
00:05:44.039 --> 00:05:45.740 on our meeting ASCO GI.  
NOTE Confidence: 0.91782486  
00:05:45.960 --> 00:05:47.145 And this is this is  
NOTE Confidence: 0.91782486  
00:05:47.145 --> 00:05:48.845 a practice change in study.  
NOTE Confidence: 0.99111205  
00:05:49.464 --> 00:05:51.145 So this took patients that  
NOTE Confidence: 0.99111205  
00:05:51.145 --> 00:05:51.645 were,  
NOTE Confidence: 0.9359169  
00:05:54.105 --> 00:05:56.285 of appropriate age, had measurable  
NOTE Confidence: 0.9359169  
00:05:56.345 --> 00:05:56.845 disease,  
NOTE Confidence: 0.93256706  
00:05:57.385 --> 00:05:58.825 had and had never received  
NOTE Confidence: 0.93256706  
00:05:58.825 --> 00:05:59.945 any prior treatment for their  
NOTE Confidence: 0.93256706  
00:05:59.945 --> 00:06:01.305 metastatic disease, and, of course,  
NOTE Confidence: 0.93256706  
00:06:01.305 --> 00:06:03.139 had BRAF v six hundred  
NOTE Confidence: 0.93256706

00:06:03.139 --> 00:06:03.800 e mutations,  
NOTE Confidence: 0.96196586

00:06:04.260 --> 00:06:05.699 a class one mutation in  
NOTE Confidence: 0.96196586

00:06:05.699 --> 00:06:07.880 BRAF. The BRAF protein functioning  
NOTE Confidence: 0.96196586

00:06:07.940 --> 00:06:09.720 as a monomer to stimulate  
NOTE Confidence: 0.96196586

00:06:09.860 --> 00:06:11.779 tumor growth as as an,  
NOTE Confidence: 0.96196586

00:06:12.100 --> 00:06:12.600 oncogene.  
NOTE Confidence: 0.84480643

00:06:13.540 --> 00:06:14.040 And,  
NOTE Confidence: 0.89573187

00:06:16.175 --> 00:06:17.295 randomized patients in a one  
NOTE Confidence: 0.89573187

00:06:17.295 --> 00:06:18.275 to one to one fashion  
NOTE Confidence: 0.89573187

00:06:18.575 --> 00:06:20.195 are encorafenib and cetuximab,  
NOTE Confidence: 0.95936936

00:06:21.055 --> 00:06:22.515 BRAF inhibitor and cetuximab,  
NOTE Confidence: 0.9994986

00:06:23.135 --> 00:06:24.035 BRAF inhibitor  
NOTE Confidence: 0.9314545

00:06:24.335 --> 00:06:26.415 plus cetuximab plus chemo plus  
NOTE Confidence: 0.9314545

00:06:26.415 --> 00:06:27.475 FOLFOX six,  
NOTE Confidence: 0.98902833

00:06:28.575 --> 00:06:30.595 versus standard of care options,  
NOTE Confidence: 0.83431596

00:06:31.310 --> 00:06:32.930 FOLFOX, FOLFIREX, etcetera.



NOTE Confidence: 0.7790138  
00:06:33.550 --> 00:06:34.830 This arm and craftsmanship of  
NOTE Confidence: 0.7790138  
00:06:34.830 --> 00:06:35.330 cetuximab,  
NOTE Confidence: 0.8384533  
00:06:36.349 --> 00:06:37.569 you can see that numerically  
NOTE Confidence: 0.8384533  
00:06:37.630 --> 00:06:38.509 smaller and that's because it  
NOTE Confidence: 0.8384533  
00:06:38.509 --> 00:06:39.410 closed earlier,  
NOTE Confidence: 0.943248  
00:06:39.949 --> 00:06:41.069 and these are really the  
NOTE Confidence: 0.943248  
00:06:41.069 --> 00:06:42.430 the arms that move forward  
NOTE Confidence: 0.943248  
00:06:42.430 --> 00:06:44.205 for comparison here. The study  
NOTE Confidence: 0.943248  
00:06:44.205 --> 00:06:45.725 was looking at progression free  
NOTE Confidence: 0.943248  
00:06:45.725 --> 00:06:47.325 survival and overall response rate  
NOTE Confidence: 0.943248  
00:06:47.325 --> 00:06:48.685 as a dual primary endpoint  
NOTE Confidence: 0.943248  
00:06:48.685 --> 00:06:50.385 by Bicker by blinded review.  
NOTE Confidence: 0.9586218  
00:06:50.845 --> 00:06:52.525 And, of course, overall survival  
NOTE Confidence: 0.9586218  
00:06:52.525 --> 00:06:53.645 is a key secondary endpoint,  
NOTE Confidence: 0.9586218  
00:06:53.645 --> 00:06:54.945 which would kick in automatically  
NOTE Confidence: 0.9742261

00:06:55.325 --> 00:06:56.640 depending on the response rate  
NOTE Confidence: 0.943172

00:06:57.120 --> 00:06:58.160 seen. So this is the  
NOTE Confidence: 0.943172

00:06:58.160 --> 00:06:59.840 way they built their study.  
NOTE Confidence: 0.943172

00:06:59.840 --> 00:07:01.380 Again, dual primary endpoints.  
NOTE Confidence: 0.92466486

00:07:01.760 --> 00:07:02.980 If, overall  
NOTE Confidence: 0.9763347

00:07:03.280 --> 00:07:04.180 response rate,  
NOTE Confidence: 0.96452636

00:07:04.960 --> 00:07:07.760 was significant, then, then OS  
NOTE Confidence: 0.96452636

00:07:07.760 --> 00:07:09.040 would be triggered for an  
NOTE Confidence: 0.96452636

00:07:09.040 --> 00:07:10.635 interim analysis. And as we'll  
NOTE Confidence: 0.96452636

00:07:10.635 --> 00:07:11.794 get to, this is exactly  
NOTE Confidence: 0.96452636

00:07:11.794 --> 00:07:12.995 what happened given the higher  
NOTE Confidence: 0.96452636

00:07:12.995 --> 00:07:13.975 response rate.  
NOTE Confidence: 0.9838813

00:07:14.435 --> 00:07:15.735 This was a balanced,  
NOTE Confidence: 0.9476855

00:07:16.195 --> 00:07:17.175 study. Again,  
NOTE Confidence: 0.96603614

00:07:17.555 --> 00:07:20.354 chemotherapy plus engraftment, cetuximab versus  
NOTE Confidence: 0.96603614

00:07:20.354 --> 00:07:21.955 standard of care. Most of

NOTE Confidence: 0.96603614  
00:07:21.955 --> 00:07:23.580 these patients had right sided  
NOTE Confidence: 0.96603614  
00:07:23.580 --> 00:07:24.460 tumors, which is what we  
NOTE Confidence: 0.96603614  
00:07:24.460 --> 00:07:25.920 would expect for this disease,  
NOTE Confidence: 0.96603614  
00:07:26.060 --> 00:07:27.660 certainly a worse prognosis for  
NOTE Confidence: 0.96603614  
00:07:27.660 --> 00:07:28.160 this,  
NOTE Confidence: 0.8905935  
00:07:29.100 --> 00:07:30.540 this subtype of colorectal cancer  
NOTE Confidence: 0.8905935  
00:07:30.540 --> 00:07:31.920 and frankly the worst molecular  
NOTE Confidence: 0.8905935  
00:07:31.980 --> 00:07:33.520 subtype in terms of prognosis.  
NOTE Confidence: 0.9226684  
00:07:34.794 --> 00:07:35.835 Two thirds of patients are  
NOTE Confidence: 0.9226684  
00:07:35.835 --> 00:07:36.875 more or less had liver  
NOTE Confidence: 0.9226684  
00:07:36.875 --> 00:07:38.254 metastases in this study.  
NOTE Confidence: 0.89145285  
00:07:38.715 --> 00:07:39.455 And again,  
NOTE Confidence: 0.95494497  
00:07:39.995 --> 00:07:41.775 we're we're quite advanced overall.  
NOTE Confidence: 0.9720726  
00:07:42.315 --> 00:07:43.514 This is the response rate  
NOTE Confidence: 0.9720726  
00:07:43.514 --> 00:07:44.794 that we saw, so sixty  
NOTE Confidence: 0.9720726

00:07:44.794 --> 00:07:46.235 point nine percent, so sixty  
NOTE Confidence: 0.9720726

00:07:46.235 --> 00:07:47.215 one percent essentially  
NOTE Confidence: 0.7890635

00:07:47.595 --> 00:07:49.629 with this FOLFOX and graphonamocetuximab  
NOTE Confidence: 0.9230508

00:07:50.250 --> 00:07:51.530 versus forty percent with the  
NOTE Confidence: 0.9230508

00:07:51.530 --> 00:07:53.069 standard pair of of chemotherapy  
NOTE Confidence: 0.9230508

00:07:53.289 --> 00:07:53.789 alone.  
NOTE Confidence: 0.82571065

00:07:54.409 --> 00:07:55.150 So certainly,  
NOTE Confidence: 0.9181344

00:07:56.169 --> 00:07:58.810 a substantial improvement in response  
NOTE Confidence: 0.9181344

00:07:58.810 --> 00:07:59.689 rate. When we look at  
NOTE Confidence: 0.9181344

00:07:59.689 --> 00:08:01.449 duration of response, also very  
NOTE Confidence: 0.9181344

00:08:01.449 --> 00:08:03.324 impressive. More than six month  
NOTE Confidence: 0.9181344

00:08:03.324 --> 00:08:05.085 duration of response, forty six  
NOTE Confidence: 0.9181344

00:08:05.085 --> 00:08:06.845 percent with with with the  
NOTE Confidence: 0.9181344

00:08:06.845 --> 00:08:09.324 investigational arm versus only fifteen  
NOTE Confidence: 0.9181344

00:08:09.324 --> 00:08:11.085 percent of the chemotherapy arm,  
NOTE Confidence: 0.9181344

00:08:11.085 --> 00:08:12.764 so improving durability of these

NOTE Confidence: 0.9181344  
00:08:12.764 --> 00:08:14.205 responses. Still have a ways  
NOTE Confidence: 0.9181344  
00:08:14.205 --> 00:08:14.925 to go, though. As you  
NOTE Confidence: 0.9181344  
00:08:14.925 --> 00:08:15.884 can see that that the  
NOTE Confidence: 0.9181344  
00:08:15.884 --> 00:08:17.085 year mark, this does drop  
NOTE Confidence: 0.9181344  
00:08:17.085 --> 00:08:18.590 back down to fifteen percent.  
NOTE Confidence: 0.99037457  
00:08:19.370 --> 00:08:20.969 So that's great. It's important  
NOTE Confidence: 0.99037457  
00:08:20.969 --> 00:08:22.250 to get responses, but this  
NOTE Confidence: 0.99037457  
00:08:22.250 --> 00:08:23.289 is really what matters. Are  
NOTE Confidence: 0.99037457  
00:08:23.289 --> 00:08:24.909 we making our when we,  
NOTE Confidence: 0.9130586  
00:08:25.689 --> 00:08:26.750 intensify chemotherapy,  
NOTE Confidence: 0.9491764  
00:08:27.210 --> 00:08:28.590 are we just seeing responses  
NOTE Confidence: 0.9491764  
00:08:28.650 --> 00:08:30.255 but survival is ending up  
NOTE Confidence: 0.9491764  
00:08:30.335 --> 00:08:30.995 the same?  
NOTE Confidence: 0.97244877  
00:08:31.455 --> 00:08:32.975 This was the overall survival  
NOTE Confidence: 0.97244877  
00:08:32.975 --> 00:08:33.795 that we saw.  
NOTE Confidence: 0.92235

00:08:34.575 --> 00:08:36.095 This is an interim analysis  
NOTE Confidence: 0.92235

00:08:36.095 --> 00:08:36.975 and even though you see  
NOTE Confidence: 0.92235

00:08:36.975 --> 00:08:38.655 a very impressive hazard ratio,  
NOTE Confidence: 0.92235

00:08:38.655 --> 00:08:40.015 point four seven and a  
NOTE Confidence: 0.92235

00:08:40.015 --> 00:08:41.615 low p value at this  
NOTE Confidence: 0.92235

00:08:41.615 --> 00:08:42.115 interim  
NOTE Confidence: 0.94394845

00:08:42.655 --> 00:08:44.200 analysis, it was you know,  
NOTE Confidence: 0.94394845

00:08:44.200 --> 00:08:45.480 very strict in terms of  
NOTE Confidence: 0.94394845

00:08:45.480 --> 00:08:47.640 statistical design. This actually technically  
NOTE Confidence: 0.94394845

00:08:47.640 --> 00:08:49.339 does not achieve statistical significance,  
NOTE Confidence: 0.98931694

00:08:49.640 --> 00:08:50.760 but it is an interim  
NOTE Confidence: 0.98931694

00:08:50.760 --> 00:08:51.260 analysis.  
NOTE Confidence: 0.9761118

00:08:51.640 --> 00:08:52.679 Obviously, this is a very  
NOTE Confidence: 0.9761118

00:08:52.679 --> 00:08:53.959 promising first step,  
NOTE Confidence: 0.9290506

00:08:54.679 --> 00:08:55.179 and,  
NOTE Confidence: 0.9008594

00:08:56.120 --> 00:08:57.980 the response rate and,

NOTE Confidence: 0.95303285

00:08:59.184 --> 00:09:00.184 it speaks for itself as

NOTE Confidence: 0.95303285

00:09:00.184 --> 00:09:02.204 well. And based on this,

NOTE Confidence: 0.95303285

00:09:02.425 --> 00:09:03.545 there was there was an

NOTE Confidence: 0.95303285

00:09:03.545 --> 00:09:04.985 approval granted for this in

NOTE Confidence: 0.95303285

00:09:04.985 --> 00:09:06.125 the frontline setting.

NOTE Confidence: 0.97606295

00:09:06.745 --> 00:09:07.464 When we look at the

NOTE Confidence: 0.97606295

00:09:07.464 --> 00:09:09.304 subgroup analysis, this is what

NOTE Confidence: 0.97606295

00:09:09.304 --> 00:09:10.425 we saw. So you can

NOTE Confidence: 0.97606295

00:09:10.425 --> 00:09:11.625 see this to the right

NOTE Confidence: 0.97606295

00:09:11.625 --> 00:09:12.764 of this line favors

NOTE Confidence: 0.93931204

00:09:13.080 --> 00:09:15.100 the encorafenib, stuximab with FOLFOX.

NOTE Confidence: 0.93931204

00:09:15.400 --> 00:09:16.600 So another way of putting

NOTE Confidence: 0.93931204

00:09:16.600 --> 00:09:17.960 it is base basically, all

NOTE Confidence: 0.93931204

00:09:17.960 --> 00:09:19.640 subgroups seem to benefit from

NOTE Confidence: 0.93931204

00:09:19.640 --> 00:09:20.760 this. And where does this

NOTE Confidence: 0.93931204

00:09:20.760 --> 00:09:21.260 land?  
NOTE Confidence: 0.9979042

00:09:21.720 --> 00:09:22.760 Even though this was just  
NOTE Confidence: 0.9979042

00:09:22.760 --> 00:09:24.680 presented in January, we've already  
NOTE Confidence: 0.9979042

00:09:24.680 --> 00:09:25.640 got it now into our  
NOTE Confidence: 0.9979042

00:09:25.640 --> 00:09:26.540 national guidelines.  
NOTE Confidence: 0.91525376

00:09:27.000 --> 00:09:28.065 So So for BRAFV600E  
NOTE Confidence: 0.78944963

00:09:28.605 --> 00:09:30.065 mutation positive, encorafenib  
NOTE Confidence: 0.91136944

00:09:30.605 --> 00:09:32.524 with appropriate biologic, which would  
NOTE Confidence: 0.91136944

00:09:32.524 --> 00:09:33.964 be an EGFR inhibitor plus  
NOTE Confidence: 0.91136944

00:09:33.964 --> 00:09:35.884 FOLFOX, has become the standard  
NOTE Confidence: 0.91136944

00:09:35.884 --> 00:09:37.245 of care. Of course, there  
NOTE Confidence: 0.91136944

00:09:37.245 --> 00:09:38.365 may be patients you think  
NOTE Confidence: 0.91136944

00:09:38.365 --> 00:09:39.584 can tolerate this,  
NOTE Confidence: 0.9224987

00:09:40.204 --> 00:09:40.980 and and  
NOTE Confidence: 0.91021085

00:09:41.459 --> 00:09:43.059 those patients could still get  
NOTE Confidence: 0.91021085

00:09:43.059 --> 00:09:43.940 full thoughts if they had



NOTE Confidence: 0.91021085

00:09:43.940 --> 00:09:46.519 some contraindication to nacorafenib, vesitux-  
imab,

NOTE Confidence: 0.91021085

00:09:46.740 --> 00:09:47.399 or pematumumab,

NOTE Confidence: 0.9848198

00:09:47.860 --> 00:09:48.980 or something like that. But

NOTE Confidence: 0.9848198

00:09:48.980 --> 00:09:50.100 I do think the majority

NOTE Confidence: 0.9848198

00:09:50.100 --> 00:09:51.059 of patients will be getting

NOTE Confidence: 0.9848198

00:09:51.059 --> 00:09:52.679 this regimen going forward.

NOTE Confidence: 0.9993112

00:09:55.475 --> 00:09:55.975 So

NOTE Confidence: 0.94262314

00:09:56.355 --> 00:09:57.795 that was BRAFV six hundred

NOTE Confidence: 0.94262314

00:09:57.795 --> 00:09:58.675 d, this slice of the

NOTE Confidence: 0.94262314

00:09:58.675 --> 00:09:59.175 pie.

NOTE Confidence: 0.9982664

00:09:59.554 --> 00:10:00.834 What other slices of this

NOTE Confidence: 0.9982664

00:10:00.834 --> 00:10:01.954 pie have we made an

NOTE Confidence: 0.9982664

00:10:01.954 --> 00:10:02.995 impact on in the last

NOTE Confidence: 0.9982664

00:10:02.995 --> 00:10:03.495 year?

NOTE Confidence: 0.9718827

00:10:04.035 --> 00:10:05.475 So KRAS g twelve c

NOTE Confidence: 0.9718827  
00:10:05.475 --> 00:10:06.855 has certainly been an evolving  
NOTE Confidence: 0.9718827  
00:10:06.915 --> 00:10:07.875 story over the last few  
NOTE Confidence: 0.9718827  
00:10:07.875 --> 00:10:09.000 years, but there was there  
NOTE Confidence: 0.9718827  
00:10:09.000 --> 00:10:10.600 were two approvals with KRAS  
NOTE Confidence: 0.9718827  
00:10:10.600 --> 00:10:11.880 g twelve c in the  
NOTE Confidence: 0.9718827  
00:10:11.880 --> 00:10:13.080 last year that I wanna  
NOTE Confidence: 0.9718827  
00:10:13.080 --> 00:10:13.580 highlight.  
NOTE Confidence: 0.8577976  
00:10:14.200 --> 00:10:14.700 Adagracin,  
NOTE Confidence: 0.9814819  
00:10:15.400 --> 00:10:16.860 KRAS g twelve c inhibitor,  
NOTE Confidence: 0.9582172  
00:10:17.240 --> 00:10:18.059 and sotorasib  
NOTE Confidence: 0.947673  
00:10:18.520 --> 00:10:20.040 were both granted FDA approval  
NOTE Confidence: 0.947673  
00:10:20.040 --> 00:10:21.640 for advanced CRC this this  
NOTE Confidence: 0.947673  
00:10:21.640 --> 00:10:22.964 past year. You know, these  
NOTE Confidence: 0.947673  
00:10:22.964 --> 00:10:24.165 have been in guidelines for  
NOTE Confidence: 0.947673  
00:10:24.165 --> 00:10:25.045 a little bit. Many of  
NOTE Confidence: 0.947673

00:10:25.045 --> 00:10:26.165 us may have been familiar  
NOTE Confidence: 0.947673

00:10:26.165 --> 00:10:27.785 with their use from managing  
NOTE Confidence: 0.947673

00:10:27.845 --> 00:10:29.545 lung cancer, but now,  
NOTE Confidence: 0.9853334

00:10:30.005 --> 00:10:31.524 a full FDA approval for  
NOTE Confidence: 0.9853334

00:10:31.524 --> 00:10:32.024 sotorasib  
NOTE Confidence: 0.8838487

00:10:32.325 --> 00:10:34.404 and, again, accelerated approval for  
NOTE Confidence: 0.8838487

00:10:34.404 --> 00:10:34.904 adagracib.  
NOTE Confidence: 0.98238945

00:10:35.684 --> 00:10:37.144 Both of those agents available.  
NOTE Confidence: 0.98238945

00:10:37.285 --> 00:10:38.425 I think this is a  
NOTE Confidence: 0.87649995

00:10:39.420 --> 00:10:40.400 a very important  
NOTE Confidence: 0.96802324

00:10:41.260 --> 00:10:42.780 breakthrough in the management of  
NOTE Confidence: 0.96802324

00:10:42.780 --> 00:10:44.860 colorectal cancer is is is  
NOTE Confidence: 0.96802324

00:10:44.860 --> 00:10:47.760 targeting these, molecular subtypes. Again,  
NOTE Confidence: 0.96802324

00:10:47.980 --> 00:10:48.480 personalized  
NOTE Confidence: 0.9661074

00:10:48.940 --> 00:10:50.220 medicine, getting the right drug  
NOTE Confidence: 0.9661074

00:10:50.220 --> 00:10:50.860 to the right patient at

NOTE Confidence: 0.9661074

00:10:50.860 --> 00:10:51.600 the right time.

NOTE Confidence: 0.9958086

00:10:52.220 --> 00:10:53.200 So this is

NOTE Confidence: 0.95464

00:10:53.705 --> 00:10:55.005 some data from the sotorasib

NOTE Confidence: 0.95464

00:10:55.145 --> 00:10:56.765 study. You can see here

NOTE Confidence: 0.95464

00:10:56.905 --> 00:10:59.085 that, sotorasib and pantetumumab,

NOTE Confidence: 0.9935629

00:10:59.945 --> 00:11:01.065 was better than standard of

NOTE Confidence: 0.9935629

00:11:01.065 --> 00:11:02.905 care for advanced patients. Again,

NOTE Confidence: 0.9935629

00:11:02.905 --> 00:11:04.205 this is advanced patients.

NOTE Confidence: 0.99119747

00:11:04.905 --> 00:11:06.105 There are studies going on

NOTE Confidence: 0.99119747

00:11:06.105 --> 00:11:07.705 to move this this therapy

NOTE Confidence: 0.99119747

00:11:07.705 --> 00:11:08.825 up into an earlier line

NOTE Confidence: 0.99119747

00:11:08.825 --> 00:11:09.330 of therapy.

NOTE Confidence: 0.921791

00:11:09.730 --> 00:11:11.010 When, we look at the

NOTE Confidence: 0.921791

00:11:11.010 --> 00:11:12.530 median progression free survival for

NOTE Confidence: 0.921791

00:11:12.530 --> 00:11:14.070 advanced patients that have progressed

NOTE Confidence: 0.921791

00:11:14.130 --> 00:11:14.950 on biflopyrimidine,  
NOTE Confidence: 0.91519606

00:11:15.730 --> 00:11:16.850 oxaplatin or in a T  
NOTE Confidence: 0.91519606

00:11:16.850 --> 00:11:18.450 can, etcetera, then the median  
NOTE Confidence: 0.91519606

00:11:18.450 --> 00:11:19.730 progression free survival with the  
NOTE Confidence: 0.91519606

00:11:19.730 --> 00:11:20.610 standard of care arm was  
NOTE Confidence: 0.91519606

00:11:20.610 --> 00:11:21.730 two months. That's the time  
NOTE Confidence: 0.91519606

00:11:21.730 --> 00:11:22.690 of the scan, right? That's  
NOTE Confidence: 0.91519606

00:11:22.690 --> 00:11:23.655 the time of scan. We  
NOTE Confidence: 0.91519606

00:11:23.655 --> 00:11:25.098 We scan every eight weeks.  
NOTE Confidence: 0.91519606

00:11:25.098 --> 00:11:26.542 So basically, standard of care  
NOTE Confidence: 0.91519606

00:11:26.542 --> 00:11:27.986 doing very little for these  
NOTE Confidence: 0.91519606

00:11:27.986 --> 00:11:29.429 patients, whereas the investigational arm,  
NOTE Confidence: 0.91519606

00:11:29.718 --> 00:11:31.162 had a PFS of five  
NOTE Confidence: 0.91519606

00:11:31.162 --> 00:11:32.606 point six two months. I  
NOTE Confidence: 0.91519606

00:11:32.606 --> 00:11:34.050 think we still have a  
NOTE Confidence: 0.91519606

00:11:34.050 --> 00:11:35.493 ways to go to to

NOTE Confidence: 0.91519606  
00:11:35.493 --> 00:11:36.360 to prolong that.  
NOTE Confidence: 0.98445624  
00:11:36.920 --> 00:11:38.200 Moreover, I think moving these  
NOTE Confidence: 0.98445624  
00:11:38.200 --> 00:11:39.480 drugs up earlier on in  
NOTE Confidence: 0.98445624  
00:11:39.480 --> 00:11:40.440 the line of treatment, which  
NOTE Confidence: 0.98445624  
00:11:40.440 --> 00:11:41.899 is under active investigation,  
NOTE Confidence: 0.9832003  
00:11:42.360 --> 00:11:42.860 will,  
NOTE Confidence: 0.9527192  
00:11:44.279 --> 00:11:44.779 will,  
NOTE Confidence: 0.86481076  
00:11:45.160 --> 00:11:46.360 make an a a better  
NOTE Confidence: 0.86481076  
00:11:46.360 --> 00:11:47.720 impact. Make giving these drugs  
NOTE Confidence: 0.86481076  
00:11:47.720 --> 00:11:49.240 earlier in somebody's treatment course,  
NOTE Confidence: 0.86481076  
00:11:49.240 --> 00:11:50.415 I think we'll we'll get  
NOTE Confidence: 0.86481076  
00:11:50.415 --> 00:11:52.175 more effectiveness from them. But,  
NOTE Confidence: 0.86481076  
00:11:52.175 --> 00:11:53.775 certainly, this now is a,  
NOTE Confidence: 0.86481076  
00:11:54.175 --> 00:11:55.535 a reasonable option for our  
NOTE Confidence: 0.86481076  
00:11:55.535 --> 00:11:57.215 patients essentially in the third  
NOTE Confidence: 0.86481076

00:11:57.215 --> 00:11:58.495 line setting that are about  
NOTE Confidence: 0.86481076

00:11:58.495 --> 00:11:59.615 there or I prefer the  
NOTE Confidence: 0.86481076

00:11:59.615 --> 00:12:00.975 term five floor pyramid in  
NOTE Confidence: 0.86481076

00:12:00.975 --> 00:12:02.115 refractory setting.  
NOTE Confidence: 0.93288404

00:12:02.809 --> 00:12:03.610 So some of the data  
NOTE Confidence: 0.93288404

00:12:03.610 --> 00:12:05.130 from AdaGradsson, the other g  
NOTE Confidence: 0.93288404

00:12:05.130 --> 00:12:06.809 twelve c inhibitor, you can  
NOTE Confidence: 0.93288404

00:12:06.809 --> 00:12:07.690 see this is from the  
NOTE Confidence: 0.93288404

00:12:07.690 --> 00:12:09.370 New England Journal paper that,  
NOTE Confidence: 0.9498936

00:12:10.330 --> 00:12:11.770 that supported its approval. You  
NOTE Confidence: 0.9498936

00:12:11.770 --> 00:12:13.550 can see, in this waterfall  
NOTE Confidence: 0.9498936

00:12:13.610 --> 00:12:14.730 plot, the majority of these  
NOTE Confidence: 0.9498936

00:12:14.730 --> 00:12:16.895 bars going down indicating cytoreduction  
NOTE Confidence: 0.916935

00:12:17.434 --> 00:12:19.035 and about, half of them  
NOTE Confidence: 0.916935

00:12:19.035 --> 00:12:19.535 crossing  
NOTE Confidence: 0.97676885

00:12:19.995 --> 00:12:21.455 the the thirty percent threshold

NOTE Confidence: 0.925318  
00:12:21.835 --> 00:12:23.434 of partial response. You can  
NOTE Confidence: 0.925318  
00:12:23.434 --> 00:12:25.675 see, again, similar PFS, similar  
NOTE Confidence: 0.925318  
00:12:25.675 --> 00:12:27.195 OS for a very advanced  
NOTE Confidence: 0.925318  
00:12:27.195 --> 00:12:28.175 patient population.  
NOTE Confidence: 0.9822099  
00:12:28.554 --> 00:12:29.755 So I think these numbers  
NOTE Confidence: 0.9822099  
00:12:29.755 --> 00:12:31.135 can only improve,  
NOTE Confidence: 0.95479745  
00:12:31.740 --> 00:12:32.780 as we make these options  
NOTE Confidence: 0.95479745  
00:12:32.780 --> 00:12:34.140 available earlier in the course  
NOTE Confidence: 0.95479745  
00:12:34.140 --> 00:12:35.520 of treatment for our patients,  
NOTE Confidence: 0.95479745  
00:12:35.820 --> 00:12:37.660 which hopefully future studies will  
NOTE Confidence: 0.95479745  
00:12:37.660 --> 00:12:38.160 show.  
NOTE Confidence: 0.9032569  
00:12:38.940 --> 00:12:39.980 So what do we also  
NOTE Confidence: 0.9032569  
00:12:39.980 --> 00:12:40.940 see? We also saw on  
NOTE Confidence: 0.9032569  
00:12:40.940 --> 00:12:42.880 our NCCN guidelines that KRAS  
NOTE Confidence: 0.9032569  
00:12:43.020 --> 00:12:44.380 g twelve c mutation positive  
NOTE Confidence: 0.9032569



00:12:44.380 --> 00:12:44.880 patients,  
NOTE Confidence: 0.91244835

00:12:45.615 --> 00:12:47.455 should be receiving sororacin or  
NOTE Confidence: 0.91244835

00:12:47.455 --> 00:12:47.955 adagracin  
NOTE Confidence: 0.935753

00:12:48.334 --> 00:12:49.475 with, appropriate,  
NOTE Confidence: 0.7949442

00:12:51.135 --> 00:12:52.815 biologic therapy, eGFR, and,  
NOTE Confidence: 0.9840932

00:12:54.815 --> 00:12:56.035 either could be appropriate.  
NOTE Confidence: 0.9664962

00:12:56.975 --> 00:12:58.575 What about HER2NU? We saw  
NOTE Confidence: 0.9664962

00:12:58.575 --> 00:13:00.095 some updates at ASCO in  
NOTE Confidence: 0.9664962

00:13:00.095 --> 00:13:01.230 June of this past year  
NOTE Confidence: 0.9664962

00:13:01.230 --> 00:13:02.550 from the MOUNTAINER study. This  
NOTE Confidence: 0.9664962

00:13:02.550 --> 00:13:03.670 is actually the final update  
NOTE Confidence: 0.9664962

00:13:03.670 --> 00:13:04.950 from this study. I'll just  
NOTE Confidence: 0.9664962

00:13:04.950 --> 00:13:05.990 highlight it in a couple  
NOTE Confidence: 0.9664962

00:13:05.990 --> 00:13:07.670 of slides because, again, it  
NOTE Confidence: 0.9664962

00:13:07.670 --> 00:13:09.350 is, speaking to this theme  
NOTE Confidence: 0.9664962

00:13:09.350 --> 00:13:10.650 of of of biomarker,

NOTE Confidence: 0.90611905

00:13:12.150 --> 00:13:13.270 by of of these rare

NOTE Confidence: 0.90611905

00:13:13.270 --> 00:13:15.029 biomarkers for colorectal cancer that

NOTE Confidence: 0.90611905

00:13:15.029 --> 00:13:15.690 are highly

NOTE Confidence: 0.9559798

00:13:16.304 --> 00:13:17.125 highly actionable.

NOTE Confidence: 0.98784953

00:13:17.825 --> 00:13:18.565 So this,

NOTE Confidence: 0.9921014

00:13:18.945 --> 00:13:19.765 was a study,

NOTE Confidence: 0.9143182

00:13:21.184 --> 00:13:22.865 that evaluated patients that are

NOTE Confidence: 0.9143182

00:13:23.025 --> 00:13:23.765 were essentially,

NOTE Confidence: 0.95245034

00:13:24.625 --> 00:13:25.745 on their third line of

NOTE Confidence: 0.95245034

00:13:25.745 --> 00:13:28.065 treatment for colorectal cancer. So,

NOTE Confidence: 0.95245034

00:13:28.065 --> 00:13:29.045 again, prior,

NOTE Confidence: 0.7984634

00:13:29.510 --> 00:13:30.170 five flirapymidine

NOTE Confidence: 0.902506

00:13:30.630 --> 00:13:32.470 refractory essentially here. Then we're

NOTE Confidence: 0.902506

00:13:32.470 --> 00:13:34.330 getting a small molecule tucatinib

NOTE Confidence: 0.902506

00:13:34.550 --> 00:13:35.850 with antibody trastuzumab,

NOTE Confidence: 0.59811854

00:13:36.390 --> 00:13:37.370 HERD and HER2.

NOTE Confidence: 0.97212726

00:13:38.150 --> 00:13:39.370 And this was,

NOTE Confidence: 0.98366886

00:13:40.070 --> 00:13:41.429 really the arm that was

NOTE Confidence: 0.98366886

00:13:41.429 --> 00:13:42.790 investigated. You can see forty

NOTE Confidence: 0.98366886

00:13:42.790 --> 00:13:44.145 one plus forty five in

NOTE Confidence: 0.98366886

00:13:44.145 --> 00:13:44.805 over eighty patients.

NOTE Confidence: 0.94730496

00:13:45.825 --> 00:13:47.425 Per FDA requirements, they were

NOTE Confidence: 0.94730496

00:13:47.425 --> 00:13:48.545 required to look at TUKAT

NOTE Confidence: 0.94730496

00:13:48.545 --> 00:13:50.325 and monotherapy to really determine

NOTE Confidence: 0.7931972

00:13:50.945 --> 00:13:52.405 determine separation of components.

NOTE Confidence: 0.9826691

00:13:53.185 --> 00:13:54.305 But these were the arms

NOTE Confidence: 0.9826691

00:13:54.305 --> 00:13:55.905 that biologically really made the

NOTE Confidence: 0.9826691

00:13:55.905 --> 00:13:56.965 most sense, frankly,

NOTE Confidence: 0.8573665

00:13:57.345 --> 00:13:57.845 and,

NOTE Confidence: 0.9166091

00:13:59.309 --> 00:14:00.589 were were reused as the

NOTE Confidence: 0.9166091

00:14:00.589 --> 00:14:02.509 main efficacy analysis to to

NOTE Confidence: 0.9166091

00:14:02.509 --> 00:14:03.550 look at the effectiveness of

NOTE Confidence: 0.9166091

00:14:03.550 --> 00:14:04.209 the drug.

NOTE Confidence: 0.9476628

00:14:04.750 --> 00:14:06.190 So what were the final

NOTE Confidence: 0.9476628

00:14:06.190 --> 00:14:07.389 outcomes from the study? We

NOTE Confidence: 0.9476628

00:14:07.389 --> 00:14:09.009 can we can see here

NOTE Confidence: 0.9476628

00:14:09.069 --> 00:14:10.750 that Doctor. Strickler presented this

NOTE Confidence: 0.9476628

00:14:10.750 --> 00:14:12.345 at ASCO in June a

NOTE Confidence: 0.9476628

00:14:12.345 --> 00:14:13.785 response rate of thirty nine

NOTE Confidence: 0.9476628

00:14:13.785 --> 00:14:15.065 percent, so close to forty

NOTE Confidence: 0.9476628

00:14:15.065 --> 00:14:16.764 percent response rate.

NOTE Confidence: 0.97195446

00:14:18.024 --> 00:14:19.704 Durable response is fifteen point

NOTE Confidence: 0.97195446

00:14:19.704 --> 00:14:21.305 two months, median progression free

NOTE Confidence: 0.97195446

00:14:21.305 --> 00:14:23.065 survival, eight point one months,

NOTE Confidence: 0.97195446

00:14:23.065 --> 00:14:25.225 median overall survival, twenty four

NOTE Confidence: 0.97195446

00:14:25.225 --> 00:14:26.685 months. This is for patients

NOTE Confidence: 0.97195446

00:14:26.985 --> 00:14:29.060 in the third line setting.  
NOTE Confidence: 0.97195446

00:14:29.120 --> 00:14:30.000 These are numbers that we  
NOTE Confidence: 0.97195446

00:14:30.000 --> 00:14:31.120 would typically expect to see  
NOTE Confidence: 0.97195446

00:14:31.120 --> 00:14:32.080 in the first line setting.  
NOTE Confidence: 0.97195446

00:14:32.080 --> 00:14:33.940 So very promising targeted therapy  
NOTE Confidence: 0.97195446

00:14:34.240 --> 00:14:34.900 for patients.  
NOTE Confidence: 0.92610675

00:14:35.280 --> 00:14:36.560 May main side effect of  
NOTE Confidence: 0.92610675

00:14:36.560 --> 00:14:38.160 the combination being diarrhea to  
NOTE Confidence: 0.92610675

00:14:38.160 --> 00:14:39.140 watch out for,  
NOTE Confidence: 0.94994193

00:14:39.680 --> 00:14:41.520 but, overall, thought to be  
NOTE Confidence: 0.94994193

00:14:41.520 --> 00:14:43.425 a good alternative to the  
NOTE Confidence: 0.94994193

00:14:43.425 --> 00:14:45.585 chemotherapy options these patients have  
NOTE Confidence: 0.94994193

00:14:45.585 --> 00:14:47.025 in these later lines. Whether  
NOTE Confidence: 0.94994193

00:14:47.025 --> 00:14:48.065 or not this will translate  
NOTE Confidence: 0.94994193

00:14:48.065 --> 00:14:49.185 to moving it up earlier  
NOTE Confidence: 0.94994193

00:14:49.185 --> 00:14:51.025 is being evaluated in, additional

NOTE Confidence: 0.94994193  
00:14:51.025 --> 00:14:52.885 studies including first line study  
NOTE Confidence: 0.94994193  
00:14:53.025 --> 00:14:53.525 now.  
NOTE Confidence: 0.9895523  
00:14:54.225 --> 00:14:55.765 But, this has now become  
NOTE Confidence: 0.9187247  
00:14:56.370 --> 00:14:57.810 the, really the standard of  
NOTE Confidence: 0.9187247  
00:14:57.810 --> 00:14:58.790 care for HER2  
NOTE Confidence: 0.978997  
00:14:59.090 --> 00:15:00.310 positive disease,  
NOTE Confidence: 0.99776584  
00:15:01.010 --> 00:15:02.550 in the refractory setting.  
NOTE Confidence: 0.98638505  
00:15:04.290 --> 00:15:06.050 One other very important biomarker  
NOTE Confidence: 0.98638505  
00:15:06.050 --> 00:15:07.650 is mismatch repair deficiency, and  
NOTE Confidence: 0.98638505  
00:15:07.650 --> 00:15:08.770 this is a biomarker that  
NOTE Confidence: 0.98638505  
00:15:08.770 --> 00:15:10.615 comes up very regularly in  
NOTE Confidence: 0.98638505  
00:15:10.615 --> 00:15:12.695 our conferences and very regularly  
NOTE Confidence: 0.98638505  
00:15:12.695 --> 00:15:14.055 in my discussions with patients  
NOTE Confidence: 0.98638505  
00:15:14.055 --> 00:15:16.214 because of the the impact  
NOTE Confidence: 0.98638505  
00:15:16.214 --> 00:15:17.654 immunotherapy could have on these  
NOTE Confidence: 0.98638505

00:15:17.654 --> 00:15:18.154 patients,  
NOTE Confidence: 0.93090504  
00:15:19.654 --> 00:15:21.175 which we've we've we've known.  
NOTE Confidence: 0.93090504  
00:15:21.175 --> 00:15:22.775 Right? We've known keynote one  
NOTE Confidence: 0.93090504  
00:15:22.775 --> 00:15:23.675 seventy seven,  
NOTE Confidence: 0.9950773  
00:15:24.440 --> 00:15:26.220 immunotherapy is better than chemotherapy.  
NOTE Confidence: 0.993759  
00:15:26.840 --> 00:15:27.340 Pembrolizumab,  
NOTE Confidence: 0.8873523  
00:15:28.520 --> 00:15:29.880 in blue here, showing the  
NOTE Confidence: 0.8873523  
00:15:29.880 --> 00:15:32.360 prolonged progression free survival compared  
NOTE Confidence: 0.8873523  
00:15:32.360 --> 00:15:33.020 to chemotherapy.  
NOTE Confidence: 0.973886  
00:15:34.040 --> 00:15:34.540 The,  
NOTE Confidence: 0.90660983  
00:15:35.560 --> 00:15:36.760 immune check on inhibitors like  
NOTE Confidence: 0.90660983  
00:15:36.760 --> 00:15:39.065 pembrolizumab, nivolumab, glumab have been  
NOTE Confidence: 0.90660983  
00:15:39.065 --> 00:15:40.265 used in the factory setting  
NOTE Confidence: 0.90660983  
00:15:40.265 --> 00:15:41.385 for some time, but moving  
NOTE Confidence: 0.90660983  
00:15:41.385 --> 00:15:42.265 them up into the first  
NOTE Confidence: 0.90660983  
00:15:42.265 --> 00:15:44.265 line was what one seventy

NOTE Confidence: 0.90660983  
00:15:44.265 --> 00:15:45.305 seven did for the first  
NOTE Confidence: 0.90660983  
00:15:45.305 --> 00:15:45.805 time,  
NOTE Confidence: 0.97887117  
00:15:46.185 --> 00:15:47.645 and it showed an impressive  
NOTE Confidence: 0.97887117  
00:15:47.705 --> 00:15:49.305 PFS benefit. Because of their  
NOTE Confidence: 0.97887117  
00:15:49.305 --> 00:15:51.225 use later, the the OS  
NOTE Confidence: 0.97887117  
00:15:51.225 --> 00:15:52.590 benefit has not been,  
NOTE Confidence: 0.97967064  
00:15:53.150 --> 00:15:54.910 shown or reported yet, and  
NOTE Confidence: 0.97967064  
00:15:54.910 --> 00:15:56.270 I think will likely take  
NOTE Confidence: 0.97967064  
00:15:56.270 --> 00:15:57.070 a long time,  
NOTE Confidence: 0.9987055  
00:15:57.470 --> 00:15:59.090 to see to see that.  
NOTE Confidence: 0.7354075  
00:16:00.430 --> 00:16:02.430 Hazard ratio, so pembrolizumab protein  
NOTE Confidence: 0.7354075  
00:16:02.430 --> 00:16:04.030 works better in in all  
NOTE Confidence: 0.7354075  
00:16:04.030 --> 00:16:04.530 subtypes.  
NOTE Confidence: 0.8899054  
00:16:06.204 --> 00:16:07.644 But what's new what's new  
NOTE Confidence: 0.8899054  
00:16:07.644 --> 00:16:09.105 is Checkmate h w.  
NOTE Confidence: 0.9526311



00:16:09.565 --> 00:16:10.524 This is a story that  
NOTE Confidence: 0.9526311

00:16:10.524 --> 00:16:12.045 the has been evolving for  
NOTE Confidence: 0.9526311

00:16:12.045 --> 00:16:13.245 a couple of years for  
NOTE Confidence: 0.9526311

00:16:13.245 --> 00:16:14.524 this trial because it's a  
NOTE Confidence: 0.9526311

00:16:14.524 --> 00:16:15.964 three arm trial. And what  
NOTE Confidence: 0.9526311

00:16:15.964 --> 00:16:17.024 do we see first?  
NOTE Confidence: 0.9982674

00:16:17.325 --> 00:16:17.985 We saw,  
NOTE Confidence: 0.92243034

00:16:18.524 --> 00:16:20.699 the nivo arm presented,  
NOTE Confidence: 0.9775603

00:16:21.160 --> 00:16:22.600 and now what we're seeing  
NOTE Confidence: 0.9775603

00:16:22.600 --> 00:16:24.220 is the nivoipi arm,  
NOTE Confidence: 0.98154616

00:16:25.240 --> 00:16:25.740 versus,  
NOTE Confidence: 0.97356015

00:16:27.240 --> 00:16:27.740 versus,  
NOTE Confidence: 0.92191297

00:16:28.360 --> 00:16:28.860 chemotherapy.  
NOTE Confidence: 0.93228596

00:16:30.279 --> 00:16:31.560 At first, we saw the  
NOTE Confidence: 0.93228596

00:16:31.560 --> 00:16:31.880 the,  
NOTE Confidence: 0.9266923

00:16:33.205 --> 00:16:34.565 the nivo ipi arm versus

NOTE Confidence: 0.9266923

00:16:34.565 --> 00:16:36.005 chemotherapy. Excuse me. And then

NOTE Confidence: 0.9266923

00:16:36.005 --> 00:16:37.845 now we're seeing nivo versus

NOTE Confidence: 0.9266923

00:16:37.845 --> 00:16:39.205 ipi nivo, which is really

NOTE Confidence: 0.9266923

00:16:39.205 --> 00:16:40.325 the comparison we wanted to

NOTE Confidence: 0.9266923

00:16:40.325 --> 00:16:41.545 see all the whole time.

NOTE Confidence: 0.8982542

00:16:42.005 --> 00:16:43.225 We already knew that immunotherapy

NOTE Confidence: 0.8982542

00:16:43.445 --> 00:16:44.725 should be not chemotherapy from

NOTE Confidence: 0.8982542

00:16:44.725 --> 00:16:46.265 keynote one seventy seven.

NOTE Confidence: 0.90118074

00:16:46.640 --> 00:16:48.080 So we saw this last

NOTE Confidence: 0.90118074

00:16:48.080 --> 00:16:48.900 step GISCO.

NOTE Confidence: 0.9991782

00:16:49.520 --> 00:16:50.180 So this

NOTE Confidence: 0.99876994

00:16:50.640 --> 00:16:51.220 is important

NOTE Confidence: 0.9795346

00:16:51.680 --> 00:16:53.279 data to have, but but

NOTE Confidence: 0.9795346

00:16:53.279 --> 00:16:54.880 in many ways, this isn't,

NOTE Confidence: 0.990119

00:16:55.840 --> 00:16:57.760 this isn't necessarily changing the

NOTE Confidence: 0.990119

00:16:57.760 --> 00:16:58.260 paradigm,  
NOTE Confidence: 0.9881075

00:16:58.800 --> 00:17:00.740 completely. So this was ipinivo,  
NOTE Confidence: 0.93520623

00:17:01.524 --> 00:17:03.065 dual immune checkpoint blockade,  
NOTE Confidence: 0.9761524

00:17:03.445 --> 00:17:04.345 versus nivolumab,  
NOTE Confidence: 0.8098812

00:17:05.045 --> 00:17:06.825 excuse me, versus chemotherapy,  
NOTE Confidence: 0.97900236

00:17:07.684 --> 00:17:08.184 alone.  
NOTE Confidence: 0.95966554

00:17:08.565 --> 00:17:10.645 And you can see very  
NOTE Confidence: 0.95966554

00:17:10.645 --> 00:17:12.165 big separation of these curves  
NOTE Confidence: 0.95966554

00:17:12.165 --> 00:17:13.945 here. Not even reached medium  
NOTE Confidence: 0.8555286

00:17:14.325 --> 00:17:15.385 pressure free survival.  
NOTE Confidence: 0.98467475

00:17:16.910 --> 00:17:18.210 Very impressive durability.  
NOTE Confidence: 0.77057964

00:17:19.070 --> 00:17:19.570 Ipinivo  
NOTE Confidence: 0.9397152

00:17:19.869 --> 00:17:21.330 clearly outperforming chemotherapy  
NOTE Confidence: 0.9153138

00:17:21.630 --> 00:17:23.230 here. But, again, what we  
NOTE Confidence: 0.9153138

00:17:23.230 --> 00:17:24.270 need to see is is  
NOTE Confidence: 0.9153138

00:17:24.270 --> 00:17:25.710 two main immune checkpoint better

NOTE Confidence: 0.9153138  
00:17:25.710 --> 00:17:27.309 inhibitors really better than one  
NOTE Confidence: 0.9153138  
00:17:27.309 --> 00:17:28.350 because it could be potentially  
NOTE Confidence: 0.9153138  
00:17:28.350 --> 00:17:29.475 more toxic. So, that's what  
NOTE Confidence: 0.9153138  
00:17:29.475 --> 00:17:30.595 we that's what we got  
NOTE Confidence: 0.9153138  
00:17:30.595 --> 00:17:32.115 to see this year at  
NOTE Confidence: 0.9153138  
00:17:32.115 --> 00:17:33.635 at GISCO in twenty twenty  
NOTE Confidence: 0.9153138  
00:17:33.635 --> 00:17:35.415 five. We saw NivoIPI  
NOTE Confidence: 0.93644863  
00:17:35.795 --> 00:17:36.775 versus IPI.  
NOTE Confidence: 0.9824127  
00:17:37.234 --> 00:17:38.595 This is first line therapy  
NOTE Confidence: 0.9824127  
00:17:38.595 --> 00:17:40.455 for mismatch repair deficient tumors.  
NOTE Confidence: 0.98443687  
00:17:40.915 --> 00:17:41.415 Moreover,  
NOTE Confidence: 0.78979266  
00:17:42.869 --> 00:17:43.850 central confirmation  
NOTE Confidence: 0.9047743  
00:17:44.230 --> 00:17:45.750 was done for mismatch repair  
NOTE Confidence: 0.9047743  
00:17:45.750 --> 00:17:47.050 steps which is really important,  
NOTE Confidence: 0.83427835  
00:17:47.750 --> 00:17:48.790 and wasn't done in t  
NOTE Confidence: 0.83427835

00:17:48.790 --> 00:17:50.010 note one seventy seven.  
NOTE Confidence: 0.9269314

00:17:50.630 --> 00:17:51.450 So ipinivo  
NOTE Confidence: 0.95776755

00:17:51.830 --> 00:17:53.690 did though demonstrate improved PFS  
NOTE Confidence: 0.95776755

00:17:53.910 --> 00:17:55.050 compared to nivolumab.  
NOTE Confidence: 0.93209577

00:17:55.990 --> 00:17:57.625 This This was simultaneously published  
NOTE Confidence: 0.93209577

00:17:57.625 --> 00:17:58.585 in The Lancet, so this  
NOTE Confidence: 0.93209577

00:17:58.585 --> 00:17:59.465 is the reference from The  
NOTE Confidence: 0.93209577

00:17:59.465 --> 00:18:01.065 Lancet. If we look at  
NOTE Confidence: 0.93209577

00:18:01.065 --> 00:18:03.085 the central confirmation of microcecal  
NOTE Confidence: 0.93209577

00:18:03.145 --> 00:18:04.265 instability high where we can  
NOTE Confidence: 0.93209577

00:18:04.265 --> 00:18:06.265 be darn certain that the  
NOTE Confidence: 0.93209577

00:18:06.265 --> 00:18:07.865 tumor is truly mismatch repair  
NOTE Confidence: 0.93209577

00:18:07.865 --> 00:18:08.365 deficient,  
NOTE Confidence: 0.9129717

00:18:08.910 --> 00:18:09.630 This is a kind of  
NOTE Confidence: 0.9129717

00:18:09.630 --> 00:18:10.910 separation we can we see  
NOTE Confidence: 0.9129717

00:18:10.910 --> 00:18:12.990 here. So, again, chemotherapy that

NOTE Confidence: 0.9129717

00:18:13.070 --> 00:18:14.190 those curves were down here,

NOTE Confidence: 0.9129717

00:18:14.190 --> 00:18:15.869 but, we are collecting very

NOTE Confidence: 0.9129717

00:18:15.869 --> 00:18:17.330 clear separation that ipinivo

NOTE Confidence: 0.87378407

00:18:17.869 --> 00:18:19.230 has a as an improved

NOTE Confidence: 0.87378407

00:18:19.230 --> 00:18:20.430 PFS. You can see highly

NOTE Confidence: 0.87378407

00:18:20.430 --> 00:18:22.270 statistically significant, has your ratio

NOTE Confidence: 0.87378407

00:18:22.270 --> 00:18:23.250 of sixty two,

NOTE Confidence: 0.6168448

00:18:23.625 --> 00:18:24.365 And the

NOTE Confidence: 0.82057583

00:18:24.665 --> 00:18:26.285 whole monomonee centrally confirm,

NOTE Confidence: 0.9541702

00:18:27.065 --> 00:18:28.125 subset of patients,

NOTE Confidence: 0.9542679

00:18:28.505 --> 00:18:30.105 it's very similar numbers. So

NOTE Confidence: 0.9542679

00:18:30.105 --> 00:18:31.425 it does seem that ipinivo

NOTE Confidence: 0.9542679

00:18:31.425 --> 00:18:32.845 will be better than nivolumab.

NOTE Confidence: 0.9525302

00:18:33.145 --> 00:18:34.425 What about in the subgroup

NOTE Confidence: 0.9525302

00:18:34.425 --> 00:18:35.910 analysis when we look just

NOTE Confidence: 0.9525302

00:18:35.910 --> 00:18:36.890 about all subgroups,  
NOTE Confidence: 0.90686786

00:18:37.750 --> 00:18:39.109 were were favored using the  
NOTE Confidence: 0.90686786

00:18:39.109 --> 00:18:41.050 dual immune checkpoint block blockade?  
NOTE Confidence: 0.99915504

00:18:41.670 --> 00:18:43.130 What about response rate?  
NOTE Confidence: 0.9286248

00:18:43.670 --> 00:18:44.550 Well, if we just look  
NOTE Confidence: 0.9286248

00:18:44.550 --> 00:18:46.250 at the, oh, the the  
NOTE Confidence: 0.97356963

00:18:46.790 --> 00:18:48.230 the number of overall response  
NOTE Confidence: 0.97356963

00:18:48.230 --> 00:18:49.109 rate, you see it's seventy  
NOTE Confidence: 0.97356963

00:18:49.109 --> 00:18:50.550 one versus fifty eight percent  
NOTE Confidence: 0.97356963

00:18:50.550 --> 00:18:52.205 with two immune checkpoint inhibitors  
NOTE Confidence: 0.97356963

00:18:52.345 --> 00:18:53.885 versus one immune checkpoint inhibitors.  
NOTE Confidence: 0.8988836

00:18:54.345 --> 00:18:55.705 Notably, this is way higher  
NOTE Confidence: 0.8988836

00:18:55.705 --> 00:18:56.664 response rate than we saw  
NOTE Confidence: 0.8988836

00:18:56.664 --> 00:18:58.105 with, in keynote one seventy  
NOTE Confidence: 0.8988836

00:18:58.105 --> 00:18:59.005 seven and pembrolizumab.  
NOTE Confidence: 0.96965426

00:18:59.465 --> 00:19:00.345 Again, that may have some

NOTE Confidence: 0.96965426  
00:19:00.345 --> 00:19:01.225 things to do with the  
NOTE Confidence: 0.96965426  
00:19:01.225 --> 00:19:02.125 central confirmation,  
NOTE Confidence: 0.96549493  
00:19:02.505 --> 00:19:04.125 mismatch repair status testing,  
NOTE Confidence: 0.9514951  
00:19:05.580 --> 00:19:06.540 or there could be other  
NOTE Confidence: 0.9514951  
00:19:06.540 --> 00:19:07.900 other reasons for that. So  
NOTE Confidence: 0.9514951  
00:19:07.900 --> 00:19:09.680 higher response rate, better progression  
NOTE Confidence: 0.9514951  
00:19:09.740 --> 00:19:10.400 free survival.  
NOTE Confidence: 0.99790746  
00:19:10.780 --> 00:19:11.760 What about toxicities?  
NOTE Confidence: 0.8507809  
00:19:12.300 --> 00:19:13.900 Not unexpected to see more  
NOTE Confidence: 0.8507809  
00:19:13.900 --> 00:19:15.920 toxicities with Duo immune checkpoint  
NOTE Confidence: 0.8507809  
00:19:16.140 --> 00:19:17.580 blockade. With the dose of  
NOTE Confidence: 0.8507809  
00:19:17.580 --> 00:19:19.255 ipi we use now, Certainly,  
NOTE Confidence: 0.8507809  
00:19:19.255 --> 00:19:20.375 these are more much more  
NOTE Confidence: 0.8507809  
00:19:20.375 --> 00:19:20.875 manageable.  
NOTE Confidence: 0.89467585  
00:19:21.575 --> 00:19:22.215 And I think when you  
NOTE Confidence: 0.89467585



00:19:22.215 --> 00:19:22.934 really just look at the  
NOTE Confidence: 0.89467585

00:19:22.934 --> 00:19:23.975 totality of grade three of  
NOTE Confidence: 0.89467585

00:19:23.975 --> 00:19:25.734 VersaVent's twenty two versus fourteen  
NOTE Confidence: 0.89467585

00:19:25.734 --> 00:19:26.234 percent,  
NOTE Confidence: 0.90659344

00:19:27.174 --> 00:19:27.655 is,  
NOTE Confidence: 0.9563656

00:19:28.135 --> 00:19:29.815 is different, but, is is  
NOTE Confidence: 0.9563656

00:19:29.815 --> 00:19:31.575 not dramatically different. And I  
NOTE Confidence: 0.9563656

00:19:31.575 --> 00:19:32.855 think many of these we've  
NOTE Confidence: 0.9563656

00:19:32.855 --> 00:19:35.230 become able to manage effectively.  
NOTE Confidence: 0.9563656

00:19:35.369 --> 00:19:36.570 But, frankly, there are some  
NOTE Confidence: 0.9563656

00:19:36.570 --> 00:19:37.929 patients that will be left  
NOTE Confidence: 0.9563656

00:19:37.929 --> 00:19:38.750 with lifelong,  
NOTE Confidence: 0.82623065

00:19:41.769 --> 00:19:42.269 endocrine  
NOTE Confidence: 0.92982495

00:19:42.730 --> 00:19:43.230 disorders,  
NOTE Confidence: 0.9979059

00:19:43.690 --> 00:19:44.649 and that needs to be  
NOTE Confidence: 0.9979059

00:19:44.649 --> 00:19:45.789 taken into account.

NOTE Confidence: 0.95831805  
00:19:46.090 --> 00:19:47.195 So at the end of  
NOTE Confidence: 0.95831805  
00:19:47.195 --> 00:19:48.115 the day, though, I think  
NOTE Confidence: 0.95831805  
00:19:48.115 --> 00:19:49.335 ipnivo is,  
NOTE Confidence: 0.96924883  
00:19:50.115 --> 00:19:51.875 become standard of care for  
NOTE Confidence: 0.96924883  
00:19:51.875 --> 00:19:53.075 a lot of patients with  
NOTE Confidence: 0.96924883  
00:19:53.075 --> 00:19:54.835 first first line mismatch repair  
NOTE Confidence: 0.96924883  
00:19:54.835 --> 00:19:56.435 deficient tumors. I think for  
NOTE Confidence: 0.96924883  
00:19:56.435 --> 00:19:57.635 patients that you're more worried  
NOTE Confidence: 0.96924883  
00:19:57.635 --> 00:19:58.375 about toxicities  
NOTE Confidence: 0.9404822  
00:19:58.890 --> 00:20:00.010 or that have lower burdens  
NOTE Confidence: 0.9404822  
00:20:00.010 --> 00:20:01.790 of disease, it's not unreasonable  
NOTE Confidence: 0.9404822  
00:20:01.850 --> 00:20:02.890 to think about the single  
NOTE Confidence: 0.9404822  
00:20:02.890 --> 00:20:04.410 agent and IPD one if  
NOTE Confidence: 0.9404822  
00:20:04.410 --> 00:20:05.869 you're concerned about toxicity.  
NOTE Confidence: 0.9083085  
00:20:06.730 --> 00:20:08.970 But, APNivo is what I  
NOTE Confidence: 0.9083085

00:20:08.970 --> 00:20:10.270 am using in  
NOTE Confidence: 0.92305857

00:20:10.570 --> 00:20:11.770 the majority of my practice  
NOTE Confidence: 0.92305857

00:20:11.770 --> 00:20:12.970 for patients first line with  
NOTE Confidence: 0.92305857

00:20:12.970 --> 00:20:13.950 this disease now  
NOTE Confidence: 0.9409214

00:20:14.325 --> 00:20:16.345 given that very dramatic durability  
NOTE Confidence: 0.9409214

00:20:16.404 --> 00:20:17.065 of the curve.  
NOTE Confidence: 0.99660915

00:20:17.365 --> 00:20:19.044 So what's my summary for  
NOTE Confidence: 0.99660915

00:20:19.044 --> 00:20:20.484 the approach to biomarkers in  
NOTE Confidence: 0.99660915

00:20:20.484 --> 00:20:21.544 twenty twenty five?  
NOTE Confidence: 0.79619986

00:20:22.085 --> 00:20:23.365 Your FE six hundred d,  
NOTE Confidence: 0.79619986

00:20:23.365 --> 00:20:24.424 what what changed?  
NOTE Confidence: 0.8712293

00:20:24.965 --> 00:20:25.924 What changed is now we  
NOTE Confidence: 0.8712293

00:20:25.924 --> 00:20:28.164 use fofloxacin, carafenib, zetuximab as  
NOTE Confidence: 0.8712293

00:20:28.164 --> 00:20:29.800 first line. K. RS g  
NOTE Confidence: 0.8712293

00:20:29.800 --> 00:20:31.240 twelve c. What changed? Well,  
NOTE Confidence: 0.8712293

00:20:31.240 --> 00:20:32.300 now we have these approved.

NOTE Confidence: 0.8712293  
00:20:32.360 --> 00:20:33.660 Now they're FDA approved.  
NOTE Confidence: 0.9336507  
00:20:34.600 --> 00:20:35.960 There's not just data.  
NOTE Confidence: 0.9336507  
00:20:35.960 --> 00:20:36.700 There's approval  
NOTE Confidence: 0.80925715  
00:20:37.080 --> 00:20:38.840 behind them. So for flow  
NOTE Confidence: 0.80925715  
00:20:38.840 --> 00:20:40.680 of permeating refractory CRC with  
NOTE Confidence: 0.80925715  
00:20:40.680 --> 00:20:42.600 the appropriate eGFR inhibitor given  
NOTE Confidence: 0.80925715  
00:20:42.600 --> 00:20:43.100 alongside,  
NOTE Confidence: 0.9295124  
00:20:43.785 --> 00:20:44.585 Whether or not we get  
NOTE Confidence: 0.9295124  
00:20:44.585 --> 00:20:45.145 to start,  
NOTE Confidence: 0.99226  
00:20:45.545 --> 00:20:46.585 considering that in the first  
NOTE Confidence: 0.99226  
00:20:46.585 --> 00:20:47.865 line setting will depend on  
NOTE Confidence: 0.99226  
00:20:47.865 --> 00:20:48.984 how some of these other  
NOTE Confidence: 0.99226  
00:20:48.984 --> 00:20:50.825 trials read out. Tucatinib and  
NOTE Confidence: 0.99226  
00:20:50.825 --> 00:20:51.325 trastuzumab  
NOTE Confidence: 0.98626596  
00:20:51.945 --> 00:20:53.465 is the only HER2 directed  
NOTE Confidence: 0.98626596

00:20:53.465 --> 00:20:53.965 therapy  
NOTE Confidence: 0.81661206

00:20:54.665 --> 00:20:55.885 FDA approved for  
NOTE Confidence: 0.99013454

00:20:56.940 --> 00:20:57.440 for  
NOTE Confidence: 0.89869463

00:20:58.539 --> 00:21:00.619 HER2 positive colorectal cancer. Although  
NOTE Confidence: 0.89869463

00:21:00.619 --> 00:21:02.720 there are other agents, trastuzumab,  
NOTE Confidence: 0.63131803

00:21:03.820 --> 00:21:04.960 lepatent and trastuzumab,  
NOTE Confidence: 0.5152311

00:21:06.700 --> 00:21:07.200 DS,  
NOTE Confidence: 0.8923586

00:21:07.580 --> 00:21:08.960 eighty two zero one a,  
NOTE Confidence: 0.95585823

00:21:09.340 --> 00:21:10.639 that that can be considered  
NOTE Confidence: 0.95585823

00:21:10.859 --> 00:21:11.259 for,  
NOTE Confidence: 0.96952176

00:21:12.325 --> 00:21:13.525 considered as well. But this  
NOTE Confidence: 0.96952176

00:21:13.525 --> 00:21:14.645 is the FDA group regimen.  
NOTE Confidence: 0.96952176

00:21:14.645 --> 00:21:15.365 This is what I use  
NOTE Confidence: 0.96952176

00:21:15.365 --> 00:21:16.085 in the majority of my  
NOTE Confidence: 0.96952176

00:21:16.085 --> 00:21:17.685 patients, the first HER2 directed  
NOTE Confidence: 0.96952176

00:21:17.685 --> 00:21:18.185 therapy.

NOTE Confidence: 0.9341706  
00:21:18.645 --> 00:21:19.145 Although,  
NOTE Confidence: 0.9926013  
00:21:20.005 --> 00:21:20.505 trastuzumab  
NOTE Confidence: 0.9332355  
00:21:20.805 --> 00:21:22.405 drugs, TCAN, yeah, is is  
NOTE Confidence: 0.9332355  
00:21:22.405 --> 00:21:24.005 certainly something I use, if  
NOTE Confidence: 0.9332355  
00:21:24.005 --> 00:21:26.025 there's a KRAS mutation present  
NOTE Confidence: 0.9332355  
00:21:26.244 --> 00:21:26.985 or if  
NOTE Confidence: 0.8213045  
00:21:27.350 --> 00:21:28.470 like, in addition to the  
NOTE Confidence: 0.8213045  
00:21:28.470 --> 00:21:31.030 HER2 or if, patients are  
NOTE Confidence: 0.8213045  
00:21:31.030 --> 00:21:32.570 too congestive in refractory.  
NOTE Confidence: 0.9477308  
00:21:33.109 --> 00:21:34.070 And then now what changed  
NOTE Confidence: 0.9477308  
00:21:34.070 --> 00:21:35.750 with deficient mismatch repair? I  
NOTE Confidence: 0.9477308  
00:21:35.750 --> 00:21:37.930 think ipi, limumab, and nivolumab  
NOTE Confidence: 0.9477308  
00:21:38.070 --> 00:21:39.270 as first line therapy has  
NOTE Confidence: 0.9477308  
00:21:39.270 --> 00:21:40.250 become my standard,  
NOTE Confidence: 0.9611492  
00:21:40.630 --> 00:21:42.795 except in circumstances where I  
NOTE Confidence: 0.9611492

00:21:42.795 --> 00:21:44.475 think that toxicity is my  
NOTE Confidence: 0.9611492

00:21:44.475 --> 00:21:45.295 major concern  
NOTE Confidence: 0.8103212

00:21:45.675 --> 00:21:46.075 and,  
NOTE Confidence: 0.8733795

00:21:46.475 --> 00:21:48.235 and maybe disease burden is  
NOTE Confidence: 0.8733795

00:21:48.235 --> 00:21:48.735 lower.  
NOTE Confidence: 0.99415725

00:21:49.595 --> 00:21:50.955 So I'm gonna pivot now  
NOTE Confidence: 0.99415725

00:21:50.955 --> 00:21:51.455 to,  
NOTE Confidence: 0.99410295

00:21:52.235 --> 00:21:53.295 localized disease.  
NOTE Confidence: 0.97511905

00:21:54.715 --> 00:21:56.130 I'm not gonna talk as  
NOTE Confidence: 0.97511905

00:21:56.130 --> 00:21:58.050 much about localized disease in  
NOTE Confidence: 0.97511905

00:21:58.050 --> 00:21:59.570 the management about around the  
NOTE Confidence: 0.97511905

00:21:59.570 --> 00:22:01.410 perioperative setting, but I'm gonna  
NOTE Confidence: 0.97511905

00:22:01.410 --> 00:22:02.070 talk about,  
NOTE Confidence: 0.9511605

00:22:02.930 --> 00:22:03.890 what we do with that,  
NOTE Confidence: 0.9511605

00:22:03.890 --> 00:22:04.690 some of some of the  
NOTE Confidence: 0.9511605

00:22:04.690 --> 00:22:06.390 biomarkers for adjuvant therapy.

NOTE Confidence: 0.9205451

00:22:06.770 --> 00:22:07.990 So we've seen,

NOTE Confidence: 0.9338804

00:22:08.530 --> 00:22:10.530 the dynamic study presented at

NOTE Confidence: 0.9338804

00:22:10.530 --> 00:22:11.605 ASCO a couple of times.

NOTE Confidence: 0.9338804

00:22:11.605 --> 00:22:12.105 It's

NOTE Confidence: 0.98198026

00:22:12.484 --> 00:22:13.524 been published in the New

NOTE Confidence: 0.98198026

00:22:13.524 --> 00:22:15.284 England Journal of Medicine initially

NOTE Confidence: 0.98198026

00:22:15.284 --> 00:22:16.885 at the two year mark,

NOTE Confidence: 0.98198026

00:22:16.885 --> 00:22:17.845 and then now this is

NOTE Confidence: 0.98198026

00:22:17.845 --> 00:22:19.524 the five year follow-up from

NOTE Confidence: 0.98198026

00:22:19.524 --> 00:22:21.284 the DYNAMICS study. And so

NOTE Confidence: 0.98198026

00:22:21.284 --> 00:22:22.644 the DYNAMICS study sought to

NOTE Confidence: 0.98198026

00:22:22.644 --> 00:22:24.644 evaluate patients with stage two

NOTE Confidence: 0.98198026

00:22:24.644 --> 00:22:25.865 colorectal cancer

NOTE Confidence: 0.9958021

00:22:26.550 --> 00:22:28.390 and evaluated for the presence

NOTE Confidence: 0.9958021

00:22:28.390 --> 00:22:29.990 or absence of circulating tumor

NOTE Confidence: 0.9958021



00:22:29.990 --> 00:22:30.490 DNA.  
NOTE Confidence: 0.99649835

00:22:31.030 --> 00:22:32.790 And if patients had positive  
NOTE Confidence: 0.99649835

00:22:32.790 --> 00:22:34.170 circulating tumor DNA,  
NOTE Confidence: 0.98370785

00:22:35.350 --> 00:22:36.790 they were deemed high risk  
NOTE Confidence: 0.98370785

00:22:36.790 --> 00:22:37.510 and and,  
NOTE Confidence: 0.9740867

00:22:38.150 --> 00:22:39.590 and given adjuvant therapy. And  
NOTE Confidence: 0.9740867

00:22:39.590 --> 00:22:41.190 if patients didn't have circulating  
NOTE Confidence: 0.9740867

00:22:41.190 --> 00:22:42.010 tumor DNA,  
NOTE Confidence: 0.77728343

00:22:43.244 --> 00:22:43.744 then,  
NOTE Confidence: 0.8078041

00:22:44.445 --> 00:22:45.484 then they when they were  
NOTE Confidence: 0.8078041

00:22:45.484 --> 00:22:47.105 not, so given therapy.  
NOTE Confidence: 0.9417773

00:22:49.565 --> 00:22:51.185 So this is the the  
NOTE Confidence: 0.9417773

00:22:51.244 --> 00:22:52.445 kind of the breakdown of  
NOTE Confidence: 0.9417773

00:22:52.445 --> 00:22:52.945 patients,  
NOTE Confidence: 0.98349273

00:22:53.565 --> 00:22:55.005 and and adjuvant therapy could  
NOTE Confidence: 0.98349273

00:22:55.005 --> 00:22:55.805 be by the way, it

NOTE Confidence: 0.98349273  
00:22:55.805 --> 00:22:57.025 could be well, I guess,  
NOTE Confidence: 0.97864807  
00:22:57.720 --> 00:22:58.919 we have it here. It  
NOTE Confidence: 0.97864807  
00:22:58.919 --> 00:22:59.500 could be,  
NOTE Confidence: 0.9731049  
00:23:00.440 --> 00:23:01.340 just oxaliplatin  
NOTE Confidence: 0.587386  
00:23:01.880 --> 00:23:02.280 it's,  
NOTE Confidence: 0.7171446  
00:23:02.760 --> 00:23:03.659 just fluoropyrimidine  
NOTE Confidence: 0.8492108  
00:23:04.280 --> 00:23:04.840 or it could be,  
NOTE Confidence: 0.9679392  
00:23:05.640 --> 00:23:06.140 oxaliplatin  
NOTE Confidence: 0.98083496  
00:23:06.679 --> 00:23:08.299 oxaliplatin based chemo.  
NOTE Confidence: 0.9473476  
00:23:08.760 --> 00:23:10.054 When you look at these  
NOTE Confidence: 0.9473476  
00:23:10.054 --> 00:23:11.095 numbers, they look low because  
NOTE Confidence: 0.9473476  
00:23:11.095 --> 00:23:12.295 why? The majority of patients  
NOTE Confidence: 0.9473476  
00:23:12.295 --> 00:23:13.434 who you test for ctDNA  
NOTE Confidence: 0.9473476  
00:23:13.575 --> 00:23:14.695 will be negative, even the  
NOTE Confidence: 0.9473476  
00:23:14.695 --> 00:23:15.515 ones that relapse.  
NOTE Confidence: 0.8448448

00:23:16.695 --> 00:23:17.195 So,  
NOTE Confidence: 0.93157643

00:23:20.215 --> 00:23:21.174 about twenty percent of these  
NOTE Confidence: 0.93157643

00:23:21.174 --> 00:23:22.875 patients were mismatch repair deficient.  
NOTE Confidence: 0.93157643

00:23:23.015 --> 00:23:23.789 And And, again, you can  
NOTE Confidence: 0.93157643

00:23:23.789 --> 00:23:25.630 see very few, well, fifteen  
NOTE Confidence: 0.93157643

00:23:25.630 --> 00:23:27.230 ish percent were t four  
NOTE Confidence: 0.93157643

00:23:27.230 --> 00:23:28.429 disease. So the majority of  
NOTE Confidence: 0.93157643

00:23:28.429 --> 00:23:29.869 these, patients would be t  
NOTE Confidence: 0.93157643

00:23:29.869 --> 00:23:31.309 three n zero, so earlier  
NOTE Confidence: 0.93157643

00:23:31.309 --> 00:23:31.809 stage  
NOTE Confidence: 0.9199435

00:23:32.269 --> 00:23:34.369 t earlier stage two tumors.  
NOTE Confidence: 0.9199435

00:23:34.669 --> 00:23:35.470 And what do we see?  
NOTE Confidence: 0.9199435

00:23:35.470 --> 00:23:36.434 We saw, well, look, if  
NOTE Confidence: 0.9199435

00:23:36.434 --> 00:23:37.234 if you look at the  
NOTE Confidence: 0.9199435

00:23:37.234 --> 00:23:39.475 ctDNA guided management versus the  
NOTE Confidence: 0.9199435

00:23:39.475 --> 00:23:40.375 standard management,

NOTE Confidence: 0.974881  
00:23:41.715 --> 00:23:42.835 so in the blue line,  
NOTE Confidence: 0.974881  
00:23:42.835 --> 00:23:43.955 if you're positive, you got  
NOTE Confidence: 0.974881  
00:23:43.955 --> 00:23:45.554 adjuvant therapy. If you're negative,  
NOTE Confidence: 0.974881  
00:23:45.554 --> 00:23:46.595 you didn't. And if you're  
NOTE Confidence: 0.974881  
00:23:46.595 --> 00:23:47.955 in the red line, we  
NOTE Confidence: 0.974881  
00:23:47.955 --> 00:23:49.394 we did the standard management,  
NOTE Confidence: 0.974881  
00:23:49.394 --> 00:23:50.695 so the typical histopathologic  
NOTE Confidence: 0.92560095  
00:23:51.075 --> 00:23:51.815 risk factors.  
NOTE Confidence: 0.92493874  
00:23:53.760 --> 00:23:54.960 You can see very little  
NOTE Confidence: 0.92493874  
00:23:54.960 --> 00:23:56.580 difference in overall survival,  
NOTE Confidence: 0.9167867  
00:23:57.039 --> 00:23:58.720 although arguably, maybe five year  
NOTE Confidence: 0.9167867  
00:23:58.720 --> 00:24:00.100 overall survival is,  
NOTE Confidence: 0.99523085  
00:24:01.279 --> 00:24:02.480 not even long enough for  
NOTE Confidence: 0.99523085  
00:24:02.480 --> 00:24:03.460 stage two disease.  
NOTE Confidence: 0.9924062  
00:24:04.255 --> 00:24:05.054 But what about when we  
NOTE Confidence: 0.9924062

00:24:05.054 --> 00:24:06.174 start to look at cancer  
NOTE Confidence: 0.9924062

00:24:06.174 --> 00:24:07.155 specific survival?  
NOTE Confidence: 0.9760578

00:24:07.535 --> 00:24:08.835 Again, not much difference.  
NOTE Confidence: 0.9342617

00:24:09.215 --> 00:24:11.135 And looking about recurrence free  
NOTE Confidence: 0.9342617

00:24:11.135 --> 00:24:13.375 survival, again, not much difference  
NOTE Confidence: 0.9342617

00:24:13.375 --> 00:24:15.375 with CTD guided management versus  
NOTE Confidence: 0.9342617

00:24:15.375 --> 00:24:16.275 standard management.  
NOTE Confidence: 0.9519866

00:24:16.830 --> 00:24:18.109 If not much different, then  
NOTE Confidence: 0.9519866

00:24:18.109 --> 00:24:19.070 why use it? The whole  
NOTE Confidence: 0.9519866

00:24:19.150 --> 00:24:20.990 this was all predicated on,  
NOTE Confidence: 0.9519866

00:24:21.230 --> 00:24:22.690 trying to use less oxaliplatin,  
NOTE Confidence: 0.98629063

00:24:23.150 --> 00:24:25.309 less neuropathy, less chemotherapy, less  
NOTE Confidence: 0.98629063

00:24:25.309 --> 00:24:26.690 complications from chemotherapy  
NOTE Confidence: 0.9407764

00:24:27.070 --> 00:24:27.809 with CTD,  
NOTE Confidence: 0.99683124

00:24:28.429 --> 00:24:29.809 DNA guided management.  
NOTE Confidence: 0.9872633

00:24:31.955 --> 00:24:33.234 But I think that when

NOTE Confidence: 0.9872633

00:24:33.234 --> 00:24:34.274 you start to look at

NOTE Confidence: 0.9872633

00:24:34.274 --> 00:24:35.554 some of the details of

NOTE Confidence: 0.9872633

00:24:35.554 --> 00:24:36.994 the subgroups, it's important to

NOTE Confidence: 0.9872633

00:24:36.994 --> 00:24:37.955 know who this is a

NOTE Confidence: 0.9872633

00:24:37.955 --> 00:24:39.234 good strategy for and who

NOTE Confidence: 0.9872633

00:24:39.234 --> 00:24:39.734 this

NOTE Confidence: 0.96765643

00:24:40.115 --> 00:24:40.914 is not as good of

NOTE Confidence: 0.96765643

00:24:40.914 --> 00:24:42.615 a strategy for. So,

NOTE Confidence: 0.99937487

00:24:43.970 --> 00:24:45.250 there are patients that are

NOTE Confidence: 0.99937487

00:24:45.250 --> 00:24:46.710 gonna have high risk features

NOTE Confidence: 0.9784653

00:24:47.010 --> 00:24:48.150 that may be ctDNA

NOTE Confidence: 0.9724564

00:24:48.450 --> 00:24:48.950 negative.

NOTE Confidence: 0.91627514

00:24:49.490 --> 00:24:50.869 And what should trump what?

NOTE Confidence: 0.91627514

00:24:50.930 --> 00:24:51.670 Should ctDNA

NOTE Confidence: 0.8687155

00:24:52.050 --> 00:24:54.609 negative negativity trump t four

NOTE Confidence: 0.8687155

00:24:54.609 --> 00:24:55.109 status,  
NOTE Confidence: 0.9281422

00:24:55.570 --> 00:24:57.830 other high risk histopathological features?  
NOTE Confidence: 0.93599796

00:24:58.585 --> 00:24:59.544 I would argue it should  
NOTE Confidence: 0.93599796

00:24:59.544 --> 00:25:00.744 not trump p four status,  
NOTE Confidence: 0.93599796

00:25:00.744 --> 00:25:01.705 and this curve,  
NOTE Confidence: 0.9978218

00:25:02.264 --> 00:25:03.465 is part of my my  
NOTE Confidence: 0.9978218

00:25:03.465 --> 00:25:04.445 thinking on this.  
NOTE Confidence: 0.97840136

00:25:05.065 --> 00:25:06.345 This is a similar curve  
NOTE Confidence: 0.97840136

00:25:06.345 --> 00:25:07.965 that that was presented in  
NOTE Confidence: 0.9895225

00:25:08.424 --> 00:25:09.625 the two year follow-up as  
NOTE Confidence: 0.9895225

00:25:09.625 --> 00:25:11.065 well. For patients that are  
NOTE Confidence: 0.9895225

00:25:11.065 --> 00:25:11.565 CT  
NOTE Confidence: 0.9783275

00:25:12.030 --> 00:25:13.470 that are negative, everybody on  
NOTE Confidence: 0.9783275

00:25:13.470 --> 00:25:14.990 this slide here has is  
NOTE Confidence: 0.9783275

00:25:14.990 --> 00:25:15.490 CT  
NOTE Confidence: 0.86777985

00:25:15.790 --> 00:25:16.530 DNA negative.

NOTE Confidence: 0.9683198  
00:25:17.390 --> 00:25:18.510 But if your t four  
NOTE Confidence: 0.9683198  
00:25:18.590 --> 00:25:19.310 if you have a t  
NOTE Confidence: 0.9683198  
00:25:19.310 --> 00:25:20.770 four tumor and you're  
NOTE Confidence: 0.98596084  
00:25:21.070 --> 00:25:23.330 negative, you still have a  
NOTE Confidence: 0.98596084  
00:25:23.470 --> 00:25:24.750 close to a twenty percent  
NOTE Confidence: 0.98596084  
00:25:24.750 --> 00:25:25.650 risk of recurrence.  
NOTE Confidence: 0.9233235  
00:25:27.375 --> 00:25:28.734 And I I don't think  
NOTE Confidence: 0.9233235  
00:25:28.734 --> 00:25:30.595 that, that's, justifiable  
NOTE Confidence: 0.9418213  
00:25:30.895 --> 00:25:32.195 to kind of omit,  
NOTE Confidence: 0.9671285  
00:25:33.135 --> 00:25:34.835 chemotherapy based on this alone.  
NOTE Confidence: 0.9671285  
00:25:35.055 --> 00:25:36.095 Again, this is a share  
NOTE Confidence: 0.9671285  
00:25:36.175 --> 00:25:37.695 an opportunity for shared decision  
NOTE Confidence: 0.9671285  
00:25:37.695 --> 00:25:38.755 making with patients,  
NOTE Confidence: 0.97030747  
00:25:39.535 --> 00:25:39.855 but,  
NOTE Confidence: 0.9371011  
00:25:40.415 --> 00:25:41.375 I I worry that the  
NOTE Confidence: 0.9371011



00:25:41.375 --> 00:25:42.790 negative predictive value in t  
NOTE Confidence: 0.9371011

00:25:42.790 --> 00:25:43.609 four disease,  
NOTE Confidence: 0.99750566

00:25:43.990 --> 00:25:44.790 is not as good as  
NOTE Confidence: 0.99750566

00:25:44.790 --> 00:25:45.530 it could be.  
NOTE Confidence: 0.9509553

00:25:48.470 --> 00:25:49.910 This was another important piece  
NOTE Confidence: 0.9509553

00:25:49.910 --> 00:25:51.510 of data, I think, that  
NOTE Confidence: 0.9509553

00:25:51.510 --> 00:25:52.550 many of us were in  
NOTE Confidence: 0.9509553

00:25:52.550 --> 00:25:53.050 and,  
NOTE Confidence: 0.9159152

00:25:53.510 --> 00:25:55.450 excited to see, at GISCO,  
NOTE Confidence: 0.9788679

00:25:56.845 --> 00:25:58.044 was, well, what about what  
NOTE Confidence: 0.9788679

00:25:58.044 --> 00:25:59.885 else about ctDNA can we,  
NOTE Confidence: 0.9788679

00:26:00.205 --> 00:26:01.244 can we do differently in  
NOTE Confidence: 0.9788679

00:26:01.244 --> 00:26:02.765 twenty twenty five? This was  
NOTE Confidence: 0.9788679

00:26:02.765 --> 00:26:04.225 a study that took patients  
NOTE Confidence: 0.9824235

00:26:04.525 --> 00:26:05.825 after chemotherapy,  
NOTE Confidence: 0.96611196

00:26:07.325 --> 00:26:08.684 after the surgery, I guess,

NOTE Confidence: 0.96611196

00:26:08.684 --> 00:26:10.544 first, and then after adjuvant

NOTE Confidence: 0.96611196

00:26:10.605 --> 00:26:11.105 chemotherapy.

NOTE Confidence: 0.92541724

00:26:11.804 --> 00:26:13.270 And And it evaluated patients

NOTE Confidence: 0.92541724

00:26:13.270 --> 00:26:15.030 that were positive, either right

NOTE Confidence: 0.92541724

00:26:15.030 --> 00:26:17.369 after that chemotherapy finished or

NOTE Confidence: 0.92541724

00:26:17.430 --> 00:26:19.350 when they were minimally residual

NOTE Confidence: 0.92541724

00:26:19.350 --> 00:26:20.790 disease positive when that they

NOTE Confidence: 0.92541724

00:26:20.790 --> 00:26:22.630 had a ctDNA recurrence, and

NOTE Confidence: 0.92541724

00:26:22.630 --> 00:26:24.070 tried to say, can I

NOTE Confidence: 0.92541724

00:26:24.070 --> 00:26:25.130 cure more patients

NOTE Confidence: 0.98975897

00:26:26.615 --> 00:26:29.195 by giving additional systemic therapy?

NOTE Confidence: 0.8820754

00:26:29.655 --> 00:26:31.335 So patients had cured of

NOTE Confidence: 0.8820754

00:26:31.335 --> 00:26:32.535 resection. Could have been stage

NOTE Confidence: 0.8820754

00:26:32.535 --> 00:26:33.755 four. Could have been cured

NOTE Confidence: 0.8820754

00:26:33.815 --> 00:26:35.415 of liver metastatic resection or

NOTE Confidence: 0.8820754

00:26:35.415 --> 00:26:36.455 could have been a root  
NOTE Confidence: 0.8820754

00:26:36.455 --> 00:26:37.735 section of that stage two  
NOTE Confidence: 0.8820754

00:26:37.735 --> 00:26:39.515 tumor, stage three tumor.  
NOTE Confidence: 0.960598

00:26:40.180 --> 00:26:41.880 They got the chemotherapy for  
NOTE Confidence: 0.960598

00:26:42.020 --> 00:26:43.460 three months, six months, whatever  
NOTE Confidence: 0.960598

00:26:43.460 --> 00:26:45.300 it was, and then they  
NOTE Confidence: 0.960598

00:26:45.300 --> 00:26:46.820 got a c tDNA positive  
NOTE Confidence: 0.960598

00:26:46.820 --> 00:26:47.720 that could have been  
NOTE Confidence: 0.8358066

00:26:48.180 --> 00:26:49.240 it two months later  
NOTE Confidence: 0.92252094

00:26:49.780 --> 00:26:51.460 or eight you know, eleven  
NOTE Confidence: 0.92252094

00:26:51.460 --> 00:26:52.095 months later.  
NOTE Confidence: 0.9500321

00:26:52.655 --> 00:26:54.275 If they had that positivity,  
NOTE Confidence: 0.9500321

00:26:54.335 --> 00:26:55.375 they were randomized one to  
NOTE Confidence: 0.9500321

00:26:55.375 --> 00:26:57.075 one to control  
NOTE Confidence: 0.9907904

00:26:57.375 --> 00:26:58.355 arm of placebo  
NOTE Confidence: 0.99473065

00:26:58.975 --> 00:27:00.895 versus experimental arm of,

NOTE Confidence: 0.5607598  
00:27:02.255 --> 00:27:03.635 trifluridin to bristle,  
NOTE Confidence: 0.97922945  
00:27:04.734 --> 00:27:05.234 and,  
NOTE Confidence: 0.9052911  
00:27:06.335 --> 00:27:07.635 followed for three years.  
NOTE Confidence: 0.927973  
00:27:08.869 --> 00:27:10.789 And the main endpoint was  
NOTE Confidence: 0.927973  
00:27:10.789 --> 00:27:12.470 looking at disease free survival.  
NOTE Confidence: 0.927973  
00:27:12.470 --> 00:27:13.510 And so what do we  
NOTE Confidence: 0.927973  
00:27:13.510 --> 00:27:13.990 see? We  
NOTE Confidence: 0.9001184  
00:27:15.109 --> 00:27:16.649 so this is, again, placebo  
NOTE Confidence: 0.9001184  
00:27:16.789 --> 00:27:17.450 in red,  
NOTE Confidence: 0.873273  
00:27:18.789 --> 00:27:20.409 investigational arm in blue,  
NOTE Confidence: 0.90436584  
00:27:21.855 --> 00:27:23.295 a hazard ratio point seven  
NOTE Confidence: 0.90436584  
00:27:23.295 --> 00:27:24.675 nine that was not statistically  
NOTE Confidence: 0.90436584  
00:27:24.895 --> 00:27:26.755 significant for disease free survival,  
NOTE Confidence: 0.9257399  
00:27:27.055 --> 00:27:28.355 but treating these persistently  
NOTE Confidence: 0.8781264  
00:27:28.655 --> 00:27:29.155 positive,  
NOTE Confidence: 0.9002099

00:27:29.935 --> 00:27:30.435 tumors,  
NOTE Confidence: 0.98746395

00:27:30.975 --> 00:27:33.135 with additional systemic therapy. When  
NOTE Confidence: 0.98746395

00:27:33.135 --> 00:27:34.415 looking only at the patients  
NOTE Confidence: 0.98746395

00:27:34.415 --> 00:27:35.635 with stage four disease,  
NOTE Confidence: 0.941451

00:27:36.650 --> 00:27:38.650 the hazard ratio was was  
NOTE Confidence: 0.941451

00:27:38.650 --> 00:27:39.770 a bit better and the  
NOTE Confidence: 0.941451

00:27:39.770 --> 00:27:41.210 p value also a a  
NOTE Confidence: 0.941451

00:27:41.210 --> 00:27:41.869 bit better.  
NOTE Confidence: 0.9816216

00:27:42.970 --> 00:27:44.409 But when certainly, when looking  
NOTE Confidence: 0.9816216

00:27:44.409 --> 00:27:45.690 at all patients, there didn't  
NOTE Confidence: 0.9816216

00:27:45.690 --> 00:27:46.490 seem to be as much  
NOTE Confidence: 0.9816216

00:27:46.490 --> 00:27:47.309 of a benefit.  
NOTE Confidence: 0.970499

00:27:47.770 --> 00:27:49.529 And, again, this is disease  
NOTE Confidence: 0.970499

00:27:49.529 --> 00:27:51.130 free survival, and you can  
NOTE Confidence: 0.970499

00:27:51.130 --> 00:27:51.630 see,  
NOTE Confidence: 0.8975014

00:27:52.295 --> 00:27:52.775 at,

NOTE Confidence: 0.9328331  
00:27:53.255 --> 00:27:54.695 as as the curve as  
NOTE Confidence: 0.9328331  
00:27:54.695 --> 00:27:55.655 as time goes on, the  
NOTE Confidence: 0.9328331  
00:27:55.655 --> 00:27:56.855 curves do get closer and  
NOTE Confidence: 0.9328331  
00:27:56.855 --> 00:27:58.934 closer to, unfortunately, zero. So  
NOTE Confidence: 0.9328331  
00:27:58.934 --> 00:27:59.975 what I think we're mostly  
NOTE Confidence: 0.9328331  
00:27:59.975 --> 00:28:01.815 just delaying recurrences in those  
NOTE Confidence: 0.9328331  
00:28:01.815 --> 00:28:02.554 set settings  
NOTE Confidence: 0.9650757  
00:28:03.335 --> 00:28:04.075 rather than,  
NOTE Confidence: 0.9644071  
00:28:04.375 --> 00:28:06.000 rather than enhancing cure.  
NOTE Confidence: 0.9398808  
00:28:06.560 --> 00:28:07.760 So the summary, I think,  
NOTE Confidence: 0.9398808  
00:28:07.760 --> 00:28:08.740 now for ctDNA  
NOTE Confidence: 0.9150539  
00:28:09.200 --> 00:28:10.980 is still incredibly prognostic,  
NOTE Confidence: 0.9388349  
00:28:11.920 --> 00:28:13.680 in the adjuvant setting. For  
NOTE Confidence: 0.9388349  
00:28:13.680 --> 00:28:15.359 patients with t four stage  
NOTE Confidence: 0.9388349  
00:28:15.359 --> 00:28:17.280 two colorectal cancer, I to  
NOTE Confidence: 0.9388349

00:28:17.280 --> 00:28:19.040 me, recurrent risk remains high

NOTE Confidence: 0.9388349

00:28:19.040 --> 00:28:20.160 even if even in the

NOTE Confidence: 0.9388349

00:28:20.160 --> 00:28:20.660 ctDNA

NOTE Confidence: 0.8907607

00:28:21.465 --> 00:28:22.525 negativity setting.

NOTE Confidence: 0.95581317

00:28:23.065 --> 00:28:24.265 So, I would argue that

NOTE Confidence: 0.95581317

00:28:24.265 --> 00:28:26.105 the negative predictive value is

NOTE Confidence: 0.95581317

00:28:26.105 --> 00:28:28.505 not not not sufficient to

NOTE Confidence: 0.95581317

00:28:28.505 --> 00:28:30.125 recommend widespread use,

NOTE Confidence: 0.7962146

00:28:30.905 --> 00:28:31.965 to omit therapy.

NOTE Confidence: 0.9843417

00:28:33.225 --> 00:28:34.664 Additional studies going on in

NOTE Confidence: 0.9843417

00:28:34.664 --> 00:28:35.325 that space,

NOTE Confidence: 0.9777284

00:28:35.705 --> 00:28:36.765 some of them here.

NOTE Confidence: 0.9834806

00:28:38.080 --> 00:28:39.279 We don't have really any

NOTE Confidence: 0.9834806

00:28:39.279 --> 00:28:41.200 data to support treating patients

NOTE Confidence: 0.9834806

00:28:41.200 --> 00:28:43.600 with persistently positive ctDNA after

NOTE Confidence: 0.9834806

00:28:43.600 --> 00:28:45.760 adjuvant therapy. So that's, with

NOTE Confidence: 0.9834806

00:28:45.760 --> 00:28:47.440 additional systemic therapy. So for

NOTE Confidence: 0.9834806

00:28:47.440 --> 00:28:49.519 somebody that has minimally residual

NOTE Confidence: 0.9834806

00:28:49.519 --> 00:28:50.340 disease positivity,

NOTE Confidence: 0.9951072

00:28:51.039 --> 00:28:52.500 I after chemotherapy,

NOTE Confidence: 0.94826955

00:28:53.085 --> 00:28:54.524 I would not recommend giving

NOTE Confidence: 0.94826955

00:28:54.524 --> 00:28:56.385 that patient additional chemotherapy.

NOTE Confidence: 0.95143366

00:28:57.804 --> 00:28:59.005 If there's a treadmill, that's

NOTE Confidence: 0.95143366

00:28:59.005 --> 00:29:00.125 one thing, but I wouldn't

NOTE Confidence: 0.95143366

00:29:00.125 --> 00:29:00.765 do with any of the

NOTE Confidence: 0.95143366

00:29:00.765 --> 00:29:01.985 standard agents.

NOTE Confidence: 0.9922841

00:29:03.404 --> 00:29:04.524 And so I'm gonna I'm

NOTE Confidence: 0.9922841

00:29:04.524 --> 00:29:05.645 gonna finish with,

NOTE Confidence: 0.98315376

00:29:06.365 --> 00:29:07.885 a a quick discussion about

NOTE Confidence: 0.98315376

00:29:07.885 --> 00:29:08.865 anal cancer.

NOTE Confidence: 0.94857997

00:29:09.940 --> 00:29:10.760 So the podium,

NOTE Confidence: 0.98135334



00:29:11.220 --> 00:29:12.360 the podium study,  
NOTE Confidence: 0.9758483

00:29:12.820 --> 00:29:13.860 I think that this is  
NOTE Confidence: 0.9758483

00:29:13.860 --> 00:29:15.140 a a very important study  
NOTE Confidence: 0.9758483

00:29:15.140 --> 00:29:16.920 for a a disease that,  
NOTE Confidence: 0.97970766

00:29:19.060 --> 00:29:20.180 has not seen as much  
NOTE Confidence: 0.97970766

00:29:20.180 --> 00:29:21.460 development as we would like  
NOTE Confidence: 0.97970766

00:29:21.460 --> 00:29:22.280 over the last,  
NOTE Confidence: 0.7516326

00:29:23.235 --> 00:29:23.735 decade.  
NOTE Confidence: 0.87933856

00:29:24.755 --> 00:29:26.275 Evaluating patients with,  
NOTE Confidence: 0.94107175

00:29:26.835 --> 00:29:27.335 metastatic,  
NOTE Confidence: 0.83001715

00:29:27.635 --> 00:29:29.155 so no prior treatment for  
NOTE Confidence: 0.83001715

00:29:29.155 --> 00:29:30.515 metastatic disease, all the way  
NOTE Confidence: 0.83001715

00:29:30.515 --> 00:29:31.075 to those,  
NOTE Confidence: 0.7530987

00:29:31.955 --> 00:29:34.135 neoadjuvant therapy and relapse  
NOTE Confidence: 0.7626487

00:29:34.595 --> 00:29:35.415 with carboplatin,  
NOTE Confidence: 0.76396614

00:29:36.370 --> 00:29:37.590 plus retin filumab,

NOTE Confidence: 0.7453359  
00:29:38.049 --> 00:29:39.030 anti p one,  
NOTE Confidence: 0.94322205  
00:29:39.490 --> 00:29:39.990 and,  
NOTE Confidence: 0.85696  
00:29:40.770 --> 00:29:42.549 versus placebo plus carboplatin,  
NOTE Confidence: 0.84690666  
00:29:43.090 --> 00:29:43.590 craglitaxel.  
NOTE Confidence: 0.9826296  
00:29:44.530 --> 00:29:45.030 And,  
NOTE Confidence: 0.916068  
00:29:45.409 --> 00:29:45.809 the,  
NOTE Confidence: 0.90681255  
00:29:46.770 --> 00:29:48.309 the the the trial's  
NOTE Confidence: 0.96171236  
00:29:48.715 --> 00:29:50.555 primary endpoint was PFS, but  
NOTE Confidence: 0.96171236  
00:29:50.555 --> 00:29:51.835 also, of course, looking at  
NOTE Confidence: 0.96171236  
00:29:51.835 --> 00:29:52.735 overall survival.  
NOTE Confidence: 0.92209834  
00:29:53.195 --> 00:29:54.495 So, it was a well,  
NOTE Confidence: 0.90415925  
00:29:55.195 --> 00:29:56.495 well designed study.  
NOTE Confidence: 0.9220374  
00:29:57.515 --> 00:29:58.715 We use a very reasonable  
NOTE Confidence: 0.9220374  
00:29:58.715 --> 00:29:59.835 size. This is a hard  
NOTE Confidence: 0.9220374  
00:29:59.835 --> 00:30:01.115 study to do in this  
NOTE Confidence: 0.9220374

00:30:01.115 --> 00:30:02.415 subtype of the disease,  
NOTE Confidence: 0.9799239

00:30:03.160 --> 00:30:04.360 as many of these patients  
NOTE Confidence: 0.9799239

00:30:04.360 --> 00:30:05.640 are cured. But those that  
NOTE Confidence: 0.9799239

00:30:05.640 --> 00:30:07.080 are not cured have a  
NOTE Confidence: 0.9799239

00:30:07.080 --> 00:30:09.080 very poor survival, and, it's  
NOTE Confidence: 0.9799239

00:30:09.080 --> 00:30:10.280 a rare cancer to begin  
NOTE Confidence: 0.9799239

00:30:10.280 --> 00:30:10.780 with.  
NOTE Confidence: 0.93404865

00:30:12.200 --> 00:30:13.240 So we saw it was  
NOTE Confidence: 0.93404865

00:30:13.240 --> 00:30:13.740 primarily,  
NOTE Confidence: 0.9764822

00:30:14.600 --> 00:30:16.780 primarily a female population, primarily  
NOTE Confidence: 0.9764822

00:30:16.840 --> 00:30:17.340 white.  
NOTE Confidence: 0.93113333

00:30:17.960 --> 00:30:19.125 So that gives us some  
NOTE Confidence: 0.93113333

00:30:19.125 --> 00:30:20.185 questions about generalizability.  
NOTE Confidence: 0.8235553

00:30:22.725 --> 00:30:23.705 And then patients,  
NOTE Confidence: 0.9214555

00:30:24.565 --> 00:30:25.445 a lot of about a  
NOTE Confidence: 0.9214555

00:30:25.445 --> 00:30:26.325 third of patients with both

NOTE Confidence: 0.9214555

00:30:26.325 --> 00:30:28.245 arms had metastatic disease, very

NOTE Confidence: 0.9214555

00:30:28.245 --> 00:30:29.865 low rates of HIV positivity.

NOTE Confidence: 0.9214555

00:30:30.085 --> 00:30:30.585 Again,

NOTE Confidence: 0.87548995

00:30:31.205 --> 00:30:32.725 these are raising questions about

NOTE Confidence: 0.87548995

00:30:32.725 --> 00:30:33.225 generalizability.

NOTE Confidence: 0.9613887

00:30:34.010 --> 00:30:35.210 Most patients had some PD

NOTE Confidence: 0.9613887

00:30:35.210 --> 00:30:36.730 L1 expression. So what did

NOTE Confidence: 0.9613887

00:30:36.730 --> 00:30:37.930 we see for progression free

NOTE Confidence: 0.9613887

00:30:37.930 --> 00:30:38.430 survival?

NOTE Confidence: 0.92575306

00:30:38.730 --> 00:30:40.170 We saw nine point three

NOTE Confidence: 0.92575306

00:30:40.170 --> 00:30:41.530 versus seven point four months.

NOTE Confidence: 0.92575306

00:30:41.530 --> 00:30:42.250 So you see there is

NOTE Confidence: 0.92575306

00:30:42.250 --> 00:30:43.530 some separation of these curves

NOTE Confidence: 0.92575306

00:30:43.530 --> 00:30:45.310 here. This is statistically significant.

NOTE Confidence: 0.92575306

00:30:45.450 --> 00:30:46.490 A hazard ratio of point

NOTE Confidence: 0.92575306

00:30:46.490 --> 00:30:48.225 six three. This looks great.

NOTE Confidence: 0.92575306

00:30:48.465 --> 00:30:50.325 Definitely suggest that rifapilimumab

NOTE Confidence: 0.99802667

00:30:50.945 --> 00:30:52.005 is playing a role,

NOTE Confidence: 0.9891172

00:30:52.465 --> 00:30:53.905 in the improvement here. And

NOTE Confidence: 0.9891172

00:30:53.905 --> 00:30:54.945 when we look at overall

NOTE Confidence: 0.9891172

00:30:54.945 --> 00:30:56.785 survival, you can see, again,

NOTE Confidence: 0.9891172

00:30:56.785 --> 00:30:58.225 twenty nine point two months

NOTE Confidence: 0.9891172

00:30:58.225 --> 00:30:58.945 with the,

NOTE Confidence: 0.99438065

00:30:59.345 --> 00:30:59.845 immunotherapy

NOTE Confidence: 0.91690415

00:31:00.145 --> 00:31:01.285 added on to the carboplatin

NOTE Confidence: 0.98494935

00:31:01.860 --> 00:31:03.059 versus twenty three months with

NOTE Confidence: 0.98494935

00:31:03.059 --> 00:31:04.360 the chemotherapy alone.

NOTE Confidence: 0.90558594

00:31:04.740 --> 00:31:06.420 Hazard ratio, point seven. P

NOTE Confidence: 0.90558594

00:31:06.420 --> 00:31:07.860 value, less than point o

NOTE Confidence: 0.90558594

00:31:07.860 --> 00:31:09.460 five. Although, because this was

NOTE Confidence: 0.90558594

00:31:09.460 --> 00:31:10.200 an interim

NOTE Confidence: 0.95731765  
00:31:10.500 --> 00:31:11.480 look at the,  
NOTE Confidence: 0.9860544  
00:31:13.140 --> 00:31:14.500 at the overall survival, this  
NOTE Confidence: 0.9860544  
00:31:14.500 --> 00:31:16.680 doesn't technically meet statistical significance.  
NOTE Confidence: 0.9676574  
00:31:17.415 --> 00:31:18.875 But, again, this is interim.  
NOTE Confidence: 0.9676574  
00:31:19.015 --> 00:31:20.135 I think many of us  
NOTE Confidence: 0.9676574  
00:31:20.135 --> 00:31:21.275 expect this to,  
NOTE Confidence: 0.9642246  
00:31:21.975 --> 00:31:23.815 hold over time and and  
NOTE Confidence: 0.9642246  
00:31:23.815 --> 00:31:25.275 gain statistical significance.  
NOTE Confidence: 0.9912193  
00:31:27.015 --> 00:31:27.895 This made it as a  
NOTE Confidence: 0.9912193  
00:31:27.895 --> 00:31:28.395 category  
NOTE Confidence: 0.84183615  
00:31:28.695 --> 00:31:29.835 two b, so,  
NOTE Confidence: 0.95518273  
00:31:30.530 --> 00:31:31.890 a recommendation as first line  
NOTE Confidence: 0.95518273  
00:31:31.890 --> 00:31:33.409 therapy. I think when the  
NOTE Confidence: 0.95518273  
00:31:33.409 --> 00:31:35.090 overall survival data is mature,  
NOTE Confidence: 0.95518273  
00:31:35.090 --> 00:31:35.970 as long as it supports  
NOTE Confidence: 0.95518273

00:31:35.970 --> 00:31:37.350 its use, I would expect  
NOTE Confidence: 0.9842874

00:31:37.650 --> 00:31:39.669 this this recommendation to become  
NOTE Confidence: 0.9842874

00:31:39.809 --> 00:31:41.169 a bit firmer. But at  
NOTE Confidence: 0.9842874

00:31:41.169 --> 00:31:42.370 the moment, it is a  
NOTE Confidence: 0.9842874

00:31:42.370 --> 00:31:43.669 category two b,  
NOTE Confidence: 0.9920063

00:31:44.690 --> 00:31:45.909 for first line therapy.  
NOTE Confidence: 0.9902649

00:31:47.384 --> 00:31:49.245 So I'm gonna end here.  
NOTE Confidence: 0.9892032

00:31:49.784 --> 00:31:50.904 So I just wanted to  
NOTE Confidence: 0.9892032

00:31:50.904 --> 00:31:52.505 quickly summarize and unpack some  
NOTE Confidence: 0.9892032

00:31:52.505 --> 00:31:53.625 of the the,  
NOTE Confidence: 0.8987856

00:31:54.345 --> 00:31:56.445 points we discussed. And BRAFV600  
NOTE Confidence: 0.9282408

00:31:56.985 --> 00:31:59.100 e now has a, a  
NOTE Confidence: 0.9282408

00:31:59.179 --> 00:32:00.380 new approval and a new  
NOTE Confidence: 0.9282408

00:32:00.380 --> 00:32:01.900 strategy for first line treatment  
NOTE Confidence: 0.9282408

00:32:01.900 --> 00:32:03.840 with Foflox, engraft, and ipincetuximab,  
NOTE Confidence: 0.98606265

00:32:04.460 --> 00:32:05.500 the standard of care for

NOTE Confidence: 0.98606265

00:32:05.500 --> 00:32:06.559 metastatic disease,

NOTE Confidence: 0.96867347

00:32:08.059 --> 00:32:09.760 as the initial therapy now.

NOTE Confidence: 0.96867347

00:32:09.820 --> 00:32:10.320 Ipilimumab

NOTE Confidence: 0.95225567

00:32:10.780 --> 00:32:12.460 and nivolumab should be considered,

NOTE Confidence: 0.95225567

00:32:12.460 --> 00:32:13.340 I think, for the majority

NOTE Confidence: 0.95225567

00:32:13.340 --> 00:32:14.880 of patients as initial therapy,

NOTE Confidence: 0.75451034

00:32:16.095 --> 00:32:17.935 added for mismatch repair deficient

NOTE Confidence: 0.75451034

00:32:17.935 --> 00:32:18.435 disease,

NOTE Confidence: 0.72717863

00:32:18.895 --> 00:32:19.395 adagrasimstuximab,

NOTE Confidence: 0.7003477

00:32:20.255 --> 00:32:20.755 seracipentumab,

NOTE Confidence: 0.9763055

00:32:21.935 --> 00:32:24.195 both acceptable regimens for refractory

NOTE Confidence: 0.9763055

00:32:24.335 --> 00:32:26.115 g twelve c mutated tumors.

NOTE Confidence: 0.9858646

00:32:26.495 --> 00:32:27.795 And I think while ctDNA

NOTE Confidence: 0.9858646

00:32:27.935 --> 00:32:28.835 is very promising,

NOTE Confidence: 0.85544455

00:32:30.019 --> 00:32:31.639 its negative predictive value,

NOTE Confidence: 0.91532874



00:32:32.419 --> 00:32:33.779 is is not sufficient for  
NOTE Confidence: 0.91532874

00:32:33.779 --> 00:32:34.980 me to use it as  
NOTE Confidence: 0.91532874

00:32:34.980 --> 00:32:36.820 a as a a a  
NOTE Confidence: 0.91532874

00:32:36.820 --> 00:32:38.200 tool to omit,  
NOTE Confidence: 0.9446195

00:32:39.059 --> 00:32:40.820 adjuvant therapy for patients with  
NOTE Confidence: 0.9446195

00:32:40.820 --> 00:32:41.960 PT four disease,  
NOTE Confidence: 0.9131096

00:32:42.899 --> 00:32:44.580 where recurrent rates still are  
NOTE Confidence: 0.9131096

00:32:44.580 --> 00:32:45.799 around twenty percent.  
NOTE Confidence: 0.9468046

00:32:47.035 --> 00:32:48.395 And I'm very encouraged by  
NOTE Confidence: 0.9468046

00:32:48.395 --> 00:32:49.455 the data with retinolumab.  
NOTE Confidence: 0.9332144

00:32:50.475 --> 00:32:51.675 I'm I'm looking forward to  
NOTE Confidence: 0.9332144

00:32:51.675 --> 00:32:53.355 the overall survival, hopefully, at  
NOTE Confidence: 0.9332144

00:32:53.355 --> 00:32:54.335 a future congress.  
NOTE Confidence: 0.9994583

00:32:55.675 --> 00:32:56.415 I will  
NOTE Confidence: 0.9836006

00:32:56.715 --> 00:32:58.655 stop here, and we can  
NOTE Confidence: 0.9836006

00:32:58.795 --> 00:33:00.815 we can discuss any questions

NOTE Confidence: 0.9836006  
00:33:00.875 --> 00:33:01.375 that  
NOTE Confidence: 0.9336152  
00:33:02.690 --> 00:33:04.770 hadn't you ended up come  
NOTE Confidence: 0.9336152  
00:33:04.770 --> 00:33:05.650 through or that you wanna  
NOTE Confidence: 0.9336152  
00:33:05.650 --> 00:33:06.850 ask, and then I will  
NOTE Confidence: 0.9336152  
00:33:06.850 --> 00:33:07.970 pass the baton over to  
NOTE Confidence: 0.9336152  
00:33:07.970 --> 00:33:08.950 you for your presentation.  
NOTE Confidence: 0.9295702  
00:33:09.330 --> 00:33:10.610 Alright. I'm gonna start with  
NOTE Confidence: 0.9295702  
00:33:10.610 --> 00:33:11.810 an audience question that I  
NOTE Confidence: 0.9295702  
00:33:11.810 --> 00:33:12.850 might have my own. So,  
NOTE Confidence: 0.9295702  
00:33:13.090 --> 00:33:14.610 question from the audience. First,  
NOTE Confidence: 0.9295702  
00:33:14.610 --> 00:33:15.910 they said amazing presentation.  
NOTE Confidence: 0.9931884  
00:33:17.170 --> 00:33:17.670 So  
NOTE Confidence: 0.8537991  
00:33:18.105 --> 00:33:18.925 agree completely.  
NOTE Confidence: 0.9803736  
00:33:19.465 --> 00:33:20.265 The question was, do you  
NOTE Confidence: 0.9803736  
00:33:20.265 --> 00:33:21.625 see any prospect of vaccines  
NOTE Confidence: 0.9803736

00:33:21.625 --> 00:33:23.225 for treatment in colorectal cancer

NOTE Confidence: 0.9803736

00:33:23.225 --> 00:33:24.125 in the future?

NOTE Confidence: 0.94915974

00:33:25.225 --> 00:33:26.525 Yeah. What a great question.

NOTE Confidence: 0.8976823

00:33:27.545 --> 00:33:28.445 So I,

NOTE Confidence: 0.96465355

00:33:29.705 --> 00:33:30.825 as I mentioned, co direct

NOTE Confidence: 0.96465355

00:33:30.825 --> 00:33:32.525 our colorectal cancer program

NOTE Confidence: 0.9664652

00:33:33.070 --> 00:33:34.430 and treat patients with standard

NOTE Confidence: 0.9664652

00:33:34.430 --> 00:33:35.550 of care treatments. But I

NOTE Confidence: 0.9664652

00:33:35.550 --> 00:33:36.590 also am a phase one

NOTE Confidence: 0.9664652

00:33:36.590 --> 00:33:38.110 investigator here at Yale. So

NOTE Confidence: 0.9664652

00:33:38.110 --> 00:33:38.610 I,

NOTE Confidence: 0.99641514

00:33:39.630 --> 00:33:40.750 have been involved in a

NOTE Confidence: 0.99641514

00:33:40.750 --> 00:33:42.130 number of vaccine trials

NOTE Confidence: 0.8831464

00:33:42.750 --> 00:33:43.250 and,

NOTE Confidence: 0.9918411

00:33:43.630 --> 00:33:45.250 certainly follow this literature.

NOTE Confidence: 0.95968574

00:33:46.995 --> 00:33:47.955 I I do think that

NOTE Confidence: 0.95968574

00:33:47.955 --> 00:33:49.095 the promise of vaccines

NOTE Confidence: 0.99356556

00:33:49.795 --> 00:33:52.135 is is is very solid.

NOTE Confidence: 0.9986406

00:33:52.915 --> 00:33:53.415 The

NOTE Confidence: 0.99420875

00:33:53.875 --> 00:33:55.795 problem thus far has really

NOTE Confidence: 0.99420875

00:33:55.795 --> 00:33:58.215 been how we've studied vaccine

NOTE Confidence: 0.99420875

00:33:58.275 --> 00:33:59.015 based therapies.

NOTE Confidence: 0.8943571

00:34:00.370 --> 00:34:01.590 I think the paradigm

NOTE Confidence: 0.9425898

00:34:01.890 --> 00:34:03.250 of drug development has been

NOTE Confidence: 0.9425898

00:34:03.250 --> 00:34:04.210 to study drugs in the

NOTE Confidence: 0.9425898

00:34:04.210 --> 00:34:05.809 advanced setting first, make sure

NOTE Confidence: 0.9425898

00:34:05.809 --> 00:34:06.710 you see a signal,

NOTE Confidence: 0.9454421

00:34:07.090 --> 00:34:08.290 and then hopefully move them

NOTE Confidence: 0.9454421

00:34:08.290 --> 00:34:09.030 up earlier.

NOTE Confidence: 0.8649903

00:34:09.489 --> 00:34:11.170 But vaccines, I think, maybe

NOTE Confidence: 0.8649903

00:34:11.170 --> 00:34:12.150 it's certainly different.

NOTE Confidence: 0.9587898

00:34:13.170 --> 00:34:14.724 And maybe arguably, that should

NOTE Confidence: 0.9587898

00:34:14.724 --> 00:34:16.085 all be different. But but

NOTE Confidence: 0.9587898

00:34:16.085 --> 00:34:18.005 vaccines, I think, we're probably

NOTE Confidence: 0.9587898

00:34:18.005 --> 00:34:19.445 not setting ourselves up for

NOTE Confidence: 0.9587898

00:34:19.445 --> 00:34:20.645 success in terms of their

NOTE Confidence: 0.9587898

00:34:20.645 --> 00:34:21.145 effectiveness

NOTE Confidence: 0.957914

00:34:21.765 --> 00:34:24.005 in the treatment refractory setting

NOTE Confidence: 0.957914

00:34:24.005 --> 00:34:25.045 and where the immune system

NOTE Confidence: 0.957914

00:34:25.045 --> 00:34:26.344 is a lot more dysfunctional

NOTE Confidence: 0.957914

00:34:26.484 --> 00:34:28.085 or tumor burden is very

NOTE Confidence: 0.957914

00:34:28.085 --> 00:34:28.585 high.

NOTE Confidence: 0.9238996

00:34:29.469 --> 00:34:30.590 Probably as a rule for

NOTE Confidence: 0.9238996

00:34:30.590 --> 00:34:31.870 immunotherapy, but but I think

NOTE Confidence: 0.9238996

00:34:31.870 --> 00:34:32.989 vaccines may be even more

NOTE Confidence: 0.9238996

00:34:32.989 --> 00:34:34.370 extreme example of that.

NOTE Confidence: 0.9744532

00:34:34.670 --> 00:34:36.370 And so I we've seen

NOTE Confidence: 0.9744532

00:34:36.590 --> 00:34:38.210 data in pancreas cancer,

NOTE Confidence: 0.90678984

00:34:38.910 --> 00:34:41.330 another cancer with, I arguably,

NOTE Confidence: 0.90678984

00:34:41.390 --> 00:34:42.670 a very high unmet need

NOTE Confidence: 0.90678984

00:34:42.670 --> 00:34:43.969 like colorectal cancer

NOTE Confidence: 0.943503

00:34:44.565 --> 00:34:45.685 that a vaccine in the

NOTE Confidence: 0.943503

00:34:45.685 --> 00:34:47.204 adjuvant setting when there is

NOTE Confidence: 0.943503

00:34:47.204 --> 00:34:48.344 no visible cancer,

NOTE Confidence: 0.9625526

00:34:48.724 --> 00:34:49.844 showed promise in a small

NOTE Confidence: 0.9625526

00:34:49.844 --> 00:34:51.125 subset of patients because that's

NOTE Confidence: 0.9625526

00:34:51.125 --> 00:34:52.265 all that was studied.

NOTE Confidence: 0.9697749

00:34:53.045 --> 00:34:54.005 And we've seen some of

NOTE Confidence: 0.9697749

00:34:54.005 --> 00:34:55.464 that data actually for colorectal

NOTE Confidence: 0.9697749

00:34:55.525 --> 00:34:57.330 cancer too. There's a Nature

NOTE Confidence: 0.9697749

00:34:57.330 --> 00:34:59.170 Medicine paper with a KRAS

NOTE Confidence: 0.9697749

00:34:59.170 --> 00:34:59.670 vaccine

NOTE Confidence: 0.68739784

00:35:01.170 --> 00:35:01.570 that,  
NOTE Confidence: 0.9374879

00:35:02.770 --> 00:35:04.130 I I think looks promising  
NOTE Confidence: 0.9374879

00:35:04.130 --> 00:35:05.330 for patients that had liver  
NOTE Confidence: 0.9374879

00:35:05.330 --> 00:35:07.489 metastases resected then didn't have  
NOTE Confidence: 0.9374879

00:35:07.489 --> 00:35:08.850 any evidence of disease. So,  
NOTE Confidence: 0.9374879

00:35:08.850 --> 00:35:10.130 again, the authors of that  
NOTE Confidence: 0.9374879

00:35:10.130 --> 00:35:11.430 study was published in,  
NOTE Confidence: 0.86685574

00:35:11.885 --> 00:35:12.844 it was nature it was  
NOTE Confidence: 0.86685574

00:35:12.844 --> 00:35:13.984 one of the nature journals,  
NOTE Confidence: 0.93688875

00:35:15.325 --> 00:35:16.364 that looked at it in  
NOTE Confidence: 0.93688875

00:35:16.364 --> 00:35:17.405 a minimal the the authors  
NOTE Confidence: 0.93688875

00:35:17.405 --> 00:35:17.964 looked at it in the  
NOTE Confidence: 0.93688875

00:35:17.964 --> 00:35:19.565 minimal residual disease setting, but  
NOTE Confidence: 0.93688875

00:35:19.565 --> 00:35:21.085 after a metastectomy, and they  
NOTE Confidence: 0.93688875

00:35:21.085 --> 00:35:23.425 showed certainly showed impressive signals  
NOTE Confidence: 0.93688875

00:35:23.645 --> 00:35:25.244 of potential success, and I

NOTE Confidence: 0.93688875  
00:35:25.244 --> 00:35:26.780 hope that work will continue.  
NOTE Confidence: 0.93688875  
00:35:26.920 --> 00:35:27.719 So I do I do  
NOTE Confidence: 0.93688875  
00:35:27.719 --> 00:35:28.520 think there is a role  
NOTE Confidence: 0.93688875  
00:35:28.520 --> 00:35:29.260 for vaccines.  
NOTE Confidence: 0.985729  
00:35:29.560 --> 00:35:30.280 I think we need to  
NOTE Confidence: 0.985729  
00:35:30.280 --> 00:35:31.239 be smart about how we  
NOTE Confidence: 0.985729  
00:35:31.239 --> 00:35:32.700 use them, and it's it's  
NOTE Confidence: 0.985729  
00:35:32.760 --> 00:35:33.800 it's moving these types of  
NOTE Confidence: 0.985729  
00:35:33.800 --> 00:35:35.500 therapies up earlier in,  
NOTE Confidence: 0.98827857  
00:35:36.040 --> 00:35:37.080 in the in the treatment  
NOTE Confidence: 0.98827857  
00:35:37.080 --> 00:35:37.580 paradigm  
NOTE Confidence: 0.9013052  
00:35:37.880 --> 00:35:39.400 even even for their early  
NOTE Confidence: 0.9013052  
00:35:39.400 --> 00:35:39.900 development.  
NOTE Confidence: 0.9795872  
00:35:41.315 --> 00:35:42.135 So yeah.  
NOTE Confidence: 0.99815017  
00:35:43.635 --> 00:35:44.454 Alright. Well,  
NOTE Confidence: 0.9937834



00:35:45.234 --> 00:35:46.835 I I completely agree with  
NOTE Confidence: 0.9937834

00:35:46.835 --> 00:35:47.734 the previous  
NOTE Confidence: 0.72552717

00:35:48.674 --> 00:35:49.875 person about,  
NOTE Confidence: 0.99423647

00:35:50.275 --> 00:35:51.094 great presentation.  
NOTE Confidence: 0.9244471

00:35:52.820 --> 00:35:54.020 In in disclosure, we I  
NOTE Confidence: 0.9244471

00:35:54.020 --> 00:35:55.140 asked I asked doctor Keeney.  
NOTE Confidence: 0.9244471

00:35:55.140 --> 00:35:55.619 I said, do you have  
NOTE Confidence: 0.9244471

00:35:55.619 --> 00:35:56.500 any questions you want me  
NOTE Confidence: 0.9244471

00:35:56.500 --> 00:35:56.980 to ask? And he said,  
NOTE Confidence: 0.9244471

00:35:56.980 --> 00:35:57.780 no. I'm gonna be on  
NOTE Confidence: 0.9244471

00:35:57.780 --> 00:35:58.739 my toes. He'll be set  
NOTE Confidence: 0.9244471

00:35:58.739 --> 00:35:59.780 to be ready for anything.  
NOTE Confidence: 0.9244471

00:35:59.780 --> 00:36:00.280 So,  
NOTE Confidence: 0.91342264

00:36:00.900 --> 00:36:01.700 just a little bit about  
NOTE Confidence: 0.91342264

00:36:01.700 --> 00:36:02.739 detail. I really liked what  
NOTE Confidence: 0.91342264

00:36:02.739 --> 00:36:03.940 you talked about, the DYNAMIC

NOTE Confidence: 0.91342264  
00:36:03.940 --> 00:36:04.440 study.  
NOTE Confidence: 0.96305305  
00:36:05.540 --> 00:36:06.180 You said that,  
NOTE Confidence: 0.9657974  
00:36:06.905 --> 00:36:08.605 where did those T4 patients  
NOTE Confidence: 0.9657974  
00:36:08.665 --> 00:36:09.785 recur? I wonder if you  
NOTE Confidence: 0.9657974  
00:36:09.785 --> 00:36:11.224 think that the T4 patients  
NOTE Confidence: 0.9657974  
00:36:11.224 --> 00:36:12.185 were much more likely to  
NOTE Confidence: 0.9657974  
00:36:12.185 --> 00:36:14.344 recur as peritoneal based disease  
NOTE Confidence: 0.9657974  
00:36:14.344 --> 00:36:15.464 as opposed to nodal or  
NOTE Confidence: 0.9657974  
00:36:15.464 --> 00:36:16.285 liver metastases,  
NOTE Confidence: 0.9908055  
00:36:16.905 --> 00:36:18.505 and maybe that's why circulating  
NOTE Confidence: 0.9908055  
00:36:18.505 --> 00:36:20.105 tumor DNA was not so  
NOTE Confidence: 0.9908055  
00:36:20.105 --> 00:36:21.805 effective in picking it up.  
NOTE Confidence: 0.7313247  
00:36:22.210 --> 00:36:23.510 Can you explain on it?  
NOTE Confidence: 0.7313247  
00:36:23.570 --> 00:36:24.469 Site specific,  
NOTE Confidence: 0.9628868  
00:36:25.090 --> 00:36:26.850 utility for ctDNA, you know,  
NOTE Confidence: 0.9628868

00:36:26.850 --> 00:36:29.250 perineal versus more hematologic or

NOTE Confidence: 0.9628868

00:36:29.250 --> 00:36:29.750 lymphatic?

NOTE Confidence: 0.931639

00:36:30.690 --> 00:36:31.730 Yeah. No. That's a great

NOTE Confidence: 0.931639

00:36:31.730 --> 00:36:32.230 question.

NOTE Confidence: 0.93394965

00:36:32.770 --> 00:36:33.410 I think the

NOTE Confidence: 0.9565017

00:36:34.905 --> 00:36:36.105 unfortunately, we don't have the

NOTE Confidence: 0.9565017

00:36:36.105 --> 00:36:37.145 data from the paper. If

NOTE Confidence: 0.9565017

00:36:37.145 --> 00:36:37.785 it's in there, I would

NOTE Confidence: 0.9565017

00:36:37.785 --> 00:36:38.425 have to look in the

NOTE Confidence: 0.9565017

00:36:38.425 --> 00:36:38.925 supplementary

NOTE Confidence: 0.93135464

00:36:39.305 --> 00:36:40.985 for where the recurrence was

NOTE Confidence: 0.93135464

00:36:40.985 --> 00:36:42.105 though. But you do bring

NOTE Confidence: 0.93135464

00:36:42.105 --> 00:36:43.065 up some good points. Well,

NOTE Confidence: 0.93135464

00:36:43.065 --> 00:36:43.945 so first of all, one

NOTE Confidence: 0.93135464

00:36:43.945 --> 00:36:45.565 of the points is unfortunately

NOTE Confidence: 0.93135464

00:36:45.705 --> 00:36:47.165 t four disease

NOTE Confidence: 0.8809776  
00:36:47.630 --> 00:36:49.710 is incredibly prognostic. Obviously, lymph  
NOTE Confidence: 0.8809776  
00:36:49.710 --> 00:36:51.010 node status is two,  
NOTE Confidence: 0.92230535  
00:36:51.390 --> 00:36:52.510 but we know that stage  
NOTE Confidence: 0.92230535  
00:36:52.510 --> 00:36:54.110 three a tumors have a  
NOTE Confidence: 0.92230535  
00:36:54.110 --> 00:36:55.950 better survival, frankly, than T4  
NOTE Confidence: 0.92230535  
00:36:55.950 --> 00:36:57.390 tumors that are just stage  
NOTE Confidence: 0.92230535  
00:36:57.390 --> 00:36:58.670 two. So,  
NOTE Confidence: 0.98620176  
00:36:58.989 --> 00:37:00.190 so that's a very important  
NOTE Confidence: 0.98620176  
00:37:00.190 --> 00:37:00.690 prognostic  
NOTE Confidence: 0.9773491  
00:37:00.989 --> 00:37:03.425 marker just for relapsed anywhere.  
NOTE Confidence: 0.9773491  
00:37:03.645 --> 00:37:04.765 But as you point out,  
NOTE Confidence: 0.9773491  
00:37:04.765 --> 00:37:06.125 are there different areas of  
NOTE Confidence: 0.9773491  
00:37:06.125 --> 00:37:06.785 the body  
NOTE Confidence: 0.9638638  
00:37:07.405 --> 00:37:08.925 that recurrence is more likely  
NOTE Confidence: 0.9638638  
00:37:08.925 --> 00:37:10.364 to be detected by circulating  
NOTE Confidence: 0.9638638

00:37:10.364 --> 00:37:11.485 tumor DNA? And the answer  
NOTE Confidence: 0.9638638

00:37:11.485 --> 00:37:12.625 is certainly yes.  
NOTE Confidence: 0.8841694

00:37:13.485 --> 00:37:14.864 Makes sense if there's hematogenous  
NOTE Confidence: 0.7831309

00:37:15.245 --> 00:37:15.745 spread,  
NOTE Confidence: 0.96119153

00:37:16.640 --> 00:37:17.920 a blood based test may  
NOTE Confidence: 0.96119153

00:37:17.920 --> 00:37:19.300 be better picking that up.  
NOTE Confidence: 0.95808345

00:37:19.600 --> 00:37:21.280 So peritoneal disease is a  
NOTE Confidence: 0.95808345

00:37:21.280 --> 00:37:21.920 a little bit of a  
NOTE Confidence: 0.95808345

00:37:21.920 --> 00:37:23.280 blind spot, I would say,  
NOTE Confidence: 0.95808345

00:37:23.280 --> 00:37:24.960 for for circulating tumor DNA.  
NOTE Confidence: 0.95808345

00:37:24.960 --> 00:37:25.840 Now that does not mean  
NOTE Confidence: 0.95808345

00:37:25.840 --> 00:37:27.300 you cannot have a positive  
NOTE Confidence: 0.95808345

00:37:27.440 --> 00:37:29.625 result for peritoneal disease, but  
NOTE Confidence: 0.95808345

00:37:29.785 --> 00:37:30.665 certainly it seems like you're  
NOTE Confidence: 0.95808345

00:37:30.665 --> 00:37:31.705 less likely to have that  
NOTE Confidence: 0.95808345

00:37:31.705 --> 00:37:33.325 compared to a liver metastases

NOTE Confidence: 0.95808345  
00:37:33.545 --> 00:37:34.985 or a lung metastases or  
NOTE Confidence: 0.95808345  
00:37:34.985 --> 00:37:36.185 something like that. I think  
NOTE Confidence: 0.95808345  
00:37:36.185 --> 00:37:37.005 liver metastases  
NOTE Confidence: 0.9972472  
00:37:37.385 --> 00:37:38.765 are probably the strongest  
NOTE Confidence: 0.9829621  
00:37:39.864 --> 00:37:41.385 correlation to having a a  
NOTE Confidence: 0.9829621  
00:37:41.385 --> 00:37:42.445 positive ctDNA.  
NOTE Confidence: 0.99773324  
00:37:47.690 --> 00:37:48.190 Alright.  
NOTE Confidence: 0.99823076  
00:37:48.890 --> 00:37:49.370 Well,  
NOTE Confidence: 0.9575341  
00:37:50.090 --> 00:37:51.530 please put your additional questions  
NOTE Confidence: 0.9575341  
00:37:51.530 --> 00:37:52.570 through the chat. We'll have  
NOTE Confidence: 0.9575341  
00:37:52.570 --> 00:37:54.090 some time for kind of  
NOTE Confidence: 0.9575341  
00:37:54.090 --> 00:37:55.050 both of us to answer  
NOTE Confidence: 0.9575341  
00:37:55.050 --> 00:37:56.170 them at the end. But  
NOTE Confidence: 0.9575341  
00:37:56.170 --> 00:37:57.210 now I'm gonna pass the  
NOTE Confidence: 0.9575341  
00:37:57.210 --> 00:37:58.730 baton over to doctor Hatten  
NOTE Confidence: 0.9575341

00:37:58.730 --> 00:37:59.975 Pintell to do his his  
NOTE Confidence: 0.9575341  
00:37:59.975 --> 00:38:00.475 presentation.  
NOTE Confidence: 0.9964129  
00:38:01.175 --> 00:38:02.715 Alright. Tough act to follow.  
NOTE Confidence: 0.976425  
00:38:03.575 --> 00:38:04.535 Hopefully, I think I'll be  
NOTE Confidence: 0.976425  
00:38:04.535 --> 00:38:05.735 around the twenty minute mark,  
NOTE Confidence: 0.976425  
00:38:05.735 --> 00:38:06.795 and we should be,  
NOTE Confidence: 0.8866432  
00:38:07.575 --> 00:38:08.955 hopefully done around,  
NOTE Confidence: 0.95218277  
00:38:09.655 --> 00:38:10.695 seven. So I'm gonna just  
NOTE Confidence: 0.95218277  
00:38:10.695 --> 00:38:11.995 share my screen here.  
NOTE Confidence: 0.80778235  
00:38:14.700 --> 00:38:15.200 Let's  
NOTE Confidence: 0.9992529  
00:38:16.380 --> 00:38:16.880 see.  
NOTE Confidence: 0.98856574  
00:38:24.460 --> 00:38:25.980 Alright. Does that look okay  
NOTE Confidence: 0.98856574  
00:38:25.980 --> 00:38:27.200 just before I get started?  
NOTE Confidence: 0.99905443  
00:38:29.155 --> 00:38:31.175 It does. Yes. Okay. Alright.  
NOTE Confidence: 0.96856004  
00:38:31.875 --> 00:38:32.995 So thank you everyone for  
NOTE Confidence: 0.96856004  
00:38:32.995 --> 00:38:34.615 your time this this evening,

NOTE Confidence: 0.96856004

00:38:34.755 --> 00:38:35.255 and,

NOTE Confidence: 0.94996685

00:38:36.275 --> 00:38:38.115 hopefully, this just, generates some

NOTE Confidence: 0.94996685

00:38:38.115 --> 00:38:39.635 questions and and, hopefully, some

NOTE Confidence: 0.94996685

00:38:39.635 --> 00:38:41.475 answers as well. So I'm

NOTE Confidence: 0.94996685

00:38:41.475 --> 00:38:43.095 Hadden Pantel. I'm a colorectal

NOTE Confidence: 0.94996685

00:38:43.235 --> 00:38:44.130 surgeon here.

NOTE Confidence: 0.99957216

00:38:44.849 --> 00:38:46.230 These are my disclosures.

NOTE Confidence: 0.9903292

00:38:47.730 --> 00:38:49.250 Before I start into a

NOTE Confidence: 0.9903292

00:38:49.250 --> 00:38:50.369 little bit of the education

NOTE Confidence: 0.9903292

00:38:50.369 --> 00:38:51.329 part, I actually just wanna

NOTE Confidence: 0.9903292

00:38:51.329 --> 00:38:52.289 start with a call to

NOTE Confidence: 0.9903292

00:38:52.289 --> 00:38:52.789 action.

NOTE Confidence: 0.96406966

00:38:53.410 --> 00:38:54.849 So as as, hopefully, some

NOTE Confidence: 0.96406966

00:38:54.849 --> 00:38:55.910 of you guys know,

NOTE Confidence: 0.9493747

00:38:56.210 --> 00:38:58.549 March is Colorectal Cancer Awareness

NOTE Confidence: 0.9493747



00:38:58.609 --> 00:38:58.995 Month.  
NOTE Confidence: 0.9723689

00:38:59.875 --> 00:39:00.195 And,  
NOTE Confidence: 0.97060657

00:39:01.635 --> 00:39:03.075 I've sort of started thinking  
NOTE Confidence: 0.97060657

00:39:03.075 --> 00:39:04.275 about that a fair amount.  
NOTE Confidence: 0.97060657

00:39:04.275 --> 00:39:05.315 I actually started thinking about  
NOTE Confidence: 0.97060657

00:39:05.315 --> 00:39:06.355 this even back when I  
NOTE Confidence: 0.97060657

00:39:06.355 --> 00:39:07.475 was a fellow. I, you  
NOTE Confidence: 0.97060657

00:39:07.475 --> 00:39:09.155 know, I it's most people  
NOTE Confidence: 0.97060657

00:39:09.155 --> 00:39:11.075 are probably aware October is,  
NOTE Confidence: 0.97060657

00:39:11.395 --> 00:39:13.400 Breast Cancer Awareness Month. I  
NOTE Confidence: 0.97060657

00:39:13.400 --> 00:39:14.760 think, one is a high  
NOTE Confidence: 0.97060657

00:39:14.760 --> 00:39:16.680 prevalence of disease, but Breast  
NOTE Confidence: 0.97060657

00:39:16.680 --> 00:39:18.860 Cancer Awareness Month, has these  
NOTE Confidence: 0.96672344

00:39:19.239 --> 00:39:20.540 very high profile,  
NOTE Confidence: 0.99104244

00:39:21.239 --> 00:39:23.160 public health campaigns supported by  
NOTE Confidence: 0.99104244

00:39:23.160 --> 00:39:23.739 the NFL,

NOTE Confidence: 0.94493836  
00:39:24.200 --> 00:39:25.094 Major League Baseball.  
NOTE Confidence: 0.95428526  
00:39:26.135 --> 00:39:26.935 There's a lot of,  
NOTE Confidence: 0.990612  
00:39:27.575 --> 00:39:29.415 industry and marketing tie ins  
NOTE Confidence: 0.990612  
00:39:29.415 --> 00:39:31.655 with pink ribbons and wearing  
NOTE Confidence: 0.990612  
00:39:31.655 --> 00:39:33.114 pink and things like that.  
NOTE Confidence: 0.994127  
00:39:34.295 --> 00:39:35.655 So it's been, you know,  
NOTE Confidence: 0.994127  
00:39:35.655 --> 00:39:37.114 a very highly visible,  
NOTE Confidence: 0.9834674  
00:39:38.150 --> 00:39:40.090 you know, public health awareness  
NOTE Confidence: 0.9834674  
00:39:40.230 --> 00:39:40.730 campaign.  
NOTE Confidence: 0.98879117  
00:39:42.790 --> 00:39:43.989 You know, how have we  
NOTE Confidence: 0.98879117  
00:39:43.989 --> 00:39:44.489 done?  
NOTE Confidence: 0.9829961  
00:39:45.110 --> 00:39:46.550 So two thousand one is  
NOTE Confidence: 0.9829961  
00:39:46.550 --> 00:39:47.850 when March was,  
NOTE Confidence: 0.97164035  
00:39:48.469 --> 00:39:50.550 designated as Colorectal Cancer Awareness  
NOTE Confidence: 0.97164035  
00:39:50.550 --> 00:39:51.989 Month. That was under, Bill  
NOTE Confidence: 0.97164035

00:39:51.989 --> 00:39:52.489 Clinton.  
NOTE Confidence: 0.9944385  
00:39:53.295 --> 00:39:53.795 And,  
NOTE Confidence: 0.97292113  
00:39:55.295 --> 00:39:56.335 since that time, you know,  
NOTE Confidence: 0.97292113  
00:39:56.335 --> 00:39:57.135 there's been a lot of  
NOTE Confidence: 0.97292113  
00:39:57.135 --> 00:39:58.255 things to raise,  
NOTE Confidence: 0.99536645  
00:39:58.575 --> 00:39:59.075 awareness.  
NOTE Confidence: 0.9790776  
00:40:00.094 --> 00:40:01.055 I think there's a lot  
NOTE Confidence: 0.9790776  
00:40:01.055 --> 00:40:02.134 of things about it. Instead  
NOTE Confidence: 0.9790776  
00:40:02.134 --> 00:40:03.694 of pink, they picked blue.  
NOTE Confidence: 0.9790776  
00:40:03.694 --> 00:40:04.655 I'm not sure how blue  
NOTE Confidence: 0.9790776  
00:40:04.655 --> 00:40:05.700 is the colon, but  
NOTE Confidence: 0.9448676  
00:40:06.500 --> 00:40:08.040 unless we arrived at blue.  
NOTE Confidence: 0.9913428  
00:40:08.980 --> 00:40:10.020 And and so there's been  
NOTE Confidence: 0.9913428  
00:40:10.020 --> 00:40:11.140 a lot of push to  
NOTE Confidence: 0.9913428  
00:40:11.140 --> 00:40:12.660 sort of promote our own  
NOTE Confidence: 0.9913428  
00:40:12.660 --> 00:40:13.780 month, and and here we

NOTE Confidence: 0.9913428  
00:40:13.780 --> 00:40:14.900 are. I think this this  
NOTE Confidence: 0.9913428  
00:40:14.900 --> 00:40:16.420 event itself is probably a  
NOTE Confidence: 0.9913428  
00:40:16.420 --> 00:40:17.300 sort of a tie in  
NOTE Confidence: 0.9913428  
00:40:17.300 --> 00:40:17.960 from that.  
NOTE Confidence: 0.8779586  
00:40:18.414 --> 00:40:19.234 And and so,  
NOTE Confidence: 0.91586655  
00:40:19.775 --> 00:40:20.974 it just kinda got me  
NOTE Confidence: 0.91586655  
00:40:20.974 --> 00:40:21.474 wondering,  
NOTE Confidence: 0.9904474  
00:40:21.775 --> 00:40:24.674 is this public campaign helpful?  
NOTE Confidence: 0.9727967  
00:40:25.375 --> 00:40:26.494 How does it do? Here's  
NOTE Confidence: 0.9727967  
00:40:26.494 --> 00:40:28.174 information from our our own  
NOTE Confidence: 0.9727967  
00:40:28.174 --> 00:40:28.674 institution,  
NOTE Confidence: 0.9385315  
00:40:29.614 --> 00:40:30.734 with with our own doctor  
NOTE Confidence: 0.9385315  
00:40:30.734 --> 00:40:31.795 Giacchini here,  
NOTE Confidence: 0.94870263  
00:40:32.255 --> 00:40:34.680 talking about, one, public interest.  
NOTE Confidence: 0.94870263  
00:40:34.980 --> 00:40:36.100 And then sort of I  
NOTE Confidence: 0.94870263

00:40:36.100 --> 00:40:37.400 I sort of started wondering,  
NOTE Confidence: 0.94870263

00:40:37.620 --> 00:40:39.239 well, we get people talking,  
NOTE Confidence: 0.94870263

00:40:39.380 --> 00:40:40.500 but what do we do?  
NOTE Confidence: 0.94870263

00:40:40.500 --> 00:40:41.700 I feel, a lot of  
NOTE Confidence: 0.94870263

00:40:41.700 --> 00:40:42.820 times in medicine as as  
NOTE Confidence: 0.94870263

00:40:42.820 --> 00:40:43.880 a surgeon specifically,  
NOTE Confidence: 0.9862391

00:40:44.420 --> 00:40:45.219 there's a lot of, you  
NOTE Confidence: 0.9862391

00:40:45.219 --> 00:40:46.580 know, writing notes and saying  
NOTE Confidence: 0.9862391

00:40:46.580 --> 00:40:48.020 things and having conferences, but  
NOTE Confidence: 0.9862391

00:40:48.020 --> 00:40:49.305 what are we actually doing  
NOTE Confidence: 0.9862391

00:40:49.305 --> 00:40:50.825 for our patients? And that's  
NOTE Confidence: 0.9862391

00:40:50.825 --> 00:40:51.785 really what I want this  
NOTE Confidence: 0.9862391

00:40:51.785 --> 00:40:53.065 sort of call to action  
NOTE Confidence: 0.9862391

00:40:53.065 --> 00:40:54.025 to be and really sort  
NOTE Confidence: 0.9862391

00:40:54.025 --> 00:40:55.145 of what got me wondering  
NOTE Confidence: 0.9862391

00:40:55.145 --> 00:40:55.885 about this.

NOTE Confidence: 0.9849569

00:40:57.065 --> 00:40:57.565 So

NOTE Confidence: 0.974421

00:40:58.025 --> 00:40:58.344 when,

NOTE Confidence: 0.9868842

00:40:58.905 --> 00:41:00.105 whenever you have a question,

NOTE Confidence: 0.9868842

00:41:00.105 --> 00:41:01.239 what do you do? You

NOTE Confidence: 0.9868842

00:41:01.239 --> 00:41:02.680 Google it. This is a

NOTE Confidence: 0.9868842

00:41:02.680 --> 00:41:04.680 really interesting website. It's Google

NOTE Confidence: 0.9868842

00:41:04.680 --> 00:41:05.960 Trends. If if anyone wants

NOTE Confidence: 0.9868842

00:41:05.960 --> 00:41:06.920 to look this up, they

NOTE Confidence: 0.9868842

00:41:06.920 --> 00:41:08.140 can. This is a screenshot

NOTE Confidence: 0.9868842

00:41:08.200 --> 00:41:09.640 from it last night. You

NOTE Confidence: 0.9868842

00:41:09.640 --> 00:41:10.600 know, this is what people

NOTE Confidence: 0.9868842

00:41:10.600 --> 00:41:11.580 are looking at.

NOTE Confidence: 0.96944004

00:41:12.935 --> 00:41:14.215 So you can get pretty

NOTE Confidence: 0.96944004

00:41:14.215 --> 00:41:15.815 good data. This actually goes

NOTE Confidence: 0.96944004

00:41:15.815 --> 00:41:16.855 back quite far, and you

NOTE Confidence: 0.96944004

00:41:16.855 --> 00:41:17.594 and you can,  
NOTE Confidence: 0.55142194  
00:41:18.455 --> 00:41:18.955 use  
NOTE Confidence: 0.9349822  
00:41:19.815 --> 00:41:21.175 this search terms, but also  
NOTE Confidence: 0.9349822  
00:41:21.175 --> 00:41:22.614 related search terms to build  
NOTE Confidence: 0.9349822  
00:41:22.614 --> 00:41:24.055 on on, like, concepts and  
NOTE Confidence: 0.9349822  
00:41:24.055 --> 00:41:25.915 things like that. And so,  
NOTE Confidence: 0.9219758  
00:41:28.230 --> 00:41:29.270 you know, I looked at  
NOTE Confidence: 0.9219758  
00:41:29.270 --> 00:41:29.770 specifically  
NOTE Confidence: 0.94645387  
00:41:30.310 --> 00:41:31.910 colon cancer. This actually has  
NOTE Confidence: 0.94645387  
00:41:31.910 --> 00:41:33.350 data from the United States,  
NOTE Confidence: 0.94645387  
00:41:33.350 --> 00:41:34.230 but also I looked at  
NOTE Confidence: 0.94645387  
00:41:34.230 --> 00:41:35.430 data from the UK or  
NOTE Confidence: 0.94645387  
00:41:35.430 --> 00:41:36.170 bowel cancer,  
NOTE Confidence: 0.99003106  
00:41:36.630 --> 00:41:37.590 and a and a bunch  
NOTE Confidence: 0.99003106  
00:41:37.590 --> 00:41:38.710 of other words. As you  
NOTE Confidence: 0.99003106  
00:41:38.710 --> 00:41:40.250 can see, we've got

NOTE Confidence: 0.96676785  
00:41:40.785 --> 00:41:42.565 the search interest or popularity.  
NOTE Confidence: 0.96676785  
00:41:42.704 --> 00:41:43.984 It's a scale of zero  
NOTE Confidence: 0.96676785  
00:41:43.984 --> 00:41:44.805 to a hundred,  
NOTE Confidence: 0.96929723  
00:41:45.344 --> 00:41:46.305 and then this is the  
NOTE Confidence: 0.96929723  
00:41:46.305 --> 00:41:47.825 data by month. And if  
NOTE Confidence: 0.96929723  
00:41:47.825 --> 00:41:48.864 you look at the blue  
NOTE Confidence: 0.96929723  
00:41:48.864 --> 00:41:50.145 squares, I use blue because  
NOTE Confidence: 0.96929723  
00:41:50.145 --> 00:41:51.424 blue is March for colon  
NOTE Confidence: 0.96929723  
00:41:51.424 --> 00:41:53.025 cancer awareness month, you can  
NOTE Confidence: 0.96929723  
00:41:53.025 --> 00:41:54.145 see here that there's these  
NOTE Confidence: 0.96929723  
00:41:54.145 --> 00:41:55.580 peaks. And, actually, if you  
NOTE Confidence: 0.96929723  
00:41:55.739 --> 00:41:56.620 when we looked at this  
NOTE Confidence: 0.96929723  
00:41:56.620 --> 00:41:57.739 data, we we fed it  
NOTE Confidence: 0.96929723  
00:41:57.739 --> 00:41:59.900 with a sinusoidal model looking  
NOTE Confidence: 0.96929723  
00:41:59.900 --> 00:42:01.100 at, is it quarterly? Is  
NOTE Confidence: 0.96929723



00:42:01.100 --> 00:42:02.000 there a lag?  
NOTE Confidence: 0.98074764

00:42:03.739 --> 00:42:04.860 Is it every you know,  
NOTE Confidence: 0.98074764

00:42:04.860 --> 00:42:06.540 should this the cycle, be  
NOTE Confidence: 0.98074764

00:42:06.540 --> 00:42:07.820 every twelve months? And and,  
NOTE Confidence: 0.98074764

00:42:07.820 --> 00:42:09.820 in fact, this data does  
NOTE Confidence: 0.98074764

00:42:09.820 --> 00:42:11.474 fit that that model. So  
NOTE Confidence: 0.98074764

00:42:11.474 --> 00:42:13.075 you do see a peak.  
NOTE Confidence: 0.98074764

00:42:13.075 --> 00:42:13.714 I think you can see  
NOTE Confidence: 0.98074764

00:42:13.714 --> 00:42:14.515 it just with your eye.  
NOTE Confidence: 0.98074764

00:42:14.515 --> 00:42:15.234 I don't think you need  
NOTE Confidence: 0.98074764

00:42:15.234 --> 00:42:16.775 the statistics behind it,  
NOTE Confidence: 0.9970063

00:42:17.154 --> 00:42:18.434 but but they are relevant  
NOTE Confidence: 0.9970063

00:42:18.434 --> 00:42:19.654 to what's coming later.  
NOTE Confidence: 0.9960874

00:42:20.035 --> 00:42:21.234 But, I think you can  
NOTE Confidence: 0.9960874

00:42:21.234 --> 00:42:21.974 see that  
NOTE Confidence: 0.9015356

00:42:22.275 --> 00:42:23.974 if you look at has

NOTE Confidence: 0.9015356  
00:42:24.035 --> 00:42:25.065 March as colorectal care  
NOTE Confidence: 0.851949  
00:42:26.114 --> 00:42:28.030 sorry. Sorry. Colorectal cancer awareness  
NOTE Confidence: 0.851949  
00:42:28.030 --> 00:42:29.170 month been successful,  
NOTE Confidence: 0.98230046  
00:42:29.869 --> 00:42:31.230 if you look at Google  
NOTE Confidence: 0.98230046  
00:42:31.230 --> 00:42:32.130 search data,  
NOTE Confidence: 0.9964479  
00:42:32.750 --> 00:42:34.190 whether it's perfect or not,  
NOTE Confidence: 0.9956124  
00:42:34.829 --> 00:42:35.950 I think the answer is  
NOTE Confidence: 0.9956124  
00:42:35.950 --> 00:42:38.190 yes. We've got people interested  
NOTE Confidence: 0.9956124  
00:42:38.190 --> 00:42:39.170 in this concept.  
NOTE Confidence: 0.9888517  
00:42:40.965 --> 00:42:42.165 But now where I was  
NOTE Confidence: 0.9888517  
00:42:42.165 --> 00:42:43.285 talking about sort of the  
NOTE Confidence: 0.9888517  
00:42:43.285 --> 00:42:44.725 rubber meets the road or  
NOTE Confidence: 0.9888517  
00:42:44.725 --> 00:42:46.185 the scope meets the patient,  
NOTE Confidence: 0.96182626  
00:42:46.485 --> 00:42:47.385 so to speak,  
NOTE Confidence: 0.9987855  
00:42:48.245 --> 00:42:49.305 how has that  
NOTE Confidence: 0.9982802

00:42:49.685 --> 00:42:52.085 public interest been leveraged into  
NOTE Confidence: 0.9982802

00:42:52.085 --> 00:42:54.245 actually improving upon screening? What  
NOTE Confidence: 0.9982802

00:42:54.245 --> 00:42:55.205 have we done for our  
NOTE Confidence: 0.9982802

00:42:55.205 --> 00:42:55.705 patients?  
NOTE Confidence: 0.88363785

00:42:56.070 --> 00:42:56.570 So  
NOTE Confidence: 0.9859468

00:42:57.590 --> 00:42:58.469 in order to sort of  
NOTE Confidence: 0.9859468

00:42:58.469 --> 00:42:59.989 dive into that, the more,  
NOTE Confidence: 0.99786204

00:43:00.390 --> 00:43:01.770 functional end of things,  
NOTE Confidence: 0.91235524

00:43:02.390 --> 00:43:03.930 utilize looking at  
NOTE Confidence: 0.99956936

00:43:04.310 --> 00:43:05.690 rates of endoscopy  
NOTE Confidence: 0.8997839

00:43:06.070 --> 00:43:07.510 across the United States across  
NOTE Confidence: 0.8997839

00:43:07.510 --> 00:43:09.270 a a large endoscopy data  
NOTE Confidence: 0.8997839

00:43:09.270 --> 00:43:09.770 set.  
NOTE Confidence: 0.9504935

00:43:10.614 --> 00:43:12.535 This represents both community and  
NOTE Confidence: 0.9504935

00:43:12.535 --> 00:43:13.435 academic centers,  
NOTE Confidence: 0.9862094

00:43:14.295 --> 00:43:15.575 pretty much every region in

NOTE Confidence: 0.9862094

00:43:15.575 --> 00:43:16.475 the United States.

NOTE Confidence: 0.945492

00:43:18.455 --> 00:43:19.575 And what we looked at

NOTE Confidence: 0.945492

00:43:19.575 --> 00:43:21.195 specifically because there's obviously

NOTE Confidence: 0.954306

00:43:21.495 --> 00:43:22.935 variation. Right? Some people,

NOTE Confidence: 0.9748805

00:43:23.619 --> 00:43:24.900 take vacation in July and

NOTE Confidence: 0.9748805

00:43:24.900 --> 00:43:26.359 August. That's very common.

NOTE Confidence: 0.9142736

00:43:27.219 --> 00:43:28.339 Some types of people try

NOTE Confidence: 0.9142736

00:43:28.339 --> 00:43:29.300 and get a lot of

NOTE Confidence: 0.9142736

00:43:29.300 --> 00:43:31.060 scopes in, you know, in

NOTE Confidence: 0.9142736

00:43:31.060 --> 00:43:32.680 in December and November

NOTE Confidence: 0.958685

00:43:33.060 --> 00:43:34.420 because they wanna get things

NOTE Confidence: 0.958685

00:43:34.420 --> 00:43:36.020 done or procedures done before

NOTE Confidence: 0.958685

00:43:36.020 --> 00:43:36.739 the end of the year

NOTE Confidence: 0.958685

00:43:36.739 --> 00:43:38.339 when their insurance before their

NOTE Confidence: 0.958685

00:43:38.339 --> 00:43:40.145 deductible sort of resets.

NOTE Confidence: 0.90644854

00:43:40.445 --> 00:43:41.405 So what we decided to  
NOTE Confidence: 0.90644854

00:43:41.405 --> 00:43:42.545 look at in this dataset  
NOTE Confidence: 0.96789527

00:43:43.005 --> 00:43:44.364 is what is how many  
NOTE Confidence: 0.96789527

00:43:44.364 --> 00:43:45.965 endoscopists were scoping at that  
NOTE Confidence: 0.96789527

00:43:45.965 --> 00:43:47.165 time and what percentage of  
NOTE Confidence: 0.96789527

00:43:47.165 --> 00:43:47.905 their colonoscopies  
NOTE Confidence: 0.9652378

00:43:48.285 --> 00:43:49.425 were done for screening.  
NOTE Confidence: 0.98967654

00:43:51.245 --> 00:43:52.844 The reason I mentioned about  
NOTE Confidence: 0.98967654

00:43:52.844 --> 00:43:54.480 all that sinusoidal model and  
NOTE Confidence: 0.98967654

00:43:54.480 --> 00:43:55.920 everything like that is I  
NOTE Confidence: 0.98967654

00:43:55.920 --> 00:43:56.880 don't think you guys need  
NOTE Confidence: 0.98967654

00:43:56.880 --> 00:43:58.580 the statistics here to see  
NOTE Confidence: 0.983042

00:43:58.880 --> 00:44:00.400 there is no peak. There  
NOTE Confidence: 0.983042

00:44:00.400 --> 00:44:02.020 there is no annual,  
NOTE Confidence: 0.9608224

00:44:03.360 --> 00:44:05.280 you know, increase in percentage  
NOTE Confidence: 0.9608224

00:44:05.280 --> 00:44:06.880 of screening scopes done in

NOTE Confidence: 0.9608224  
00:44:06.880 --> 00:44:08.020 this data set,  
NOTE Confidence: 0.9614283  
00:44:08.864 --> 00:44:10.065 every March. And, also, we  
NOTE Confidence: 0.9614283  
00:44:10.065 --> 00:44:10.864 did try and fit the  
NOTE Confidence: 0.9614283  
00:44:10.864 --> 00:44:11.825 model to see, well, is  
NOTE Confidence: 0.9614283  
00:44:11.825 --> 00:44:12.625 there a shift or a  
NOTE Confidence: 0.9614283  
00:44:12.625 --> 00:44:13.905 delay. Right? Because you may  
NOTE Confidence: 0.9614283  
00:44:13.905 --> 00:44:16.145 expect that you see someone  
NOTE Confidence: 0.9614283  
00:44:16.145 --> 00:44:17.265 wearing blue, and you think  
NOTE Confidence: 0.9614283  
00:44:17.265 --> 00:44:18.385 maybe I should get screened  
NOTE Confidence: 0.9614283  
00:44:18.385 --> 00:44:19.505 for colon cancer, and you  
NOTE Confidence: 0.9614283  
00:44:19.505 --> 00:44:21.000 get your Cologuard. And then,  
NOTE Confidence: 0.9614283  
00:44:21.080 --> 00:44:22.600 you know, certain time later,  
NOTE Confidence: 0.9614283  
00:44:22.600 --> 00:44:23.880 you know, it comes back  
NOTE Confidence: 0.9614283  
00:44:23.880 --> 00:44:24.840 positive and then you get  
NOTE Confidence: 0.9614283  
00:44:24.840 --> 00:44:26.140 scope. So,  
NOTE Confidence: 0.9912702

00:44:26.840 --> 00:44:28.520 this this model does fit  
NOTE Confidence: 0.9912702

00:44:28.520 --> 00:44:29.560 for that sort of time  
NOTE Confidence: 0.9912702

00:44:29.560 --> 00:44:30.440 delay. We sort of set  
NOTE Confidence: 0.9912702

00:44:30.440 --> 00:44:32.380 it in different different, frequencies  
NOTE Confidence: 0.9622297

00:44:32.680 --> 00:44:34.600 or or different, cycles, and  
NOTE Confidence: 0.9622297

00:44:34.600 --> 00:44:36.675 also shifting it back across  
NOTE Confidence: 0.9622297

00:44:36.675 --> 00:44:37.975 basically every month.  
NOTE Confidence: 0.9498023

00:44:38.355 --> 00:44:39.715 The bottom line is that  
NOTE Confidence: 0.9498023

00:44:39.715 --> 00:44:41.395 really we don't see any  
NOTE Confidence: 0.9498023

00:44:41.395 --> 00:44:42.835 effect for the impact on  
NOTE Confidence: 0.9498023

00:44:42.835 --> 00:44:43.735 screening endoscopy.  
NOTE Confidence: 0.9990515

00:44:45.315 --> 00:44:45.815 So  
NOTE Confidence: 0.96099496

00:44:46.195 --> 00:44:47.735 getting back to my original  
NOTE Confidence: 0.96099496

00:44:47.875 --> 00:44:49.450 sort of call to action  
NOTE Confidence: 0.96099496

00:44:49.450 --> 00:44:50.810 or call to arms for  
NOTE Confidence: 0.96099496

00:44:50.810 --> 00:44:52.510 for any health care providers

NOTE Confidence: 0.96099496

00:44:52.570 --> 00:44:53.770 or anyone who may be

NOTE Confidence: 0.96099496

00:44:53.770 --> 00:44:55.530 listening to this either right

NOTE Confidence: 0.96099496

00:44:55.530 --> 00:44:57.150 now or or just virtually

NOTE Confidence: 0.95930123

00:44:57.530 --> 00:44:59.070 later on in another date,

NOTE Confidence: 0.95930123

00:44:59.210 --> 00:45:00.570 when I think about what

NOTE Confidence: 0.95930123

00:45:00.570 --> 00:45:02.410 impact National Colon Cancer Awareness

NOTE Confidence: 0.95930123

00:45:02.410 --> 00:45:03.975 Month has had, I think

NOTE Confidence: 0.95930123

00:45:03.975 --> 00:45:05.835 we are being very successful

NOTE Confidence: 0.95930123

00:45:06.135 --> 00:45:06.795 in getting

NOTE Confidence: 0.9174963

00:45:07.175 --> 00:45:07.675 people,

NOTE Confidence: 0.82455856

00:45:07.975 --> 00:45:08.475 patients,

NOTE Confidence: 0.9778509

00:45:09.175 --> 00:45:11.355 interested or aware in what

NOTE Confidence: 0.9778509

00:45:11.415 --> 00:45:13.415 colon cancer is, what rectal

NOTE Confidence: 0.9778509

00:45:13.415 --> 00:45:15.175 cancer is. I think that

NOTE Confidence: 0.9778509

00:45:15.175 --> 00:45:16.935 is made aware by sorry.

NOTE Confidence: 0.9778509



00:45:16.935 --> 00:45:18.055 That's that to me is  
NOTE Confidence: 0.9778509

00:45:18.055 --> 00:45:19.469 is evident by the search  
NOTE Confidence: 0.974845

00:45:20.030 --> 00:45:21.150 data. But where I think  
NOTE Confidence: 0.974845

00:45:21.150 --> 00:45:22.190 we as a health care  
NOTE Confidence: 0.974845

00:45:22.190 --> 00:45:23.630 community can do better for  
NOTE Confidence: 0.974845

00:45:23.630 --> 00:45:25.489 our patients is actually leveraging  
NOTE Confidence: 0.974845

00:45:25.550 --> 00:45:26.210 that awareness  
NOTE Confidence: 0.9872468

00:45:26.670 --> 00:45:27.969 into something meaningful.  
NOTE Confidence: 0.96665627

00:45:29.230 --> 00:45:30.130 And because  
NOTE Confidence: 0.83314025

00:45:30.830 --> 00:45:32.290 from the the the endoscopy  
NOTE Confidence: 0.9769574

00:45:32.590 --> 00:45:33.950 data, I don't think we're  
NOTE Confidence: 0.9769574

00:45:33.950 --> 00:45:34.770 there yet,  
NOTE Confidence: 0.9504311

00:45:35.744 --> 00:45:37.505 because, you know, I'd hope  
NOTE Confidence: 0.9504311

00:45:37.505 --> 00:45:39.184 to see some increase in  
NOTE Confidence: 0.9504311

00:45:39.184 --> 00:45:40.085 rate of endoscopy  
NOTE Confidence: 0.9972931

00:45:40.385 --> 00:45:41.125 or something

NOTE Confidence: 0.9590083  
00:45:41.505 --> 00:45:43.525 moving forward. So my conclusion  
NOTE Confidence: 0.9590083  
00:45:43.664 --> 00:45:44.944 from all this, really, I  
NOTE Confidence: 0.9590083  
00:45:44.944 --> 00:45:45.444 think,  
NOTE Confidence: 0.9631281  
00:45:45.744 --> 00:45:46.785 for us, we've done it  
NOTE Confidence: 0.9631281  
00:45:47.025 --> 00:45:48.145 I mean, I said stop  
NOTE Confidence: 0.9631281  
00:45:48.145 --> 00:45:50.010 talking, start acting. I don't  
NOTE Confidence: 0.9631281  
00:45:50.010 --> 00:45:51.290 quite mean that. I think  
NOTE Confidence: 0.9631281  
00:45:51.290 --> 00:45:53.210 keep talking. Great. We've been  
NOTE Confidence: 0.9631281  
00:45:53.210 --> 00:45:54.730 successful there. But now I  
NOTE Confidence: 0.9631281  
00:45:54.730 --> 00:45:56.250 think it's things about start  
NOTE Confidence: 0.9631281  
00:45:56.250 --> 00:45:57.770 acting. So it's great to  
NOTE Confidence: 0.9631281  
00:45:57.770 --> 00:45:58.890 wear blue. It's great to  
NOTE Confidence: 0.9631281  
00:45:58.890 --> 00:45:59.770 have all these things, but  
NOTE Confidence: 0.9631281  
00:45:59.770 --> 00:46:00.810 I think there's other things  
NOTE Confidence: 0.9631281  
00:46:00.810 --> 00:46:01.790 we could be doing.  
NOTE Confidence: 0.990412

00:46:02.235 --> 00:46:04.315 Increasing access to endoscopy, things  
NOTE Confidence: 0.990412

00:46:04.315 --> 00:46:05.455 like opening our endoscopy  
NOTE Confidence: 0.95485765

00:46:05.755 --> 00:46:07.435 suites on the weekend or  
NOTE Confidence: 0.95485765

00:46:07.435 --> 00:46:09.295 focusing on other screening methods  
NOTE Confidence: 0.9960551

00:46:09.595 --> 00:46:10.715 at that time of year  
NOTE Confidence: 0.9960551

00:46:10.715 --> 00:46:12.155 to, you know, potentially get  
NOTE Confidence: 0.9960551

00:46:12.155 --> 00:46:12.975 things out.  
NOTE Confidence: 0.9404745

00:46:14.250 --> 00:46:15.450 Alright. I'm gonna get off  
NOTE Confidence: 0.9404745

00:46:15.450 --> 00:46:16.989 my soapbox and then,  
NOTE Confidence: 0.9278159

00:46:17.690 --> 00:46:19.230 hopefully talk about something  
NOTE Confidence: 0.8773971

00:46:20.250 --> 00:46:21.230 else. So,  
NOTE Confidence: 0.99281424

00:46:21.930 --> 00:46:22.810 I'm gonna talk a little  
NOTE Confidence: 0.99281424

00:46:22.810 --> 00:46:24.250 bit about the cyclic nature  
NOTE Confidence: 0.99281424

00:46:24.250 --> 00:46:24.910 of something,  
NOTE Confidence: 0.95328397

00:46:25.210 --> 00:46:26.830 and that's specifically about  
NOTE Confidence: 0.99906427

00:46:27.135 --> 00:46:28.915 local excision of rectal cancer.

NOTE Confidence: 0.98423153  
00:46:29.614 --> 00:46:30.415 I think a lot of  
NOTE Confidence: 0.98423153  
00:46:30.415 --> 00:46:32.015 times in in medicine, we  
NOTE Confidence: 0.98423153  
00:46:32.015 --> 00:46:33.455 have these we started one  
NOTE Confidence: 0.98423153  
00:46:33.455 --> 00:46:34.815 way, we changed, and we  
NOTE Confidence: 0.98423153  
00:46:34.815 --> 00:46:35.775 came back all the way  
NOTE Confidence: 0.98423153  
00:46:35.775 --> 00:46:37.215 around. I think of, I'm  
NOTE Confidence: 0.98423153  
00:46:37.215 --> 00:46:38.255 a surgeon, but I do  
NOTE Confidence: 0.98423153  
00:46:38.255 --> 00:46:39.614 endoscopy. I operate you know?  
NOTE Confidence: 0.98423153  
00:46:39.614 --> 00:46:40.114 So  
NOTE Confidence: 0.92208934  
00:46:40.415 --> 00:46:41.614 I think about bowel preps  
NOTE Confidence: 0.92208934  
00:46:41.614 --> 00:46:42.114 during  
NOTE Confidence: 0.9547192  
00:46:42.950 --> 00:46:43.850 colorectal surgery.  
NOTE Confidence: 0.94443804  
00:46:44.310 --> 00:46:45.530 It was initially nothing.  
NOTE Confidence: 0.92095745  
00:46:45.910 --> 00:46:47.690 Then started with both antibiotic  
NOTE Confidence: 0.92095745  
00:46:47.750 --> 00:46:49.050 and mechanical prep.  
NOTE Confidence: 0.9644084

00:46:49.350 --> 00:46:50.310 Then it went to just  
NOTE Confidence: 0.9644084

00:46:50.310 --> 00:46:50.810 mechanical.  
NOTE Confidence: 0.7715912

00:46:51.510 --> 00:46:52.010 Nothing.  
NOTE Confidence: 0.89528924

00:46:52.630 --> 00:46:54.170 Mechanical and lo and behold,  
NOTE Confidence: 0.89528924

00:46:54.230 --> 00:46:55.270 we're back there to a  
NOTE Confidence: 0.89528924

00:46:55.270 --> 00:46:56.550 Nichols Condon prep, you know,  
NOTE Confidence: 0.89528924

00:46:56.550 --> 00:46:57.050 with  
NOTE Confidence: 0.95676523

00:46:57.635 --> 00:46:59.315 antibiotics and mechanical prep. So  
NOTE Confidence: 0.95676523

00:46:59.315 --> 00:47:00.035 I think a lot of  
NOTE Confidence: 0.95676523

00:47:00.035 --> 00:47:01.635 things in medicine are cyclic  
NOTE Confidence: 0.95676523

00:47:01.635 --> 00:47:03.474 as we get more and  
NOTE Confidence: 0.95676523

00:47:03.474 --> 00:47:04.295 more data.  
NOTE Confidence: 0.97930527

00:47:04.835 --> 00:47:05.795 And so I'm gonna really  
NOTE Confidence: 0.97930527

00:47:05.795 --> 00:47:07.395 be talking about that sort  
NOTE Confidence: 0.97930527

00:47:07.395 --> 00:47:08.135 of cycle,  
NOTE Confidence: 0.9705734

00:47:08.915 --> 00:47:11.415 in regards to, rectal cancer,

NOTE Confidence: 0.9648818  
00:47:12.660 --> 00:47:14.599 specifically local excision. So,  
NOTE Confidence: 0.95924634  
00:47:14.900 --> 00:47:15.780 we're gonna start in the  
NOTE Confidence: 0.95924634  
00:47:15.780 --> 00:47:17.300 past. We're gonna start, around  
NOTE Confidence: 0.95924634  
00:47:17.300 --> 00:47:18.900 the thirteen hundreds. So this  
NOTE Confidence: 0.95924634  
00:47:18.900 --> 00:47:20.099 is around the hundred year  
NOTE Confidence: 0.95924634  
00:47:20.099 --> 00:47:20.599 war.  
NOTE Confidence: 0.94729584  
00:47:20.980 --> 00:47:22.359 And this is John Arden.  
NOTE Confidence: 0.96398735  
00:47:22.980 --> 00:47:24.819 He was considered England's first  
NOTE Confidence: 0.96398735  
00:47:24.819 --> 00:47:25.319 surgeon,  
NOTE Confidence: 0.9983878  
00:47:25.994 --> 00:47:27.515 but the thing that's germane  
NOTE Confidence: 0.9983878  
00:47:27.515 --> 00:47:28.174 to this  
NOTE Confidence: 0.9379694  
00:47:28.555 --> 00:47:29.594 is that he is the  
NOTE Confidence: 0.9379694  
00:47:29.594 --> 00:47:31.194 first person to describe or  
NOTE Confidence: 0.9379694  
00:47:31.194 --> 00:47:32.234 at least actually to write  
NOTE Confidence: 0.9379694  
00:47:32.234 --> 00:47:32.734 down  
NOTE Confidence: 0.9779839

00:47:33.275 --> 00:47:33.775 the,  
NOTE Confidence: 0.9871893  
00:47:34.714 --> 00:47:37.114 diagnosis of rectal cancer. So  
NOTE Confidence: 0.9871893  
00:47:37.114 --> 00:47:38.315 back at this time, obviously,  
NOTE Confidence: 0.9871893  
00:47:38.315 --> 00:47:38.954 there was a lot of  
NOTE Confidence: 0.9871893  
00:47:38.954 --> 00:47:40.394 infectious colitis, a lot of  
NOTE Confidence: 0.9871893  
00:47:40.394 --> 00:47:41.400 infectious problems.  
NOTE Confidence: 0.9762059  
00:47:41.700 --> 00:47:43.140 And so oftentimes, it was  
NOTE Confidence: 0.9762059  
00:47:43.140 --> 00:47:44.440 hard to differentiate,  
NOTE Confidence: 0.95015943  
00:47:45.780 --> 00:47:47.780 between dysentery or or or  
NOTE Confidence: 0.95015943  
00:47:47.780 --> 00:47:49.560 something else and a malignancy.  
NOTE Confidence: 0.9890536  
00:47:49.940 --> 00:47:51.060 And so he's the first  
NOTE Confidence: 0.9890536  
00:47:51.060 --> 00:47:52.580 person to really describe actually  
NOTE Confidence: 0.9890536  
00:47:52.580 --> 00:47:54.119 doing a rectal exam  
NOTE Confidence: 0.9684444  
00:47:54.695 --> 00:47:55.915 for the diagnosis.  
NOTE Confidence: 0.9529965  
00:47:56.855 --> 00:47:58.375 And, you know, he said  
NOTE Confidence: 0.9529965  
00:47:58.375 --> 00:47:59.735 that you should do on

NOTE Confidence: 0.9529965  
00:47:59.735 --> 00:48:01.495 exam, you should find something  
NOTE Confidence: 0.9529965  
00:48:01.495 --> 00:48:02.875 hard as a stone.  
NOTE Confidence: 0.99242085  
00:48:03.655 --> 00:48:05.175 And so he was basically  
NOTE Confidence: 0.99242085  
00:48:05.175 --> 00:48:06.555 able to make that correlation  
NOTE Confidence: 0.99242085  
00:48:06.695 --> 00:48:08.850 that the blood, the mucus,  
NOTE Confidence: 0.99242085  
00:48:09.150 --> 00:48:09.890 the urgency,  
NOTE Confidence: 0.90071243  
00:48:10.670 --> 00:48:12.450 was not all infectious ideology  
NOTE Confidence: 0.90071243  
00:48:12.510 --> 00:48:14.109 like dysentery, but was in  
NOTE Confidence: 0.90071243  
00:48:14.109 --> 00:48:14.609 fact,  
NOTE Confidence: 0.9842701  
00:48:15.390 --> 00:48:17.489 a malignancy. So first diagnosis  
NOTE Confidence: 0.9842701  
00:48:17.630 --> 00:48:18.670 then, that's what we started  
NOTE Confidence: 0.9842701  
00:48:18.670 --> 00:48:19.869 at. I'm not sure they  
NOTE Confidence: 0.9842701  
00:48:19.869 --> 00:48:21.250 had gloves back then.  
NOTE Confidence: 0.9729636  
00:48:21.695 --> 00:48:23.055 This is my I I  
NOTE Confidence: 0.9729636  
00:48:23.055 --> 00:48:24.175 I don't speak much Latin.  
NOTE Confidence: 0.9729636



00:48:24.175 --> 00:48:25.614 Here's his original Latin text  
NOTE Confidence: 0.9729636

00:48:25.614 --> 00:48:26.275 on this.  
NOTE Confidence: 0.97616756

00:48:28.015 --> 00:48:29.635 So that was initial diagnosis.  
NOTE Confidence: 0.92403954

00:48:29.935 --> 00:48:30.895 So we're going, you know,  
NOTE Confidence: 0.92403954

00:48:30.895 --> 00:48:32.195 thirteen hundreds, and now,  
NOTE Confidence: 0.94238806

00:48:32.575 --> 00:48:33.775 sort of where we at  
NOTE Confidence: 0.94238806

00:48:33.775 --> 00:48:35.280 now. I think most of  
NOTE Confidence: 0.94238806

00:48:35.280 --> 00:48:36.719 us know sort of the  
NOTE Confidence: 0.94238806

00:48:36.719 --> 00:48:37.700 initial treatment,  
NOTE Confidence: 0.9020843

00:48:38.640 --> 00:48:40.400 CT, chest, abdomen, pelvis, you  
NOTE Confidence: 0.9020843

00:48:40.400 --> 00:48:41.600 know, our sort of rule  
NOTE Confidence: 0.9020843

00:48:41.600 --> 00:48:42.980 out metastatic disease.  
NOTE Confidence: 0.99552

00:48:43.440 --> 00:48:45.060 And then for local staging,  
NOTE Confidence: 0.95018303

00:48:45.760 --> 00:48:47.680 MRI, pelvis with and without  
NOTE Confidence: 0.95018303

00:48:47.680 --> 00:48:49.215 contrast, we we also use  
NOTE Confidence: 0.95018303

00:48:49.375 --> 00:48:50.835 ultrasound gel in the lumen,

NOTE Confidence: 0.960347  
00:48:51.295 --> 00:48:52.335 which can give you sort  
NOTE Confidence: 0.960347  
00:48:52.335 --> 00:48:53.375 of I I have here  
NOTE Confidence: 0.960347  
00:48:53.375 --> 00:48:54.755 what we call nice ability  
NOTE Confidence: 0.960347  
00:48:54.815 --> 00:48:56.655 for bread slicing, making sure  
NOTE Confidence: 0.960347  
00:48:56.655 --> 00:48:58.094 that as the slices of  
NOTE Confidence: 0.960347  
00:48:58.094 --> 00:48:59.455 the MRI are coming through,  
NOTE Confidence: 0.960347  
00:48:59.455 --> 00:49:00.355 that we're being  
NOTE Confidence: 0.9644368  
00:49:01.055 --> 00:49:02.335 perpendicular to the rectum and  
NOTE Confidence: 0.9644368  
00:49:02.335 --> 00:49:03.360 that we're really able to  
NOTE Confidence: 0.9644368  
00:49:03.440 --> 00:49:05.140 get nice heights and measurements  
NOTE Confidence: 0.9644368  
00:49:05.200 --> 00:49:06.480 between the levator plate and  
NOTE Confidence: 0.9644368  
00:49:06.480 --> 00:49:07.520 the pelvic floor and the  
NOTE Confidence: 0.9644368  
00:49:07.520 --> 00:49:08.020 tumor.  
NOTE Confidence: 0.9617702  
00:49:09.440 --> 00:49:10.720 And so I think most  
NOTE Confidence: 0.9617702  
00:49:10.720 --> 00:49:11.600 of us know about our  
NOTE Confidence: 0.9617702

00:49:11.600 --> 00:49:13.060 CT or MRIs.  
NOTE Confidence: 0.97978085

00:49:13.600 --> 00:49:14.720 Yes. I do think that  
NOTE Confidence: 0.97978085

00:49:14.720 --> 00:49:15.760 there is still a a  
NOTE Confidence: 0.97978085

00:49:15.760 --> 00:49:17.540 place for endorectal ultrasound.  
NOTE Confidence: 0.9571523

00:49:18.000 --> 00:49:19.965 It's obviously it this this  
NOTE Confidence: 0.9571523

00:49:19.965 --> 00:49:20.845 is a picture actually out  
NOTE Confidence: 0.9571523

00:49:20.845 --> 00:49:22.205 of our textbook. We, as  
NOTE Confidence: 0.9571523

00:49:22.205 --> 00:49:23.485 surgeons, are still tested on  
NOTE Confidence: 0.9571523

00:49:23.485 --> 00:49:24.765 this. These pictures still appear  
NOTE Confidence: 0.9571523

00:49:24.765 --> 00:49:25.505 on our exams,  
NOTE Confidence: 0.9732488

00:49:25.885 --> 00:49:26.845 but I do think it's  
NOTE Confidence: 0.9732488

00:49:26.845 --> 00:49:28.525 also germane because I'm gonna  
NOTE Confidence: 0.9732488

00:49:28.525 --> 00:49:30.145 be talking about local excision,  
NOTE Confidence: 0.9377009

00:49:30.925 --> 00:49:32.125 other in places where it  
NOTE Confidence: 0.9377009

00:49:32.125 --> 00:49:33.325 should or maybe shouldn't be  
NOTE Confidence: 0.9377009

00:49:33.325 --> 00:49:34.205 done or or where we're

NOTE Confidence: 0.9377009  
00:49:34.205 --> 00:49:35.289 going with it. And so  
NOTE Confidence: 0.9377009  
00:49:35.289 --> 00:49:36.410 I do think it's important  
NOTE Confidence: 0.9377009  
00:49:36.410 --> 00:49:37.309 to highlight that  
NOTE Confidence: 0.9669683  
00:49:37.769 --> 00:49:39.130 one of the advantages of  
NOTE Confidence: 0.9669683  
00:49:39.130 --> 00:49:40.890 endorectal ultrasound is having the  
NOTE Confidence: 0.9669683  
00:49:40.890 --> 00:49:42.269 probe directly on the mass  
NOTE Confidence: 0.96924525  
00:49:42.650 --> 00:49:44.489 can help differentiate between a  
NOTE Confidence: 0.96924525  
00:49:44.489 --> 00:49:45.450 t one and a t  
NOTE Confidence: 0.96924525  
00:49:45.450 --> 00:49:47.390 tumor, and maybe help differentiate  
NOTE Confidence: 0.96924525  
00:49:47.450 --> 00:49:48.650 between who is a candidate  
NOTE Confidence: 0.96924525  
00:49:48.650 --> 00:49:50.010 for local excision and who's  
NOTE Confidence: 0.96924525  
00:49:50.010 --> 00:49:51.375 not. And then, of course,  
NOTE Confidence: 0.96924525  
00:49:51.375 --> 00:49:52.755 CEA complete colonoscopy,  
NOTE Confidence: 0.9180003  
00:49:53.535 --> 00:49:55.295 but also digital rectal exam.  
NOTE Confidence: 0.9180003  
00:49:55.295 --> 00:49:55.795 So,  
NOTE Confidence: 0.9680153

00:49:56.255 --> 00:49:57.695 yes, we have all of  
NOTE Confidence: 0.9680153

00:49:57.695 --> 00:49:58.895 these tests and all of  
NOTE Confidence: 0.9680153

00:49:58.895 --> 00:50:00.435 these high, you know,  
NOTE Confidence: 0.97789145

00:50:00.815 --> 00:50:02.335 high pollutant things, but we're  
NOTE Confidence: 0.97789145

00:50:02.335 --> 00:50:04.050 still also going back to,  
NOTE Confidence: 0.97789145

00:50:04.210 --> 00:50:05.730 you know, the thirteen hundreds.  
NOTE Confidence: 0.97789145

00:50:05.730 --> 00:50:06.610 And and I do think  
NOTE Confidence: 0.97789145

00:50:06.610 --> 00:50:07.969 it's very important to have  
NOTE Confidence: 0.97789145

00:50:07.969 --> 00:50:08.790 a good exam.  
NOTE Confidence: 0.97364825

00:50:10.370 --> 00:50:11.290 If you're a surgeon or  
NOTE Confidence: 0.97364825

00:50:11.290 --> 00:50:13.010 a radiation oncologist prior to  
NOTE Confidence: 0.97364825

00:50:13.010 --> 00:50:13.510 treatment,  
NOTE Confidence: 0.9175596

00:50:14.450 --> 00:50:15.570 is this fixed to the  
NOTE Confidence: 0.9175596

00:50:15.570 --> 00:50:16.850 anorectal ring? Is this a  
NOTE Confidence: 0.9175596

00:50:16.850 --> 00:50:18.275 t four lesion involving the  
NOTE Confidence: 0.9175596

00:50:18.275 --> 00:50:19.535 sphincters and the pelvic floor?

NOTE Confidence: 0.94129217  
00:50:19.915 --> 00:50:21.435 What is the relationship like  
NOTE Confidence: 0.94129217  
00:50:21.435 --> 00:50:22.635 anterior to the posterior wall,  
NOTE Confidence: 0.94129217  
00:50:22.635 --> 00:50:23.915 the vagina, or the prostate?  
NOTE Confidence: 0.94129217  
00:50:23.915 --> 00:50:24.415 So,  
NOTE Confidence: 0.98671484  
00:50:24.875 --> 00:50:26.335 I do you know, MRI  
NOTE Confidence: 0.98671484  
00:50:26.555 --> 00:50:27.994 is is excellent for things  
NOTE Confidence: 0.98671484  
00:50:27.994 --> 00:50:28.655 like that,  
NOTE Confidence: 0.9821159  
00:50:29.355 --> 00:50:30.895 but it's a single snapshot  
NOTE Confidence: 0.9821159  
00:50:30.954 --> 00:50:32.335 in time. So a dynamic  
NOTE Confidence: 0.99598986  
00:50:32.635 --> 00:50:33.614 physical exam  
NOTE Confidence: 0.98279625  
00:50:33.920 --> 00:50:35.600 can also give information, which  
NOTE Confidence: 0.98279625  
00:50:35.600 --> 00:50:36.560 I which I think is  
NOTE Confidence: 0.98279625  
00:50:36.560 --> 00:50:37.540 absolutely quintessential  
NOTE Confidence: 0.98133713  
00:50:37.920 --> 00:50:39.360 for the patient and for  
NOTE Confidence: 0.98133713  
00:50:39.360 --> 00:50:40.580 for planning and treatment.  
NOTE Confidence: 0.99293274

00:50:42.160 --> 00:50:43.280 Okay. So we've sort of  
NOTE Confidence: 0.99293274

00:50:43.280 --> 00:50:44.500 talked about historical  
NOTE Confidence: 0.9839447

00:50:46.344 --> 00:50:46.844 diagnosis,  
NOTE Confidence: 0.98092926

00:50:47.945 --> 00:50:49.065 where we're at now, and  
NOTE Confidence: 0.98092926

00:50:49.065 --> 00:50:50.285 then what about historical,  
NOTE Confidence: 0.8673243

00:50:50.825 --> 00:50:51.325 resection?  
NOTE Confidence: 0.9457724

00:50:51.785 --> 00:50:52.825 And, actually, when I initially  
NOTE Confidence: 0.9457724

00:50:52.825 --> 00:50:53.785 made this slide, I said  
NOTE Confidence: 0.9457724

00:50:53.785 --> 00:50:55.145 historical resection, and then I  
NOTE Confidence: 0.9457724

00:50:55.145 --> 00:50:57.305 said historical local excision. And  
NOTE Confidence: 0.9457724

00:50:57.305 --> 00:50:58.605 the the thing is that,  
NOTE Confidence: 0.9599524

00:50:59.270 --> 00:51:00.070 at at the time of  
NOTE Confidence: 0.9599524

00:51:00.070 --> 00:51:01.190 the initial so now we're  
NOTE Confidence: 0.9599524

00:51:01.190 --> 00:51:02.710 five hundred years later. It  
NOTE Confidence: 0.9599524

00:51:02.710 --> 00:51:03.830 took five hundred years from  
NOTE Confidence: 0.9599524

00:51:03.830 --> 00:51:05.190 figuring out the diagnosis to

NOTE Confidence: 0.9599524  
00:51:05.190 --> 00:51:06.469 now someone attempting to try  
NOTE Confidence: 0.9599524  
00:51:06.469 --> 00:51:07.369 and treat this.  
NOTE Confidence: 0.8628669  
00:51:07.830 --> 00:51:09.290 But really local excision  
NOTE Confidence: 0.936321  
00:51:09.750 --> 00:51:10.250 for,  
NOTE Confidence: 0.9995323  
00:51:11.030 --> 00:51:11.690 the first  
NOTE Confidence: 0.9915139  
00:51:12.045 --> 00:51:12.545 about  
NOTE Confidence: 0.987623  
00:51:12.925 --> 00:51:14.364 fifty to a hundred years  
NOTE Confidence: 0.987623  
00:51:14.364 --> 00:51:15.565 was really the only way  
NOTE Confidence: 0.987623  
00:51:15.565 --> 00:51:16.224 of treatment.  
NOTE Confidence: 0.92491317  
00:51:17.165 --> 00:51:18.944 So, this is Jacques Lisfranc,  
NOTE Confidence: 0.92491317  
00:51:19.085 --> 00:51:20.204 who did the first,  
NOTE Confidence: 0.91487104  
00:51:21.085 --> 00:51:21.585 excision,  
NOTE Confidence: 0.9894243  
00:51:22.605 --> 00:51:23.425 in Paris.  
NOTE Confidence: 0.981026  
00:51:23.805 --> 00:51:25.025 This was through a peritoneal  
NOTE Confidence: 0.981026  
00:51:25.085 --> 00:51:25.585 approach,  
NOTE Confidence: 0.9668703



00:51:26.570 --> 00:51:27.690 and, really, it was only  
NOTE Confidence: 0.9668703

00:51:27.690 --> 00:51:29.550 used for distal tumors.  
NOTE Confidence: 0.9679618

00:51:30.010 --> 00:51:31.290 Essentially, the patient this was  
NOTE Confidence: 0.9679618

00:51:31.290 --> 00:51:33.130 done without anesthetic. The patient  
NOTE Confidence: 0.9679618

00:51:33.130 --> 00:51:34.090 would bear down. They would  
NOTE Confidence: 0.9679618

00:51:34.090 --> 00:51:34.969 do a pull through and  
NOTE Confidence: 0.9679618

00:51:34.969 --> 00:51:36.270 a and a local excision.  
NOTE Confidence: 0.9873284

00:51:37.210 --> 00:51:38.570 And, really, that was the  
NOTE Confidence: 0.9873284

00:51:38.570 --> 00:51:40.430 only option at that time.  
NOTE Confidence: 0.977444

00:51:43.565 --> 00:51:44.864 And as you can see,  
NOTE Confidence: 0.9870715

00:51:45.405 --> 00:51:47.085 the the outcomes were were  
NOTE Confidence: 0.9870715

00:51:47.085 --> 00:51:48.065 quite poor.  
NOTE Confidence: 0.9383197

00:51:49.565 --> 00:51:50.385 Excuse me.  
NOTE Confidence: 0.99666303

00:51:52.285 --> 00:51:53.905 Very high operative mortality  
NOTE Confidence: 0.94801086

00:51:55.809 --> 00:51:57.890 and very high local recurrence  
NOTE Confidence: 0.94801086

00:51:57.890 --> 00:51:59.569 rates too. I'm gonna skip

NOTE Confidence: 0.94801086

00:51:59.569 --> 00:52:00.710 back from that. Sorry.

NOTE Confidence: 0.95793927

00:52:02.450 --> 00:52:03.410 And really a lot of

NOTE Confidence: 0.95793927

00:52:03.410 --> 00:52:04.609 the mortality was due to

NOTE Confidence: 0.95793927

00:52:04.690 --> 00:52:05.890 again, they were not able

NOTE Confidence: 0.95793927

00:52:05.890 --> 00:52:06.849 to if you entered the

NOTE Confidence: 0.95793927

00:52:06.849 --> 00:52:08.369 peritoneal cavity, that was considered

NOTE Confidence: 0.95793927

00:52:08.369 --> 00:52:09.569 a technical error in your

NOTE Confidence: 0.95793927

00:52:09.569 --> 00:52:10.950 operation, and then the patients

NOTE Confidence: 0.95793927

00:52:11.214 --> 00:52:12.675 usually would succumb to complications

NOTE Confidence: 0.95793927

00:52:12.734 --> 00:52:13.474 like peritonitis.

NOTE Confidence: 0.9238949

00:52:13.775 --> 00:52:15.155 So really this is just

NOTE Confidence: 0.9238949

00:52:15.454 --> 00:52:17.614 operating or treating distal third

NOTE Confidence: 0.9238949

00:52:17.614 --> 00:52:18.114 tumors.

NOTE Confidence: 0.99836063

00:52:19.295 --> 00:52:20.575 So that's sort of the

NOTE Confidence: 0.99836063

00:52:20.575 --> 00:52:22.355 early stages of local excision.

NOTE Confidence: 0.9667947

00:52:23.214 --> 00:52:24.690 There were some people. So  
NOTE Confidence: 0.9667947

00:52:24.690 --> 00:52:26.130 Liz Frank had a a  
NOTE Confidence: 0.9667947

00:52:26.130 --> 00:52:26.630 disciple,  
NOTE Confidence: 0.9484754

00:52:27.250 --> 00:52:28.930 who sort of advocated for  
NOTE Confidence: 0.9484754

00:52:28.930 --> 00:52:30.450 resection of the coccyx block  
NOTE Confidence: 0.9484754

00:52:30.450 --> 00:52:31.890 for better exposure, and so  
NOTE Confidence: 0.9484754

00:52:31.890 --> 00:52:33.250 there were cert were some  
NOTE Confidence: 0.9484754

00:52:33.250 --> 00:52:34.790 improvements for local excision.  
NOTE Confidence: 0.93697584

00:52:35.410 --> 00:52:36.825 But really things did not  
NOTE Confidence: 0.93697584

00:52:36.905 --> 00:52:38.185 change much. This is a  
NOTE Confidence: 0.93697584

00:52:38.185 --> 00:52:39.625 a picture from our most  
NOTE Confidence: 0.93697584

00:52:39.625 --> 00:52:40.605 recent textbook  
NOTE Confidence: 0.97905356

00:52:41.224 --> 00:52:43.305 about what transanal excision was.  
NOTE Confidence: 0.97905356

00:52:43.305 --> 00:52:44.425 So I have this recent  
NOTE Confidence: 0.97905356

00:52:44.425 --> 00:52:44.925 history.  
NOTE Confidence: 0.9875759

00:52:46.905 --> 00:52:47.645 Again, this

NOTE Confidence: 0.9867763  
00:52:48.025 --> 00:52:49.464 is operating through through an  
NOTE Confidence: 0.9867763  
00:52:49.464 --> 00:52:49.964 anoscope,  
NOTE Confidence: 0.9603074  
00:52:50.840 --> 00:52:52.040 showing an excision here and  
NOTE Confidence: 0.9603074  
00:52:52.040 --> 00:52:52.940 then a closure.  
NOTE Confidence: 0.9634063  
00:52:53.239 --> 00:52:54.200 So a little different from  
NOTE Confidence: 0.9634063  
00:52:54.200 --> 00:52:55.640 that picture, but but actually  
NOTE Confidence: 0.9634063  
00:52:55.640 --> 00:52:57.260 probably not that much different.  
NOTE Confidence: 0.9914462  
00:52:58.120 --> 00:52:59.080 And, you know, our our  
NOTE Confidence: 0.9914462  
00:52:59.080 --> 00:52:59.980 current recommendations,  
NOTE Confidence: 0.9936646  
00:53:00.760 --> 00:53:01.880 just like I was talking  
NOTE Confidence: 0.9936646  
00:53:01.880 --> 00:53:03.020 about, before,  
NOTE Confidence: 0.9975088  
00:53:04.235 --> 00:53:05.135 are for  
NOTE Confidence: 0.9359305  
00:53:05.594 --> 00:53:07.675 really just favorable t one  
NOTE Confidence: 0.9359305  
00:53:07.675 --> 00:53:08.175 cancers,  
NOTE Confidence: 0.9871085  
00:53:08.475 --> 00:53:09.675 really things that are just  
NOTE Confidence: 0.9871085

00:53:09.675 --> 00:53:10.815 confined to the submucosa.

NOTE Confidence: 0.9579682

00:53:11.515 --> 00:53:12.715 Because, you know, in this

NOTE Confidence: 0.9579682

00:53:12.715 --> 00:53:14.155 situation, you're not gonna be

NOTE Confidence: 0.9579682

00:53:14.155 --> 00:53:16.415 sampling any mesorectal lymph nodes.

NOTE Confidence: 0.96471417

00:53:17.300 --> 00:53:18.580 And so anything that's gonna

NOTE Confidence: 0.96471417

00:53:18.580 --> 00:53:19.300 put you at risk for

NOTE Confidence: 0.96471417

00:53:19.300 --> 00:53:20.660 that, whether it's lymph vascular

NOTE Confidence: 0.96471417

00:53:20.660 --> 00:53:21.960 invasion, poor differentiation,

NOTE Confidence: 0.9847099

00:53:22.739 --> 00:53:24.260 tumor budding, or something that's

NOTE Confidence: 0.9847099

00:53:24.260 --> 00:53:26.760 just technically challenging to excise,

NOTE Confidence: 0.96476287

00:53:27.300 --> 00:53:28.260 those are folks who, you

NOTE Confidence: 0.96476287

00:53:28.260 --> 00:53:29.780 know, should be being considered

NOTE Confidence: 0.96476287

00:53:29.780 --> 00:53:30.520 for proctectomy.

NOTE Confidence: 0.96796596

00:53:32.395 --> 00:53:33.355 At least based on these

NOTE Confidence: 0.96796596

00:53:33.355 --> 00:53:34.395 recommendations, I'll talk to you

NOTE Confidence: 0.96796596

00:53:34.395 --> 00:53:35.114 a little bit. We're gonna

NOTE Confidence: 0.96796596  
00:53:35.114 --> 00:53:35.835 talk a little bit more  
NOTE Confidence: 0.96796596  
00:53:35.835 --> 00:53:36.555 about that, but I don't  
NOTE Confidence: 0.96796596  
00:53:36.555 --> 00:53:37.935 wanna totally tip my hand.  
NOTE Confidence: 0.997777  
00:53:38.715 --> 00:53:40.015 So here's the outcomes.  
NOTE Confidence: 0.9957609  
00:53:40.555 --> 00:53:41.435 This is a, you know,  
NOTE Confidence: 0.9957609  
00:53:41.435 --> 00:53:42.875 case series starting from ninety  
NOTE Confidence: 0.9957609  
00:53:42.875 --> 00:53:44.335 nine to two thousand three.  
NOTE Confidence: 0.99297243  
00:53:44.850 --> 00:53:45.890 The interesting thing about this  
NOTE Confidence: 0.99297243  
00:53:45.890 --> 00:53:47.010 is it does include some  
NOTE Confidence: 0.99297243  
00:53:47.010 --> 00:53:48.210 t two disease, and and  
NOTE Confidence: 0.99297243  
00:53:48.210 --> 00:53:49.570 you can see recurrence rates  
NOTE Confidence: 0.99297243  
00:53:49.570 --> 00:53:50.550 are quite high.  
NOTE Confidence: 0.9929738  
00:53:52.210 --> 00:53:54.310 Survival rates are are lower.  
NOTE Confidence: 0.92962706  
00:53:54.770 --> 00:53:55.490 Some of this is a  
NOTE Confidence: 0.92962706  
00:53:55.490 --> 00:53:56.850 little bit selection bias because  
NOTE Confidence: 0.92962706

00:53:56.850 --> 00:53:58.070 these t two patients,  
NOTE Confidence: 0.90322816

00:53:58.645 --> 00:53:59.685 we even even, you know,  
NOTE Confidence: 0.90322816

00:53:59.685 --> 00:54:00.805 not back then, but even  
NOTE Confidence: 0.90322816

00:54:00.805 --> 00:54:02.005 this time people knew that  
NOTE Confidence: 0.90322816

00:54:02.005 --> 00:54:03.465 probably should be doing proctectomy  
NOTE Confidence: 0.90322816

00:54:03.605 --> 00:54:04.265 or TME.  
NOTE Confidence: 0.9277044

00:54:04.805 --> 00:54:05.605 But so some of the  
NOTE Confidence: 0.9277044

00:54:05.605 --> 00:54:06.725 selection bias may be the  
NOTE Confidence: 0.9277044

00:54:06.725 --> 00:54:07.925 folks with a little larger  
NOTE Confidence: 0.9277044

00:54:07.925 --> 00:54:08.825 or deeper tumors  
NOTE Confidence: 0.9138547

00:54:09.205 --> 00:54:11.000 maybe were less, fit, and  
NOTE Confidence: 0.9138547

00:54:11.000 --> 00:54:12.119 so we're maybe more likely  
NOTE Confidence: 0.9138547

00:54:12.119 --> 00:54:13.579 to undergo transanal excision.  
NOTE Confidence: 0.98992693

00:54:14.200 --> 00:54:15.960 But you can see, recurrence  
NOTE Confidence: 0.98992693

00:54:15.960 --> 00:54:17.660 rates, like I said, high,  
NOTE Confidence: 0.97452646

00:54:18.680 --> 00:54:20.119 for these t twos. And

NOTE Confidence: 0.97452646  
00:54:20.119 --> 00:54:21.079 and even for the t  
NOTE Confidence: 0.97452646  
00:54:21.079 --> 00:54:21.579 ones,  
NOTE Confidence: 0.9875148  
00:54:22.200 --> 00:54:23.660 survival is low.  
NOTE Confidence: 0.8261688  
00:54:25.160 --> 00:54:25.900 And, again,  
NOTE Confidence: 0.9927462  
00:54:27.535 --> 00:54:29.135 moving forward, I'm just, trying  
NOTE Confidence: 0.9927462  
00:54:29.135 --> 00:54:30.015 to make sure we stay  
NOTE Confidence: 0.9927462  
00:54:30.015 --> 00:54:30.755 on time.  
NOTE Confidence: 0.96532744  
00:54:31.135 --> 00:54:32.094 I'm gonna talk about, you  
NOTE Confidence: 0.96532744  
00:54:32.094 --> 00:54:33.695 know, additional advances. Right? Because  
NOTE Confidence: 0.96532744  
00:54:33.695 --> 00:54:35.155 like I said, this picture  
NOTE Confidence: 0.9991778  
00:54:35.535 --> 00:54:36.975 doesn't look that much different  
NOTE Confidence: 0.9991778  
00:54:36.975 --> 00:54:37.875 from that picture.  
NOTE Confidence: 0.9501478  
00:54:39.055 --> 00:54:40.175 So here we are now,  
NOTE Confidence: 0.9501478  
00:54:40.175 --> 00:54:42.050 I guess, in maybe, in  
NOTE Confidence: 0.9501478  
00:54:42.050 --> 00:54:43.730 twenty ten. I consider that  
NOTE Confidence: 0.9501478



00:54:43.730 --> 00:54:44.930 modern time, so maybe I'm  
NOTE Confidence: 0.9501478

00:54:44.930 --> 00:54:45.410 getting old,  
NOTE Confidence: 0.99790263

00:54:47.250 --> 00:54:48.630 with using better visualization,  
NOTE Confidence: 0.9479074

00:54:49.489 --> 00:54:51.410 for transanal excision. So now  
NOTE Confidence: 0.9479074

00:54:51.410 --> 00:54:53.010 we're talking about, what's called  
NOTE Confidence: 0.9479074

00:54:53.010 --> 00:54:54.950 TAMUS or transanal minimally invasive  
NOTE Confidence: 0.9479074

00:54:55.010 --> 00:54:55.510 surgery.  
NOTE Confidence: 0.96448535

00:54:57.344 --> 00:54:58.105 Mike, can you see the  
NOTE Confidence: 0.96448535

00:54:58.145 --> 00:54:59.105 is this is the video  
NOTE Confidence: 0.96448535

00:54:59.105 --> 00:54:59.844 coming through?  
NOTE Confidence: 0.9918598

00:55:01.265 --> 00:55:02.864 Yes. It is. Okay. Good.  
NOTE Confidence: 0.9918598

00:55:02.864 --> 00:55:03.844 Alright. Sorry.  
NOTE Confidence: 0.961364

00:55:05.185 --> 00:55:06.485 So you can see here,  
NOTE Confidence: 0.98400366

00:55:06.945 --> 00:55:07.445 so,  
NOTE Confidence: 0.9766209

00:55:07.985 --> 00:55:09.069 showing you some views now  
NOTE Confidence: 0.9766209

00:55:09.069 --> 00:55:09.869 from so this is the

NOTE Confidence: 0.9766209  
00:55:09.869 --> 00:55:10.750 setup of the case and  
NOTE Confidence: 0.9766209  
00:55:10.750 --> 00:55:11.950 then showing some views here  
NOTE Confidence: 0.9766209  
00:55:11.950 --> 00:55:12.690 for resection.  
NOTE Confidence: 0.99094224  
00:55:13.150 --> 00:55:14.450 You can see the visualization  
NOTE Confidence: 0.99094224  
00:55:14.670 --> 00:55:15.630 is is much,  
NOTE Confidence: 0.96519643  
00:55:16.109 --> 00:55:17.550 is much better. So we're  
NOTE Confidence: 0.96519643  
00:55:17.550 --> 00:55:18.750 able to clearly see the  
NOTE Confidence: 0.96519643  
00:55:18.750 --> 00:55:20.190 tumor, and we're able to  
NOTE Confidence: 0.96519643  
00:55:20.190 --> 00:55:21.710 clearly mark out a nice  
NOTE Confidence: 0.96519643  
00:55:21.710 --> 00:55:22.930 circumferential margin,  
NOTE Confidence: 0.92470837  
00:55:23.835 --> 00:55:25.675 and ensure. So a much  
NOTE Confidence: 0.92470837  
00:55:25.675 --> 00:55:27.355 different and better view from  
NOTE Confidence: 0.92470837  
00:55:27.355 --> 00:55:28.075 what we're saying. It's the  
NOTE Confidence: 0.92470837  
00:55:28.155 --> 00:55:29.195 it's base it is the  
NOTE Confidence: 0.92470837  
00:55:29.195 --> 00:55:30.094 same technique  
NOTE Confidence: 0.91935486

00:55:30.555 --> 00:55:31.835 as was shown or sorry,  
NOTE Confidence: 0.91935486

00:55:31.835 --> 00:55:32.815 the same principle  
NOTE Confidence: 0.97169155

00:55:33.114 --> 00:55:33.994 as was shown in those  
NOTE Confidence: 0.97169155

00:55:33.994 --> 00:55:35.835 other slides, but maybe with  
NOTE Confidence: 0.97169155

00:55:35.835 --> 00:55:36.815 easier technique,  
NOTE Confidence: 0.87299883

00:55:37.690 --> 00:55:39.150 and an easier visualization.  
NOTE Confidence: 0.9952957

00:55:40.010 --> 00:55:41.050 And then as you can  
NOTE Confidence: 0.9952957

00:55:41.050 --> 00:55:41.550 see  
NOTE Confidence: 0.9683776

00:55:44.250 --> 00:55:45.290 I think I'm just going  
NOTE Confidence: 0.9683776

00:55:45.290 --> 00:55:46.570 in circles. Here we go.  
NOTE Confidence: 0.9683776

00:55:46.570 --> 00:55:47.450 You can see, though, the  
NOTE Confidence: 0.9683776

00:55:47.450 --> 00:55:49.150 same same exact concepts  
NOTE Confidence: 0.9957877

00:55:49.690 --> 00:55:51.130 of resection all the way  
NOTE Confidence: 0.9957877

00:55:51.130 --> 00:55:51.630 through.  
NOTE Confidence: 0.9003338

00:55:52.125 --> 00:55:53.565 You can see some fat  
NOTE Confidence: 0.9003338

00:55:53.565 --> 00:55:54.065 here.

NOTE Confidence: 0.94253415  
00:55:56.445 --> 00:55:57.425 But the visualization,  
NOTE Confidence: 0.9971312  
00:55:57.725 --> 00:55:58.525 you stop it when you  
NOTE Confidence: 0.9971312  
00:55:58.525 --> 00:55:59.985 get into bleeding, of course.  
NOTE Confidence: 0.97637534  
00:56:01.405 --> 00:56:02.205 And then I think one  
NOTE Confidence: 0.97637534  
00:56:02.205 --> 00:56:03.665 of the additional advantages  
NOTE Confidence: 0.9411985  
00:56:04.125 --> 00:56:04.864 is then,  
NOTE Confidence: 0.945656  
00:56:06.180 --> 00:56:07.460 ease of of in block  
NOTE Confidence: 0.945656  
00:56:07.460 --> 00:56:09.060 and complete resection so that  
NOTE Confidence: 0.945656  
00:56:09.060 --> 00:56:10.760 we can formally assess,  
NOTE Confidence: 0.9637452  
00:56:11.380 --> 00:56:12.440 the depth of invasion.  
NOTE Confidence: 0.9752599  
00:56:12.900 --> 00:56:13.700 So which I think is  
NOTE Confidence: 0.9752599  
00:56:13.700 --> 00:56:14.980 one of the advantages of  
NOTE Confidence: 0.9752599  
00:56:14.980 --> 00:56:16.339 of this type of technique  
NOTE Confidence: 0.9752599  
00:56:16.339 --> 00:56:17.540 is we can get a  
NOTE Confidence: 0.9752599  
00:56:17.540 --> 00:56:20.114 nice corked out fully complete  
NOTE Confidence: 0.9752599

00:56:20.114 --> 00:56:20.614 specimen,  
NOTE Confidence: 0.9766298  
00:56:21.075 --> 00:56:22.114 which is helpful for our  
NOTE Confidence: 0.9766298  
00:56:22.114 --> 00:56:22.614 pathologists.  
NOTE Confidence: 0.9835805  
00:56:23.235 --> 00:56:24.275 And then closure, which I  
NOTE Confidence: 0.9835805  
00:56:24.275 --> 00:56:26.435 do for hemostatic hemostasis. Excuse  
NOTE Confidence: 0.9835805  
00:56:26.435 --> 00:56:27.735 me. But you certainly,  
NOTE Confidence: 0.95561326  
00:56:28.275 --> 00:56:29.475 do not have have to  
NOTE Confidence: 0.95561326  
00:56:29.475 --> 00:56:30.375 do for tamus.  
NOTE Confidence: 0.9867555  
00:56:30.675 --> 00:56:32.114 Though, again, I I do  
NOTE Confidence: 0.9867555  
00:56:32.114 --> 00:56:34.035 think it's, helpful for closure  
NOTE Confidence: 0.9867555  
00:56:34.035 --> 00:56:35.100 and somewhat for symptoms.  
NOTE Confidence: 0.9958348  
00:56:37.100 --> 00:56:37.600 Okay.  
NOTE Confidence: 0.997666  
00:56:37.900 --> 00:56:39.340 So I've been talking about  
NOTE Confidence: 0.997666  
00:56:39.340 --> 00:56:40.320 local excision,  
NOTE Confidence: 0.977763  
00:56:40.860 --> 00:56:41.680 all of this,  
NOTE Confidence: 0.9858779  
00:56:42.380 --> 00:56:43.820 but but but isn't this

NOTE Confidence: 0.9858779  
00:56:43.820 --> 00:56:44.700 a little bit of ancient  
NOTE Confidence: 0.9858779  
00:56:44.700 --> 00:56:46.540 history? Right? Aren't we still  
NOTE Confidence: 0.9858779  
00:56:46.540 --> 00:56:48.000 now even more modern?  
NOTE Confidence: 0.9313211  
00:56:48.425 --> 00:56:50.045 Aren't we into the paradigm  
NOTE Confidence: 0.9313211  
00:56:50.185 --> 00:56:52.665 of, total neoadjuvant therapy and  
NOTE Confidence: 0.9313211  
00:56:52.665 --> 00:56:53.565 watch and wait?  
NOTE Confidence: 0.9910037  
00:56:53.945 --> 00:56:54.984 Right? So when we talk  
NOTE Confidence: 0.9910037  
00:56:54.984 --> 00:56:55.484 about  
NOTE Confidence: 0.9797595  
00:56:56.505 --> 00:56:58.265 local excision, really, it's just  
NOTE Confidence: 0.9797595  
00:56:58.265 --> 00:56:59.625 reserved for the patients with  
NOTE Confidence: 0.9797595  
00:56:59.625 --> 00:57:01.145 the earliest of disease with  
NOTE Confidence: 0.9797595  
00:57:01.145 --> 00:57:03.484 just favorable t one tumors.  
NOTE Confidence: 0.8797302  
00:57:04.280 --> 00:57:04.940 But, unfortunately,  
NOTE Confidence: 0.99003303  
00:57:05.800 --> 00:57:07.160 that's just a small percentage  
NOTE Confidence: 0.99003303  
00:57:07.160 --> 00:57:07.739 of patients.  
NOTE Confidence: 0.9595505

00:57:08.040 --> 00:57:09.320 And so what about people  
NOTE Confidence: 0.9595505

00:57:09.320 --> 00:57:10.839 with locally advanced disease? I  
NOTE Confidence: 0.9595505

00:57:10.839 --> 00:57:12.359 showed on those earlier things,  
NOTE Confidence: 0.9595505

00:57:12.359 --> 00:57:13.719 even with t four disease,  
NOTE Confidence: 0.9595505

00:57:13.719 --> 00:57:15.239 the outcomes were poor. Sorry.  
NOTE Confidence: 0.9595505

00:57:15.239 --> 00:57:16.280 With t two disease, I  
NOTE Confidence: 0.9595505

00:57:16.280 --> 00:57:17.320 I apologize. With t two  
NOTE Confidence: 0.9595505

00:57:17.320 --> 00:57:18.780 disease, the outcomes were poor.  
NOTE Confidence: 0.99878734

00:57:19.194 --> 00:57:20.315 So how how would this  
NOTE Confidence: 0.99878734

00:57:20.315 --> 00:57:21.835 ever be something that's applied  
NOTE Confidence: 0.99878734

00:57:21.835 --> 00:57:22.335 to,  
NOTE Confidence: 0.9864098

00:57:23.515 --> 00:57:25.214 you know, more bulky disease?  
NOTE Confidence: 0.9738966

00:57:26.234 --> 00:57:27.355 And, you know, in the  
NOTE Confidence: 0.9738966

00:57:27.355 --> 00:57:28.714 age of for locally advanced  
NOTE Confidence: 0.9738966

00:57:28.714 --> 00:57:30.734 tumors, either a consolidation approach  
NOTE Confidence: 0.96654207

00:57:31.089 --> 00:57:32.150 with with chemoradiation

NOTE Confidence: 0.9519122  
00:57:32.770 --> 00:57:34.450 followed by chemotherapy or an  
NOTE Confidence: 0.9519122  
00:57:34.450 --> 00:57:36.369 induction approach where the the  
NOTE Confidence: 0.9519122  
00:57:36.369 --> 00:57:37.809 paradigm is flipped, we still  
NOTE Confidence: 0.9519122  
00:57:37.809 --> 00:57:39.089 have to check for response.  
NOTE Confidence: 0.9519122  
00:57:39.089 --> 00:57:40.630 Right? How do we tell  
NOTE Confidence: 0.9519122  
00:57:40.690 --> 00:57:42.790 if folks still have disease?  
NOTE Confidence: 0.982959  
00:57:43.765 --> 00:57:45.045 How do we, one, assess  
NOTE Confidence: 0.982959  
00:57:45.045 --> 00:57:46.244 if they still have residual  
NOTE Confidence: 0.982959  
00:57:46.244 --> 00:57:46.744 disease?  
NOTE Confidence: 0.9795746  
00:57:47.205 --> 00:57:48.005 And two, what do we  
NOTE Confidence: 0.9795746  
00:57:48.005 --> 00:57:49.065 do if it's equivocal?  
NOTE Confidence: 0.9866825  
00:57:50.244 --> 00:57:51.365 I was hoping that doctor  
NOTE Confidence: 0.9866825  
00:57:51.365 --> 00:57:52.485 Giacchini was actually gonna do  
NOTE Confidence: 0.9866825  
00:57:52.485 --> 00:57:53.205 a little bit of of  
NOTE Confidence: 0.9866825  
00:57:53.365 --> 00:57:54.165 I'm not gonna talk about  
NOTE Confidence: 0.9866825



00:57:54.165 --> 00:57:55.605 circulating tumor DNA here. I

NOTE Confidence: 0.9866825

00:57:55.605 --> 00:57:56.970 was hoping he would, but,

NOTE Confidence: 0.9906243

00:57:57.290 --> 00:57:58.049 we don't quite we're not

NOTE Confidence: 0.9906243

00:57:58.170 --> 00:57:59.390 we're quite that coordinated.

NOTE Confidence: 0.95207083

00:57:59.770 --> 00:58:01.609 Okay? So talking about watch

NOTE Confidence: 0.95207083

00:58:01.609 --> 00:58:02.570 and wait, I'm just gonna

NOTE Confidence: 0.95207083

00:58:02.570 --> 00:58:03.770 really briefly touch on so

NOTE Confidence: 0.95207083

00:58:03.770 --> 00:58:05.210 we can keep moving. But,

NOTE Confidence: 0.9320494

00:58:05.530 --> 00:58:06.970 really, first series published in

NOTE Confidence: 0.9320494

00:58:06.970 --> 00:58:08.030 two thousand four,

NOTE Confidence: 0.9441699

00:58:09.530 --> 00:58:10.810 and really what the definition

NOTE Confidence: 0.9441699

00:58:10.810 --> 00:58:12.485 is, tumor bed replaced by

NOTE Confidence: 0.9441699

00:58:12.485 --> 00:58:14.345 scar or normal mucosa

NOTE Confidence: 0.97160065

00:58:14.805 --> 00:58:16.665 on clinical and endoscopic

NOTE Confidence: 0.9846137

00:58:17.045 --> 00:58:18.165 exam. And I think that

NOTE Confidence: 0.9846137

00:58:18.165 --> 00:58:19.225 the the,

NOTE Confidence: 0.99951786  
00:58:19.605 --> 00:58:20.425 most important  
NOTE Confidence: 0.932765  
00:58:21.925 --> 00:58:23.205 thing is really the the  
NOTE Confidence: 0.932765  
00:58:23.205 --> 00:58:24.725 feel as as over an  
NOTE Confidence: 0.932765  
00:58:24.725 --> 00:58:25.225 endoscopic  
NOTE Confidence: 0.9714632  
00:58:25.605 --> 00:58:26.105 evaluation,  
NOTE Confidence: 0.99885637  
00:58:26.690 --> 00:58:28.050 but there are other adjuncts  
NOTE Confidence: 0.99885637  
00:58:28.050 --> 00:58:28.790 for this.  
NOTE Confidence: 0.98531973  
00:58:30.530 --> 00:58:32.130 Complete clinical response is not  
NOTE Confidence: 0.98531973  
00:58:32.130 --> 00:58:33.970 always predictive of pathologic complete  
NOTE Confidence: 0.98531973  
00:58:33.970 --> 00:58:35.170 response, and that's really the  
NOTE Confidence: 0.98531973  
00:58:35.170 --> 00:58:36.690 hard part. Just because it  
NOTE Confidence: 0.98531973  
00:58:36.690 --> 00:58:38.770 looks like something is either  
NOTE Confidence: 0.98531973  
00:58:38.770 --> 00:58:39.910 there or not  
NOTE Confidence: 0.9991635  
00:58:40.305 --> 00:58:41.905 does not always mean that  
NOTE Confidence: 0.9991635  
00:58:41.905 --> 00:58:43.285 it's the same thing.  
NOTE Confidence: 0.9982937

00:58:43.585 --> 00:58:44.964 So, you know,  
NOTE Confidence: 0.9391752

00:58:45.585 --> 00:58:46.785 like anything in medicine, we  
NOTE Confidence: 0.9391752

00:58:46.785 --> 00:58:47.825 always on the side of  
NOTE Confidence: 0.9391752

00:58:47.825 --> 00:58:49.365 sensitivity and not specificity.  
NOTE Confidence: 0.9992521

00:58:49.825 --> 00:58:50.885 So we can certainly  
NOTE Confidence: 0.97344

00:58:51.185 --> 00:58:53.045 tolerate situations where,  
NOTE Confidence: 0.97662145

00:58:53.589 --> 00:58:54.890 we think that the person,  
NOTE Confidence: 0.98352134

00:58:55.430 --> 00:58:57.050 still has residual disease,  
NOTE Confidence: 0.933935

00:58:57.430 --> 00:58:58.950 but they've off actually had  
NOTE Confidence: 0.933935

00:58:58.950 --> 00:59:00.630 a pathologic complete response, and  
NOTE Confidence: 0.933935

00:59:00.630 --> 00:59:01.770 we tell that on proctectomy.  
NOTE Confidence: 0.96952367

00:59:02.630 --> 00:59:03.910 But the harder situation and  
NOTE Confidence: 0.96952367

00:59:03.910 --> 00:59:04.869 the one that we really  
NOTE Confidence: 0.96952367

00:59:04.869 --> 00:59:05.609 don't tolerate  
NOTE Confidence: 0.98908687

00:59:05.910 --> 00:59:06.950 is when we think there's  
NOTE Confidence: 0.98908687

00:59:06.950 --> 00:59:08.410 a complete clinical response,

NOTE Confidence: 0.9663239  
00:59:08.775 --> 00:59:09.974 but there's not. And that's  
NOTE Confidence: 0.9663239  
00:59:09.974 --> 00:59:10.934 where we sort of have  
NOTE Confidence: 0.9663239  
00:59:10.934 --> 00:59:12.234 to talk about close surveillance.  
NOTE Confidence: 0.9987413  
00:59:13.734 --> 00:59:15.355 So, how do you tell?  
NOTE Confidence: 0.93830955  
00:59:16.454 --> 00:59:17.575 There's a couple things that  
NOTE Confidence: 0.93830955  
00:59:17.575 --> 00:59:18.555 you can get to.  
NOTE Confidence: 0.9560928  
00:59:19.974 --> 00:59:21.414 Full I'm I put this  
NOTE Confidence: 0.9560928  
00:59:21.414 --> 00:59:22.055 a little bit out of  
NOTE Confidence: 0.9560928  
00:59:22.055 --> 00:59:23.335 order, but, really, your clinical  
NOTE Confidence: 0.9560928  
00:59:23.335 --> 00:59:23.835 assessment  
NOTE Confidence: 0.9868029  
00:59:24.210 --> 00:59:25.910 can entail MRI.  
NOTE Confidence: 0.9734  
00:59:26.369 --> 00:59:27.650 I've got some features here  
NOTE Confidence: 0.9734  
00:59:27.650 --> 00:59:29.109 that we do, but also  
NOTE Confidence: 0.95607644  
00:59:29.730 --> 00:59:31.250 digital rectal exam and full  
NOTE Confidence: 0.95607644  
00:59:31.250 --> 00:59:32.849 thickness local excision. So now  
NOTE Confidence: 0.95607644

00:59:32.849 --> 00:59:33.890 again, we're getting all the  
NOTE Confidence: 0.95607644

00:59:33.890 --> 00:59:35.109 way back to it.  
NOTE Confidence: 0.99911785

00:59:36.050 --> 00:59:36.710 The problem  
NOTE Confidence: 0.9924095

00:59:39.165 --> 00:59:39.965 is that it can be  
NOTE Confidence: 0.9924095

00:59:39.965 --> 00:59:41.185 equivocal. So  
NOTE Confidence: 0.9414603

00:59:41.565 --> 00:59:42.625 things like MRI,  
NOTE Confidence: 0.83724123

00:59:43.805 --> 00:59:44.945 exam and endoscopy,  
NOTE Confidence: 0.96342707

00:59:46.365 --> 00:59:48.145 low sensitivity and specificity,  
NOTE Confidence: 0.8652303

00:59:48.685 --> 00:59:49.885 depending on, again, a lot  
NOTE Confidence: 0.8652303

00:59:49.885 --> 00:59:50.525 of a lot of,  
NOTE Confidence: 0.9425459

00:59:52.029 --> 00:59:54.510 observer bias or or, inner,  
NOTE Confidence: 0.9280802

00:59:54.910 --> 00:59:55.730 inner observer  
NOTE Confidence: 0.8023068

00:59:56.829 --> 00:59:57.329 variability.  
NOTE Confidence: 0.9688441

00:59:58.109 --> 00:59:59.230 But, again, you can see  
NOTE Confidence: 0.9688441

00:59:59.230 --> 01:00:01.150 here this complete response. Okay.  
NOTE Confidence: 0.9688441

01:00:01.150 --> 01:00:01.869 I think we can all

NOTE Confidence: 0.9688441  
01:00:01.869 --> 01:00:03.150 agree this person can be  
NOTE Confidence: 0.9688441  
01:00:03.309 --> 01:00:04.349 well, not all. I think  
NOTE Confidence: 0.9688441  
01:00:04.349 --> 01:00:05.390 you'd feel I would feel  
NOTE Confidence: 0.9688441  
01:00:05.390 --> 01:00:06.430 comfortable with the watch and  
NOTE Confidence: 0.9688441  
01:00:06.430 --> 01:00:07.365 wait approach for that.  
NOTE Confidence: 0.9208749  
01:00:08.405 --> 01:00:09.605 What about the, you know,  
NOTE Confidence: 0.9208749  
01:00:09.605 --> 01:00:12.325 incomplete, obviously residual tumor? I  
NOTE Confidence: 0.9208749  
01:00:12.325 --> 01:00:13.605 think we can say, okay,  
NOTE Confidence: 0.9464345  
01:00:14.244 --> 01:00:15.845 going towards proctectomy or, you  
NOTE Confidence: 0.9464345  
01:00:15.845 --> 01:00:17.065 know, doing TME,  
NOTE Confidence: 0.9964549  
01:00:17.685 --> 01:00:18.645 but what about this sort  
NOTE Confidence: 0.9964549  
01:00:18.645 --> 01:00:20.025 of in between person?  
NOTE Confidence: 0.96591616  
01:00:20.870 --> 01:00:22.410 Endoscopy can be challenging.  
NOTE Confidence: 0.99428535  
01:00:23.670 --> 01:00:25.110 The the and the findings  
NOTE Confidence: 0.99428535  
01:00:25.110 --> 01:00:25.930 can be hard.  
NOTE Confidence: 0.9957733

01:00:26.390 --> 01:00:27.590 There's a lot of false  
NOTE Confidence: 0.9957733

01:00:27.590 --> 01:00:29.430 positives and false negatives. So  
NOTE Confidence: 0.9957733

01:00:29.430 --> 01:00:29.930 then  
NOTE Confidence: 0.97396433

01:00:30.550 --> 01:00:31.750 talking about resection of the  
NOTE Confidence: 0.97396433

01:00:31.750 --> 01:00:33.770 tumor booked, tumor bed or  
NOTE Confidence: 0.97396433

01:00:34.045 --> 01:00:35.565 resection of residual disease. I  
NOTE Confidence: 0.97396433

01:00:35.565 --> 01:00:36.765 think of this as a  
NOTE Confidence: 0.97396433

01:00:36.765 --> 01:00:38.365 diagnostic tool at this point  
NOTE Confidence: 0.97396433

01:00:38.365 --> 01:00:39.025 in time.  
NOTE Confidence: 0.9878973

01:00:39.325 --> 01:00:40.765 There is ongoing studies to  
NOTE Confidence: 0.9878973

01:00:40.765 --> 01:00:41.905 see if this is therapeutic,  
NOTE Confidence: 0.9416683

01:00:42.445 --> 01:00:44.285 meaning are you debulking that  
NOTE Confidence: 0.9416683

01:00:44.285 --> 01:00:45.405 last or getting rid of  
NOTE Confidence: 0.9416683

01:00:45.405 --> 01:00:46.385 that last amount,  
NOTE Confidence: 0.9762971

01:00:46.720 --> 01:00:48.000 But it has the ability  
NOTE Confidence: 0.9762971

01:00:48.000 --> 01:00:49.780 really to upstage or adequately,

NOTE Confidence: 0.8304901  
01:00:50.880 --> 01:00:52.580 assess for residual disease,  
NOTE Confidence: 0.995084  
01:00:53.440 --> 01:00:54.980 more so than maybe endoscopic  
NOTE Confidence: 0.995084  
01:00:55.200 --> 01:00:55.700 biopsies  
NOTE Confidence: 0.9802451  
01:00:56.240 --> 01:00:56.720 or,  
NOTE Confidence: 0.99909496  
01:00:57.280 --> 01:00:57.780 MRI.  
NOTE Confidence: 0.9637139  
01:00:59.365 --> 01:01:00.405 So sorry. I went a  
NOTE Confidence: 0.9637139  
01:01:00.405 --> 01:01:01.545 little bit over time.  
NOTE Confidence: 0.97504824  
01:01:01.925 --> 01:01:02.885 But, again, to get back  
NOTE Confidence: 0.97504824  
01:01:02.885 --> 01:01:03.845 to sort of the past  
NOTE Confidence: 0.97504824  
01:01:03.845 --> 01:01:04.805 and the present, I think  
NOTE Confidence: 0.97504824  
01:01:04.805 --> 01:01:06.405 that, yes, we've started with  
NOTE Confidence: 0.97504824  
01:01:06.405 --> 01:01:08.905 this very crude, though accurate,  
NOTE Confidence: 0.9922636  
01:01:09.205 --> 01:01:10.405 way of telling what what's  
NOTE Confidence: 0.9922636  
01:01:10.405 --> 01:01:11.705 going on. We have this,  
NOTE Confidence: 0.9947181  
01:01:12.810 --> 01:01:15.050 very complicated treatment paradigm for  
NOTE Confidence: 0.9947181



01:01:15.050 --> 01:01:16.410 rectal cancer, and this doesn't  
NOTE Confidence: 0.9947181

01:01:16.410 --> 01:01:18.570 even include metastatic disease, which  
NOTE Confidence: 0.9947181

01:01:18.570 --> 01:01:20.190 which can even be more.  
NOTE Confidence: 0.97707427

01:01:20.650 --> 01:01:21.770 But I think, ultimately, when  
NOTE Confidence: 0.97707427

01:01:21.770 --> 01:01:22.890 we're thinking about these folks  
NOTE Confidence: 0.97707427

01:01:22.890 --> 01:01:23.690 in this watch and wait  
NOTE Confidence: 0.97707427

01:01:23.690 --> 01:01:24.730 setting, I still think there  
NOTE Confidence: 0.97707427

01:01:24.730 --> 01:01:25.950 is a place for, obviously,  
NOTE Confidence: 0.97707427

01:01:26.090 --> 01:01:27.290 the exam, but even things  
NOTE Confidence: 0.97707427

01:01:27.290 --> 01:01:27.790 like,  
NOTE Confidence: 0.9272902

01:01:28.355 --> 01:01:30.355 transanal excision in that,  
NOTE Confidence: 0.9839732

01:01:31.555 --> 01:01:33.015 near complete response,  
NOTE Confidence: 0.99704194

01:01:33.555 --> 01:01:34.055 group.  
NOTE Confidence: 0.96935254

01:01:34.914 --> 01:01:36.035 And with that, I'm open  
NOTE Confidence: 0.96935254

01:01:36.035 --> 01:01:37.714 to any questions we may  
NOTE Confidence: 0.96935254

01:01:37.714 --> 01:01:38.214 have,

NOTE Confidence: 0.93537116  
01:01:38.674 --> 01:01:39.795 and and thank you everyone  
NOTE Confidence: 0.93537116  
01:01:39.795 --> 01:01:40.515 for their time. I'm gonna  
NOTE Confidence: 0.93537116  
01:01:40.515 --> 01:01:41.255 stop sharing.  
NOTE Confidence: 0.95215553  
01:01:42.480 --> 01:01:43.619 Thank you, Hadden.  
NOTE Confidence: 0.9920066  
01:01:44.720 --> 01:01:45.680 Can you talk a little  
NOTE Confidence: 0.9920066  
01:01:45.680 --> 01:01:47.600 bit about the the timing  
NOTE Confidence: 0.9920066  
01:01:47.600 --> 01:01:49.680 of surgery after radiation for  
NOTE Confidence: 0.9920066  
01:01:49.680 --> 01:01:50.980 rectal cancer and  
NOTE Confidence: 0.9933728  
01:01:51.280 --> 01:01:52.560 what what the practice is  
NOTE Confidence: 0.9933728  
01:01:52.560 --> 01:01:53.220 at Yale?  
NOTE Confidence: 0.9726176  
01:01:54.080 --> 01:01:54.960 Yeah. I think that's a  
NOTE Confidence: 0.9726176  
01:01:54.960 --> 01:01:56.260 great question, and  
NOTE Confidence: 0.9755957  
01:01:57.665 --> 01:01:58.545 I think you must have  
NOTE Confidence: 0.9755957  
01:01:58.545 --> 01:01:59.744 heard me arguing with Jeremy  
NOTE Confidence: 0.9755957  
01:01:59.744 --> 01:02:00.805 on tumor board.  
NOTE Confidence: 0.9870455

01:02:01.265 --> 01:02:02.464 Yeah. So I think it's  
NOTE Confidence: 0.9870455

01:02:02.464 --> 01:02:03.605 it's a really important,  
NOTE Confidence: 0.9688186

01:02:04.305 --> 01:02:06.224 point because we know that  
NOTE Confidence: 0.9688186

01:02:06.224 --> 01:02:08.165 one of the major impacts  
NOTE Confidence: 0.9688186

01:02:08.464 --> 01:02:08.964 on  
NOTE Confidence: 0.94878995

01:02:10.119 --> 01:02:10.619 on,  
NOTE Confidence: 0.9978651

01:02:10.920 --> 01:02:12.780 tumor regression is time  
NOTE Confidence: 0.9707452

01:02:13.240 --> 01:02:15.660 between radiation and assessing response.  
NOTE Confidence: 0.99918884

01:02:16.119 --> 01:02:17.080 And we know that the  
NOTE Confidence: 0.99918884

01:02:17.080 --> 01:02:18.380 more time you wait,  
NOTE Confidence: 0.81364733

01:02:19.000 --> 01:02:19.500 oftentimes,  
NOTE Confidence: 0.98579454

01:02:19.800 --> 01:02:21.560 you're gonna see more response  
NOTE Confidence: 0.98579454

01:02:21.560 --> 01:02:22.300 from radiation.  
NOTE Confidence: 0.9809988

01:02:23.715 --> 01:02:24.675 And I I kind of  
NOTE Confidence: 0.9809988

01:02:24.675 --> 01:02:25.795 alluded to that a little  
NOTE Confidence: 0.9809988

01:02:25.795 --> 01:02:26.295 earlier

NOTE Confidence: 0.98627204  
01:02:27.555 --> 01:02:29.395 about, induction I I talked  
NOTE Confidence: 0.98627204  
01:02:29.395 --> 01:02:30.135 about induction,  
NOTE Confidence: 0.97791636  
01:02:31.795 --> 01:02:34.135 total neoadjuvant therapy versus consolidation.  
NOTE Confidence: 0.99101037  
01:02:35.235 --> 01:02:36.435 And and so if you  
NOTE Confidence: 0.99101037  
01:02:36.435 --> 01:02:37.415 look at, like, the  
NOTE Confidence: 0.71774966  
01:02:37.715 --> 01:02:39.240 the the which we have  
NOTE Confidence: 0.71774966  
01:02:39.240 --> 01:02:39.740 there,  
NOTE Confidence: 0.9914751  
01:02:41.000 --> 01:02:42.040 a lot of people will  
NOTE Confidence: 0.9914751  
01:02:42.040 --> 01:02:43.560 say, well, if you look  
NOTE Confidence: 0.9914751  
01:02:43.560 --> 01:02:44.220 at the,  
NOTE Confidence: 0.9751182  
01:02:44.840 --> 01:02:45.800 and and this is in  
NOTE Confidence: 0.9751182  
01:02:45.800 --> 01:02:47.240 the conclusions, I I believe.  
NOTE Confidence: 0.9751182  
01:02:47.240 --> 01:02:48.440 If you look at the,  
NOTE Confidence: 0.8319369  
01:02:49.720 --> 01:02:49.880 the,  
NOTE Confidence: 0.9506352  
01:02:51.174 --> 01:02:53.815 consolidation folks, so radiation chemo  
NOTE Confidence: 0.9506352

01:02:53.815 --> 01:02:54.315 radiation,  
NOTE Confidence: 0.96221685  
01:02:54.934 --> 01:02:57.275 FOLFOX, assess risk clinical response.  
NOTE Confidence: 0.96221685  
01:02:57.335 --> 01:02:58.135 If you look at that  
NOTE Confidence: 0.96221685  
01:02:58.135 --> 01:02:59.575 group, they have a higher  
NOTE Confidence: 0.96221685  
01:02:59.575 --> 01:03:00.795 rate of organ preservation  
NOTE Confidence: 0.9881889  
01:03:01.335 --> 01:03:02.775 and a higher rate of,  
NOTE Confidence: 0.94589907  
01:03:03.095 --> 01:03:03.595 CCR,  
NOTE Confidence: 0.96296275  
01:03:04.900 --> 01:03:06.980 compared to the induction folks,  
NOTE Confidence: 0.96296275  
01:03:06.980 --> 01:03:08.180 the chemo and then the  
NOTE Confidence: 0.96296275  
01:03:08.180 --> 01:03:08.680 radiation.  
NOTE Confidence: 0.9927072  
01:03:08.980 --> 01:03:09.860 And to me, I just  
NOTE Confidence: 0.9927072  
01:03:09.860 --> 01:03:10.740 think that's a little bit  
NOTE Confidence: 0.9927072  
01:03:10.740 --> 01:03:12.520 of comparing apples to oranges  
NOTE Confidence: 0.89470565  
01:03:12.980 --> 01:03:14.580 because in that in that  
NOTE Confidence: 0.89470565  
01:03:14.580 --> 01:03:15.780 first group, in the,  
NOTE Confidence: 0.91041213  
01:03:17.585 --> 01:03:19.265 consolidation folks, the time between

NOTE Confidence: 0.91041213  
01:03:19.265 --> 01:03:20.325 completion of radiation  
NOTE Confidence: 0.9977853  
01:03:20.704 --> 01:03:22.005 and assessing response  
NOTE Confidence: 0.91892064  
01:03:22.385 --> 01:03:23.585 is long. It's like about  
NOTE Confidence: 0.91892064  
01:03:23.585 --> 01:03:24.325 three months.  
NOTE Confidence: 0.944056  
01:03:24.704 --> 01:03:25.744 And if you look at  
NOTE Confidence: 0.944056  
01:03:25.744 --> 01:03:27.904 the induction TNT folks, it's  
NOTE Confidence: 0.944056  
01:03:27.904 --> 01:03:29.184 like eight. It's I sorry.  
NOTE Confidence: 0.944056  
01:03:29.184 --> 01:03:30.404 It's no. It's like one.  
NOTE Confidence: 0.944056  
01:03:30.464 --> 01:03:32.060 So I think that that  
NOTE Confidence: 0.944056  
01:03:32.060 --> 01:03:33.200 can make it challenging.  
NOTE Confidence: 0.970104  
01:03:34.460 --> 01:03:36.140 Our current practice here actually  
NOTE Confidence: 0.970104  
01:03:36.140 --> 01:03:37.420 does depend. I think we  
NOTE Confidence: 0.970104  
01:03:37.420 --> 01:03:38.620 do have a a patient  
NOTE Confidence: 0.970104  
01:03:38.620 --> 01:03:39.760 specific approach.  
NOTE Confidence: 0.9730499  
01:03:41.260 --> 01:03:41.760 But,  
NOTE Confidence: 0.98950213

01:03:42.540 --> 01:03:44.540 currently, we I usually try  
NOTE Confidence: 0.98950213

01:03:44.540 --> 01:03:45.680 and assess response  
NOTE Confidence: 0.99947023

01:03:46.205 --> 01:03:47.825 as far out as possible  
NOTE Confidence: 0.97893983

01:03:48.205 --> 01:03:49.405 with also the caveat that  
NOTE Confidence: 0.97893983

01:03:49.405 --> 01:03:50.765 they we we tend to  
NOTE Confidence: 0.97893983

01:03:50.765 --> 01:03:52.865 try and plan intervention about  
NOTE Confidence: 0.97893983

01:03:53.085 --> 01:03:53.905 ten weeks,  
NOTE Confidence: 0.99173975

01:03:54.925 --> 01:03:56.545 after completion of radiation.  
NOTE Confidence: 0.99226403

01:03:57.165 --> 01:03:58.545 But there's also the  
NOTE Confidence: 0.9849974

01:03:58.850 --> 01:03:59.970 the legit this is a  
NOTE Confidence: 0.9849974

01:03:59.970 --> 01:04:01.490 great thing on paper. Okay.  
NOTE Confidence: 0.9849974

01:04:01.490 --> 01:04:03.010 Well, let's check it week  
NOTE Confidence: 0.9849974

01:04:03.010 --> 01:04:04.290 eight after you know, two  
NOTE Confidence: 0.9849974

01:04:04.290 --> 01:04:06.050 two months after completion. And  
NOTE Confidence: 0.9849974

01:04:06.050 --> 01:04:07.090 then if there's still disease  
NOTE Confidence: 0.8822356

01:04:14.365 --> 01:04:15.404 I guess we've lost hat

NOTE Confidence: 0.8822356  
01:04:15.404 --> 01:04:16.065 in there.  
NOTE Confidence: 0.93898755  
01:04:17.164 --> 01:04:18.845 But, as he mentioned, our  
NOTE Confidence: 0.93898755  
01:04:18.845 --> 01:04:20.365 general practice is to do  
NOTE Confidence: 0.93898755  
01:04:20.365 --> 01:04:22.125 the the radiation at at  
NOTE Confidence: 0.93898755  
01:04:22.125 --> 01:04:23.484 at about the the excuse  
NOTE Confidence: 0.93898755  
01:04:23.484 --> 01:04:24.444 me. Do the surgery at  
NOTE Confidence: 0.93898755  
01:04:24.444 --> 01:04:25.565 the at the twelve week  
NOTE Confidence: 0.93898755  
01:04:25.565 --> 01:04:26.065 mark  
NOTE Confidence: 0.94127494  
01:04:26.365 --> 01:04:27.984 after radiation. So I'll finish  
NOTE Confidence: 0.94084835  
01:04:28.350 --> 01:04:29.650 kind of his thoughts there.  
NOTE Confidence: 0.94084835  
01:04:29.710 --> 01:04:31.550 And typically doing the the  
NOTE Confidence: 0.94084835  
01:04:31.550 --> 01:04:32.050 MRI  
NOTE Confidence: 0.9749593  
01:04:32.910 --> 01:04:34.670 eight, nine, ten weeks after  
NOTE Confidence: 0.9749593  
01:04:34.670 --> 01:04:35.410 that radiation  
NOTE Confidence: 0.9032903  
01:04:35.710 --> 01:04:36.830 as well as with flexible  
NOTE Confidence: 0.9032903



01:04:36.830 --> 01:04:38.770 sick endoscopy around that time.  
NOTE Confidence: 0.98632914

01:04:41.165 --> 01:04:42.865 Well, I wanna thank everybody  
NOTE Confidence: 0.98632914

01:04:43.005 --> 01:04:45.165 for joining this evening for  
NOTE Confidence: 0.98632914

01:04:45.165 --> 01:04:46.065 our Yale,  
NOTE Confidence: 0.9499352

01:04:46.765 --> 01:04:48.625 continuing medical education for colorectal  
NOTE Confidence: 0.9499352

01:04:48.765 --> 01:04:49.265 cancer,  
NOTE Confidence: 0.9563188

01:04:50.205 --> 01:04:51.485 for twenty twenty four, twenty  
NOTE Confidence: 0.9563188

01:04:51.485 --> 01:04:52.845 five. I hope you learned  
NOTE Confidence: 0.9563188

01:04:52.845 --> 01:04:53.345 something.  
NOTE Confidence: 0.9170132

01:04:53.650 --> 01:04:55.010 You can please feel free  
NOTE Confidence: 0.9170132

01:04:55.010 --> 01:04:56.369 to email me at michael  
NOTE Confidence: 0.9170132

01:04:56.369 --> 01:04:57.410 dot chiquini at e l  
NOTE Confidence: 0.9170132

01:04:57.410 --> 01:04:58.690 dot e d u or  
NOTE Confidence: 0.9170132

01:04:58.690 --> 01:05:00.130 hadden dot pentel at e  
NOTE Confidence: 0.9170132

01:05:00.130 --> 01:05:01.010 l dot e d u.  
NOTE Confidence: 0.9170132

01:05:01.010 --> 01:05:01.810 If you want to back,

NOTE Confidence: 0.9170132  
01:05:01.810 --> 01:05:03.570 Mike. Sorry. Sorry. I wasn't  
NOTE Confidence: 0.9170132  
01:05:03.570 --> 01:05:04.610 sure if you're coming back.  
NOTE Confidence: 0.9170132  
01:05:04.610 --> 01:05:05.410 So I I had a  
NOTE Confidence: 0.9170132  
01:05:05.410 --> 01:05:06.290 I had a technical error.  
NOTE Confidence: 0.9170132  
01:05:06.290 --> 01:05:06.950 I'm sorry.  
NOTE Confidence: 0.95974547  
01:05:07.410 --> 01:05:08.744 So, so, anyway, the the  
NOTE Confidence: 0.95974547  
01:05:08.744 --> 01:05:09.464 the point I was gonna  
NOTE Confidence: 0.95974547  
01:05:09.464 --> 01:05:10.265 say is that that that's  
NOTE Confidence: 0.95974547  
01:05:10.265 --> 01:05:11.224 great, and that that really  
NOTE Confidence: 0.95974547  
01:05:11.224 --> 01:05:12.025 makes the most sense. But,  
NOTE Confidence: 0.95974547  
01:05:12.025 --> 01:05:13.385 also, logistically, someone said, well,  
NOTE Confidence: 0.95974547  
01:05:13.385 --> 01:05:14.105 I have to plan. You  
NOTE Confidence: 0.95974547  
01:05:14.105 --> 01:05:15.305 know? You're gonna be planning  
NOTE Confidence: 0.95974547  
01:05:15.305 --> 01:05:16.505 an operation. I'm gonna need  
NOTE Confidence: 0.95974547  
01:05:16.505 --> 01:05:17.625 to take time off of  
NOTE Confidence: 0.95974547

01:05:17.625 --> 01:05:18.125 work.  
NOTE Confidence: 0.97771597  
01:05:18.585 --> 01:05:19.545 What about letting my family  
NOTE Confidence: 0.97771597  
01:05:19.545 --> 01:05:20.744 know? What about arranging for  
NOTE Confidence: 0.97771597  
01:05:20.744 --> 01:05:21.944 childcare or other things or  
NOTE Confidence: 0.97771597  
01:05:21.944 --> 01:05:22.444 transportation?  
NOTE Confidence: 0.8715804  
01:05:23.580 --> 01:05:25.020 And so sometimes it it  
NOTE Confidence: 0.8715804  
01:05:25.020 --> 01:05:26.720 can be logistically hard,  
NOTE Confidence: 0.99891055  
01:05:27.340 --> 01:05:28.480 to to do that.  
NOTE Confidence: 0.95277876  
01:05:30.140 --> 01:05:31.220 I do yeah. So that  
NOTE Confidence: 0.95277876  
01:05:31.340 --> 01:05:32.140 those are sort of my  
NOTE Confidence: 0.95277876  
01:05:32.140 --> 01:05:32.640 thoughts.  
NOTE Confidence: 0.9997779  
01:05:33.340 --> 01:05:33.840 Absolutely.  
NOTE Confidence: 0.9982648  
01:05:34.300 --> 01:05:35.600 Alright. Sorry. Alright.  
NOTE Confidence: 0.82260364  
01:05:35.975 --> 01:05:37.095 No. All good. Well, I  
NOTE Confidence: 0.82260364  
01:05:37.095 --> 01:05:38.375 kind of was in the  
NOTE Confidence: 0.82260364  
01:05:38.375 --> 01:05:39.495 in the beginning stages at

NOTE Confidence: 0.82260364  
01:05:39.495 --> 01:05:40.155 the end,  
NOTE Confidence: 0.9177661  
01:05:41.255 --> 01:05:42.615 of of ending the the  
NOTE Confidence: 0.9177661  
01:05:42.615 --> 01:05:44.215 CME. But, again, thank you,  
NOTE Confidence: 0.9177661  
01:05:44.215 --> 01:05:45.035 doctor Pantel.  
NOTE Confidence: 0.98867166  
01:05:45.735 --> 01:05:47.515 This was a fantastic presentation,  
NOTE Confidence: 0.98867166  
01:05:47.655 --> 01:05:49.575 fantastic discussion. Thank you to  
NOTE Confidence: 0.98867166  
01:05:49.575 --> 01:05:50.475 all our attendees,  
NOTE Confidence: 0.85315216  
01:05:51.570 --> 01:05:52.070 for,  
NOTE Confidence: 0.6703701  
01:05:53.090 --> 01:05:53.990 for the questions.  
NOTE Confidence: 0.9854409  
01:05:55.170 --> 01:05:56.610 Please feel free to email  
NOTE Confidence: 0.9854409  
01:05:56.610 --> 01:05:58.310 either of us. Our  
NOTE Confidence: 0.9371071  
01:05:58.690 --> 01:06:00.850 names and, emails are on  
NOTE Confidence: 0.9371071  
01:06:00.850 --> 01:06:01.890 the website, but it's pretty  
NOTE Confidence: 0.9371071  
01:06:01.890 --> 01:06:02.690 simple at e l. It's  
NOTE Confidence: 0.9371071  
01:06:02.690 --> 01:06:03.650 first name dot last name  
NOTE Confidence: 0.9371071

01:06:03.650 --> 01:06:04.790 at e l dot edu.

NOTE Confidence: 0.9903207

01:06:05.734 --> 01:06:06.775 We'd be happy to answer

NOTE Confidence: 0.9903207

01:06:06.775 --> 01:06:07.674 additional questions.

NOTE Confidence: 0.9389278

01:06:08.055 --> 01:06:09.095 Thank you so much. Have

NOTE Confidence: 0.9389278

01:06:09.095 --> 01:06:10.234 a great night here, everyone.

NOTE Confidence: 0.9987986

01:06:11.095 --> 01:06:11.595 Thanks.